# Myanmar Pre-service Teacher Education Programme

## Year 3 Semester 1

# EDU3121

## Educational Studies

### Middle School Specialisation Track

Teacher Educator Guide

# PREFACE

The Pre-service Teacher Education Curriculum consists of several components: the curriculum framework, syllabi, Student Teacher Textbooks, and Teacher Educator Guides. This curriculum for the four-year Pre-service Teacher Education Programme was designed and structured to align with the Basic Education Curriculum and to equip student teachers with the competencies needed to teach effectively in Myanmar's primary and middle school classrooms. It is based on a Teacher Competency Standards Framework (TCSF) which articulates the expectations for what a teacher should know and be able to do in the classroom.

The curriculum follows a spiral curriculum approach which means that throughout the four years, student teachers return to familiar concepts, each time deepening their knowledge and understanding. To achieve this, the four-year Pre-service Teacher Education programme is divided into two cycles. The first cycle (Years 1 and 2) is repeated at a deeper level in the second cycle (Years 3 and 4) to enable student teachers to return to ideas, experiment with them, and share with their peers a wider range of practices in the classroom, with the option to follow up on specific aspects of their teaching at a deeper level.

The curriculum structure provides an integrated approach where teaching of subject knowledge and understanding educational theories are learnt through a supportive learning process of relevant preparation and practical application and experience. The focus is, therefore, not just on subject content, but also on the skills and attitudes needed to effectively apply their knowledge, skills, and attitudes in teaching and learning situations, with specific age groups. As the focus is on all components of a 'competency' – knowledge, skills, attitudes and their effective application – it is referred to as a competency-based curriculum.

Accordingly, a competency-based curriculum is learner-centred and adaptive to the changing needs of students, teachers, and society. Where new concepts are learnt, they are then applied and reflected on:

1. Learn (plan what and how to teach);
2. Apply (practise teaching and learning behaviours); and
3. Reflect (evaluate teaching practice).

Beyond the Pre-service Teacher Education programme coursework, it is intended that student teacher graduates will be able to take and apply this cycle of 'learn, apply, and reflect' to their own teaching to effectively facilitate the learning and development of Myanmar's next generation.

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# TABLE OF CONTENTS

# HOW TO USE THIS GUIDE

**Who will use this Educational Studies Teacher Educator Guide?**

This Teacher Educator Guide has been designed to help you facilitate student teachers' learning of Year 3 Educational Studies. It is addressed to you, as the teacher educator, and should be used in tandem with the Student Teacher Textbook as you teach Educational Studies. This Teacher Educator Guide contains step-by-step instructions to help you guide the student teachers in your class towards achieving the learning outcomes for each unit and lesson in the Student Teacher Textbook.

**When and where does Year 3 Educational Studies take place?**

A total of 140 teaching periods (Semester 1: 84 teaching periods; Semester 2: 56 teaching periods) are allotted for Year 3 Educational Studies of the four-year Education Degree College programme. Classes will be held on the Education Degree College campus.

**What is included in the Year 3 Educational Studies Teacher Educator Guide?**

The organisation and content of both Educational Studies Student Teacher Textbook and Teacher Educator Guide align with Educational Studies subject syllabus of the four-year Education Degree College programme.

Year 3 Educational Studies contains the following topics:

- Educational Studies: Consolidating Understanding
- Pedagogical Theory and Practice
- Strategies for Effective Learning
- Planning and Preparation
- Educational Psychology
- Myanmar's Education Curriculum Reforms and Agendas
- Educational Philosophy
- Educational Assessment
- Supportive and Safe Learning Environment
- Teacher Professionalism.

The Teacher Educator Guide follows the same structure as the Student Teacher Textbook. For each unit and lesson, there are **expected learning outcomes** and **competencies** that indicate what student teachers should know and be able to do by the end of the unit.

For each lesson, the Teacher Educator Guide includes:

**Competencies gained:** This list of competencies highlights the teacher competencies from the Teacher Competency Standards Framework (TCSF) that are focused on in that lesson.

**Time:** This is the total teaching minutes and number of 50-minute class periods allocated for the lesson as per the syllabus.

**Learning strategies:** This is an overview of all the learning strategies used during the suggested lesson learning activities.

**Assessment approaches:** This is an overview of all the assessment approaches suggested to be used before, during and after the lesson learning activities.

**Preparation needed:** This can include guidance on what you need to know about the topic and references to subject knowledge resources; technology preparation; links to other subjects; room organisation; time management; and reference to expected answers.

**Resources needed:** This can include printed media, flipchart paper, coloured paper, marker pens, URLs, video clips, low/no cost resources, and practical equipment.

**Learning activities:** Each lesson includes a variety of suggested learning activities designed to help student teachers achieve the expected learning outcomes within the allotted time. Each lesson should begin by activating the student teachers' prior knowledge or fostering interest in the subject. Learning activities are varied and in line with competency-based approaches to teaching and learning.

**Facilitator's notes:** These instruction boxes are included as an occasional 'safety net' at key points during the lesson, reminding you to quickly check that the lesson is flowing in the direction as planned, and to check if there are any points to emphasise to ensure that student teachers are learning effectively before moving forward.

**Assessment:** This comes at the end of each activity. It is an explanation or recap as to how each activity can be assessed formatively in order to assess success and inform future teaching. Instructions for facilitating various types of assessment are included in the *Toolbox for assessment approaches.*

**Possible student teachers' responses:** These are responses that you may get from the student teachers from each learning activity's assessment.

**Check student teachers' understanding:** This is the lesson plenary. At the end of the lesson, revisit the learning outcomes and TCSF competencies, and briefly assess the extent to which they have been achieved. Summarise the competencies and how they were addressed by the lesson content. Explicitly remind student teachers what they have studied and how they did so.

**Extended learning activities:** Some lessons in this guide include ideas on ways to adapt the learning activities to provide additional stimulus for student teachers to deepen their learning. These extended learning activities emphasise the benefits of flexibility in learning to respond to diverse needs and interests of student teachers. It is not mandatory to complete these learning activities during the class period.

**Differentiated learning activities:** Some lessons in this guide include ideas on ways to adapt the learning activities by considering different learning needs and interests of student teachers towards attaining the learning outcomes and TCSF competencies. These differentiated learning activities emphasise inclusive and flexible practice in teaching and learning. It is not mandatory to complete these learning activities during class period.

For each sub-unit, the Teacher Educator Guide includes:

**Expected student teachers' responses for the review questions in TB:** A box at the end of each sub-unit gives you the answers to the review questions in the Student Teacher Textbook. This section exists to support your knowledge as a teacher educator, and enables you to support your student teachers by confirming the answers to the questions in their Student Teacher Textbook. It is NOT part of the lesson.

Each unit of the Teacher Educator Guide ends with a **Unit Summary**, which includes:

**Key messages:** This is a summary of the unit, including a reminder of the key points that student teachers should take from the unit.

**Unit reflection:** This section is part of the student teachers' self-study material and is included in the Student Teacher Textbook. It is duplicated here to inform you of its content. Your only task here is to remind the student teachers to read it. It does not form part of any lesson. It provides the student teachers with reflection points or questions relating to the learning in the unit.

**Further reading:** Suggestions for additional resources are listed according to the relevant unit. You can use these resources to learn more about the topic yourself or encourage student teachers to look these up in the library, on the internet, or in your Education Degree College's e-library.

Please note that the learning activities in the Student Teacher Textbook are designed for individual self-study. At times, these individual learning activities may be incorporated into the learning activities outlined in this guide. You may also wish to assign the learning activities in the Student Teacher Textbook for homework, or encourage student teachers to do them at their own pace.

While this Teacher Educator Guide contains detailed learning activities to help you plan and deliver lessons, the instructions in this guide are only suggestions. The student teachers in your classroom will have different characteristics and learning needs. As their teacher educator, you are encouraged to come up with your own

learning activities which suit these needs, interests, and ability levels. You should feel free to change and adapt the lessons as much, or as little, as needed.

## What is a competency-based curriculum?

The Student Teacher Textbooks and Teacher Educator Guides for all Education Degree College programmes follow a competency-based approach. This is outlined in the Education Degree College Curriculum Framework for the four-year degree and is based on the Myanmar Teacher Competency Standards Framework (TCSF). A competency-based approach means that the teacher education curriculum does not just focus on subject content. Rather, it emphasises the development of knowledge, skills, and attitudes and their application in real-life contexts. Competency-based curriculums are learner-centred and adaptive to the evolving needs of learners, teachers, and society.

The following elements are integrated throughout this Teacher Educator Guide, in line with a competency-based approach to teacher education: [1]

- **Contextualisation:** The learning content and learning activities are based on the Myanmar context to ensure that student teachers can relate what they learn to daily life.
- **Flipped classroom:** This pedagogical concept and method replaces the standard lecture-in-class format with opportunities for student teachers to review, discuss, and investigate module content with the teacher educators in class. Student teachers are typically expected to read the learning materials before class at their own pace. Classroom time is then used to deepen understanding through discussion with peers and problem-solving activities facilitated by you, the teacher educator.
- **Collaborative learning:** This educational approach involves groups of student teachers working together to solve a problem or complete a task. Learning occurs through active engagement among peers, either face-to-face or online. The main characteristics of collaborative learning are a common task or activity, small group learning, co-operative behaviour, interdependence, and individual responsibility and accountability.[2]
- **Problem-solving:** This involves the act of defining a problem; determining the cause of the problem; identifying, prioritising and selecting alternatives for

1 Adapted from the Glossary of curriculum terminology (UNESCO-International Bureau of Education, 2013).
2 Lejenue's Collaborative Learning for Educational Achievement. (1999).

a solution; and implementing a solution. The learning content and activities included in this Teacher Educator Guide provide opportunities for student teachers to apply their problem-solving skills as appropriate.

## Course rationale and description

This module will prepare student teachers with the competencies required to teach various learning areas and subjects through modelling the values and attitudes promoted in the Basic Education Curriculum for the types of citizens and society Myanmar envisions to create. The purpose of this module is to introduce student teachers to the basic concepts of educational theory, educational technology, educational management, educational psychology and educational assessment, and apply them in the teaching/learning process and in real life situations. Student teachers will become aware of the educational trends, different philosophies and learning theories across the regions (local and global) and time (ancient and current). They will also understand the importance of developmental milestones of the students in all domains. Student teachers will master pedagogical knowledge and be able to choose and apply the appropriate pedagogical practices for their teaching depending on learners' needs and learning situation. Moreover, they will be able to distinguish characteristics of test, measurement, evaluation and assessment and apply them in the teaching/learning process. To educate student teachers to become effective professionals, two elements in Educational Studies will be considered: i) the understanding of knowledge and its application situated in the disciplines of education such as psychology and the history of education; and ii) critical reflection about the holistic development of learners to help student teachers develop positive attitudes, behaviour and skills so to develop professional attitudes and values.

The learning area outlines what student teachers in Education Degree Colleges will explore in order to prepare them to be ready for teaching students in Primary and Middle schools. It is important that teachers use educational knowledge and theory in their professional lives appropriately. It further reassures the teaching as a valuable profession, and the significance of primary and middle school teachers in the learners' development and learning process in their lifespans. The disciplines of education will help inform student teachers about their role as educators situated in the principles for the 21st century.

## Basic Education Curriculum Objectives

This learning area, Educational Studies, is included in the pre-service Education Degree College (EDC) curriculum to ensure that teachers are prepared to teach the curriculum as defined for basic education in Myanmar. Middle school teachers will be trained as subject area specialist and learn about academic standard equivalent to middle and high school level in order to ensure a strong subject proficiency foundation for being effective teachers for middle school students (Education Degree College Curriculum Framework, 2018).

To fulfill this purpose, this module is designed to help student teachers develop their capacity to contribute proactively the holistic development of their students. By the end of this module, the student teacher will acquire relevant competencies necessary for them to grow into a well-prepared and confident teacher, who can support their middle school students to meet the learning objectives across the learning areas and subjects.

The objectives of Basic Education Curriculum are as follows:

a. Ensure every school-age child learns until the completion of Basic Education;
b. Generate critical thinking skills in students, progressively throughout their primary education and are hence, equipped with five strengths;
c. Engage students to become responsible and accountable individuals who abide by the laws in compliance with civic, democracy and human rights standards;
d. Cultivate students with appreciation to open-mindedness, curiosity, innovation and cooperation;
e. Strengthen ‘union spirit’ by allowing students to appreciate and preserve the languages, literatures, cultures, arts, traditional customs and historical heritage of all national ethnic groups and hence, evolve as citizens capable to pass on those valuable assets;
f. Give rise to students who appreciate and conserve natural environment, and involve in the dissemination of knowledge and skills in respect to sustainable development;
g. Enable the quality environment for education in conformity with international standards, and strengthen the quality of learning and teaching process by integrating technology in line with today’s needs;

h. Promote sound body and sportsmanship through participation in sports and physical education activities, and school health activities;
i. Develop foundational knowledge for higher education, with inclusive to technical and vocational education; and
j. Empower to become global citizens who embrace diversity as individual or group, respect and value equality, and are armed with fundamental knowledge of peace to practise in their daily lives.

**Learning outcomes for student teachers for Educational Studies**

This learning area aims to prepare student teachers to be ready to facilitate students' learning of primary and middle school by being able:

- To build a strong foundation on the basic concepts of educational theories and psychology, and facilitate how these concepts can be applied in diverse teaching-learning situations towards becoming well-prepared, efficient and quality teachers.
- To apply the competencies gained around Educational Studies learning area in their teaching practice to effectively support their students' learning process to achieve the learning objectives across different learning areas and subjects.

**Teacher competencies in focus for Year 2 Educational Studies**

This section identifies key competencies from the Myanmar Teacher Competency Standards Framework (TCSF) specifically relevant for this subject. These teacher competencies give an overall compass for what student teachers should know and be able to do when graduating from this course. This overall teacher competencies links to the specific learning outcomes expected by Educational Studies strands as outlined in the syllabus.

**Table A. Teacher competencies in focus: Year 3 Educational Studies, Middle school specialisation track**

| Competency standard | Minimum requirements | Indicators |
|---|---|---|
| **A1: Know how students learn** | A1.1 Demonstrate understanding of how students learn relevant to their age and developmental stage | A1.1.1 Give examples of how the students' cognitive, physical, social, emotional and moral development may affect their learning<br><br>A1.1.2 Prepare learning activities to align with students' level of cognitive, linguistic, social, emotional and physical development |
| | A1.2 Demonstrate understanding of how different teaching methods can meet students' individual needs | A1.2.1 Identify various teaching methods to help students with different backgrounds (gender, ethnicity, culture) and abilities, including special learning needs, learn better |
| **A2: Know appropriate use of educational technologies** | A2.1 Demonstrate understanding of appropriate use of a variety of teaching and learning strategies and resources | A2.1.1 Plan learning experiences that provide opportunities for student interaction, inquiry, problem-solving and creativity<br><br>A2.1.2 Use teaching methods, strategies and materials as specified in the textbooks and additional low cost support materials to support student learning |
| | A2.2 Demonstrate understanding of appropriate use of Information and Communication Technology (ICT) in teaching and learning | A2.2.1 Describe the function and purpose of online and offline educational tools and materials to support the teaching and learning process<br><br>A2.2.2 Evaluate and match available online and offline ICT tools and materials to curriculum content and pedagogical strategies, including online and offline ICTs<br><br>A2.2.3 Describe and demonstrate the understanding of basic concepts and principles of media and information literacy |
| **A3: Know how to communicate well with students and their families** | A3.2 Demonstrate respect for the social, linguistic, and cultural diversity of the students and their communities | A3.2.1 Give examples of inclusive communication to support all students' participation and engagement in classroom activities<br><br>A3.2.2 Be aware of social and cultural background of parents, community elders and leaders when interacting with them |
| **A4: Know the curriculum** | A4.1 Demonstrate understanding of the structure, content and expected learning outcomes of the basic education curriculum | A4.1.1 Describe key concepts, content, learning objectives and outcomes of the lower secondary curriculum for the subjects and grade level/s taught<br><br>A4.1.2 Prepare lesson plans reflecting the requirements of the curriculum and include relevant teaching and learning activities and materials<br><br>A4.1.3 Describe the assessment principles underpinning the lower secondary curriculum |

| Competency standard | Minimum requirements | Indicators |
|---|---|---|
| **A5: Know the subject content** | A5.1 Demonstrate understanding of the subject matter to teach the assigned subject/s for the specified grade level/s | A5.1.3 Link key concepts, principles and theories to real life applications to build discipline specific foundations and skills for different classes and grade levels taught |
| | A5.2 Demonstrate understanding of how to vary delivery of subject content to meet students' learning needs learning context | A5.2.1 Describe ways to contextualise learning activities for the age, language, ability and culture of students to develop understanding of subject related principles, ideas and concepts<br><br>A5.2.2 Explain how lessons are contextualised to include localised information and examples related to the subject content, concepts and themes |
| **B1: Teach curriculum content using various teaching strategies** | B1.1 Demonstrate capacity to teach subject-related concepts clearly and engagingly | B1.1.1 Use different ways to explain the subject matter, related ideas and concepts to meet a range of learning abilities and intended learning outcomes<br><br>B1.1.2 Select instructional material to link learning with students' prior knowledge, interests, daily life and local needs<br><br>B1.1.3 Encourage students' awareness of their own ideas to build new understanding |
| | B1.2 Demonstrate capacity to apply educational technologies and different strategies for teaching and learning | B1.2.1 Use teaching methods and learning strategies appropriate for the class – culture, size and type<br><br>B1.2.2 Use knowledge of literacy and numeracy instructional strategies to support development of subject matter literacy<br><br>B1.2.3 Create opportunities for students to investigate subject-related content and concepts through practical activities |
| | B1.3. Demonstrate good lesson planning and preparation in line with students' learning ability and experience | B1.3.1 Plan and structure lesson to ensure all of the lesson time is used effectively<br><br>B1.3.2 Provide lesson introductions to link new learning to prior learning, to engage students' interest and to motivate them in learning<br><br>B1.3.3 Prepare focused and sequential learning experiences that integrate learning areas and are responsive to students' interests and experience<br><br>B1.3.4 Use questioning techniques and examples to introduce and illustrate concepts to be learnt |

| Competency standard | Minimum requirements | Indicators |
|---|---|---|
| **B2: Assess, monitor and report on students' learning** | B2.1 Demonstrate capacity to monitor and assess student learning | B2.1.1 Use assessment techniques as part of lessons to support students to achieve learning outcomes<br><br>B2.1.2 Use assessment information to plan lessons<br><br>B2.1.3 Use questioning and discussion techniques to check students understanding and provide feedback |
| | B2.2 Demonstrate capacity to keep detailed assessment records and use the assessment information to guide students' learning progress | B2.2.1 Record students learning progress accurately and consistently<br><br>B2.2.2 Use varied assessment practices to monitor and record students' learning progress and inform further planning of the curriculum |
| **B3: Create a supportive and safe learning environment for students** | B3.1 Demonstrate capacity to create a safe and effective learning environment for all students | B3.1.1 Use space and classroom materials and resources to ensure involvement of all students in learning activities<br><br>B3.1.2 Encourage students to interact with each other and, to work both independently and in teams<br><br>B3.1.3 Model and promote good health and safety practices to ensure students' wellbeing and safety within the classroom and school<br><br>B3.1.4 Follow regulations regarding health and safety (administration of medication, CPR and First Aid training, fire and disaster drills, abuse and neglect, communicable disease) |
| | B3.2 Demonstrate strategies for managing student behaviour | B3.2.1 Create, explain, display and enforce the agreed classroom rules and procedures to ensure student health and safety<br><br>B3.2.2 Encourage students to interact with each other with mutual respect and safety<br><br>B3.2.3 Learn to know each student's background and needs and interact regularly with all students<br><br>B3.2.4 Encourage well-adjusted behaviour of students by collaborative teamwork and independent learning |
| **B4: Work together with other teachers, parents, and community** | B4.1 Demonstrate strategies for working together with other teachers, parents, and the local community to improve the learning environment for students | B4.1.2 Describe strategies to promote parents' involvement in their child's learning at school, at home and in the community<br><br>B4.1.3 Seek colleagues' perspectives in attempting to respond to learning issues and accept feedback positively |

| Competency standard | Minimum requirements | Indicators |
|---|---|---|
| **C1: Service to profession** | C1.1 Demonstrate values and attitudes consistent with Myanmar's tradition of perceiving teachers as role models | C1.1.1 Comply with professional codes of conduct, rules and regulations in line with the five traditional responsibilities of the Myanmar teacher<br><br>C1.1.2 Consistently express positive attitudes, values and behaviours, consistent with what is expected of teachers by students, colleagues, parents and communities |
| | C1.2 Demonstrate understanding of the underlying ideas that influence one's practice as a professional teacher | C1.2.1 Identify theories and concepts that inform underpin approaches to teaching and learning<br><br>C1.2.2 Describes own approach to teaching and learning |
| | C1.3 Demonstrate understanding of the possible effect of local culture and context on student participation in school | C1.3.1 Show interest in and take time to learn about the students' culture, language and community |
| | C1.4 Demonstrate responsibility and accountability for the use of education resources | C1.4.1 Use school supplies and resources appropriately |
| **C2: Service to community leadership** | C2.1 Demonstrate commitment to serving the school and community as a professional member of the teaching profession | C2.1.1 Contribute actively to a range of school and community activities<br><br>C2.1.2 Demonstrate model behaviour as a teacher serving and working in school and community responsibly and accountably |
| **C3: Promote quality and equity in education for all students** | C3.1 Demonstrate a high regard for each student's right to education and treat all students equitably | C3.1.1 Show awareness of the right to education of every child and a commitment to nurturing the potential in each student<br><br>C3.1.2 Recognise the different social situations and background of students and treat all students equally |
| | C3.2 Demonstrate respect for diversity of students and the belief that all students can learn according to their capacities | C3.2.1 Organise the classroom to encourage all students' participation in the lesson content, activities and interactions with the teacher |
| | C3.3 Demonstrate capacity to build students' understanding of different cultures and global citizenship | C3.3.1 Integrate concepts of sustainability, equality, justice and the rights and responsibilities of students into class and school activities |
| **D1: Reflect on own teaching practice** | D1.1 Regularly reflect on own teaching practice and its impact on student learning | D1.1.1 Use evidence of students learning to reflect on the impact of own teaching practice<br><br>D1.1.2 Use information from a variety of sources to improve teaching practice and student learning<br><br>D1.1.3 Regularly reflect on a wide range of actions and experiences to identify areas for own continuous professional development as a teacher |

| Competency standard | Minimum requirements | Indicators |
|---|---|---|
| **D2: Engage with colleagues in improving teaching practice** | D2.1 Improve own teaching practice through learning from other teachers and professional development opportunities | D2.1.1 Discuss teaching practices with supervisors and colleagues, and willingly seek constructive feedback<br><br>D2.1.2 Participate in professional development activities related to identified goals for improving practice<br><br>D2.1.3 Establish goals for own professional development as a teacher<br><br>D2.1.4 Participate in professional activities conducted by school clusters and recognised professional associations |
| **D3: Participate in professional learning to improve teaching practice** | D3.1 Demonstrate understanding of the importance of inquiry and research-based learning to improve teaching practice | D3.1.1 Identify relevant professional learning material to improve own practice<br><br>D3.1.2 Search and analyse online or offline information on current trends and research-based practices in primary education and for specific subjects taught to improve one's own content knowledge and teaching practice |

***Source***: Myanmar Teacher Competency Standards Framework (TCSF) - Beginning Teachers, 2020, pp. 109 – 140

## Teaching young adult learners

The student teachers in your classroom are young adult learners. As such, evidence suggests that they will learn best when:

- The course content is related to their prior knowledge and experiences;
- There are opportunities for them to be active in their learning, both in and outside the classroom; and
- They are asked to develop their critical thinking and social skills and to take ownership of their own learning.

The different types of content delivery and learning strategies proposed in this Teacher Educator Guide are based on the following 'good practice' principles of teaching adult learners:

1. **Keep it relevant.** Adults tend to be goal-oriented and practical. They want to understand how what they are learning will be important in their daily lives. This means that it is important to have clearly defined goals and objectives for what student teachers will accomplish in a lesson, and why. Student

teachers need to see the relevance of what they are learning for their future jobs as teachers. You can tell them explicitly what they are learning or how individual learning activities will be useful to them as teachers.

2. **Recognise your student teachers' backgrounds.** Your student teachers are coming to you with at least 18 years of life experience. The content of your course should reflect the level of education that they have completed and the realities of their daily lives. Adult learners need to be shown respect by valuing the experience and knowledge that they bring to the class. In your lessons, you can look for places where student teachers can draw on their real-life experiences and prior knowledge to help them understand and connect to a topic.
3. **Encourage exploration.** As adult learners, your student teachers are capable of learning on their own and being self-directed. Activities that require problem-solving and collaboration can help your student teachers to connect deeply and meaningfully with the lesson content. To do this, look for ways to actively involve your student teachers through discussion groups, real-life practice and opportunities to teach others. It may help to think of yourself as a *facilitator* of learning, rather than a teacher. You can encourage the student teachers in your classes to take ownership of their learning by finding out what is interesting to them and encouraging them to pursue these things.

**Guidelines for inclusive and equitable classroom practices**

Inclusion is the act of ensuring that all persons are free from discrimination of any kind and enjoy equal rights. In terms of inclusion in education, a child should be able to enjoy their right to education, regardless of their gender, language, ethnicity, religion, disability, socioeconomic status and geographic location, as set forth in the 1990 UN Convention on the Rights of the Child. The vision of the Ministry of Education (MoE) is to ensure significant advancement towards adhering to the terms of the UN Convention. Its aim is also the achievement of the Sustainable Development Goal for Education, namely: *SDG Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.*

The achievement of SDG Goal 4 can be realised through the creation of inclusive, learner-friendly environments at all levels of the Education Degree College. While teacher educators can model inclusive and equitable classroom practices to their student teachers, administrators can also contribute by creating mission and/or vision statements and policies that celebrate inclusion, including a policy against discrimination.

As a teacher educator, actively promoting inclusion and gender equality in the classroom is an essential element of your teaching. Facilitating a safe and positive environment and atmosphere where all student teachers feel that their contributions are equally valued, and have equal access to learning, requires you to be mindful of the teaching and learning strategies and resources you use.

It is your responsibility not only to ensure your student teachers have equal access to learning, but also to ensure that they understand and value the importance of inclusion and gender equality and take that knowledge with them into their own teaching practice. The skills, knowledge, values and attitudes developed in the classroom with regards to creating inclusive, learner-friendly environments, either implicitly or explicitly, can have a long-lasting impact on the future behaviour of your student teachers.

**General strategies to facilitate an inclusive classroom**

Teachers, as facilitators, are responsible for creating high quality, inclusive learning environments where all students are supported to experience success in their learning.

- Think about each student teacher and consider the barriers they may experience because of their gender, disability, religion, ethnicity, language, geographical context, and socio-economic situation.
- Be aware of your own biases and reflect on your actions and teaching strategies.
- Ensure that all genders are represented and recognised, be aware not to reinforce gender stereotypes.
- Be sensitive to the marginalisation of different ethnic or religious groups experienced or continue to experience.
- Be aware that student teachers from ethno-linguistic groups who may not be as confident in using the language of instruction in the school. Use terms that all students would be familiar with and check for understanding throughout the lesson. If needed, provide translations of key documents and materials for all student teachers.
- Recognise and acknowledge different religious practices and try to represent all in the class and not have a bias towards the most predominant culture or religion in the population.

- Ensure that activities and examples are accessible to student teachers from all socio-economic groups and can all participate. Use local examples relevant to the locality and materials that are easy to acquire, low-cost and are readily available.
- Provide accommodations and adapt lessons for student teachers with disabilities.
- Make sure you present the key learning points of the lesson through visual, auditory and if possible tactile cues – respond to different learning styles.
- Be flexible and offer a variety of activities for different student teachers to explore the same learning competencies and learning outcomes.
- Have high expectations of all student teachers and focus on helping each of them achieve the learning outcomes.

**Ensure gender inclusivity in the classroom**

Gender stereotypes are often inadvertently reinforced in the classroom through the use of language, pedagogical approaches and resources that support the preconceived culturally expected norms, roles, and responsibilities of women and men. By promoting a gender-inclusive environment in the classroom, you can support both male and female student teachers in building a healthy understanding of gender equality and further mainstreaming of this gender-sensitive and inclusive practice into basic education classrooms.

- Ensure that there is equal representation of male and female voices, names, quotes and examples.
- Ensure that illustration examples do not reinforce any existing stereotypes.
- Use equitable and gender-inclusive language and ensure that your student teachers do likewise.
- Help and encourage your students to be gender aware, highlight any perceived gender-biased attitudes and encourage your student teachers to reflect on their own actions.
- Ensure that you interact equally with male and female student teachers, addressing and engaging them both to the same degree in your teaching, across different subjects. For example, when asking questions, asking for volunteers, selecting activity leaders, giving compliments, giving eye contacts, or even remembering the names of student teachers.
- Arrange the classroom setting in a gender-sensitive and equal manner, in terms of classroom decorations, seating arrangement, and group formation/ division.

## Specific guidelines to adapt a lesson according to the different needs of your student teachers

| Types of situations | Guidelines |
|---|---|
| Student teachers not interested in lesson topic | Make relevant connections between topic and their lives |
| | Show them practical applications of topic |
| | Use examples related to their interests |
| | Include games and activities which require the student teachers to collaborate together on the lesson content |
| Unmotivated student teachers to engage in activities | Provide choices within the classroom |
| | Increase opportunities for peer-based learning |
| | Ensure learning tasks are at an appropriate level of difficulty |
| Student teachers reluctant to participate in class | Provide options for participation |
| | Be flexible in expectations for participation among peer partners/small groups |
| | Encourage and support the participation of quieter student teachers |
| Student teachers who may finish their work more quickly | Develop and prepare extension activities |
| Student teachers who may take longer time to complete the tasks | Allow more time to complete work if they need it |
| Student teachers who respond better to visual input (including learners with hearing impairments) | Use objects/pictures, colour-coded information for visual organisation |
| Student teachers who respond better to auditory input (including learners with visual impairments) | Use lecture or discussion-based learning, peer-based activities, audiobooks, text-to-speech software |
| Student teachers with learning or attention challenges | Use small chunk of information, frequent repetitions, multiple examples, concrete learning experiences, actual demonstration, hands-on learning |
| Student teachers who learn better kinaesthetically | Use hands-on learning, touching objects, tactile graphics, frequent movement, project-based learning |
| Culturally diverse student teachers | Use culturally-relevant materials and instructional methods |
| Student teachers with disabilities | Group them with student teachers who can offer support and assistance, not with those who are facing difficulties |
| Student teachers with hearing impairments | Ask them to sit near the front of the room |
| | Make sure that they can see your lips to be engaged through lip-reading |
| | Provide written representations of what is being communicated |
| Student teachers with visual impairments | Ask them to sit near the whiteboard/chalkboard |
| | Use large-print materials with the contrast enhanced |
| | Provide instructions verbally as well as visually |
| | Provide a variety of engaging activities engaging other senses |

| Types of situations | Guidelines |
|---|---|
| Student teachers who prefer expressing themselves through printed words (including students with speech difficulty) | Use journalling, fill in the blank activities, essays, stories or poems |
| Student teachers who are verbally expressive (including students having writing difficulties) | Include discussions in class or "reporting back" to questions |
| Student teachers who communicate best with drawings, diagrams (including students with speech or writing challenges) | Use visuals, poster making or other artistic formats |
| Student teachers who express themselves better through demonstration and movement | Use drama / skit, body movements, building models |
| Student teachers who need time to think before responding (including second-language learners) | Provide time for them to construct responses before sharing with you or their classmates |
| Student teachers who have limited mobility | If movement is required, adjust the lesson to include variations that allows the student teachers to demonstrate knowledge by using other parts of their body or wheelchair movement. |
| | Have them demonstrate the competency using a written or oral description. |
| Student teachers with complex physical disabilities | Use of scribe to support writing |
| Student teachers with learning/ organisational challenges | Encourage peer support |
| | Use sentence-starters in writing, word banks, pictures, to-do-lists, task checklists. |

## Inclusive, quality assessment to enhance learning

Traditional assessment strategies create barriers for many students. Inclusive assessment allows student teachers to maximise access to learning opportunities, but also considers their individual differences and contributes to improving the quality of education.

- Use formative assessments frequently. Use the data that you get from formative assessments to influence instructional decisions.
- Design and adapt tests so that they are accessible to all student teachers.
- Ensure that all instructions are clear and easy to understand, questions are at the reading level of all students, and diagrams are clear and easy to read.
- Allow student teachers with disabilities to be supported by providing assistance in writing down their answers or understanding the questions as needed (this can be a student teacher from another year group or class or a designated teaching assistant).

- Use assessment rubrics with benchmarks towards the learning goal, using a rating scale such as 'not yet evident', 'beginning', 'developing' and 'independent'. The benchmarks can be adjusted depending on the lesson or individual learning goals. Other alternatives include checklists, personal feedback, student self-assessment, portfolio with selecting highlights and areas for improvement.
- Ensure that there is more than one way for you to check understanding in a lesson. Provide several options for student teachers to express learning through a variety of assessment tasks.

**Accommodations for student teachers who may experience barriers in participating in assessment tasks**

| Types of accommodations | Ideas |
|---|---|
| Accommodations in presentation | Provide oral reading of the assessment (either by recorded voice or adult reader) |
| | Use large print for the assessments |
| | Provide audio amplification to aid in listening (hearing aids of speakers) |
| | Use computerised screen readers of text |
| Accommodations in response | Use a computer or a scribe to help with answering of questions |
| | Circle answers directly in the text booklet rather than a separate book |
| | Use organisational devices (calculators, organisers, spell checkers, dictionaries) |
| Accommodations in setting | Administrate the test in a separate place to minimise distraction |
| | Test in a small group |
| | Adjust lighting in a room (more or less light for students who need it) |
| | Provide noise buffers (headphones, ear plugs, earphones) |
| Accommodations in timing | Extend time to complete a test |
| | Allow multiple or frequent breaks |
| | Change the order of a test (e.g., provide easier subjects first to decrease anxiety) |
| | Test over multiple days rather than one day |

## Enhance inclusive teaching through reflective practice

You should constantly reflect on your teaching practice to ensure that you are providing quality education that is accessible and engaging for all of your student teachers,

regardless of their background. After every lesson, think about these questions for your reflection:

**1. Teaching is planned with all student teachers in mind.**

- Do lesson activities take account of student teachers' interests and experiences?
- Are varied teaching strategies and methods used?
- Do the student teachers understand the purposes of lesson activities?
- Does the lesson plan support the achievement of intended learning outcomes?
- What works well and what does not work well for whom? Is there a better way to teach the subject?
- Have I anticipated different learning styles, preferences, abilities, and needs of student teachers and designed activities to cater to their needs?
- How have I considered student teachers' understanding and prior knowledge? How have I adapted my lesson to scaffold understanding and address a range of needs?

**2. Lessons encourage the participation of all student teachers.**

- Are all student teachers, regardless of gender, addressed by their name equally?
- Are there locally, culturally, and personally relevant materials that engage the interest of the student teachers?
- Do student teachers feel they are able to speak during lessons?

**3. Student teachers are actively involved in their own learning.**

- Are student teachers encouraged to take responsibility for their own learning?
- Does the classroom environment encourage independent learning?
- Have I designed the lesson to allow student teachers an element of choice in how they learn?

**4. Student teachers are encouraged to support one another's learning.**

- Do seating arrangements encourage student teachers to interact?
- Are student teachers sometimes expected to work in pairs or groups?
- Do student teachers help one another to achieve the goals of lessons?

**5. Support is provided when student teachers experience difficulties.**

- Am I watching out for student teachers experiencing difficulties?
- Do students feel able to ask for help?

**6. Positive learning behaviour is based on mutual respect.**

- Are there established rules for taking turns to speak and listen?
- Do student teachers feel that their voice is being equally heard?
- Are bullying, gender stereotyping and discriminatory biases discouraged?

**7. Student teachers feel that they have somebody to speak to when they are worried or upset.**

- Are the concerns of all student teachers listened to, regardless of background?
- Do I make myself available for student teachers to talk with me privately?
- Have I created an encouraging and positive learning environment?

**8. Assessment contributes to the achievement of all student teachers.**

- Have I used assessment to encourage learning?
- Are the assessment techniques inclusive and accessible for all student teachers?
- Are all student teachers actually learning what they are supposed to?
- Are student teachers given constructive feedback on their work?
- Have I supported student teachers for tests or examinations according to their individual needs?
- Do teachers ensure that diversity is respected, even within one united formal assessment system?

**Toolbox for teaching and learning strategies**

This Teacher Educator Guide includes suggested learning activities for each lesson in the Student Teacher Textbook. These learning activities are intended to help support you as you plan your lessons but they do not dictate what you must do to help student teachers develop the desired knowledge, skills and attitudes for each lesson. On the contrary, you are encouraged to come up with the lesson activities that will best help

the student teachers in your classroom to learn, given their unique backgrounds and needs.

Many of the learning activities listed below are used in this Teacher Educator Guide. You can also use this list to help you plan, or further adapt, your lessons. This is not an exhaustive list of teaching and learning strategies. You may wish to brainstorm additional teaching strategies by visiting http://www.theteachertoolkit.com/index.php/tool/all-tools or other similar websites.

**Assignments:** The assignments that you give to student teachers might include formal written essays, portfolios and reflection journals. They also might be smaller, developmental tasks – for example, a short homework assignment answering questions about a reading. Assignments can help student teachers to review previously taught materials. They can also help student teachers prepare for future learning – for example, you might assign student teachers to read the Student Teacher Textbook content in advance of the next lesson.

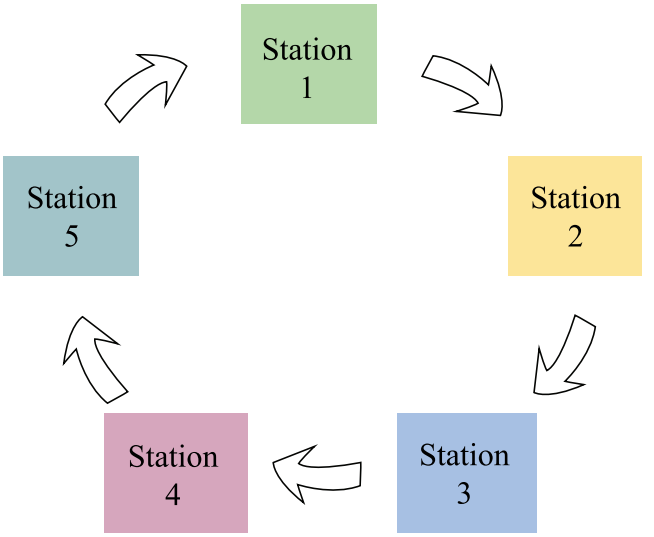
**Case studies:** Working through case studies can help student teachers to develop their problem-solving and critical thinking skills as they must apply what they are learning to a scenario or story (the 'case'). To complete a case study, student teachers first read the scenario and then discuss and answer one or more open-ended questions about the scenario. Case studies often require student teachers to propose solutions to the problem presented in the scenario.

**Directed activities:** These are activities set by you, as the teacher educator, but carried out by the student teacher independently. For example, a directed activity might be for a student teacher to interview a basic education teacher during their Practicum school placement, or to independently research a specific teaching method. Directed activities are typically followed up in tutorials, seminars or workshops which provide an opportunity for student teachers to share about what they have learnt and to learn from their peers.

**Gallery walk:** In a gallery walk, student teachers work in groups to answer questions or complete a task on poster paper at various stations. They then rotate stations and add comments, questions, or further content to the poster at that station.

You can also use a version of the gallery walk to display student teachers' work.

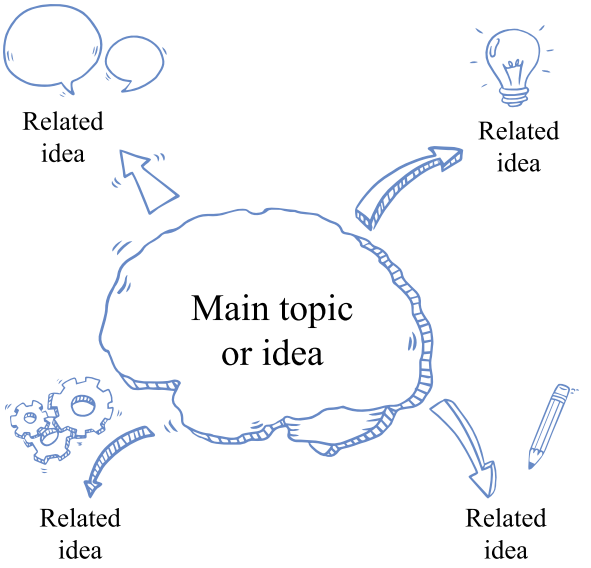
In this type of gallery walk, posters created during individual or group work are displayed around the room. Student teachers then circulate at their own pace to either simply view the posters, or to add their questions or comments to the poster.



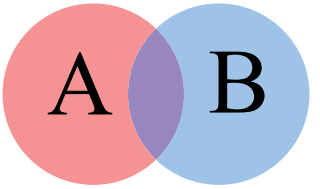

**Graphic organisers:** Graphic organisers are a simple and effective tool to help student teachers brainstorm and organise their thoughts and ideas in a way that makes it easier for them to understand. Graphic organisers can be used in any lesson for brainstorming, planning, problem-solving or decision-making.

Some of the most popular graphic organisers that you will see in your Teacher Educator Guides include:

- **Concept map (also called a mind map):** Concept maps, or mind maps, can be used to visually show the relationships between concepts or ideas. They are useful for brainstorming and also organising information. Concept maps can be organised in different ways and with different levels of complexity but most start with broad topics first, connected to sub-topics (or more specific concepts) to form a web of connecting ideas. The diagram below shows a very simple concept map.




- **Venn diagram:** Venn diagrams can be used to compare and contrast at least two different things or ideas (A and B). In the Venn diagram below, the overlapped area represents the characteristics belonging to both A and B and the two areas without overlap are for listing the characteristics that belong only to A and those that belong only to B.




- **KWL chart:** KWL charts can help student teachers organise information before, during and after a unit or a lesson. They can be used to engage students in a new topic, activate prior knowledge, share unit objectives and monitor student teachers' learning. KWL charts can be completed as a small group, whole class or by an individual. Before the lesson or unit, student teachers should fill in the first two columns about what they already know and what they want to know. After the lesson or unit, they can fill in the column about what they have learnt.

| **K**<br>What I **K**now | **W**<br>What I **W**ant to know | **L**<br>What I **L**earnt |
|---|---|---|
| | | |

- **T-chart:** T-charts can help student teachers examine two facets of a topic; for example, the advantages and disadvantages, or facts versus opinions.

| **Heading 1** | **Heading 2** |
|---|---|
| | |

**Group work:** Group work refers to any time you ask student teachers to cooperatively work together in groups on a task (for example, see the Jigsaw activity below). Group work can help motivate student teachers and encourage active learning. It requires student teachers to practise key critical thinking, communication and decision-making skills. Student teachers can work in groups to answer questions, create a presentation, write a lesson plan, analyse a case study, conduct a role-play and many more learning activities. You may wish to assign roles to group members – for example, recorder, presenter and team leader – to make sure that everyone is involved in the task.

**Jigsaw:** In a jigsaw activity, small groups of student teachers become experts on one component of a topic and then 'teach' that component to their peers. This gives student teachers the opportunity to work with others and to see different points of view. The jigsaw technique is especially effective because each student teacher is responsible for another's learning, and student teachers come to realise that each group member has something important to contribute to the group. In a jigsaw, student teachers must

practise using many important skills, including communication, problem-solving and critical thinking.

**Lecture:** Lectures are largely one-way communication between you, as a teacher educator, and a group of student teachers. They can be useful for delivering straightforward new content. Even when giving a lecture, you can involve student teachers more actively by pausing to ask and respond to questions, or by asking a student teacher to reflect or comment on the topic.

**Micro-teaching:** During a micro-teaching experience, a student teacher, or a small group of student teachers, teaches their peers all or part of a lesson. They then receive feedback on the mini-lesson and reflect on the experience in order to develop practical skills and apply their learning. Micro-teaching is an important opportunity to prepare for the Practicum Lesson Study and school placements. It can also provide a chance to focus on specific core teacher practices; for example, asking open-ended questions or giving students positive feedback.

**Modelling:** Modelling is an instructional strategy in which the teacher demonstrates a new concept or approach, and students learn by observing. As a teacher educator, you may choose to demonstrate a learning activity or teaching strategy, rather than simply telling the student teachers about it – this is modelling.

Modelling may also be followed by a discussion about how you presented the activity or strategy and what impact that had on the student teachers as learners. This can highlight the role of modelling in teaching and encourage student teachers to reflect on how they might use modelling in their own teaching in the future.

**Observation:** Student teachers can observe a peer or expert teacher teaching, then participate in structured, reflective discussion to make sense of what was observed. You may also observe a student teacher teaching all or part of a lesson and then follow this with a discussion to explore and develop the student teachers' thinking and practice. This strategy is an excellent opportunity to make links between theory and practice, and to support student teachers in making accurate assessments of their progress.

**Practicals:** Practicals can include demonstrations by you as teacher educator (for example, showing how to conduct a science experiment) and those led by, or involving, student teachers (for example, having student teachers complete a mathematical investigation and associated worksheet). This strategy can help student teachers to understand how different activities can help students learn. Practicals can also encourage student teachers to connect theory to their developing practice as teachers.

**QR Codes:** QR codes are a mobile friendly way to enter web addresses or check out links of specific information. Instead of clicking on links, a collection of small black squares, known as a QR code, is scanned.

First, student teachers will need to use their smartphone to download a QR code scanner or reader from the iOS Apple Store or Google Play, using mobile data or available internet connection. After downloading the scanner, connected students can hold up their phone, point their camera, scan the code and be directed to a given location. Teachers should be encouraged to use these codes in their own classrooms and know how to generate them easily and quickly.

These QR codes can be a great tool used for the flipped classroom approach, allowing student teachers to easily access links, websites, and download worksheets. You can also use them in warm up activities, assessments, surveys and other learning activities to include VLE in the classroom.

Please note that you and your student teachers will need mobile data or internet connection for the scanner to work.

**Reading groups:** A reading group is a small group session focused on the analysis and interpretation of a text, most commonly an academic paper. The paper is usually issued in advance and student teachers are expected to be familiar with its contents before attending the reading group. One student teacher may be asked to present the paper to the group, followed by a discussion to which all student teachers contribute. This strategy helps to familiarise students with academic writing as well as with

the ideas within papers. Discussions may focus on the content, presentation or the methodology of the papers presented.

**Role-playing:** Role-play is a technique that allows student teachers to explore realistic situations as they interact with people and scenarios in a simulated way to try different strategies. This can allow student teachers to work through common challenges, or specific aspects of teaching, in a safe and supportive environment.

**Self-study:** In a self-study, student teachers must take responsibility for their own learning, with you as a guide. This strategy can supplement face-to-face and Education Degree College-based learning and is important to help frame, supplement, and consolidate new learning. Self-study can take a number of forms, such as reading around topic areas and action planning. Self-study includes time to think about specific areas of education.

**Seminars:** Seminars are small group sessions where questions can be explored, and views can be debated and analysed. Students usually complete preparatory work or reading before the seminar. While you would lead the seminar as a teacher educator, all student teachers are expected to contribute to discussions. Seminars can be good for developing student teachers' deeper thinking about content with which they are already familiar.

**Think-pair-share:** Think-pair-share is a simple and collaborative strategy where learners work together to solve a problem or answer a question. To use think-pair-share in your class, you can follow these three steps:

1. Think: Begin by asking a specific question about the text. Ask student teachers to 'think' about what they know or have learnt about the topic.
2. Pair: Each student teacher should pair up with a classmate, or with a small group.
3. Share: With their partner or small group, student teachers should share and discuss their thinking about the question. You can then expand this time of sharing into a whole class discussion about the topic.

**Tutorials:** Tutorials are one-on-one or small group sessions between you and a student teacher. Tutorials allow for personalised, detailed discussion and exploration of ideas. They may have a pastoral or academic focus and may be used to support

student teachers who are struggling with specific academic content, or who have missed out on an in-class learning experience.

**Virtual Learning Environment (VLE):** This widely used tool is a teaching strategy to supplement and support learning and self-study. In VLE, activities, study skills and website links are shared with student teachers, and different tools are used to explore understanding, such as wikis, forums and blogs. An e-library is available for student teachers to access teaching and learning resources.

**Workshops:** Workshops are group sessions in which student teachers engage with new content and skills in order to develop their understanding and practice. This strategy often incorporates a great deal of collaboration and discussion as well as more lecture 'teaching' by you, as teacher educator. Workshops allow for detailed discussions about a topic and for student teachers to practise applying what they are learning.

**Toolbox for assessment approaches**

There are many different ways you can monitor student teachers' learning before, during, and after a lesson. This Teacher Educator Guide includes many of these assessment approaches. Remember that providing feedback, either written or verbally, is an important part of formative assessment. Your feedback is what will help student teachers to learn and improve on future tasks. You can think of formative assessment as a chance for student teachers to practise before the summative assessment, where they will be asked to show what they have learnt through a larger test, exam or project.

Some of the most popular assessment methods you will see in this Teacher Educator Guide include:

**Demonstration:** In a demonstration, you may ask a student teacher to show you – or demonstrate – a skill that they have been learning. For example, you may ask a student teacher to demonstrate a dance technique, a step in a science experiment, or a movement in physical education. By observing the demonstration, you can monitor student teacher progress and provide suggestions for improvement. As with all formative assessment approaches, the feedback you provide on the student teacher's demonstration is what will help him or her to improve.

**Homework assignments:** Checking student teachers' homework assignments, which may include tasks such as reading and answering questions or looking up additional information, is a good way to monitor if they are on the right track. Depending on the homework assignment, you may wish to discuss answers as a class, check for completion, or collect and provide written feedback.

**Journal log/ reflection papers:** These are a detailed log of student teachers' thoughts and feelings about their professional development and growth. The journal log and reflection papers are intended to help student teachers think deeply about their own learning by reflecting on their progress towards becoming a teacher. The process of consciously reflecting on their learning will help student teachers make connections between the content they learnt in a subject and other subjects, solve problems that come up, and learn from their experiences. Teacher educators may provide advice to student teachers on the areas to focus on when preparing the journal logs and reflection papers.

**Observation:** Informal observation: by circulating the room, listening to groups discuss, and making eye contact – is a good way to get a general sense of whether student teachers understand the material. More formal observation would involve using a checklist or criteria that you are looking for in a student teacher's answers or presentation. You can then provide feedback on the basis of what you have observed.

**Peer-assessment:** If you ask student teachers to evaluate or judge, the work of their peers, this is called peer-assessment. You will need to have the appropriate peer-assessment tools – either a rubric or a checklist – so that student teachers can provide feedback to their classmates based on established criteria. When student teachers observe each other during micro-teaching and complete an observation sheet, this is a form of peer-assessment.

**Presentation:** A presentation may be similar to a demonstration but often involves more preparation on the part of the student teachers. Asking groups or individuals to present their work – perhaps at the end of the lesson – is an excellent opportunity to check for understanding, correct any misconceptions and provide feedback.

**Projects:** Projects are completed by each student teacher, either individually or collaboratively in a group. This is to demonstrate their understanding in the subject content knowledge and their competencies gained through designing, planning and developing projects. Student teachers work on a project over a certain period

of time to investigate a topic or a real-life issue. Teacher educators are requested to provide instructions on completing the projects, including the rubrics of the assessment.

**Question and answer:** Asking student teachers both closed-ended and open-ended questions is a good way to monitor whether student teachers understand the material. During question and answer sessions, be sure to call on a variety of student teachers for their responses. While you may want to use some closed-ended questions (with one correct answer) to check understanding, you will be able to foster better and deeper discussions through open-ended questions, which have more than one right answer and generally require more thinking on the part of the student teachers.

**Quiz:** You may wish to use a short quiz to test the knowledge of your student teachers. Quizzes can be graded in class as a whole class activity, or you may wish to collect and check the quizzes outside of class. Quizzes can also be seen as a way to practise for a summative test or exam.

**Self-assessment:** In a self-assessment, student teachers evaluate their own strengths and weaknesses. This process can help them to understand their own gaps in skills or knowledge and to create a plan to address these gaps. Self-assessments are good ways to encourage student teachers take ownership of their own learning and development. As in peer-assessment, student teachers will need some coaching to understand the assessment criteria and how to apply them to their own work or skill sets.

**Written examinations**: Written examinations are conducted usually at the end of each semester to test the basic subject content specific knowledge and reflection of related pedagogy discussed during the course.

**General tips for facilitating a lesson**

Some of the teaching and learning strategies suggested here and throughout this Teacher Educator Guide may be new to you. If so, it is recommended that you spend some time carefully planning out how you will use them in your lessons so that student teachers can achieve the desired learning outcomes.

The following are some additional general tips that you can implement to help your student teachers learn.

Before teaching a class, you may wish to do the following:

- Choose a small amount of content to deliver. Keep in mind that in a given 50 minute class period, you generally do not want more than one-third of the class period should be focused on content delivery. This will enable there to be enough time for student teachers to practise their skills and deepen their understanding of the topic.
- Note down the key points you think are most important for your student teachers to learn from the lesson content. You can refer to these as you deliver the content to the class to make sure you discuss these key points.
- Make sure you are clear on how you will carry out the content delivery and the learning activities. Refer to the suggestions in this guide and discuss with other teacher educators, if needed. Always feel free to change the suggested steps so that the lesson activities work well for your specific classroom situation.
- For each learning activity, prepare clear written instructions for your student teachers describing, step-by-step, how to do the activity. The instructions could be displayed on a presentation slide, printed on a handout or written on the board. Make sure the instructions are large enough to be read by all student teachers.
- You may want to practise explaining the instructions verbally, going slowly and step-by-step. This will help you be ready to explain the instructions to your student teachers before the activity, so they will understand what to do. You can practise the explanation with a friend or colleague ahead of time and then ask them what needs to be explained more clearly.
- If time allows, prepare to model of what student teachers are expected to do during the activity. This might involve one or two teacher educators doing a short role-play, pretending they are the student teachers doing the activity. This will enable student teachers to *see* exactly what they should be doing.
- If student teachers are expected to produce something at the end of an activity, you may wish to prepare an example, or 'end product,' to show student teachers what they should be aiming to create during the activity.

During class, just before the content delivery or any learning activity, if applicable, it may be helpful to:

- Distribute any materials or learning supplies that student teachers will need to carry out tasks you will ask them to do. Make good use of the e-library to

request student teachers to access necessary teaching and learning materials online as appropriate.
- Provide clear verbal and written instructions to student teachers about any task you would like them to do as you deliver the content.
- Model what the student teachers should do using a short role-play.
- Show the example end product to student teachers that you prepared before class.
- Ask one or more student teachers to repeat back to the class how to do the activity, using their own words, to make sure they understand the instructions.
- Tell student teachers how long they have to complete the activity.

Throughout the class, it may be helpful to:

- Look for any signs that suggest whether the student teachers understand the content you are delivering or the task they are working on. If you suspect certain points may be difficult for student teachers to understand, consider explaining the information in a different way or breaking down the information into smaller, more manageable pieces.
- Walk around to all parts of the classroom to:
  - Ensure all student teachers are on task;
  - Answer questions student teachers have;
  - Ensure student teachers have all the materials needed to do the activity; and
  - Assess student teachers' understanding by observing whether they are carrying out the activity as instructed.
- Encourage student teachers to ask questions.
- If you detect a misunderstanding, either talk directly to the student teacher to clarify, or if the whole class may benefit from the clarification, call the attention of all student teachers and explain to everyone.
- Check for **Facilitator's notes** instruction boxes for points to emphasise and to ensure that student teachers are learning effectively before moving forward.

At the end of class, it may be helpful to:

- Consider following the suggested ways to "Check student teachers' understanding" at the end of each lesson. This is an opportunity to summarise the lesson and to briefly assess the student teachers' achievement of the

learning outcomes and understanding of how the lesson addressed the Teacher Competency Standards Framework (TCSF).

- Assess student teachers' understanding by asking them to share a point from the content you delivered that they thought was particularly interesting, or that surprised them.
- Encourage student teachers to ask questions and provide comments on what you have just taught them.
- Ask one or two student teachers to share what they produced during the activity. If the activity was not designed to produce an end product, ask one or two student teachers to describe what they learnt from the activity.
- After student teachers share their work or their thoughts, choose one or two aspects of what they shared to emphasise to the class. The point you choose to emphasise should be key points that you would like all student teachers to learn and remember from the activity.

As a teacher educator, you have an important role to play in creating a classroom where all student teachers feel free to ask questions, share their reflections, and practise teaching in a safe supportive environment. It is your feedback and support that will help them grow into teachers who can foster the holistic development and learning of Myanmar's children and youth.

**Table B. Year 3 Semester 1 Educational Studies, Middle school specialisation track content map**

| Units | Sub-units | Lessons | Learning outcomes | TCSF Minimum requirements | Indicators | Periods |
|---|---|---|---|---|---|---|
| 1. Educational Studies: Consolidating Understanding | 1.1. Education in the 21st century | 1.1.1. Year 3 learning goals | • Reflect on factors that influenced choice of Middle school specialisation track<br>• Write learning goals for Year 3 of Educational Studies | D2.1 | D2.1.3 | 2 |
| | | 1.1.2. Learning in the EDC system | • Map the EDC as a social and open system and their interactions as part of the system<br>• Consider how non-formal and informal learning can support your formal studies | D2.1<br>D3.1 | D2.1.1<br>D2.1.2<br>D3.1.1 | 2 |
| | | 1.1.3. Education and society | • Explore the relationship between education and society<br>• Outline characteristics of 21st century learning, teaching, and teacher professional learning<br>• Discuss the impacts of the COVID-19 pandemic on education systems globally and Myanmar's responses to the pandemic<br>• Identify possible actions at classroom, school, and system level to address a student wellbeing issue in Myanmar | A2.2<br>C1.3<br>C3.1<br>C3.3 | A2.2.1<br>C1.3.1<br>C3.1.1<br>C3.3.1 | 4 |

| Units | Sub-units | Lessons | Learning outcomes | TCSF Minimum requirements | Indicators | Periods |
|---|---|---|---|---|---|---|
| | | | • Reflect on how Myanmar's education system can become more resilient and inclusive | | | |
| | 1.2. Effective Schools and Key Agencies of Education | 1.2.1. Effective leadership | • Explain the concept of school-based management<br>• Outline the role and responsibilities of school leaders in school-based management and improvement<br>• Identify the characteristics of effective instructional leaders | C2.1<br>D2.1 | C2.1.2<br>D2.1.1 | 2 |
| | | 1.2.2. Teachers as leaders | • Explain concepts of distributed leadership and collective efficacy<br>• Outline the role and responsibilities of the teacher in school-based management and improvement | B4.1<br>C1.1<br>C2.1 | B4.1.3<br>C1.1.2<br>C2.1.1<br>C2.1.2 | 2 |
| | | 1.2.3. School-community relationships | • Map elements of a parent and community engagement framework for the Myanmar school context<br>• Explain the importance of parent and community participation in supporting students' learning and wellbeing, school improvement activities, and emergency efforts | A3.2<br>B4.1<br>C1.1<br>C1.3 | A3.2.2<br>B4.1.2<br>C1.1.2<br>C1.3.1 | 2 |

| Units | Sub-units | Lessons | Learning outcomes | TCSF Minimum requirements | Indicators | Periods |
|---|---|---|---|---|---|---|
| 2. Pedagogical Theory and Practice | 2.1. Consolidating Understanding of TPACK | 2.1.1. Technology Integration across the curriculum | • Demonstrate an understanding of the Technological Pedagogical Content Knowledge (TPACK) framework<br>• Use the TPACK framework to analyse teaching practice with technology<br>• Outline opportunities for technology integration across the Lower Middle school curriculum given available technologies in Myanmar<br>• Plan for technology integration across a lesson sequence<br>• Use the TPACK framework to identify and understand strengths, weaknesses, and opportunities for developing knowledge of good practice with technology | A2.2<br>B1.2<br>C1.2 | A2.2.1<br>A2.2.2<br>B1.2.3<br>C1.2.1 | 4 |
| | 2.2. Consolidating Understanding of Inquiry-based and Problem-based Learning | 2.2.1. Inquiry-based learning models and skills development | • Identify core features of inquiry-based learning models<br>• Explain how explicit teaching and scaffolding of skills supports inquiry-based learning<br>• Reflect on stimuli to consider the role of the teacher and student in inquiry-based learning | A2.1<br>A5.1<br>A5.2<br>B1.1<br>B1.2<br>B3.1<br>C1.2<br>D3.1 | A2.1.1<br>A5.1.3<br>A5.2.2<br>B1.1.3<br>B1.2.2<br>B3.1.2<br>C1.2.1<br>D3.1.2 | 3 |

| Units | Sub-units | Lessons | Learning outcomes | TCSF Minimum requirements | Indicators | Periods |
|---|---|---|---|---|---|---|
| | | 2.2.2. Problem-based learning in the Middle school | • Discuss the benefits of problem-based learning<br>• Explain steps in the planning process for problem-based learning<br>• Outline problem-based learning scenarios appropriate for the Myanmar Middle school<br>• Undertake preliminary planning for problem-based learning in the Middle school | A2.1<br>B1.1<br>B1.2<br>B1.3 | A2.1.1<br>B1.1.3<br>B1.2.3<br>B1.3.3 | 2 |
| | 2.3. Consolidating Understanding of Learner Development and Diversity | 2.3.1. Lifespan development | • Reflect on core ideas of foundational theories relating to students' cognitive, physical, social, and emotional development in the Lower Middle school<br>• Apply understanding of lifespan development to design a learning activity for the Lower Middle school classroom | A1.1<br>A5.2<br>B1.1<br>B1.2 | A1.1.2<br>A5.2.1<br>B1.1.2<br>B1.2.3 | 2 |

| Units | Sub-units | Lessons | Learning outcomes | TCSF Minimum requirements | Indicators | Periods |
|---|---|---|---|---|---|---|
| | | 2.3.2. Culturally responsive pedagogy | • Discuss the challenges of teaching in culturally and linguistically diverse classrooms<br>• Scope a lower middle school teaching and learning sequence that draws upon cultural knowledge and community settings<br>• Outline strategies for engaging parents in their children's learning in the Lower Middle school | A1.2<br>A3.2<br>B1.1<br>B4.1<br>C1.3<br>C3.1 | A1.2.1<br>A3.2.2<br>B1.1.2<br>B4.1.2<br>C1.3.1<br>C3.1.2 | 3 |
| 3. Strategies for Effective Learning | 3.1. Critical and Creative Thinking | 3.1.1. Developing critical thinking in the Lower Middle school | • Define and discuss critical thinking in the Lower Middle school<br>• Adapt and use appropriate critical thinking strategies in planning for teaching and learning in the Lower Middle school | A1.1<br>A1.2<br>A2.1<br>B1.2<br>C1.2<br>C3.3 | A1.1.1<br>A1.1.2<br>A1.2.2<br>A2.1.1<br>A2.1.2<br>B1.2.1<br>B1.2.3<br>C1.2.1<br>C1.2.2<br>C3.3.1 | 2 |
| | | 3.1.2. Developing creative thinking in the Lower Middle school | • Define and discuss creative thinking in the Lower Middle school<br>• Adapt and design appropriate activities to develop creative thinking skills for effective learning in the Lower Middle school | A1.1<br>A1.2<br>A2.1<br>B1.2<br>C1.2 | A1.1.1<br>A1.1.2<br>A1.2.2<br>A2.1.1<br>A2.1.2<br>B1.2.1<br>B1.2.3<br>C1.2.1<br>C1.2.2 | 2 |

| Units | Sub-units | Lessons | Learning outcomes | TCSF Minimum requirements | Indicators | Periods |
|---|---|---|---|---|---|---|
| | 3.2. Cooperative Learning and Blended Learning | 3.2.1. Cooperative methods for learning in the Lower Middle school | • Examine appropriate cooperative learning methods to enhance teaching and learning in the Lower Middle school<br>• Design cooperative learning activities to promote learning in the Lower Middle school | A1.1<br>A1.2<br>A2.1<br>A5.2<br>B1.2<br>B3.1<br>B3.2<br>C1.2<br>C3.2 | A1.1.1<br>A1.1.2<br>A1.2.2<br>A2.1.1<br>A5.2.1<br>B1.2.1<br>B1.2.3<br>B3.1.2<br>B3.2.1<br>B3.2.2<br>B3.2.4<br>C1.2.1<br>C3.2.1 | 1 |
| | | 3.2.2. Blended learning in the Lower Middle school | • Define and examine blended learning in the Lower Middle school<br>• Plan blended learning activities that can be used effectively in the Lower Middle school | A2.2<br>A5.2<br>B1.2<br>C1.4 | A2.2.1<br>A2.2.2<br>A2.2.3<br>A5.2.1<br>B1.2.1<br>B1.2.3<br>C1.4.1 | 2 |
| | 3.3. Feedback to Enhance Learning | 3.3.1. Designing feedback to enhance engagement in learning | • Apply strategies to give constructive and empathetic feedback to promote learning for students in the Lower Middle school | A2.1<br>B2.1<br>C1.2<br>C3.1 | A2.1.1<br>B2.1.1<br>B2.1.3<br>C1.2.1<br>C1.2.2<br>C3.1.1 | 2 |
| | 3.4. Engagement and Self-Regulated Learning | 3.4.1. Engaging students in learning | • Define engagement in learning<br>• Develop effective strategies for student engagement | B1.1<br>B1.2<br>B1.3<br>C1.2 | B1.1.3<br>B1.2.3<br>B1.3.2<br>B1.3.3<br>C1.2.1<br>C1.2.2 | 2 |

| Units | Sub-units | Lessons | Learning outcomes | TCSF Minimum requirements | Indicators | Periods |
|---|---|---|---|---|---|---|
| | | 3.4.2. Developing skills for self-regulated learning | • Explain the concept of self-regulated learning<br>• Reflect on personal practices of self-regulated learning<br>• Develop the mastery motivation of students<br>• Plan strategies to help lower middle school students build skills for lifelong learning | A1.1<br>A1.2<br>A2.1<br>B3.1<br>B3.2<br>C1.1<br>C1.2<br>D1.1<br>D3.1 | A1.1.2<br>A1.2.1<br>A2.1.1<br>B3.1.2<br>B3.2.4<br>C1.1.2<br>C1.2.1<br>C1.2.2<br>D1.1.1<br>D3.1.1 | 3 |
| 4. Planning and Preparation | 4.1. Evidence-informed Planning | 4.1.1. Planning, teaching, assessment, and review cycle | • Describe practices at each stage of the planning, teaching, assessment, and review cycle<br>• Explain how the use of data and evidence informs practices over this cycle | B2.1<br>B2.2<br>D1.1 | B2.1.2<br>B2.2.1<br>D1.1.1<br>D1.1.2 | 1 |
| | 4.2. Curriculum Elements and Constructive Alignment | 4.2.1. Basic Education Curriculum structure and elements | • Compare Middle and High school curriculum structure and elements<br>• Explain how an annual plan for teaching, learning, and assessment is structured to support student learning | A4.1<br>B1.1 | A4.1.1<br>B1.1.1 | 2 |
| | | 4.2.2. Constructive alignment | • Explain how an annual plan for teaching, learning, and assessment is constructively aligned<br>• Design a constructively aligned teaching and learning sequence for a lesson scenario | A4.1<br>C1.2 | A4.1.2<br>C1.2.1 | 2 |

| Units | Sub-units | Lessons | Learning outcomes | TCSF Minimum requirements | Indicators | Periods |
|---|---|---|---|---|---|---|
| | 4.3. Lesson Planning | 4.3.1. Pedagogical models | • Discuss the Basic Education's Introduce–Teach–Practise–Review (ITPR) model<br>• Explain the purpose of a pedagogical model in the context of lesson planning<br>• Consider the effect of disrupting the ITPR sequence on student engagement and learning<br>• Examine the extent to which the Year 3 lesson plan template accommodates different pedagogical models | A4.1<br>B1.3 | A4.1.2<br>B1.3.1<br>B1.3.2<br>B1.3.3 | 3 |
| | | 4.3.2. Differentiation of teaching and learning | • Identify elements of a lesson that can be differentiated<br>• Explain how the Year 3 lesson plan template supports teachers to plan for differentiation<br>• Reflect on lower middle school scenarios to explain elements that have been differentiated<br>• Outline how a selected lower middle school lesson can be differentiated to respond to diverse students' needs and support learning | B1.3<br>C1.2<br>D1.1 | B1.3.2<br>B1.3.3<br>C1.2.1<br>D1.1.2 | 2 |

| Units | Sub-units | Lessons | Learning outcomes | TCSF Minimum requirements | Indicators | Periods |
|---|---|---|---|---|---|---|
| | | 4.3.3. Assessment and evaluation | • Identify sources of data and evidence that inform daily and longer-term planning and evaluation<br>• Use whole class and individual student profiles to plan an inquiry-based lesson for a Grade 6 class<br>• Plan to assess formatively throughout the learning and teaching sequence and review phase of the Grade 6 lesson<br>• Frame teacher evaluation questions that are linked to lesson elements and selected pedagogical models | A4.1<br>B1.3<br>B2.1<br>D1.1 | A4.1.3<br>B1.3.4<br>B2.1.1<br>B2.1.3<br>D1.1.1<br>D1.1.2 | 4 |
| 5. Educational Psychology | 5.1. Consolidating Understanding of Educational Psychology | 5.1.1. Relating psychology, learning and teaching | • Explain and illustrate the conceptual relationship between psychology, learning and teaching | A5.2<br>C1.2 | A5.2.1<br>C1.2.1 | 1 |
| | | 5.1.2. Psychological theories of learning and implications for teaching | • Identify and provide an example of a theory of learning in practice<br>• Reflect on key principles of cognitive theories of learning<br>• Reflect on key principles of social constructivist theories of learning<br>• Apply theories of learning to design a lesson plan | A5.2<br>B1.2<br>C1.2 | A5.2.1<br>B1.2.1<br>C1.2.1 | 3 |

| Units | Sub-units | Lessons | Learning outcomes | TCSF Minimum requirements | Indicators | Periods |
|---|---|---|---|---|---|---|
| | 5.2. Student Mental Health | 5.2.1. Student mental health and implications for teaching and learning | • Define mental health and provide examples of different states of wellbeing<br>• Identify the general implications of children's mental health for learning and teaching | A1.1<br>B3.1<br>C1.2<br>C3.1 | A1.1.1<br>B3.1.3<br>C1.2.1<br>C3.1.2 | 1 |
| | | 5.2.2. Supporting student mental health | • Identify risk factors and protective factors for student mental health<br>• Apply strategies for supporting student mental health | A1.1<br>A3.2<br>B3.1<br>B3.2<br>C3.1 | A1.1.2<br>A3.2.1<br>B3.1.3<br>B3.2.3<br>C3.1.2 | 1 |
| | 5.3. Theories of Intelligence | 5.3.1. Consolidating and critiquing the theory of multiple intelligences | • Explain and evaluate a criticism of the theory of multiple intelligences<br>• Illustrate and critique a teaching strategy for multiple intelligences in practice | A1.1<br>B1.2 | A1.1.2<br>B1.2.1 | 1 |
| | | 5.3.2. Intelligence theory and implications for teaching and learning | • Reflect on core ideas of major intelligence theories<br>• Explain and illustrate the implications of intelligence theories for teaching and learning | B1.2<br>C1.2 | B1.2.1<br>C1.2.1 | 2 |
| | 5.4. Universal Design for Learning (UDL) | 5.4.1. Principles of Universal Design for Learning (UDL) | • Identify and explain the principles of Universal Design for Learning (UDL)<br>• Relate UDL and differentiation | A1.2<br>C3.1 | A1.2.1<br>C3.1.1 | 1 |

| Units | Sub-units | Lessons | Learning outcomes | TCSF Minimum requirements | Indicators | Periods |
|---|---|---|---|---|---|---|
| | | 5.4.2. Universal Design for Learning (UDL) strategies, including for students with additional needs | • Evaluate teaching and learning scenarios, including for students with additional needs, according to UDL principles<br>• Apply principles of UDL to design assessment for a diverse group of students | B1.2<br>B2.2<br>C1.2<br>C3.1 | B1.2.1<br>B2.2.2<br>C1.2.1<br>C3.1.1 | 1 |
| | 5.5. Historical Trends and Contemporary Educational Psychology Perspectives | 5.5.1. Historical and contemporary perspectives | • Explain how historical educational psychology theories underpin contemporary perspectives<br>• Reflect on the complexity of contemporary educational psychology | A1.2<br>A5.2<br>C1.2 | A1.2.1<br>A1.2.2<br>A5.2.1<br>C1.2.1 | 2 |
| | | 5.5.2. Educational psychology: Myths and misconceptions | • Critically evaluate common myths in educational psychology<br>• Reflect on the application of educational psychology to classroom practice | A1.2<br>A5.2<br>B1.2<br>C1.2 | A1.2.1<br>A1.2.2<br>A5.2.1<br>B1.2.1<br>C1.2.1 | 1 |
| 6. Myanmar's Education Reforms and Curriculum Agendas | 6.1. Myanmar's Educational Reforms | 6.1.1. Reforms in the middle school | • Align recent educational reforms with NESP priority areas<br>• Discuss impacts of educational reforms in the middle school<br>• Reflect on the importance of futures thinking in the educational policy environment | A4.1<br>C3.1 | A4.1.1<br>C3.1.1 | 2 |

| Units | Sub-units | Lessons | Learning outcomes | TCSF Minimum requirements | Indicators | Periods |
|---|---|---|---|---|---|---|
| | 6.2. Education for Peace and Sustainable Development (EPSD) | 6.2.1. Conceptual frameworks, competencies, and curriculum links | • Reflect on the intersection between ESD and Peace Education by comparing conceptual frameworks and targeted competencies<br>• Review EPSD competencies, values, and challenges to identify links across the Basic Education Curriculum | B1.1<br>B3.2<br>C1.3<br>C3.3 | B1.1.1<br>B3.2.2<br>C1.3.1<br>C3.3.1 | 2 |
| | | 6.2.2. Pedagogical principles and strategies | • Identify teaching and learning strategies and techniques for EPSD<br>• Explain broad pedagogical principles of a service-learning pedagogy<br>• Scope a service-learning experience for the Lower Middle school | A2.1<br>B1.1<br>C3.3 | A2.1.1<br>B1.1.2<br>C3.3.1 | 2 |
| | | 6.2.3. Whole school approach | • Explain the value of learning spaces or 'learnscapes' for EPSD learning<br>• Design a whole school environment depicting EPSD learning spaces and projects-in-action and other features of a sustainable school<br>• Develop an EDC policy outlining a vision statement, principles, and goals for EPSD | A5.2<br>B3.1<br>C3.3 | A5.2.2<br>B3.1.1<br>C3.3.1 | 3 |

| Units | Sub-units | Lessons | Learning outcomes | TCSF Minimum requirements | Indicators | Periods |
|---|---|---|---|---|---|---|
| | 6.3. Human Rights Education | 6.3.1. Whole school approach and teaching and learning strategies | • List attributes of a human rights friendly school<br>• Describe elements of a whole school approach to human rights education<br>• Review key concepts and teaching and learning strategies drawn upon in human rights education and curriculum documents to scope a learning activity for a Lower Middle school classroom<br>• Reflect on strategies for engaging with controversial human rights issues in the curriculum | A5.1<br>A5.2<br>A2.1<br>A3.2<br>C3.3 | A2.1.1<br>A3.2.2<br>A5.1.3<br>A5.2.2<br>C3.3.1 | 3 |
| | | 6.3.2. Planning for an integrated unit | • Review different approaches to integrated curriculum for the Lower Middle school<br>• Scope aspects on an integrated unit based on a selected human rights education issue | B1.1<br>B1.3 | B1.1.2<br>B1.3.3 | 2 |
| Total number of periods | | | | | | 84 |

# Unit 1

# Educational Studies: Consolidating Understanding

In this unit, student teachers will be oriented to the second cycle of their programme. They will explore the role of education in society, characteristics of 21st century learning and teaching, and lessons learnt from responses to the COVID-19 pandemic with a view to enhancing educational systems' resilience and inclusiveness. Student teachers will investigate the role of school principals, teachers, and parents and the community in enacting school-based management and improvement activities, which are focused on enhancing the quality of teaching and student learning and wellbeing outcomes.

**Expected learning outcomes**

**By the end of this unit, student teachers will be able to:**

- Reflect on factors that influenced choice of Middle school specialisation track;
- Write learning goals for Year 3 of Educational Studies;
- Map the EDC as a social and open system and their interactions as part of the system;
- Consider how informal and non-formal learning can support their formal studies;
- Explore the relationship between education and society;
- Outline characteristics of 21st century learning, teaching, and teacher professional learning;
- Discuss the impacts of the COVID-19 pandemic on education systems globally and Myanmar's responses to the pandemic;
- Identify possible actions at classroom, school, and system level to address a student wellbeing issue in Myanmar;

- Reflect on how Myanmar's education system can become more resilient and inclusive;
- Explain the concept of school-based management;
- Outline the role and responsibilities of school leaders in school-based management and improvement;
- Identify the characteristics of effective instructional leaders;
- Explain concepts of distributed leadership and collective efficacy;
- Outline the role and responsibilities of the teacher in school-based management and improvement;
- Map elements of a parent and community engagement framework for the Myanmar school context; and
- Explain the importance of parent and community participation in supporting students' learning and wellbeing, school improvement activities, and emergency efforts.

**Competencies gained**

A2.2 Demonstrate understanding of appropriate use of Information and Communication Technology (ICT) in teaching and learning

A3.2 Demonstrate respect for the social, linguistic, and cultural diversity of the students and their communities

B4.1 Demonstrate strategies for working together with other teachers, parents, and the local community to improve the learning environment for students

C1.1 Demonstrate values and attitudes consistent with Myanmar's tradition of perceiving teachers as role models

C1.3 Demonstrate understanding of the possible effect of local culture and context on student participation in school

C2.1 Demonstrate commitment to serving the school and community as a professional member of the teaching profession

C3.1 Demonstrate a high regard for each student's right to education and treat all students equitably

C3.3 Demonstrate capacity to build students' understanding of different cultures and global citizenship

D2.1 Improve own teaching practice through learning from other teachers and professional development opportunities

D3.1 Demonstrate understanding of the importance of inquiry and research-based learning to improve teaching practice

# 1.1. Education in the 21st century

In this sub-unit, student teachers will reflect on the factors that influenced their choice of specialisation and write goals that they aim to achieve this year in Educational Studies. Student teachers will conceive of their learning environment here at the EDC as a system that interacts with other systems (e.g., other EDCs, practicum schools, community organisations, etc.). They will consider how their weekly interactions and activities can support their formal studies.

Student teachers will explore the nature of learning and teaching in the 21st century, including in the context of the recent global pandemic. In addition to understanding the impact of the pandemic on education systems throughout the world, they will investigate an issue of importance to teacher and/or student wellbeing in Myanmar. Finally, they will draw upon their learnings in the sub-unit to reflect on how Myanmar education systems can become more resilient and inclusive.

## 1.1.1. Year 3 learning goals

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Reflect on factors that influenced choice of Middle school specialisation track; and
- Write learning goals for Year 3 of Educational Studies.

**Competency gained**

D2.1.3 Establish goals for own professional development as a teacher

**Time**: Two period of 50 minutes

**Learning strategies:**

Learning activity 1. Three-step interview: Specialisation choice

Homework activity. Comparison: EDC courses and BE curriculum learning areas

Learning activity 2. Human continuum: Level of motivation for Year 3

Learning activity 3. Learning plan: Writing learning goals

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

**Preparation needed:**

Read the Educational Studies Student Teacher Textbook Lesson 1.1.1.

**Resources needed:**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: Cardboard cards: “10: Totally inspired’; “1: Lacking enthusiasm”

Learning activity 3: N/A (other than textbook, note paper, and pen)

## Period 1

### Education Degree Programme structure and specialisation tracks

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 15 minutes |
| Learning activity 1 | 30 minutes |
| Check student teachers' understanding | 5 minutes |
| Homework activity | own time |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Welcome student teachers to Year 3 Educational Studies.
2. Facilitate a short ice-breaker activity, such as 'Roll the dice'. Throw the dice and select student teachers to respond to the questions for the numbers thrown:
   i. What was the most significant or enjoyable event of the holidays for you?
   ii. What was one place that you visited for the first time on the holidays?
   iii. What family members did you have an opportunity to connect with?
   iv. What was one of your most important learnings in Year 2 of Educational Studies?
   v. What is one thing that is different upon your return to the EDC?
   vi. What is your level of motivation for your studies this year?
3. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Reflect on factors that influenced their choice of Middle school specialisation track.
4. Direct student teachers to the textbook section, 'Education Degree Programme structure and specialisation tracks'.
5. Ask student teachers what key frameworks shape the design of their Education Degree programme. If student teachers are having difficulty answering this question, direct their attention to Figure 1.1. 'Programme overview'.

Response: The key frameworks that share the design of the Education Degree programme are:

- Curriculum Framework for Education Degree Colleges in Myanmar (note: this is accessed in the EDC e-library)
- Teacher Competency Standards. The expectation is that by, the end of Year 4, student teachers will be able to demonstrate minimum requirements across all four TCSF domains. Hence, student teachers need to progressively build competencies over the duration of the course.

6. Direct student teachers to Figure 1.1. 'Programme overview' in the textbook. Explain that their four-year course comprises two cycles:
   - Years 1 and 2: Foundation Cycle
   - Years 3 and 4: Specialisation Track.
7. Ask student teachers to read Tables 1.1 and 1.2 with their peer, noting:
   - the focus of Year 3
   - modules and courses within the specialisation tracks.

### Learning activity 1. Three-step interview: Specialisation choice

| | |
|---|---|
| **Time** | 30 minutes:<br>(20 minutes three-step interview<br>10 minutes groups reporting back to class) |
| **Class organisation** | Groups of 4 |

#### Purpose

The purpose of this learning activity is for student teachers to reflect on th ors that influenced their choice of specialisation track.

1. Instruct student teachers to form groups of 4.
2. Direct student teachers to Learning activity 1 in the textbook.
3. Inform student teachers that this activity involves interviewing peers regarding the factors that influenced their choice of specialisation.
4. Suggest to student teachers that, in their interviews, they might use:
   - an opening question, such as, "So what influenced your choice of the Middle school specialisation track?"
   - probing questions, such as, "Why did you think that your parents wanted you to be a middle school teacher rather than a primary school teacher?" or "Was that the only reason for your choice?"

5. [Once you have built capacity in interviewing techniques], instruct groups to nominate a student teacher A, B, C, and D within their groups.
6. Explain each of the three steps:
   Step 1:
   - Student teacher A interviews student teacher B (recording student teacher B's responses); and
   - Student teacher C interviews student teacher D (recording student teacher D's responses).

   Step 2: Interviewers and interviewees change roles:
   - Student teacher B interviews student teacher A (recording student teacher A's responses); and
   - Student teacher D interviews student teacher C (recording student teacher C's responses).

   Step 3:
   - Student teachers A and B summarise one another's responses and share key insights with student teachers C and D; and
   - Student teachers C and D do the same.

**Assessment**

Select student teachers to share what motivated their peers' choice of the Middle school specialisation.

Compile a list of factors that influenced decision-making on the board. As student teachers report on their interviewees' responses, only record those factors that are new to the list.

You might:

- undertake further probing
- facilitate broader discussion or
- engage in a tallying activity by asking student teachers to raise their hand if a factor was relevant in their decision-making. For instance, as a class, you might investigate the single most influential factor or the top three factors that influenced student teachers' decision-making.

### Possible student teachers' responses

Student teachers might offer the following responses. *The peer who I interviewed indicated that:*

- their Practicum experiences confirmed that they wanted to be a middle school teacher (i.e., write 'Practicum experiences' on board)
- their parents advised that they should do middle school teaching (i.e., parents' advice)
- they have always wanted to be a middle school teacher (i.e., vocational aspirations)
- they are attracted to the salary of a middle school teacher (i.e., attractive salary)
- society seems to highly value middle school teachers (i.e., societal status)
- they made the decision after speaking to middle school teachers (i.e., teachers' advice).

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to reflect on the factors that influenced their peers' choice of specialisation and indicate whether they think their class is typical of classes across Myanmar's 25 EDCs:

> "If we interviewed a class from [Loikaw] EDC or [Monywa] EDC, do you think their responses would be similar? Why? Why not?

Ask student teachers to reflect on the three-step interview process and indicate whether they think that this strategy might be used in a lower middle school context.

> "In what lower middle teaching and learning contexts might you engage your students in a three-step interview? What subject area? Lesson topic?"

"How might the strategy be adapted for lower middle school students?"

Direct student teachers to 'Homework activity. Comparison: EDC courses and BE curriculum learning areas'.

**Homework activity. Comparison: EDC courses and BE curriculum learning areas**

Explain to student teachers that the purpose of this homework activity is for them to compare the EDC courses that comprise the Curriculum and Pedagogy Studies suite for the Middle school specialisation with the Middle school learning areas outlined in the MoE's Basic Education Curriculum Framework (6th version).

Highlight for student teachers that, as can be seen from Table 1.2, the following courses comprise the Curriculum and Pedagogy Studies suite for the Middle school specialisation: ICT, Myanmar, English, Mathematics, Physics, Chemistry, Biology, History, Geography, Economics, Art, Life Skills, Morality and Civics, Physical Education, and Local Curriculum.

Ask student teachers to compare this list with the Middle school learning areas outlined in the MoE's Basic Education Curriculum Framework (6th version), which can be found in the College e-library.

**Period 2**

**Year 3 learning goals**

This period is structured as follows:

| | |
|---|---|
| Learning activity 2 | 15 minutes |
| Explicit teaching | 15 minutes |
| Learning activity 3 | 15 minutes |
| Check student teachers' understanding | 5 minutes |

## Learning activity 2. Human continuum: Level of motivation for Year 3

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

### Purpose

The purpose of this learning activity is for student teachers to reflect on their level of motivation for Year 3 EDC studies.

1. Place the cards "10: Totally inspired" and "1: Lacking enthusiasm" at opposite sides of the classroom.
2. Ask student teachers to reflect on their level of motivation for their Year 3 EDC studies from 1 to 10 and locate themselves at an appropriate place on the continuum.
3. Encourage student teachers to discuss with their neighbours why they have placed themselves at that point on the continuum.

**Facilitator's notes**

You might wish to direct the human continuum into a tight U-shape so that highly motivated student teachers are able to have conversations with those student teachers who are lacking enthusiasm (i.e., those opposite them).

### Assessment

Instruct student teachers to reflect on their conversations with peers.

Ask if there are student teachers who are willing to share how a conversation may have impacted their thinking. For instance, speaking with a 'totally inspired' student teacher might have had a positive impact on a peer's level of motivation:

"How did the conversations you had with your peers impact your thinking/the way you are feeling about your studies?

Inform student teachers that a human continuum:

- may be used a diagnostic assessment strategy, where students may be asked, for instance, to self-assess their understanding of a concept or confidence in terms of a particular skill;
- is best implemented in classrooms where a supportive and safe environment has been established (i.e., where all students feel they are physically, emotionally, and intellectually safe and are treated with respect from their teacher and peers) so that *all* students feel like that can respond honestly.

**Possible student teachers' responses**

There are no incorrect responses. Student teachers may locate themselves at any point along the continuum. It is important to support:

- peer-to-peer conversations at this early stage of the year; and
- honest responses by not placing undue attention on any individual student teachers.

## Explicit teaching

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Direct student teachers to the textbook section, 'Professional learning community'.
2. Select a student teacher to read out the definition of a learning community from the textbook: In the context of teachers' work, a professional learning community is created when a group of professionals:
   - collaborate and investigate practice to improve student learning outcomes;
   - participate in decision-making informed by evidence and data;
   - pilot and adapt new strategies for improvement; and
   - are accountable and responsible for the impact of their collective efforts.
3. Ask student teachers to discuss with their neighbour what a learning community or learning communities might look like in the context of their Educational Studies class:

   a. What will be the overarching aim? For instance: "Will the aim of the learning community/communities be to improve student learning outcomes, as per the aim of teacher professional learning communities"?
   b. How will the community/communities form?
   c. How will the community/communities meet and interact?
   d. How will the community/communities support achievement of shared learning goals and participants' individual learning goals?
   e. How can the community/communities be inclusive?
4. Select student teachers to report back to the class and record responses on the board. Note that you may discuss the importance of virtual learning communities in the context of the COVID pandemic and College closures.
5. [Having established a sense of ways in which student teachers may initiate or participate in a supportive and safe learning community], outline the relevant learning outcome for the period:
6. By the end of this period, student teachers will be able to:
   - Write learning goals for Year 3 of Educational Studies.

### Learning activity 3. Learning plan: Writing learning goals

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class, pairs/small groups |

## Purpose

The purpose of this learning activity is for student teachers to write learning goals for Year 3 of Educational Studies.

1. Direct student teachers to Learning activity 3 in the textbook.
2. Highlight that, according to the TSCF, a teacher needs to be able to establish goals for their professional learning.
3. Explain that a teacher needs to be able to continue to learn over the span of their career, developing understanding, skills, and dispositions to enhance their professional practice. You might draw upon relevant concepts, which were introduced in Years 1 and 2, such as 'lifelong learning', 'non-formal learning'.
4. Ask student teachers why setting learning goals is important in the context of their current studies. Make links to the previous activity on motivation.

5. Instruct student teachers to work with a peer or in small groups to:
   - review and discuss the Year 3 content map for Educational Studies; and
   - write three learning goals in Table 1.3.
6. Explain to student teachers that there is flexibility in the way in which the frame these goals – that is, they might:
   - be specific and measurable or more broadly articulated (given the stage of the year); and
   - target knowledge and understanding, skills, and/or dispositions.
7. Inform them that in Lesson 1.1.2 (Period 2), they will scope actions which they can undertake to support achievement of their learning goals.

### Assessment

Walk around the class and discuss learning goals with student teachers. You may provide an example (see 'Possible student teachers' responses') if student teachers are finding the task challenging.

### Possible student teachers' responses

There are no incorrect responses. Learning goals will be personal: "Build deeper understanding of culturally responsive pedagogy and Ethnic Language Based–Multilingual Education (ELB–MLE), including practical strategies for classroom implementation".

Ask student teachers why they have identified particular goals. For instance, a student teacher may be from an ethnic group, other than Bamar. Their home language may predominate in the township that they come from. Their intention may be to return to their home township once they have graduated as a middle school teacher.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to:

- share their learning goals with their peer/s;
- take a photograph of the table wherein they outlined these goals (Table 1.3); and
- ensure that they keep their Semester 1 textbook with them at the college for the academic year.

## 1.1.2. Learning in the EDC system

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Map the EDC as a social and open system and their interactions as part of the system; and
- Consider how non-formal and informal learning can support their formal studies.

**Competencies gained**

D2.1.1 Discuss teaching practices with supervisors and colleagues, and willingly seek constructive feedback

D2.1.2 Participate in professional development activities related to identified goals for improving practice

D3.1.1 Identify relevant professional learning material to improve own practice

**Time**: Two period of 50 minutes

**Learning strategies**

Learning activity 1. Systems map: EDC

Learning activity 2. Comparison table: Formal, non-formal, and informal learning

Learning activity 3. Learning plan: Scoping actions

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 1.1.2.

**Resources needed**

Learning activity 1: Flip chart paper and coloured markers

Learning activity 2: N/A (other than textbook, note paper, and pen)

Learning activity 3: N/A (other than textbook, note paper, and pen)

## Period 1

## Learning in the EDC system

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 20 minutes |
| Learning activity 1 | 25 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Map the EDC as a social and open system and their interactions as part of the system.
2. Ask student teachers to write down a definition of a system and share it with their peer.
3. Select student teachers to report back to the class.
4. Direct student teachers to the textbook section, 'Links to prior learning' and review definition provided for a system.
5. Write definition on board:
   A system is a **group of elements** that **work together** as a whole to achieve **common goals**.
6. Highlight for student teachers that in Years 1 and 2 of Educational Studies, one of the ways that a school education system was represented was through an 'inputs–process–outputs' model.
7. Ask student teachers to support you in building an 'inputs–process–outputs' on the board with reference to the definition of a system. Prompts:
   - *Inputs* are what goes into the system. In our definition, **inputs = group of elements.**
     What are the inputs or elements of a school education system?
     Responses: students, teachers, principals, classrooms, schools, facilities, resources.

- *Process* is what occurs in delivering education. In our definition, **process = work together.**
  What processes occur in a school education system to achieve the end results?
  Responses: teaching, learning, assessment, evaluation
- *Outputs* are the **end results.** In our definition, **end results = common goals.**
  What are the end results or common goals of a school education system?
  Responses: student learning outcomes, student achievement and school completion.

8. Direct student teachers to the textbook section, 'Social and open systems'. Ask student teachers to work with a pair as follows:
   Peer 1: Read about the *characteristics of a social system* and teach your peer (i.e., has a structure, culture, power dynamics, and is typically open).
   Peer 2: Read about the *characteristics of an open system* and teach your peer (i.e., interacts with society, boundaries that are hard to define, changes with and impacts society).
9. Discuss Figures 1.5 and 1.6 and reflect on the implementation of the new 4-year Education Degree programme within the EDC as an example of transformation.
10. Ask student teachers to consider the likely impact of the new programme on:
    - Quality of primary and middle school graduate teachers
    - Primary and middle school student learning in future classrooms.

### Learning activity 1. Systems map: EDC

| | |
|---|---|
| **Time** | 25 minutes<br>[Individual mapping (15 minutes)<br>Whole class sharing (10 minutes)] |
| **Class organisation** | Individual activity |

## Purpose

The purpose of this learning activity is for student teachers to generate a systems map (i.e., visual representation) of the EDC.

1. Direct student teachers to Learning activity 1 in the textbook.
2. Inform student teachers that they are going to generate a systems maps of the EDC.
3. Distribute flip chart paper and marker pens.
4. Ask student teachers to quietly reflect on all elements that make up the EDC system:
   *Question:* What are the elements in your immediate environment?
   *Responses:* EDC principal, vice principal, teacher educators, student teachers, buildings, learning facilities, curriculum materials.
5. Highlight for student teachers that people and knowledge/information sharing are important elements of social systems.
6. Instruct student teachers to situate themselves and their interactions within their map.
   *Prompt:*
   Think of who and what you interact with formally and informally, on a daily/weekly basis.
   How can you represent key interactions within the EDC in your map?
7. Ask student teachers to reflect on the other systems that the EDC coordinates activities with:
   - other EDCs and Universities of Education (e.g., student teachers participating in competitions, teacher educators participating in professional learning communities or networks);
   - the Department of Higher Education and Ministry of Education;
   - Basic Education schools (e.g., practice and partner schools close to the EDC and placement schools wherein you undertake extended Practicum); and
   - families, alumni, and community organisations.
8. Instruct half of the student teachers to display their posters on the classroom walls while the other half of the class observe the posters. Swap over.
9. Select class monitors to ensure that all student teachers have their names on their systems maps and that their flip charts are neatly folded and stored at the EDC because they will be needed for another learning activity.

**Assessment**

Instruct student teachers to stand by their posters so that they can respond if their peers ask questions.

### Possible student teachers' responses

EDC system maps will contain internal and external elements identified in the activity prompts and interactions between these elements.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to reflect on the variation in maps. Because the EDC is an open system, student teachers will have variously depicted elements included in the system, interactions between elements, and the boundaries of the system.

## Period 2

## Learning in the EDC system

This period is structured as follows:

| | |
|---|---|
| Learning activity 2 | 20 minutes |
| Learning activity 3 | 25 minutes |
| Check student teachers' understanding | 5 minutes |

### Learning activity 2. Comparison table: Formal, non-formal and informal learning

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Groups of 3 or 4 |

### Purpose

The purpose of this learning activity is for student teachers to reflect on prior learning to complete a table that compares formal, non-formal, and informal learning.

1. Instruct student teachers to form groups of 3.
2. Ask student teachers to quietly reflect on what they learnt about formal, non-formal, and informal learning from Year 2, by viewing the illustrations in Figure 1.8. 'Formal, non-formal, and informal learning'.
3. Direct student teachers to Learning activity 2 in the textbook.
4. Instruct student teachers to complete Table 1.4. You might suggest that they first discuss the different types of learning and then:
   - Student 1 completes the formal learning column
   - Student 2 completes the non-formal learning column
   - Student 3 completes the informal learning column.
5. Select student teachers to report back to the class and record responses in table on board.

### Assessment

You will have opportunity to assess student teachers' understanding by:

- walking around the classroom and listening to group discussions
- listening and responding to student teachers' responses.

### Possible student teachers' responses

Possible responses are presented in Table TG 1.1.

**Table TG 1.1. Table TG 1.1. Formal, non-formal and informal learning – completed**

| | Formal | Non-formal | Informal |
|---|---|---|---|
| **Example** | Teacher education degree programme | Weekend course on resilience and wellbeing | Asking a peer to help you solve a computer issue |
| **What is it?** | Learning that results in a recognised qualification | Complementary learning that builds on recognised learning | Purposeful, self-directed learning guided by interests and needs |
| **How is it structured?** | Planned, structured and instructor-led | Planned, structured, can be instructor- or participant-led | Spontaneous, unstructured, and self-motivated |
| **Where does it happen?** | Schools, Colleges, Universities | Courses, workshops, Professional learning communities | Anywhere |

[See Table 1.4 in textbook.]

## Learning activity 3. Learning plan: Scoping actions

| | |
|---|---|
| **Time** | 25 minutes |
| **Class organisation** | Individual (15 minutes)<br>Peer sharing (10 minutes) |

### Purpose

The purpose of this learning activity is for student teachers to consider the actions that they may take this year, in addition to their formal studies, to assist them in achieving the goals that they set out in their learning plan.

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Consider how non-formal and informal learning can support their formal studies.
2. Direct student teachers to Learning activity 3 in the textbook.
3. Instruct student teachers to have access to their:
   - learning goals in Table 1.3 in their textbook
   - EDC systems map on the flip chart paper.
4. Encourage student teachers to consider how non-formal and informal learning can support their formal studies and outline actions that they can undertake to support achievement of goals in the right-hand column of Table 1.3.
5. Ask student teachers to share their actions with a peer.

### Assessment

Peers might provide each other with additional ideas. You might ask student teachers how the EDC systems map helped to highlight the different types of learning opportunities available to them.

### Possible student teachers' responses

An example of a learning goal and possible actions is presented in Table TG 1.2.

**Table TG 1.2. Learning goals for Educational Studies – example**

| Learning goals | | Actions which can be undertaken to support achievement of goals |
|---|---|---|
| 1. | Build deeper understanding of culturally responsive pedagogy. | • Undertake Block 10 Practicum in an ethnic school. (Links to placement schools in systems map).<br>• Have opportunity to engage with families and community members during Block 10 Practicum to learn about ethnic cultures. (Informal learning)<br>• Participate in a professional learning webinar series on Ethnic Language Based-Multilingual Education. (ELB-MLE) (Non-formal learning) |

[See Table 1.3 in textbook.]

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Peer assessment |

Ask student teachers to stay with their peers and reflect on why the following competencies were aligned with this lesson:

D2.1.1 Discuss teaching practices with supervisors and colleagues, and willingly seek constructive feedback

D2.1.2 Participate in professional development activities related to identified goals for improving practice

## 1.1.3. Education and society

### Expected learning outcomes

**By the end of this lesson, student teachers will be able to:**

- Explore the relationship between education and society;
- Outline characteristics of 21st century learning, teaching, and teacher professional learning;

- Discuss the impacts of the COVID-19 pandemic on education systems globally and Myanmar's responses to the pandemic;
- Identify possible actions at classroom, school, and system level to address a student wellbeing issue in Myanmar; and
- Reflect on how Myanmar's education system can become more resilient and inclusive.

**Competencies gained**

A2.2.1 Describe the function and purpose of online and offline educational tools and materials to support the teaching and learning process

C3.1.1 Show awareness of the right to education of every child and a commitment to nurturing the potential in each student

C3.3.1 Integrate concepts of sustainability, equality, justice and the rights and responsibilities of students into class and school activities

C1.3.1 Show interest in and take time to learn about the students' culture, language, and community

**Time**: Four periods of 50 minutes

**Learning strategies:**

Learning activity 1. Critical reflection: Basic Education aims

Learning activity 2. Brainstorm: Humanistic and holistic approach to education

Learning activity 3. Y-chart: 21st century learning and teaching

Learning activity 4. Case studies: Responses to the pandemic

Learning activity 5. Listening to and generating ideas: Student wellbeing issue

Homework activity. Group reflection: Resilient and inclusive systems

**Assessment approaches:** Questioning, observation, peer and whole class discussion, reviewing student work

**Preparation needed:**

Read the Educational Studies Student Teacher Textbook Lesson 1.1.3.

**Resources needed:**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

Learning activity 3: Flip chart paper and coloured marker pens

Learning activity 4: N/A (other than textbook, note paper, and pen)

Learning activity 5: N/A (other than textbook, note paper, and pen)

**Period 1**

**Education and society**

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 15 minutes |
| Learning activity 2 | 20 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Explore the relationship between education and society.
2. Instruct student teachers to:
   - write down 2–3 sentences that summarise the nature of the relationship between education and society;
   - share their sentences with a peer; and
   - collectively shape a response combining the best of their ideas.
3. Select 1–2 student teachers to share their responses with the class.
4. Direct student teachers to textbook section, 'Relationship between education and society' and allow time for them to read Box 1.1 'Four Aims of education' with their peers.

### Learning activity 1. Critical reflection: Basic Education aims

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Groups of 4 |

## Purpose

The purpose of this learning activity is for student teachers to review the aims of the Basic Education Curriculum, as outlined in the Myanmar National Basic Education Curriculum Framework, with reference to the 'Four Aims' framework.

1. Instruct student teachers to form groups of 4.
2. Direct student teachers to Learning activity 1 in the textbook.
3. Instruct student teachers to:
   - read each aim of the Myanmar National Basic Education Curriculum (i.e., in the left-hand column) in Table 1.5; and
   - align one or more of the 'Four Aims' with each aim of the Myanmar National Basic Education Curriculum (i.e., in the right-hand column).

4. Highlight that the first two aims have been addressed. Suggest that each group member addresses two aims.
5. Select student teachers to share their responses.

### Assessment

Ask student teachers to reflect on the nature of the 'Four Aims'. You might ask:

Question: What did you notice when you were aligning the 'Four Aims' with the aims of the Myanmar National Basic Education Curriculum?

Response: That the 'Four Aims' are closely related. For instance, development of thinking, communication, and social skills can be aligned with all of the 'Four Aims'.

### Possible student teachers' responses

Note that the 'Four Aims' are inter-related so there are no incorrect answers. You might ask student teachers to explain why they have identified particular aims.

Possible responses are presented in Table TG 1.3.

**Table TG 1.3. Table TG 1.3. Aims of the Basic Education Curriculum – completed**

| Aims of the Myanmar National Basic Education Curriculum | Four Aims |
|---|---|
| Attend school until the completion of Basic Education | • Productive skills<br>• Civic skills<br>• Human talents and interests<br>• Equity and social inclusion |
| Develop "union spirit" and appreciate, maintain, and disseminate languages and literatures, cultures, arts, and traditional customs of all national groups | • Civic skills<br>• Equity and social inclusion |
| Become good citizens with well-developed five strengths including critical thinking skills, communication skills and social skills | • Civic skills<br>• Productive skills<br>• Human talents and interests |
| Apply their civic and democratic duty in daily lives, and become good citizens who abide by laws | • Civic skills |
| Be competent in Myanmar language, which is the official language of the Republic of the Union of Myanmar, and develop skills in respective ethnic languages and English | • Productive skills<br>• Civic skills<br>• Equity and social inclusion |

| Aims of the Myanmar National Basic Education Curriculum | Four Aims |
|---|---|
| Develop foundational knowledge and skills for higher learning and technical and vocational education | • Productive skills<br>• Human talents and interests |
| Develop a sound body and sportsmanship through participation in physical education activities and school health activities, and apply health knowledge in daily lives | • Human talents and interests |
| Appreciate and maintain the natural environment and materialise its sustainability | • Civic skills<br>• Equity and social inclusion |
| Become global citizens with awareness and appreciation of human diversity and abilities to practise basic knowledge of peace in their daily lives | • Civic skills<br>• Equity and social inclusion |
| Take pride in being a citizen of the Union of Myanmar | • Civic skills |

[See Table 1.5 in textbook.]

## Learning activity 2. Brainstorm: Humanistic and holistic approach to education

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Groups of 4 |

### Purpose

The purpose of this learning activity is for student teachers to brainstorm pathways for Myanmar to achieve a more humanistic and holistic approach to education.

1. Instruct student teachers to remain in the groups of 4.
2. Direct student teachers to Learning activity 2 in the textbook.
3. Highlight for student teachers that the 'Four Aims' provides a simple but important lens by which to reflect on different approaches to education.
4. Instruct groups to read Box 1.2. 'Humanistic and holistic approach to education', which presents an excerpt from UNESCO's (2015) publication, *Rethinking education: Towards a global common good.*
5. Instruct student teachers to brainstorm how Myanmar can move towards a humanistic and holistic approach to education.
6. Select student teachers to share their responses with the whole class.

**Assessment**

List student teacher responses on board.

**Possible student teachers' responses**

Possible responses are presented in Box TG 1.1.

**Box TG 1.1. Humanistic and holistic approach to education – completed**

*Box text:*

Education alone cannot hope to solve all society's development challenges. However, a humanistic and holistic approach to education can contribute to achieving a new development model. In such a model, economic growth must be guided by:

- Environmental stewardship
- Concern for peace, inclusion, and social justice.

*Response:*

Student teachers might note that given that their new four-year Education Degree programme has emphases of EPSD and inclusion that graduate teachers will be better equipped to develop these competencies in their future students.

- In-service teacher professional development also needs to address these cross-cutting themes.
- Teachers in schools need to seek curriculum opportunities for partnering with families and communities so that their students can engage in project based, action and service learning related to EPSD.

*Box text:*

This approach emphasises the *inclusion of people* who are often subject to discrimination:

- women and girls
- Indigenous peoples
- persons with disabilities
- migrants
- the elderly
- people living in countries affected by conflict.

*Response:*

- An inclusive approach to education needs to be reflected in National Education Inclusion Policy and Guidelines and/or inclusion strategies in the National Education Strategic Plan.
- Schools need to have accessible building and facilities.
- Educational pathways for students with disabilities and students who are vulnerable need to be established.
- The MoE (through collaboration between the Department of Alternative Education and the Department of Basic Education) needs to work with families and community organisations to reach out-of-school children.
- The student stipend programme needs to be expanded to support students with disabilities and students who are vulnerable.
- Non-formal education programmes need to target different groups.
- Notably, there are other groups who are often subject to discrimination (such as the LGBT community), where there needs to be greater acceptance and understanding of aspirations and needs.

*Box text:*

It requires an open and flexible approach to learning that is both lifelong and life-wide: An approach that provides the opportunity for all to realise their potential for a sustainable future and a life of dignity.

This humanistic approach has implications for the learning of content and pedagogies, as well as for the *role of teachers* and other educators. It is even more relevant given the rapid development of new technologies, in particular, digital technologies.

*Response:*

There need to be significant investment in:

- Technology infrastructure and systems support in schools
- Teacher professional learning to enhance TPACK
- Technology initiatives in schools

[See Box 1.2 in textbook.]

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to reflect on why education systems need to constantly evolve.

Encourage them to think back to their learning on open and social systems. An open and social system:

- interacts with a constantly changing societal environment or context
- copes with constant change through co-evolving with the environment, changing itself in response to feedback and, in turn, impacting upon the environment.

Return to the opening point for this lesson (i.e., textbook section 'Relationship between education and society'): Education is a social institution that serves the needs of society. As such, it needs to continuously evolve to meet the challenges of an ever-changing world and drive social change.

## Period 2

## Education and society

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 15 minutes |
| Learning activity 3 | 30 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Outline characteristics of 21st century learning, teaching, and teacher professional learning.
2. Write '21st century learning' on the board.
3. Divide the class in two sections/halves and instruct:
   - one half to respond to the concept in words e.g., student-centred, active, collaborative; and
   - the other half to respond to the concept in pictures.
4. Facilitate a sharing where student teachers can join up with a peer from the other half and discuss their perspectives through words and pictures.
5. Direct student teachers to textbook section, '21st century learning' and read together as a class.
6. Ask student teachers to what reflect on their own schooling experiences in terms of the Table 1.6. 'A shift in emphases'. You might ask:
   Did you experience the shift in emphases in teaching and learning in your own schooling?
7. Introduce student teachers to the concept of personalised learning (i.e., where the pace of learning and the teaching and learning strategies respond to the needs of each learner) and make links to Year 2 learnings on:
   - differentiation (i.e., according to students' readiness, interests, and learning profile); and
   - the role of technology in enabling personalisation of learning.

## Learning activity 3. Y-chart: 21st century learning and teaching

| | |
|---|---|
| **Time** | 30 minutes<br>(20 minutes Y-chart<br>10 minutes sharing) |
| **Class organisation** | Groups of 3 |

### Purpose

The purpose of this learning activity is for student teachers to identify characteristics of learning, teaching, and teacher professional learning in the 21st century.

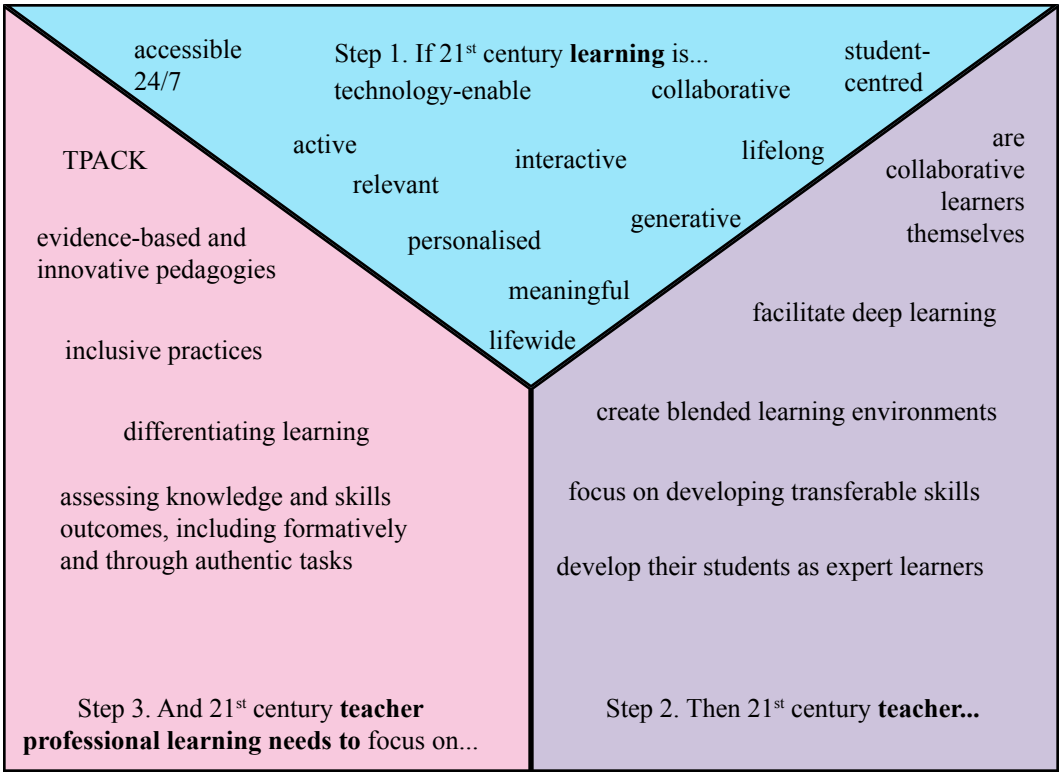
1. Instruct student teachers to form groups of 3.
2. Distribute flip chart paper and marker pens.
3. Direct student teachers to Learning activity 3 in textbook.
4. Highlight for student teachers that Figure 1.13. 'Y-chart of 21st century learning, teaching, and teacher professional learning' presents a Y-chart template to support this activity. Student teachers might first discuss and document their ideas in their textbooks.
5. Instruct student teachers to draw a Y on their flip chart paper and complete:
   - Step 1. If 21st century learning is…
   - Step 2. Then 21st century teachers…
   - Step 3. And 21st century teacher professional learning needs to focus on…
6. Ask groups to share their flip charts with another group.
7. Select group spokespersons to report back to class on the similarities and differences between their responses and that of the other group.

### Assessment

Draw a large Y on the board and document student teachers' responses.

## Possible student teachers' responses

An example of a completed Y-chart is in Figure TG 1.1.




[See Figure 1.13 in textbook.]

**Figure TG 1.1. Y-chart of 21st century learning, teaching, and teacher professional learning[3] – completed**

3 Image by author, used with permission.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to reflect upon class Y-chart: To what extent are themes related to 21st century learning, teaching, and teacher professional learning evident in Myanmar's education system.

## Period 3

## Education and society

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 20 minutes |
| Learning activity 4 | 25 minutes |
| Check student teachers' understanding | 5 minutes |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Discuss the impacts of the COVID-19 pandemic on education systems globally and Myanmar's responses to the pandemic.
2. Direct student teachers to textbook section 'The future of learning and teaching: Lessons from the global pandemic'.
3. Ask student teachers to read sub-section 'Deepening existing gaps in learning opportunities', including Box 1.3 with a peer.
4. Facilitate discussion as to how the pandemic in Myanmar may have deepened existing gaps in learning opportunities for vulnerable groups.

5. Direct student teachers to the sub-section, 'Learning through other modalities'.
6. Highlight for student teachers that:
   - The COVID-19 pandemic is the first global crisis in the digital-age;
   - School closures resulted in an unexpected shift to remote learning; and
   - Many teachers and students had to rapidly adopt educational tools and methods with little or no training.
7. Explain that in those contexts where there was limited access to technology, low-tech and no-tech approaches were also required, including:
   - a mix of educational television and radio programming; and
   - the distribution of print materials.

### Learning activity 4. Case studies: Responses to the pandemic

| | |
|---|---|
| **Time** | 25 minutes |
| **Class organisation** | Groups of 6 |

**Purpose**

The purpose of this learning activity is for student teachers to explore Myanmar's response to the COVID-19 pandemic in terms of strategies to support students' learning and wellbeing in schools and EDCs.

1. Instruct student teachers to form groups of 6.
2. Direct student teachers to Learning activity 4 and to read Boxes 1.4 and 1.5 in the textbook (presented as Boxes TG 1.2 and 1.3 in this guide).

## Box TG 1.2. Myanmar's response in schools: COVID-19 Response and Recovery Plan[4]

Beginning in May 2020, at the request of the MoE, UNESCO has supported the development process of the ***COVID-19 Response and Recovery Plan.*** The framework is built upon a ***learner-centred approach,*** to ensure that students in Myanmar can continue learning in a safe environment, with the overarching aim of "leaving no one behind".

The framework outlines a ***response phase,*** when education institutions are closed, and a ***recovery phase,*** when education institutions reopen. For both phases, actions have been defined by the relevant MoE departments for all the main subsectors in the education system: Basic Education, Alternative Education, Technical Vocational Education and Training, and Higher Education.

The plan's priorities take into consideration the challenges faced by students in Myanmar, especially girls, migrants, refugees, internally displaced persons, persons affected by conflict, persons with disabilities, poor students, and other marginalised groups. For example, access to the internet, stable electricity, and educational resources vary widely in Myanmar, exacerbated by the rural-urban, socio-economic, and gender divides.

In this regard, the development and deployment of ***distance learning modalities*** have included options that can be accessed by all students – digital as well as ***low-tech and no-tech options.*** During the recovery phase, academic and administrative adaptations as well as remedial education will be introduced to minimise disruptions for students to progress to the next level.

While the pandemic poses many challenges, there are also opportunities to strengthen the ***longer-term resilience of the education system.*** To ensure that the education system can "build back better", the COVID-19 Response and Recovery Plan includes a cross-cutting phase, to draw upon the good practices and lessons learned from this crisis, which will inform the strengthening of the education sector for future emergencies.

[See Box 1.4 in textbook.]

4 UNESCO Myanmar. (2020b).

**Box TG 1.3. Myanmar's response in EDCs: Psychosocial Support Focal Point System[5]**

BAs part of UNESCO Strengthening Pre-service Teacher Education in Myanmar (STEM) Programme, it was agreed with the MoE that, in terms of an emergency response to COVID-19, priority should be given to the health, safety, and wellbeing of teaching and non-teaching staff and student teachers at EDCs.

***A Psychosocial Support Focal Point System*** was established with teacher educators from 25 EDCs. The teacher educators, who were selected as focal points by the MoE, were given a two-day online training on the basic concepts of ***psychosocial support*** and psychosocial first aid.

Daw Kyi Kyi Khin, a teacher educator from Thingangyun EDC, said that:

> "Soon, there will be teachers and other staff members returning from other states and regions to our EDCs who will need to undergo self-isolation for 21 days. They will be worried and frustrated – both physically and mentally – as they face this situation. We can provide basic counselling support to them based on what we have learnt through this training."

Ye Lin Aung, a teacher educator from the Myitkyina EDC, said he was excited to share what he had learnt from the training with his students when classes resume and sees the psychosocial support training as being useful beyond COVID-19. He said that:

> "As our EDC is situated in Myitkyina, Kachin state, our student teachers will be deployed to remote areas near the border to serve as teachers when they complete their studies. Since there are still ongoing conflicts between ethnic armed groups and the military in some of those areas, I can prepare my students, who will become teachers in the coming years, to provide necessary psychosocial support to the children they will teach."

[See Box 1.5 in textbook.]

5 UNESCO Myanmar. (2020a).

3. Instruct student teachers to discuss in their groups how they may be able to find out more about the:
   - COVID-19 Response and Recovery Plan
   - EDC Psychosocial Support Focal Point System or
   - Another MoE response to the COVID-19 pandemic.
4. Ask groups to complete a cooperative research plan in Table 1.7.

**Assessment**

Ask student teachers to assign a task to every one of the 6 group members to be undertaken in their independent time.

Inform student teachers that they will have sharing time in the next period, which will be at the start of Week 2.

**Possible student teachers' responses**

An example of a plan is presented in Table TG 1.4.

**Table TG 1.4. Cooperative research plan – completed**

| Questions to consider | Responses | Student teacher actions |
|---|---|---|
| Who might you interview by phone or in person who has had direct involvement in your selected initiative?<br>Frame questions that you will ask that person. | A teacher educator, who was selected as a focal point by the MoE.<br><br>Questions we would be interested to ask:<br>• What did the two-day online training focus on?<br>• What is the concept of psychosocial first aid?<br>• What was the process of self-isolation at the EDC?<br>• What were the physical and psychological challenges for teachers having to self-isolate?<br>• How can psychosocial first aid training be useful beyond COVID-19? | Student teachers to interview: Teacher Educator |
| Is there any official documentation and other data sources that you can access about your selected initiative?<br>List where these sources can be accessed. | EDCs may have received official documentation. We can ask the principal or deputy principal of the EDC.<br><br>Other source:<br><br>COVID-19 Addendum to the 2020 Myanmar Humanitarian Response Plan. April-December, 2020.[6] | Student teachers to follow up with: EDC principal or vice principal |

6 UN Office for the Coordination of Humanitarian Affairs. (2020).

| Questions to consider | Responses | Student teacher actions |
|---|---|---|
| What coverage has your selected initiative had in the media or online websites? | United Nations, Myanmar article<br><br>'The United Nations in Myanmar is working to counter disinformation on COVID-19 while ensuring continuity of education.'[7] | Student teachers to undertake online searches: |
| How might you go about identifying the benefits and limitations of the initiative? | Analyse data from different data sources. | Student teachers to meet to review findings: |

[See Table 1.7 in textbook.]

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class/groups |

Ask student teachers why it is important for them to be able to source reliable information about current issues. Encourage groups to share cooperative research plans.

## Period 4

## Education and society

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 15 minutes |
| Learning activity 5 | 25 minutes |
| Check student teachers' understanding | 10 minutes |
| Homework activity | own time |

7 UN Office for the Coordination of Humanitarian Affairs. (2020). The United Nations in Myanmar is working to counter disinformation on COVID-19 while ensuring continuity of education | United Nations in Myanmar>

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the period.
   By the end of this period, student teachers will be able to:
   - *Review* from last period/week: Discuss the impacts of the COVID-19 pandemic on education systems globally and Myanmar's responses to the pandemic;
   - *Focus* of this period: Identify possible actions at classroom, school, and system level to address a key student and/or teaching wellbeing issue in Myanmar; and
   - Homework activity: Reflect on how Myanmar's education system can become more resilient and inclusive.
2. Allocate time for groups to share their research findings regarding Myanmar's educational system's responses to the COVID-19 pandemic.
3. Ask groups to share with whole class if they have been particularly successful in finding out more information or conducting an interview.

### Learning activity 5. Listening to and generating ideas: Student wellbeing issue

| | |
|---|---|
| **Time** | 25 minutes |
| **Class organisation** | Groups of 3 |

## Purpose

The purpose of this learning activity is for student teachers to listen to peers' perspectives on a selected issue relating to student wellbeing in the Myanmar context and generate actions that might contribute to addressing that issue.

1. Instruct student teachers to form groups of 3.
2. Direct student teachers to Learning activity 5.
3. Instruct groups to:
   - read the section, 'Supporting student wellbeing through teacher professional development' ;

- brainstorm issues that impact student wellbeing in the Myanmar context;
- select one of these student wellbeing issues; and
- with a view to a holistic and inclusive approach (that is, without singling out any individual students or groups of students), scope actions in Table 1.8b, which can be undertaken to raise awareness of or address the issue at the:
  - classroom (micro level)
  - school (meso level)
  - educational system policy (macro) level.

4. Highlight to student teachers that an example has been provided in the textbook in Table 1.8.a 'Example: Actions to address wellbeing issue (child trafficking)'.

**Assessment**

Visit groups as they work. Ask probing questions to support those groups who are having difficulty identifying suitable actions.

**Possible student teachers' responses**

Refer to the example provided in the textbook in Table 1.8.a. You may explain to student teachers that child trafficking is selected as an example given the context of the COVID-19 pandemic. It is anticipated that due to the economic impacts of the pandemic, "child labour, recruitment, and exploitation may rise".[8]

**Check student teachers' understanding**

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

Ask groups to share responses their response from Learning activity 5 with another group.

Direct student teachers to 'Homework activity. Group reflection: Resilient and inclusive systems'.

8 United Nations. (2020, p. 11).

**Homework activity. Group reflection: Resilient and inclusive systems**

Explain to student teachers that the purpose of this homework activity is for them to reflect upon learnings within the lesson (Lesson 1.1.3) to identify how education systems can become more resilient and inclusive.

Highlight to student teachers that, according to the United Nations, the wide-scale efforts made in a short time by education systems to respond to the COVID-19 pandemic "remind us that change is possible".[9]

Explain that over the four periods of this lesson (Lesson 1.1.3), they have explored:

- the aims of the Basic Education Curriculum with reference to promotion of students':
  - productive skills (Aim 1)
  - civic skills (Aim 2)
  - human talents and interests (Aim 3)
  - equity and social inclusion (Aim 4);
- how Myanmar might work towards a more humanistic and holistic approach to education;
- a picture of 21st century learning, teaching, and teacher professional learning;
- Myanmar's responses to the COVD-19 pandemic within schools and EDCs;
- a key student and/or teacher wellbeing issue in the Myanmar context and proposed possible actions at the level of the:
  - classroom,
  - school
  - system.

Ask student teachers to reflect on these learnings to write a synthesis paragraph outlining how Myanmar's education systems can become more resilient and inclusive.

Highlight that this task will support them in undertaking the task outlined in the 'Unit reflection' section.

9 United Nations. (2020, p. 4).

**Expected student teachers' responses for the review questions in TB**

Question 1: Why is it important for teachers to be able to set professional learning goals?

Answer: *A teacher needs to be able to establish goals for their professional learning so that they can continually build the knowledge and understanding, skills, and dispositions to improve their practice over their professional career.*

Question 2: What aims of education are emphasised in a humanistic and holistic approach to education?

Answer: *A humanistic and holistic approach to education goes beyond a narrow focus on economic promotion (Aim 1. Productive skills) and integrates all dimensions of human existence, including development of:*

- *Aim 2. Civic skills*
- *Aim 3. Human talents and interests*
- *Aim 4. Equity and social inclusion.*

Question 3: What are key themes in 21st century learning? What are the implications for teacher professional learning?

Answer: *21st century learning needs to be:*

- *meaningful and relevant (i.e., developing a highly valuable skill set)*
- *active, interactive, and collaborative*
- *personalised, accessible, and technology enabled.*

*21st century teacher professional learning needs to focus on building capacity in:*

- *evidence-based, innovative, and technology-enabled pedagogies;*
- *inclusive practices and differentiating learning in response to students' needs and interests; and*
- *developing and assessing knowledge and skills, with emphasis on formative assessment and authentic tasks.*

Question 4: What are lessons learnt from the COVID-19 pandemic in terms of how education systems can become more resilient?

Answer: *The lessons learnt from the COVID-19 pandemic would seem to suggest that resilient systems are ones where:*

- S*chool leaders and teachers determine the most effective blend of teaching and learning approaches in response to the learning and teaching context and their students' needs.*
- *There is significant investment in teacher professional learning, including for new modalities.*
- *There is significant investment in ICT infrastructure and platforms to create flexible and engaging learning spaces.*
- *There is a family and community engagement strategy that squarely focus on supporting students' learning and wellbeing.*

# 1.2. Effective School and Key Agencies of Education

In this sub-unit, student teachers will explore the role of school principals, teachers, and parents and the community in enacting school-based management and improvement activities, focused on enhancing the quality of teaching and student learning and wellbeing outcomes. Student teachers will investigate the elements of effective leadership and notions of distributed leadership, collective efficacy, and teachers as leaders.

## 1.2.1. Effective leadership

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Explain the concept of school-based management;
- Outline the role and responsibilities of school leaders in school-based management and improvement; and
- Identify the characteristics of effective instructional leaders.

**Competencies gained**

C2.1.2 Demonstrate model behaviour as a teacher serving and working in school and community responsibly and accountably.

D2.1.1 Discuss teaching practices with supervisors and colleagues, and willingly seek constructive feedback

**Time**: Two periods of 50 minutes

**Learning strategies**

Learning activity 1. Comparison table: School leadership frameworks

Learning activity 2. Practise scenarios: Effective school leaders

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 1.2.1.

**Resources needed**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

**Period 1**

**Effective leadership**

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 20 minutes |
| Learning activity 1 | 25 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the period.
   By the end of this period, student teachers will be able to:
   - Explain the concept of school-based management; and
   - Outline the role and responsibilities of school leaders in school-based management and improvement.
2. Ask student teachers to share with their peer what they recall about Myanmar's new School Quality Assurance Standards Framework (SQASF).
3. Select student teachers to share their responses with the class.
   *Possible response:* The SQASF comprises dimensions (i.e., Learning and teaching, Professional development, Leadership and management, Infrastructure and Resources, Financial management, and Parent and community participation) and associated standards and indicators.
4. Ask student teachers to write down what the recall about the relationship between the SQASF and the SQIP. Select student teachers to share their responses with the class.
   *Possible response:* Every school is to undertake a self-assessment every three years of their performance with respect to the six dimensions. The purpose of undertaking the self-assessment is to generate data to inform development of the School Quality Improvement Plan (SQIP) and engage in continuous quality improvement.
5. Direct student teachers to textbook section, 'School-based management and improvement'. Read together as a class, including the objectives of the SQASF and SQIPs.
6. Write some key themes on the board with respect to the SQASF objectives:
   To enhance:
   - school decision-making
   - parent and community involvement
   - staff capacity building
   - ongoing monitoring and evaluation.

## Learning activity 1. Comparison table: School leadership frameworks

| | |
|---|---|
| **Time** | 25 minutes |
| **Class organisation** | Pairs |

### Purpose

The purpose of this learning activity is for student teachers to compare Myanmar's *Competency Standards Framework for School Heads in Basic Education* with a school leadership framework from another national educational system.

1. Direct student teachers to Learning activity 1.
2. Highlight for student teachers that they explored aspects of school leadership through the:
   - 'Leadership and Management' dimension of the SQASF
   - *Competency Standards Framework for School Heads in Basic Education.*
3. Direct student teachers' attention to Figure 1.17 that depicts the domains of the Competency Standards Framework for School Heads.
4. Instruct student teachers to work in pairs and align the five practice domains of the Australia's Professional Standard for Leadership with Myanmar's Framework in Table 1.9. 'Aligning Myanmar and Australian Leadership Frameworks'.
5. Highlight for student teachers that an example has been provided for them.
6. Ask pairs to share their work with another pair and compare responses.

### Assessment

Walk around to pairs and listen to discussion and review student teachers' responses.

### Correct student teachers' responses

Correct responses are presented in Table TG 1.5.

**Table TG 1.5. Aligning Myanmar[10] and Australian Leadership Frameworks[11] – completed**

| Myanmar's Competency Standards Framework for School Heads | Australia's Professional Standard for Leadership |
|---|---|
| ***Leadership***<br>• Strategic planning and implementation<br>• Leading change and innovation | *Leading improvement, innovation, and change:* Principals work with others to develop and implement clear, evidence-based improvement plans and policies. |
| ***Management***<br>• School operations<br>• Resource management<br>• Enabling learning environment | *Leading the management of the school:* Principals ensure that the school's resources and staff are efficiently organised and managed. |
| ***Teaching and learning***<br>• Curriculum implementation<br>• Teaching and learning improvement<br>• Teacher performance supervision<br>• Professional development | *Leading learning and teaching:* Principals enable effective teaching that promotes engaged and independent lifelong learners. |
| ***Collaboration***<br>• Community involvement<br>• Effective communication<br>• Inclusive collaboration | *Engaging and working with the community:* Principals work with families and the community to promote inclusion and a culture of high expectations for all students. |
| ***Personal effectiveness***<br>• Professionalism<br>• Social relationships<br>• Focusing results | *Developing self and others:* Principals work with others to build a professional learning community that is focused on continuous improvement of teaching and learning. |

[See Table 1.9 in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to reflect on the extent of the alignment between the Myanmar's and Australia's school leadership frameworks.

*Question:* How does Myanmar's Competency Standards Framework for School Heads compare with Australia's Professional Standard for School Leadership?

10 Department of Basic Education [DBE]. (2019b).
11 Australian Institute for Teaching and Learning. (2014).

*Response:* There is direct correspondence between the five domains of Myanmar's Competency Standards Framework for School Heads and the practices outlined in Australian Professional Standards for Leadership.

Ask student teachers to reflect on the significance of this for Myanmar's Competency Standards Framework for School Heads

*Question:* Why is this alignment significant?

Response: It means that Myanmar's Competency Standards Framework for School Heads has international currency.

## Period 2

## Effective leadership

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 20 minutes |
| Learning activity 2 | 25 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Identify the characteristics of effective instructional leaders.
2. Ask student teachers to reflect on their schooling experience to identify the most effective school principal that they have known and share their reflections with their peer.
3. Select student teachers to share with the whole of class.
4. Highlight for student teachers that they were asked to share their stories of effective principals from the perspective of being students at school.

5. Ask student teachers to now consider what teachers might expect in an effective principal.
6. Direct student teachers back to Table 1.9 'Aligning Myanmar and Australian leadership frameworks' and, in particular, to the leading learning and teaching dimension of leadership:

| *Teaching and learning* | *Leading learning and teaching:* |
|---|---|
| • Curriculum implementation<br>• Teaching and learning improvement<br>• Teacher performance supervision<br>• Professional development | Principals enable effective teaching that promotes engaged and independent lifelong learners |

7. Direct student teachers to the textbook section, 'Instructional leadership'.
8. Highlight that this section presents qualitative research findings from a study involving 809 US teacher participants.
9. Read the study's findings together as a class. Highlight that teachers of the study perceived principals to be effective instructional leaders when they engaged with teachers to promote reflection, improvement to practice, and professional growth.
10. Ask different student teachers to read out the bullet points:
    Principals who are effective instructional leaders support teachers' reflective practice through:
    - listening to teachers and sharing experiences;
    - making suggestions and giving feedback to teachers;
    - using examples and demonstrations;
    - using inquiry and dialogue;
    - encouraging risk taking;
    - recognising teachers' strengths; and
    - maintaining a focus on improving instruction.

    Principals who are effective instructional leaders support teachers' professional growth through:
    - promoting supporting the study of teaching and learning (e.g., offering professional literature);
    - encouraging collaboration between teachers;
    - developing coaching relationships between teachers;
    - leading and supporting redesign of curriculum;
    - applying the principles of adult learning to all phases of staff development; and
    - implementing action research to inform instructional decision making.

11. Ask student teachers: "Why is it important to have this kind of leadership in a school setting?"
    Response: Student teachers may discuss impacts in terms of enhanced student learning and achievement, as well as teacher professional satisfaction and longevity in the profession.

### Learning activity 2. Practise scenarios: Effective school leaders

| | |
|---|---|
| **Time** | 25 minutes |
| **Class organisation** | Groups of 3 |

### Purpose

The purpose of this learning activity is for student teachers to reflect on school leaders' practices with reference to the indicators associated with the 'Teaching and learning' domain in Myanmar's Competency Standards Framework for School Heads.

1. Instruct student teachers to form groups of 3.
2. Direct student teachers to Learning activity 2 and ask groups to:
   - review the competency indicators related to *C2. Manage the development of teaching and learning* in Box 1.7. 'Competency indicators related to Standard C2';
   - reflect on the school leaders/principals *in your practicum experiences;*
   - discuss how the principals engaged in practices that aligned with the competency indicators; and
   - select the best three examples and develop them as short scenarios of effective school leadership practice.
3. Ask groups to share their most powerful example of effective leadership practice.

### Assessment

You might also ask for student teachers to share a scenario for each of the competency indicators:

- C 2.1. Demonstrate a thorough understanding of various instructional theories; and provide appropriate guidance to the teachers

- C 2.2. Demonstrate a thorough understanding of teaching methodologies appropriate to individual students' needs; and provide necessary guidance to the teachers
- C 2.3. Demonstrate a thorough understanding of various teaching learning strategies and resources; and provide guidance to the teacher
- C 2.4. Manage appropriate use of ICT in teaching and learning
- C 2.5. Ensure the use of different assessment strategies and activities as well as providing effective and timely feedback to support student learning
- C 2.6. Manage assessment processes and procedures systematically in regular monitoring of students' learning and achievement
- C 2.7. Organise teams to work on instructional innovations to improve students' learning outcomes.

**Possible student teachers' responses**

An example response is provided in Box TG 1.4.

**Box TG 1.4. Scenarios of effective school leadership practice – example**

| | |
|---|---|
| **Vignette 1:**<br><br>**Aligned standard(s)**<br><br>C 2.7. Organise teams to work on instructional innovations to improve students' learning outcomes | Principal Yi Yi convenes the Lower Middle school teaching team for a whole day workshop where they commence with a review students' learning and achievement records. From their review, the teaching team decide upon a small number of strategies that they believe may enhance teaching and learning. They believe that students will benefit from investment in diagnostic and formative assessment and an Ethnic Language Based-Multilingual Education approach. |

[See Box 1.8 in textbook.]

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Write the following lead on the board:

The role of school leaders in school-based management and improvement is….

Ask student teachers to respond in 2-3 sentences.

## 1.2.2. Teachers as leaders

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Explain concepts of distributed leadership and collective efficacy; and
- Outline the role and responsibilities of the teacher in school-based management and improvement.

### Competencies gained

B4.1.3 Seek colleagues' perspectives in attempting to respond to learning issues, and accept feedback positively

C1.1.2 Consistently express positive attitudes, values and behaviours, consistent with what is expected of teachers by students, colleagues, parents, and communities

C2.1.1 Contribute actively to a range of school and community activities

C2.1.2 Demonstrate model behaviour as a teacher serving and working in school and community responsibly and accountably

**Time**: Two periods of 50 minutes

**Learning strategies**

Learning activity 1. Practise scenarios: Teachers as leaders

Learning activity 2. Group discussion: Collective efficacy

Homework activity. Teacher interview: Role in school-based management and improvement

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 1.2.2.

**Resources needed**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

**Period 1**

**Teachers as leaders**

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 15 minutes |
| Learning activity 1 | 25 minutes |
| Check student teachers' understanding | 10 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the lesson.
   By the end of this lesson, student teachers will be able to:
   - Explain concepts of distributed leadership and collective efficacy.
2. Ask student teachers to write down what might be meant by 'distributed leadership' in the context of a school.
3. Select student teachers to share their responses with the class.
   *Possible response:* When leadership responsibilities are shared across a number of staff.
4. Direct student teachers to textbook section 'Distributed leadership'.
5. Highlight for student teachers that contemporary approaches to school-based management and improvement call for multiple groups of individuals to lead instructional and other change processes.
6. Explain that teachers influence leadership practices – sometimes to a greater extent than those who occupy formal leadership roles. Distributed leadership aligns with the notion of **teachers as leaders** or **teacher leaders.**
7. Ask student teachers to list ways in which teachers can be leaders in schools.
8. Select student teachers to share their responses with the class.
9. Record student teacher responses:
   *Possible responses:* Deans/subject or grade leaders; providing informal mentoring to a new graduate teacher; providing professional development for other teachers in an area of proficiency (ICT skills)
10. You might ask student teachers which of these roles/responsibilities are formally recognised – by way of a title (e.g., Dean) – and which are informal (e.g. providing informal mentoring).

### Learning activity 1. Practise scenarios: Teachers as leaders

| | |
|---|---|
| **Time** | 25 minutes |
| **Class organisation** | Groups of 4 |

**Purpose**

The purpose of this learning activity is for student teachers to reflect upon scenarios of teachers as leaders.

1. Instruct student teachers to form groups of 4.
2. Direct student teachers to Learning activity 1.
3. Instruct student teachers to discuss with their peers the scenarios presented in Box 1.9 'Scenarios of teachers as leaders' and reflect upon the following questions:
   a. How is the teacher showing leadership?
   b. What stakeholders are the teacher engaging with in the scenario?
   c. How might the teacher's actions have a positive impact on other teachers' practice?
   d. How might the teacher's actions have a positive impact on student learning?
4. Encourage student teachers to record group responses in Box 1.10.
5. Encourage group sharing.

**Assessment**

Walk around to each group and listen to group discussions.

**Possible student teachers' responses**

Possible responses for Scenario 3 are presented in Box TG 1.5.

## Box TG 1.5. Responses for selected scenario – completed

| | |
|---|---|
| **Scenario 3**[12]<br>  <br> | U Soe, staff sponsor of the Student Council, offers to help the principal engage students in the school's self-assessment processes according to the SAQSF. He arranges for student focus groups to be conducted to ascertain students' perspectives and experiences relating to their learning.<br><br>U Soe works with teachers on the School Quality Improvement Planning (SQIP) Committee to ensure that they have representation from students of all grade levels and diverse backgrounds. |

*Question:* How is the teacher showing leadership?

*Response:* U Soe is the staff sponsor of the Student Council. He has taken the initiative to approach the principal to say that he is willing to work with teachers to arrange student focus groups to ascertain students' perspectives and experiences relating to their learning.

*Question:* What stakeholders are the teacher engaging with in the scenario?

*Response:* Students, principal, and other teachers on the School Quality Improvement Planning (SQIP) Committee.

*Question:* How might the teacher's actions have a positive impact on other teachers' practice?

*Response:* Student feedback is one source of data that can be used to evaluate the effectiveness of teacher practice. The *SQASF* Operations Manual identifies interviews with students as a key source of evidence for schools to draw upon in the self-assessment processes. Importantly, U Soe works with teachers on the School Quality Improvement Planning (SQIP) Committee to ensure that they have representation from students of all grade levels and diverse backgrounds.

*Question:* How might the teacher's actions have a positive impact on student learning?

*Response:* An insight into how diverse students experience learning – their interests, challenges, preferences regarding the ways in which the like to learn – can inform teacher planning and school improvement initiatives.

[See Box 1.10 in textbook.]

12 Adapted from Harrison & Killion, (2007) . Image created for project.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

Ask student teachers to:

- reflect on the range of ways that teachers perform leadership functions in schools;
- review how the TSCF acknowledges the role of Lower Secondary teachers in school-based management and improvement; and
- direct student teachers to read section 'Teacher collaboration' (Lesson 1.2.2, Period 2) in textbook.

## Period 2

### Teacher as leaders

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 20 minutes |
| Learning activity 2 | 20 minutes |
| Check student teachers' understanding | 10 minutes |
| Homework activity | own time |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the lesson.
   By the end of this lesson, student teachers will be able to:
   - Explain concepts of distributed leadership and collective efficacy.
2. Direct student teachers to the textbook section, 'Collective efficacy'.
3. Highlight for student teachers that teachers working together to improve and investigate their practices enhances their sense of collective efficacy.
4. Write the term 'Collective efficacy' on the board.
5. Explain that the concept was introduced by Bandura, a North American psychologist, who defined it as a group's belief in its capacity to undertake actions to produce desired outcomes.
6. Add definition to term on board.
7. Ask student teachers to reflect on the time when they have felt the strongest sense of collective efficacy, describing the context and outcomes.
8. Select student teachers to share their experiences with the class.
9. Record details on board (can create a mind map) as per Figure TG 1.2.

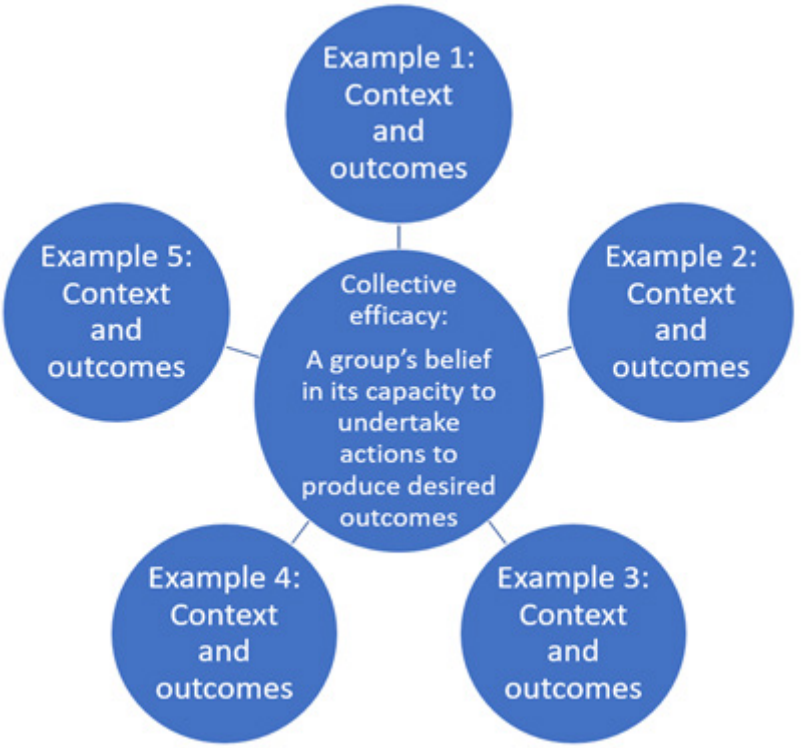



**Figure TG 1.2. Mind map of definition and student teachers' experiences of collective efficacy[13]**

13 Image by author, used with permission.

10. Highlight that a meta-analysis of factors impacting student learning outcomes, showed collective efficacy to be:
    - three times more predictive of student achievement than socio-economic status; and
    - more than triple the effect of home environment and parental involvement.
11. Explain to student teachers that collective efficacy is enhanced when:
    - teachers' instructional changes result in improved student learning; and
    - improvements can be evidenced in student learning and achievement data over time.

**Learning activity 2. Group discussion: Collective efficacy**

| | |
|---|---|
| **Time** | 20 minutes<br>10 minutes discussion<br>10 minutes sharing |
| **Class organisation** | Class divided into 3 groups<br>Whole class |

## Purpose

The purpose of this learning activity is for student teachers to reflect on the effect of teacher collective efficacy on student outcomes.

1. Instruct the class to divide into 3 groups.
2. Direct student teachers to Learning activity 2.
3. Assign the following discussion topics:
   Group 1: What is the likely impact of collective efficacy on school culture?
   Group 2: What is the likely impact of collective efficacy on teachers' practice?
   Group 3: What is the likely impact of collective efficacy on student learning?
4. Select two student teachers from each group to be the:
   - discussion facilitator (1)
   - discussion recorder/reporter (1).
5. Ask recorder/reporter from each group to share 3 key themes from their discussion.

**Assessment**

Walk around to different groups and support the discussion by indicators:

- asking student teachers to clarify statements;
- asking student teachers to elaborate on their statements or provide an example;
- paraphrasing student teachers' responses to allow other student teachers to contribute; and
- encouraging student teacher to student teacher interaction.

**Possible student teachers' responses**

Possible responses are presented in Box TG 1.6. The responses provided are based on a research article.[14]

**Box TG 1.6. Possible responses based on a research article**

*Question:* What is the likely impact of collective efficacy on school culture?

*Response:* Principals and teachers have:

- high expectations for student success;
- a shared language that focuses on student learning;
- a shared belief that it is their responsibility to:
  - solve problems of practice together and innovate
  - evaluate the effect of their practice on students' progress and achievement
- a shared belief of the relationship between teachers' practice and student outcomes; and
- an approach to their work characterised by persistence.

14 Donohoo, J., Hattie, J., & Eells, R. (2018).

*Question:* What is the likely impact of collective efficacy on teachers' practice?

*Response:* Teachers:

- collaborate with other teachers to participate in school improvement activities;
- ask students about their learning, progress, struggles, and motivation to learn;
- examine student evidence of learning through diagnostic, formative, and summative assessment; and
- determine if changes in classroom practice positively influenced student outcomes by reviewing evidence of student learning.

*Question:* What is the likely impact of collective efficacy on student learning?

*Response:* Students participate in:

- an approach to learning reflecting a belief that learning is about challenge (i.e., setbacks are an opportunity to learn), deep understanding, realising high expectations and investing energy in deliberate practice; and
- self-assessment and reflection on their own learning.

**Check student teachers' understanding**

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

Direct student teachers to textbook section, 'Homework activity. Teacher interview: Role in school-based management and improvement'.

**Homework activity. Teacher interview: Role in school-based management and improvement**

Explain to student teachers that the purpose of this homework activity is for them to investigate the role and responsibilities of the teacher in school-based management and improvement.

Select a student teacher to read out Standard 3.2 of the SQASF as follows:

People, including the principal, who are responsible for school leadership and management, support and delegate duties to teachers, school staff, parents and students.

Explain that in order for schools to undertake a self-assessment of their performance against this standard, the SQASF Operations Manual recommends that teachers are interviewed and asked questions, such as:

1. Are responsibilities delegated to teachers by the principal? If yes, what type of responsibilities are delegated?
2. How are responsibilities allocated?
3. What kinds of teams manage school improvement activities in the school?
4. What support do you receive to help you carry out these tasks?
5. How does the school support the welfare and wellbeing of teachers?

Instruct student teachers to use this schedule of questions to interview a teacher regarding how they contribute to school-based management and improvement at their school.

## 1.2.3. School-community relationships

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Map elements of a parent and community engagement framework for the Myanmar school context; and
- Explain the importance of parent and community participation in supporting students' learning and wellbeing, school improvement activities, and emergency efforts.

**Competencies gained**

A3.2.2 Be aware of social, linguistic and cultural background of parents, community elders and leaders when interacting with them

B4.1.2 Describe strategies to promote parents' involvement in their child's learning at school, at home and in the community

C1.1.2 Consistently express positive attitudes, values and behaviours, consistent with what is expected of teachers by students, colleagues, parents and communities

C1.3.1Show interest in and take time to learn about the students' culture, language and community

**Time:** Two periods of 50 minutes

**Learning strategies**

Learning activity 1. Reading and reflection: Parent and community engagement

Learning activity 2. Collective map: Parent and community engagement framework

Learning activity 3. Table of evidence: Parent and community participation

Learning activity 4. Role play: Awareness raising meeting

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 1.2.3.

## Resources needed

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: Flip chart paper and coloured marker pens

Learning activity 3: N/A (other than textbook, note paper, and pen)

Learning activity 4: N/A (other than textbook, note paper, and pen)

## Period 1

## School–community relationships

This period is structured as follows:

| | |
|---|---|
| Learning activity 1 | 25 minutes |
| Learning activity 2 | 20 minutes |
| Check student teachers' understanding | 5 minutes |

## Learning activity 1. Reading and reflection: Parent and community engagement

| | |
|---|---|
| **Time** | 25 minutes |
| **Class organisation** | Groups of 4 |

**Purpose**

The purpose of this learning activity is for student teachers to reflect upon the nature of parent and community engagement in the Myanmar school context by reading a policy excerpt and drawing upon their own experiences.

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Map elements of a parent and community engagement framework for the Myanmar school context.
2. Instruct student teachers to form groups of 4.
3. Direct student teachers to Learning activity 1.
4. Inform student teachers that Box 1.11 presents an excerpt from a 2020 Australian State Education policy document, which outlines the desired nature of schools' engagement with parents and the communities.
5. Instruct student teachers to read the excerpt together and reflect upon peers' personal experiences of parental and community engagement by responding to the following questions:
   a. How did your parents support your learning?
   b. What types of school activities did your parents participate in?
   c. What were your own experiences in working with community groups and other organisations in the context of a class or school activity?
6. After group discussion allow students time to complete Box 1.12. 'Responses relating to own experience' relating to their own experience.

**Assessment**

Walk around and listen to different groups' discussions.

**Possible student teachers' responses**

In this task, student teachers are required to reflect upon and share their own experiences. One student teacher's responses might be as presented in Box TG 1.7.

**Box TG 1.7. Responses relating to own experience – completed**

*Question:* How did your parents support your learning?

*Response:*

- My parents encouraged me to complete homework assignments and study hard for examinations.
- My mother was a teacher so she also assisted me in Mathematics, a subject area that I have found challenging given the way in which it was taught at school.
- She also supported me to enter District-level Myanmar essay competitions.

*Question:* What types of school activities did your parents participate in?

*Response:*

My parents attended:

- Parent-teacher meetings;
- School awards ceremonies; and
- School fun fairs, family days, and other seasonal events and celebrations.

They also participated in school improvement activities, including improvement of school buildings, facilities, and grounds.

*Question:* What were your own experiences in working with community groups and other organisations in the context of a class or school activity?

*Response:*

I participated in:

- a water, sanitation, and hygiene project, supported by UNICEF;
- school health visits, run by the government or the Red Cross;
- talks conducted by the Myanmar Police on road safety and NGOs on drug awareness; and
- sporting competitions run by the Ministry of Health and Sports/Township Sports Office.

[See Box 1.12 in textbook.]

## Learning activity 2. Collective map: Parent and community engagement framework

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Groups of 4 |

### Purpose

The purpose of this learning activity is for student teachers to collectively map elements of a parent and community engagement framework for the Myanmar school context.

1. Instruct student teachers to remain in their groups of 4.
2. Distribute flip chart paper.
3. Direct student teachers to Learning activity 2.
4. Inform student teachers that they will be drawing on the experiences that were shared in the first activity to map strategies for one element of a whole school parent and community engagement framework.
5. Assign elements and distribute coloured markers (according to element) across groups; for instance, if the class had 15 groups of 4 (i.e., a total of 60 students), you would assign as per Table TG 1.6.

**Table TG 1.6. Possible responses based on a research article**

| Groups | Assign the following element: How will the school: | Distribute coloured markers: |
|---|---|---|
| 1, 6 and 11 | Involve parents in *students' learning?* | Red |
| 2, 7 and 12 | *Communicate* with parents and community partners? | Green |
| 3, 8 and 13 | Promote parent and community participation in school *decision-making and improvement processes?* | Blue |
| 4, 9 and 14 | Create an *inclusive school culture?* | Black |
| 5, 10 and 15 | *Maintain and build relationships* with community partners? | Purple |

6. Instruct student teachers to map out the strategies that schools might employ for their assigned area of engagement.
7. Highlight for student teachers that they have been provided examples for each element of the parent and community engagement framework.

8. Ask groups to display their flip charts on the walls in five dedicated sections of the classroom.

**Assessment**

Allow time for students to view and discuss proposed strategies.

**Possible student teachers' responses**

Involve parents in ***students' learning*** – e.g., ask parents to participate in classroom lessons:

- as guest speakers (sharing local and personal histories)
- as guest experts (cultural dance and music, agricultural studies).

***Communicate*** with parents and community partners – e.g., set up a Parent and Community Facebook page where:

- upcoming events can be promoted
- sharing of past events through photographs and vignettes.

Promote parent and community participation in ***school decision-making and improvement processes*** – e.g., ensure that there is diverse representation of parents on:

- Parent Teacher Association (PTA)
- School Quality Improvement Planning (SQIP) Committee.

Create an ***inclusive school culture*** – e.g., adopt a teaching approach that is:

- bi-lingual
- culturally responsive.

***Maintain and build relationships*** with community partners – e.g., invite existing and potential partners to participate in school events.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to reflect on their 'collective map' of a parent and community engagement framework, displayed on the classroom walls.

You might ask questions like:

1. What strategies are likely to be most effective in terms of engaging and communicating with parents and community?
2. Are there any elements in the parent and community engagement framework that are more important than others?
3. Are there any elements that are missing from the framework?

## Period 2

## School–community relationships

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 5 minutes |
| Learning activity 3 | 20 minutes |
| Learning activity 4 | 15 minutes |
| Check student teachers' understanding | 10 minutes |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:

- Explain the importance of parent and community participation in supporting students' learning and wellbeing, school improvement activities, and emergency efforts.

2. Ask student teachers: What should be the focus of parent and community participation in schools?
   *Response:* Improving student learning and wellbeing outcomes.
3. Direct student teachers to textbook section, 'Parent and community participation'.
4. Inform student teachers that the SQASF[15] outlines three standards against which schools are to undertake a self-assessment of their performance in the dimension of 'Parent and Community Participation':
   6.1 PTA members participate in school improvement and planning activities
   6.2 Parents and family members actively support students' learning
   6.3 The local community cooperates with schools in emergencies.

**Learning activity 3. Table of evidence: Parent and community participation**

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Groups of 3 |

**Purpose**

The purpose of this learning activity is for student teachers to consider the types of evidence that schools may use to undertake a self-assessment of performance in the dimension of 'Parent and Community Participation'.

1. Instruct student teachers to form groups of 3.
2. Direct student teachers to Learning activity 3.
3. Instruct student teachers to:
   - discuss each of the standards relating to the dimension of 'Parent and Community Participation' ;and
   - identify sources of evidence that schools may use in undertaking a self-assessment of performance.
4. Highlight for student teachers that evidence may comprise both:

15 DBE. (2019a).

- review of records
- observations.

5. Inform student teachers that examples for each standard and type of evidence have been provided for them in Table 1.10. 'Evidence for 'Parent and Community Participation''.
6. Encourage groups to assign one standard to each student:
   - Standard 6.1 Student 1
   - Standard 6.2 Student 2
   - Standard 6.3 Student 3.
7. Select student teacher to share responses with class.

### Assessment

Document responses on board. You might draw the table on the board to record responses.

### Possible student teachers' responses

Possible responses are presented in Table TG 1.7.

**Table TG 1.7. Completed – evidence for schools' self-assessment of 'Parent and Community Participation'**

| 'Parent and Community Participation' standards | Evidence for schools to review | |
|---|---|---|
| | Records | Observations |
| 6.1 PTA members participate in school improvement and planning activities | • PTA meeting minutes<br>• School Quality Improvement Plan (SQIP)<br>• PTA member list to ensure diverse representation | • Information regarding PTA decisions on parent information display boards<br>• Meeting in progress to observe decision-making processes |
| 6.2 Parents and family members actively support students' learning | • Parent/teacher meeting records<br>• Parent attendance records at SQIP meetings | • Parents assisting in the classroom (e.g., teaching traditional arts, crafts, dance)<br>• Parents participating in school improvement activities (contributing to the building of specialist learning facilities e.g., library annex) |
| 6.3 The local community cooperates with schools in emergencies | • Community attendance records at awareness raising activities<br>• Records of community volunteers involved in emergency drills | • Emergency procedures and plans on public display<br>• Emergency drill in progress |

[See Table 1.10 in textbook.]

## Learning activity 4. Role play: Awareness raising meeting

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Groups of 6 |

### Purpose

The purpose of this learning activity is for student teachers to understand the importance of parent and community participation in students' learning and schooling.

1. Instruct students to form groups of 6 (i.e., one group of 3 joins with another group of 3)
2. Direct student teachers to Learning activity 2.
3. Instruct groups to loosely script dialogue for and role play an awareness raising meeting where the school (either principal or teacher) is informing parents and community partners:
   - how they can become involved in supporting:
     - students' learning and wellbeing
     - school improvement activities or
     - school emergency efforts; and
   - why their participation is important in the selected context.

### Assessment

Groups will have opportunity to perform their role plays for another group.

### Possible student teachers' responses

Student teachers' responses will be varied.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Group of 6 role playing for another group of 6 |

Instruct two groups of 6 to find their own space in the classroom (or immediately outside the classroom if that is appropriate).

Inform student groups that they have 5 minutes each to present their role play to the other group.

Direct student teachers to review questions for sub-unit.

**Expected student teachers' responses for the review questions in TB**

Question 1: What is school-based management and improvement?

Answer: *School-based management and improvement requires a shift of control from Central Office to schools. This shift is being supported through Myanmar's new SQASF and SQIP, the objectives of which are to:*

- *decentralise control and promote decision-making within the school;*
- *increase the involvement of parents and communities in school management;*
- *develop the capacity of staff, including principals and teachers; and*
- *strengthen ongoing monitoring and evaluation within the school.*

Question 2: Why is instructional leadership and distributed leadership important in contemporary approaches to school-based management and improvement?

Answer: *Contemporary approaches to school-based management and improvement call for distributed leadership where multiple groups of individuals, including teachers, lead instructional and other change processes. Effective instructional leadership is essential because enhancing the quality of teaching and student learning needs to be at the heart of school improvement activities.*

Question 3: How can a sense of collective efficacy be promoted in teachers? What is its impact on school culture, teacher practice, and student learning?

Answer: *Collective efficacy is enhanced when teachers:*

- *learn from each other within their own practice contexts, through activities, such as peer observation and feedback, coaching and mentoring, team teaching, joint research projects; and*
- *instructional changes result in improvements in student learning, which can be evidenced in student assessment data.*

*Collective efficacy is reflected in principals and teachers having:*

- *high expectations for student success;*
- *a shared language that focuses on student learning;*
- *a shared belief that it is their responsibility to:*
  - *solve problems of practice together and innovate*
  - *evaluate the effect of their practice on students' progress and achievement;*
- *a shared belief of the relationship between teachers' practice and student outcomes.*

Question 4: How can parents and community partners be engaged in supporting student learning and wellbeing?

Answer: *Parents and community partners can support student learning and wellbeing through:*

- *participating in classroom lessons as guest speakers and experts;*
- *participating as PTA and SQIP Committee members;*
- *participating in school improvement activities; and*
- *cooperating with schools in emergencies.*

# Unit Summary

**Key messages**

- A teacher needs to be able to establish goals for their professional learning so that they can continually build the knowledge and understanding, skills, and dispositions to improve their practice over their professional career.
- A professional learning community is created when a group of professionals:
  - investigate practice to improve student learning outcomes;
  - participate in decision-making informed by evidence;
  - pilot and adapt new strategies for improvement; and
  - are accountable and responsible for the impact of their collective efforts.
- An education system can be viewed as:
  - An *open and social system*, which interacts with a constantly changing environment; enacts transformational processes; and, in turn, impacts on its environment.
  - A *social institution* that serves the needs of society and drives social change.
- Formal learning, informal learning, and non-formal learning are complementary in a lifelong and lifewide learning framework.
- A humanistic and holistic approach to education goes beyond a narrow focus on economic promotion and integrates all dimensions of human existence, including development of civic skills, human talents and interests and equity and social inclusion.
- 21st century learning needs to be:
  - meaningful and relevant (i.e., developing a highly valuable skill set)
  - active, interactive, and collaborative
  - personalised, accessible, and technology enabled.
- Key learnings from the COVID-19 pandemic are that:
  - Teachers need the skills and knowledge and technological system support to implement effective pedagogical practices in new modes of delivery;
  - School leaders and teachers are best placed to select an appropriate and targeted response to learning design; and
  - Involvement of parents/caregivers in the home is important during periods of remote learning.

- School-based management and improvement requires a shift of control from Central Office to schools.
- Contemporary approaches to school-based management and improvement call for distributed leadership where multiple groups of individuals, including teachers, lead instructional and other change processes.
- Effective instructional leadership is essential because enhancing the quality of teaching and student learning needs to be at the heart of school improvement activities.
- Collective efficacy is enhanced when teachers:
  - learn from each other within their own practice contexts, through activities, such as peer observation and feedback, coaching and mentoring, team teaching, joint research projects; and
  - instructional changes result in improvements in student learning, which can be evidenced in student assessment data.
- A parent and community engagement framework includes:
  - involving parents in students' learning;
  - communicating with parents and community partners;
  - promoting parent and community participation in school decision-making and improvement processes;
  - creating an inclusive culture; and
  - maintaining and building relationships with community partners.

**Unit reflection**

**Task 1**

Building resilience in education systems is especially important so that individuals, schools, communities, and institutions develop the capacities necessary to maintain safe, relevant, equitable education opportunities and learning outcomes for all students.[16]

Draw together the key themes of this unit to map the elements of an inclusive, resilient, and self-improving education system.

16 Shivshanker, A., & Weisenhorn, N. (2020).

**Task 2**

In the homework activity (from Lesson 1.2.2, Period 2), you interviewed a teacher to find out how they contribute to school-based management and improvement at their school, using a schedule of questions directly taken from the *SQASF Operations Manual.*[17]

Document the teacher's responses to the interview questions.

Reflect on the teachers' responses to discuss the role of the teacher in building inclusive, resilient, and self-improving education systems (in 3 paragraphs).

This reflection may reference relevant Teacher Competency Standards and be incorporated in your developmental ePortfolio.

**Further reading**

**1.1. Education in the 21st century**


Cowden, G., Mitchell, P., & Taylor-Guy, P. (2020). *Remote learning: Rapid literature review.* Association of Independent Schools NSW & Australian Council for Educational Research. https://doi.org/10.37517/978-1-74286-610-9

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Department Education and Training. (n.d.). *Professional learning communities maturity matrix.* Victorian State Government. https://www.education.vic.gov.au/Documents/school/teachers/management/improvement/plcmaturitymatrix.pdf


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United Nations. (2020). *Policy brief: Education during COVID-19 and beyond.* https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg_policy_brief_covid-19_and_education_august_2020.pdf

### 1.2. Effective Schools and Key Agencies of Education

Australian Institute for Teaching and School Leadership. (2017). *The essential guide to professional learning: Collaboration.* https://www.aitsl.edu.au/tools-resources/resource/the-essential-guide-to-professional-learning-collaboration

Donohoo, J., Hattie, J., & Eells, R. (2018). The power of collective efficacy. *Educational Leadership, 75*(6), 40–44. http://www.ascd.org/publications/educational-leadership/mar18/vol75/num06/The-Power-of-Collective-Efficacy.aspx

# Unit 2

# Pedagogical Theory and Practice

In this unit, student teachers will consolidate understanding of integrating technology into teaching practice. They will use the TPACK framework to analyse practice and make purposeful connections between the affordances of technology and its integration in teaching and learning. Student teachers will examine literature-informed models of inquiry-based and problem-based learning. They will explore strategies to support middle school students' skills development and engagement in inquiry-based and problem-based learning. Student teachers will consolidate and apply understanding of lifespan development in the design of a learning activity for the lower middle school. Finally, they will further examine the literature on culturally responsive pedagogy and Ethnic Language Based–Multilingual Education (ELB–MLE). Student teachers will identify strategies to access cultural and community knowledge in support of learning in the Middle school setting.

**Expected learning outcomes**

**By the end of this unit, student teachers will be able to:**

- Demonstrate an understanding of the Technological Pedagogical Content Knowledge (TPACK) framework;
- Use the TPACK framework to analyse teaching practice with technology;
- Outline opportunities for technology integration across the Lower Middle school curriculum given available technologies in Myanmar;
- Plan for technology integration across a lesson sequence;
- Use the TPACK framework to identify and understand strengths, weaknesses, and opportunities for developing knowledge of good practice with technology;

- Identify core features of inquiry-based learning models;
- Explain how explicit teaching and scaffolding of skills supports inquiry-based learning;
- Reflect on stimuli to consider the role of the teacher and student in inquiry-based learning;
- Discuss the benefits of problem-based learning;
- Explain steps in the planning process for problem-based learning;
- Outline problem-based learning scenarios appropriate for the Myanmar Middle school;
- Undertake preliminary planning for problem-based learning in the Middle school;
- Reflect on core ideas of foundational theories relating to students' cognitive, physical, social, and emotional development in the Lower Middle school;
- Apply understanding of lifespan development to design a learning activity for the Lower Middle school classroom;
- Discuss the challenges of teaching in culturally and linguistically diverse classrooms;
- Scope a Lower Middle School teaching and learning sequence that draws upon cultural knowledge and community settings; and
- Outline strategies for engaging parents in their children's learning in the Lower Middle School.

**Competencies gained**

A1.1 Demonstrate understanding of how students learn relevant to their age and developmental stage

A1.2 Demonstrate understanding of how different teaching methods can meet students' individual learning needs

A2.1 Demonstrate understanding of appropriate use of a variety of teaching and learning strategies and resources

A2.2 Demonstrate understanding of appropriate use of Information and Communication Technology (ICT) in teaching and learning

A3.2 Demonstrate respect for the social, linguistic, and cultural diversity of the students and their communities

A5.1 Demonstrate understanding of the subject matter to teach the assigned subject/s for the specified grade level/s

A5.2 Demonstrate understanding of how to vary delivery of subject content to meet students' learning needs and learning context

B1.1 Demonstrate capacity to teach subject-related concepts clearly and engagingly

B1.2 Demonstrate capacity to apply educational technologies and different strategies for teaching and learning

B1.3 Demonstrate good lesson planning and preparation in line with students' learning ability and experience

B3.1 Demonstrate capacity to create a safe and effective learning environment for all students

B4.1 Demonstrate strategies for working together with other teachers, parents, and the local community to improve the learning environment for students

C1.2 Demonstrate understanding of the underlying ideas that influence one's practice as a professional teacher

C1.3 Demonstrate understanding of the possible effect of local culture and context on student participation in school

C3.1 Demonstrate a high regard for each student's right to education and treat all students equitably

D3.1 Demonstrate understanding of the importance of inquiry and research-based learning to improve teaching practice

# 2.1. Consolidating Understanding of TPACK

In this sub-unit, student teachers will consolidate their understanding of the Technological Pedagogical Content Knowledge (TPACK) framework and how it supports effective teaching with technology. Student teachers will use the TPACK framework to analyse the practice of teachers using technology and make purposeful connections between the affordances of technology and its use in teaching and learning. Finally, student teachers will examine how the TPACK framework can be used to understand their own strengths and weaknesses and opportunities for developing their knowledge of teaching with technology throughout their teaching career.

## 2.1.1. Technology integration across the curriculum

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Demonstrate an understanding of the Technological Pedagogical Content Knowledge (TPACK) framework;
- Use the TPACK framework to analyse teaching practice with technology;
- Outline opportunities for technology integration across the lower middle school curriculum given available technologies in Myanmar;
- Plan for technology integration across a lesson sequence; and
- Use the TPACK framework to identify and understand strengths, weaknesses and opportunities for developing knowledge of good practice with technology.

**Competencies gained**

A2.2.1 Describe the function and purpose of online and offline educational tools and materials to support the teaching and learning process

A2.2.2 Evaluate and match available online and offline ICT tools and materials to curriculum content and pedagogical strategies, including online and offline

B1.2.3 Create opportunities for students to investigate subject-related content and concepts through practical activities

C1.2.1 Identify theories and concepts that inform approaches to teaching and learning

**Time:** Four periods of 50 minutes

**Learning strategies**

Learning activity 1. Matching task: TPACK definitions

Learning activity 2. Scenario: Contrasting CK, PCK and TPACK

Homework activity. View: TPACK in 2 minutes

Learning activity 3. Matching task: TPK, TCK and PCK

Learning activity 4. Analysis: Analyse teaching practice using TPACK

Learning activity 5. Brainstorm: Technology affordances

Learning activity 6. Mind map: Technology integration for a teaching unit

Homework activity. Lesson plan: Water cycle

Learning activity 7. Self-reflection: TPACK self-report survey

Learning activity 8. Goal setting: TPACK development goals

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 2.1.1.

**Resources needed**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

Learning activity 3: N/A (other than textbook, note paper, and pen)

Learning activity 4: N/A (other than textbook, note paper, and pen)

Learning activity 5: Flip chart paper and markers for students

Learning activity 6: Flip chart paper and markers for students

Learning activity 7: N/A (other than textbook, note paper, and pen)

Learning activity 8: N/A (other than textbook, note paper, and pen)

**Period 1**

**Integrating technology across the curriculum**

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 10 minutes |
| Learning activity 2 | 25 minutes |
| Check student teachers' understanding | 5 minutes |
| Homework activity | own time |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Present learning outcome for the period (written on board):
   By the end of this period, you will be able to:
   - Demonstrate understanding of the Technological Pedagogical Content Knowledge (TPACK) framework.
2. Direct student teachers to the textbook section, 'Understanding the TPACK framework'.
3. Inform student teachers that they were introduced to PCK in Year 1 and review the definition provided in the textbook.
4. Inform student teachers that they were introduced to TPACK in Year 2.
5. Highlight how TPACK extends PCK by adding a third area of knowledge: Technological Knowledge.
6. Draw student teachers' attention to Figure 2.2 in the textbook. Highlight how the three areas of knowledge (Technological Knowledge, Pedagogical Knowledge and Content Knowledge) combine to describe the seven TPACK components.
7. Draw students' attention to how the addition of Technological Knowledge creates three new technology related forms of integrated knowledge:
   - **Technological Content Knowledge** or **TCK** – Knowledge of what technologies are best suited to teaching particular content and how particular content interacts with the technology;
   - **Technological Pedagogical Knowledge** or **TPK** – Knowledge of what technologies are best suited to particular pedagogical approaches and how teaching and learning can change when technologies are used; and
   - **Technological Pedagogical Content Knowledge** or **TPACK** – At the centre of the TPACK, diagram is a form of knowledge that combines all three forms of knowledge. TPACK is the knowledge of how to use particular technologies effectively to teach particular content to particular learners in context.

### Learning activity 1. Matching task: TPACK definitions

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Individual |

## Purpose

The purpose of this learning activity is for student teachers to refresh their understanding of the seven components described in the TPACK diagram.

1. Instruct the student teachers to read through the definitions below Table 2.1.
2. Ask them to match each one to one of the TPACK components in the table. Student teachers should write the definitions in the space provided.
3. Instruct the student teachers to check their answers with another student and discuss if there are any differences.
4. Write each of the TPACK component names on the board.
5. With the whole class, read each TPACK component name in turn and call on student teachers to provide the definition. Write the correct definition on the board next to the component name.

## Assessment

You will be able to assess understanding when you select student teachers to share responses with class.

## Correct student teacher's responses

Correct responses are presented in Table TG 2.1.

**Table TG 2.1. Seven TPACK components – completed**

| Concept | Definition |
|---|---|
| Pedagogical Knowledge | Knowledge of teaching and learning approaches, strategies and methods |
| Content Knowledge | Knowledge of a subject's content, which includes the knowledge and skills of the subject area |
| Technological Knowledge | Knowledge of, and proficiency in, a range of technological tools and resources |
| Pedagogical Content Knowledge | Knowledge of how to teach content to students through approaches, strategies and methods that enhance student learning |
| Technological Content Knowledge | Knowledge of how technology can be used to provide new and engaging ways of teaching content and support students' understanding of complex content |
| Technological Pedagogical Knowledge | Knowledge of how technology can be used effectively in teaching and learning |
| Technological Pedagogical Content Knowledge | Knowledge of how to navigate the relationship between content, pedagogy and technology in particular teaching and learning contexts |

[See Table 2.1 in textbook.]

## Learning activity 2. Scenario: Contrasting CK, PCK and TPACK

| | |
|---|---|
| **Time** | 25 minutes |
| **Class organisation** | Pairs |

### Purpose

The purpose of this learning activity is for student teachers to refresh their understanding of PCK and TPACK and how they differ from Content Knowledge (CK).

1. Instruct the student teachers to work in pairs.
2. Instruct the student teachers to read the scenario in textbook Box 2.1.
3. Once the student teachers have finished reading the scenario, draw their attention to the questions:
   a. What are some things that both Daw Marlar and U Kyaw Kyaw know about Myanmar? For example, *They both know a lot of Myanmar vocabulary*.
   b. What is something that Daw Marlar needs to know about Myanmar that U Kyaw Kyaw doesn't need to know? What is something that U Kyaw Kyaw knows that Daw Marlar doesn't need to know? For example, *Daw Marlar knows which key words to introduce to beginner writers.*
   c. What kind of learning is Daw Marlar trying to encourage by using document sharing as an instructional technique?
   d. Think of an activity using document sharing that Daw Marlar might use to help middle school students learn Myanmar.
4. Instruct the student teachers to discuss each of the questions with their partner and write down two to three short responses. Tell them that they have about 10 minutes to complete this task.
5. When the student teachers have written responses for each question, instruct them to consider their answers and label each one with one of the TPACK component names: CK, PCK or TPACK. Tell them to review the definitions from Learning task 1 if they need to. Tell them that they have about 5 minutes to complete the task.
6. When student teachers have finished, call on pairs to provide their answers to each question and what kind of TPACK knowledge (CK, PCK, TPACK) they

are describing. Make a note of their answers on the board. Ask for other examples from other student teachers.

**Assessment**

You will be able to assess understanding when you select student teachers to share responses with class.

**Possible student teachers' responses**

1. What are some things that both Daw Marlar and U Kyaw Kyaw know about Myanmar?
   *They can both read and write Myanmar. (CK)*
   *They both know a lot of Myanmar vocabulary. (CK)*
   *They are both expert in Myanmar grammar. (CK)*
2. What is something that Daw Marlar needs to know about Myanmar that U Kyaw Kyaw doesn't need to know? What is something that U Kyaw Kyaw knows that Daw Marlar doesn't need to know?
   *Daw Marlar knows which key words to introduce to beginner writers. (PCK)*
   *Daw Marlar knows how to teach children to write Myanmar script. (PCK)*
   *Daw Marlar knows the common errors that children make and how to correct them. (PCK)*
   *U Kyaw Kyaw knows how to structure a novel.*
   *U Kyaw Kyaw knows how to write an exciting introductory paragraph to a novel.*
   *U Kyaw Kyaw knows how to write in a way that holds the reader's attention for a long time.*
3. What kind of learning is Daw Marlar trying to encourage by using document sharing as an instructional technique?
   *Collaboration, peer to peer learning*
4. Think of an activity using document sharing that Daw Marlar might use to help Middle school students learn Myanmar.
   *Students work together to create a presentation on 'My favourite book' by each adding their own slide. (TPACK)*
   *Students make comments on each other's first draft of a story. (TPACK)*
   *Daw Marlar keeps a log of effective literacy teaching activities and shares it with the other teachers in her school. (TPACK)*

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Draw three overlapping circles on the whiteboard.

Ask the student teachers to name the three base knowledge types (Technological Knowledge, Content Knowledge and Pedagogical Knowledge). Write them in the circles as the student teachers name them.

Draw a line from the intersection of Pedagogical Knowledge and Content Knowledge. Ask the student teachers to name this knowledge type (Pedagogical Content Knowledge). Write it on the board.

Draw a line from the intersection of Pedagogical Knowledge and Technological Knowledge. Ask the student teachers to name this knowledge type (Technological Pedagogical Knowledge). Write it on the board.

Draw a line from the intersection of Content Knowledge and Technological Knowledge. Ask the student teachers to name this knowledge type (Technological Content Knowledge). Write it on the board.

Draw a line from the centre of the diagram. Ask the student teachers to name this knowledge type (Technological Pedagogical Content Knowledge). Write it on the board.

Draw a dotted line around the whole diagram. Ask the student teachers what this line is called (Context). Write it on the board.

You will be able to assess understanding when the student teachers' call out the names of the TPACK knowledge types.

The correct response is presented in Figure TG 2.1.

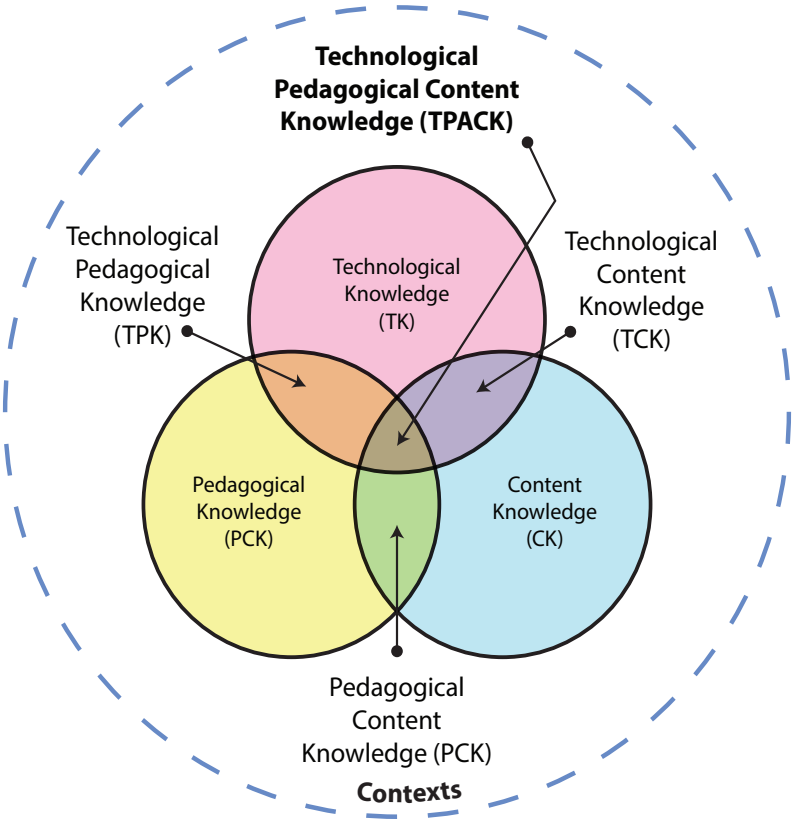



**Figure TG 2.1. The TPACK framework[18]**

## Homework activity. View: TPACK in 2 minutes

Explain to student teacher that the purpose of this homework activity is for them to consolidate their understanding of TPACK and its seven components.

18 Image: Reproduced by permission of the publisher, © 2012 tpack.org.

Instruct student teachers to watch the following YouTube video:

Video: TPACK in 2 minutes

URL:https://www.youtube.com/watch?v=FagVSQlZELY[19]

Scan QR Code to watch the video on YouTube. This video has captions that enable you and your student teachers to read the text while viewing the video. Turn on where you see CC.

Instruct student teachers to write down the names of the seven TPACK components and a definition of each in their own words.

You will be able to assess understanding when you read the student teachers' written responses. Provide feedback on definitions where needed.

## Period 2

### Integrating technology across the curriculum

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 3 | 10 minutes |
| Learning activity 4 | 25 minutes |
| Check student teachers' understanding | 5 minutes |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

19 Candace, R. (2013).

1. Present learning outcomes for the period (written on board):
   By the end of this period, you will be able to:
   - Demonstrate an understanding of the Technological Pedagogical Content Knowledge (TPACK) framework; and
   - Use the TPACK framework to analyse teaching practice with technology.
2. Direct student teachers to the textbook section, 'Using TPACK to Explore Practice'.
3. Draw student teachers' attention to the key insight of TPACK:
   - For teachers to use technology effectively they must learn to integrate technology with knowledge of content and pedagogy rather than learn about technology separately.
4. Draw student teachers' attention to Table 2.2.
5. Read through each TK/TPACK pair in the table. For example, *we use Technological Knowledge to install software on the class computer; we use TPACK to choose a mathematics game to install on the class computer to support the practice phase of the lesson*.
6. Ask the student teachers to comment on the difference between each pair, for example, *the teacher installed the software in order to help the students learn mathematics.*
7. Introduce the idea of using TPACK to analyse teaching practice.
8. Explain that this is one way that we can use the TPACK framework to think about effective teaching with technology and understand how to develop good practice.

### Learning activity 3. Matching task: TPK, TCK and PCK

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Individual/in pairs |

**Purpose**

The purpose of this learning activity is for student teachers to consolidate understanding of three key TPACK concepts: Technological Pedagogical Knowledge (TPK), Technological Content Knowledge (TCK) and Pedagogical Content Knowledge (PCK).

1. Tell the student teachers to read the introduction to Learning activity 3 in the textbook.

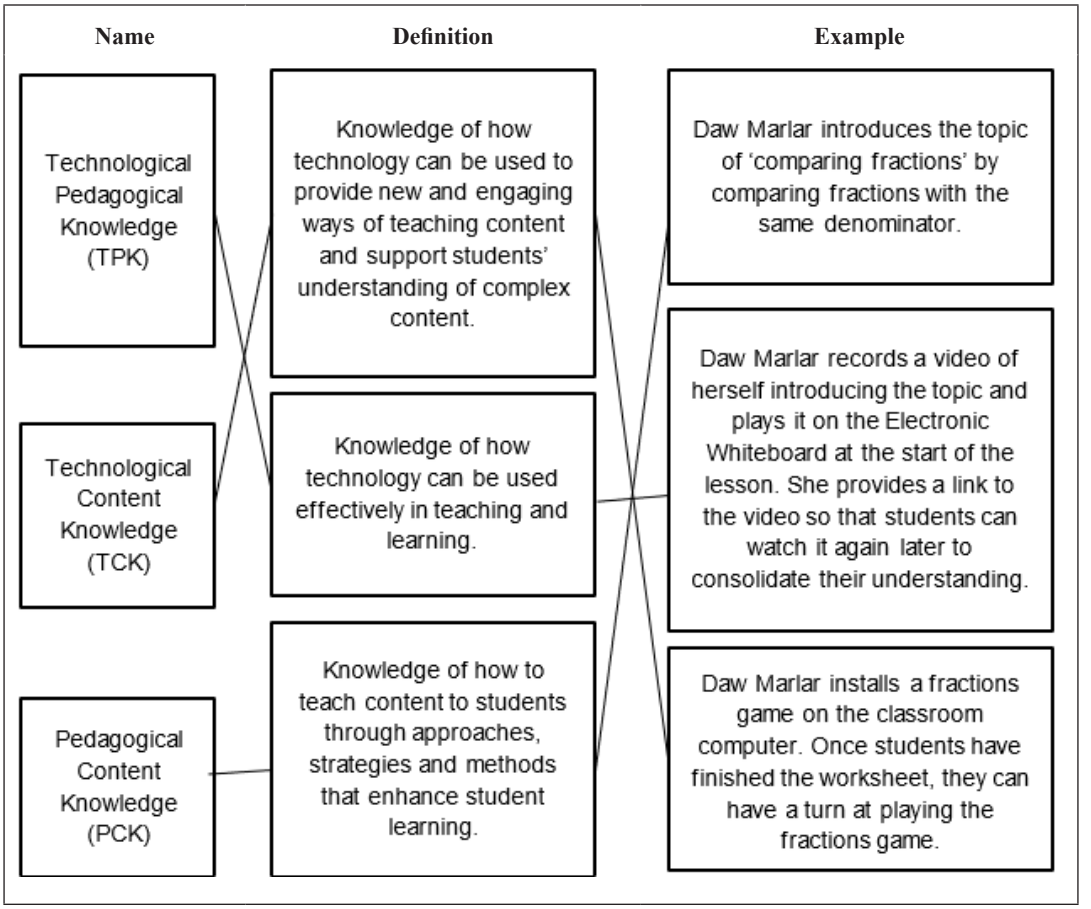
2. Tell the student teachers that this learning activity will help them consolidate their understanding of three key TPACK concepts: TPK, TCK and PCK.
3. Instruct the student teachers to read through the lists of names, definitions and examples in Figure 2.3. Tell the student teachers that the content in Figure 2.3 is not in correct order.
4. Instruct the student teachers to work alone to draw a line connecting a name, its definition, and an example.
5. Instruct the student teachers to compare their responses with a partner. Discuss any differences.
6. Tell the student teachers to work with their partner to think of one more example of each type of knowledge.
7. Call on a pair of student teachers to read out one of the TPACK component names, its definition and example.
8. Call on other pairs to provide an additional example.
9. Repeat for the other two knowledge types.

**Assessment**

You will be able to assess understanding when you select student teachers to share responses with class.

## Correct student teachers' responses

The correct responses are presented in Figure TG 2.2.




[See Figure 2.3 in textbook.]

**Figure TG 2.2. TPACK Matching Task[20] –completed**

20 Illustration by author, used with permission.

## Learning activity 4. Analysis: Analyse teaching practice using TPACK

| | |
|---|---|
| **Time** | 25 minutes |
| **Class organisation** | In pairs |

### Purpose

The purpose of this learning activity is for student teachers to use the TPACK framework to analyse teaching practice and understand the kinds of knowledge that underpins effective teaching with technology.

1. Instruct the student teachers to read the scenario in Box 2.2 in their Textbook.
2. Instruct the student teachers to work in pairs to highlight phrases in the scenario that describe practices underpinned by the kinds of knowledge described in the TPACK framework.
3. Tell the student teachers to use the letter codes of the seven TPACK components (TK, PK, CK, PCK, TCK, TPK, and TPACK) to label the highlighted practices.
4. Demonstrate what the student teachers are to do by telling them to highlight the phrase 'teaching a lesson on the water cycle' in the first sentence and then asking the student teachers which TPACK component represents this kind of knowledge. Student teachers might answer PK, CK or PCK. Ask them to explain their answer.
5. Tell the students to continue highlighting and labelling the rest of the scenario.
6. Once the student teachers have highlighted and labelled the scenario, tell them to review the labelled examples they have identified and, in one or two sentences, write a description of how the teacher used TPACK to select and use technology to teach this lesson.
7. Call on some of the pairs to read their description of the teacher's TPACK and give some examples of highlighted sections and their labels. Discuss any differences, e.g., is this PK or PCK? Why?

### Assessment

You will be able to assess understanding when you select student teachers to share responses with class.

**Possible student teachers' responses**

Possible responses are presented in Box TG 2.1.

**Box TG 2.1. The water cycle – completed**

PCK PK
Thura is teaching a lesson on the water cycle. He starts by writing the lesson objective on the
PK
board to understand the stages of the water cycle. He then writes some key words and
PCK
phrases on the board: evaporation; condensation; water vapour, precipitation; run off.
TPACK
Previously, Thura has downloaded a short, animated video demonstrating the water cycle

onto the class computer from the Internet. The students watch the animation. Thura knows
TPK
this is an effective way of introducing topics and reinforcing understanding of key concepts.

In particular, he knows that it will be an effective and engaging way of introducing the key
TPK
concepts and terminology of the water cycle as the animation combines a range of visual,

audio and written information. After the animation is finished, Thura puts a poster of the
PK
water cycle on the board. He asks students to come up to the board and label each part with
PK
one of the key terms. He asks the students different kinds of questions to check their

understanding of the concepts. He takes the poster down and then asks the students to draw a
PCK
picture of the water cycle in their notebooks. If students are unsure, they can watch the
TPACK
animation on the class computer again and then complete their drawing.

[See Box 2.2 in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to consider the key insight of TPACK: For teachers to use technology effectively they must learn to integrate technology with knowledge of content and pedagogy rather than learn about technology separately.

Ask them to write down one example of learning to use some technology separately and one example of learning to integrate technology with knowledge of pedagogy and/or content. For example, *Learning how to use cut and paste in Microsoft Word (separate)/Learning how to Microsoft Word to create a student worksheet (integrated)*.

Call on students to read out their answers.

You will be able to assess understanding when you select student teachers to share responses with class.

*Possible responses:*

Learning how to use cut and paste in Microsoft Word (separate)/ Learning how to use Microsoft Word to create a student worksheet (integrated).

Learning how to use Google to do an internet search (separate)/Learning how to teach students to use Google to research information for a project (integrated).

Learning how to take a photo with an iPhone (separate)/Learning how to use photos taken with an iPhone to illustrate a worksheet (integrated).

## Period 3

### Integrating technology across the curriculum

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 15 minutes |
| Learning activity 5 | 15 minutes |
| Learning activity 6 | 15 minutes |
| Check student teachers' understanding | 5 minutes |
| Homework activity | own time |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Present learning outcomes for the period (written on board):
   By the end of this period, you will be able to:
   - Outline opportunities for effective technology integration across the Lower Middle school curriculum given available technologies in Myanmar; and
   - Plan for technology integration across a lesson sequence.
2. Direct student teachers to the textbook section, 'Using TPACK in Developing Practice'.
3. Remind student teachers of the key insight of TPACK:
   - that learning to integrate knowledge of technology with pedagogical and content knowledge will lead to better teaching practice than learning about technology separately.
4. Introduce the concept of an affordance.
   **Affordance:** the quality or property of an object that defines its possible uses or makes clear how it can or should be used.
5. Draw student teachers' attention to Figure 2.4. Explore the idea of affordance by discussing the different possible uses of a chair.
6. Ask the student teachers to give as many examples of uses of chairs as possible, for example, *sit on it, stand on it to reach a high shelf.* Write them on the board.

7. Now, ask student teachers which affordances were likely to have been intended by the designer and which uses were invented by users.
8. Introduce the idea of a negative affordance, that is, a way in which the quality or property of the object might stop people doing things.
9. Ask the student teachers to give some examples of the negative affordances of a chair. For example, *stops people sitting on the floor.*
10. Explain to the student teachers that thinking about the affordances of technology helps teachers focus on the reasons that technology can be used in teaching.
11. Draw the attention of student teachers to the TPACK concepts of TCK and TPK. Call on the student teachers to offer definitions of TCK and TPK.
    - TCK: Knowledge of how technology can be used to provide new and engaging ways of teaching content and support students' understanding of complex content.
    - TPK: Knowledge of how technology can be used effectively in teaching and learning.
12. Explain that TCK and TPK are useful concepts for thinking about technology affordances.
13. Draw the student teachers' attention to the two questions in the textbook:
    a. What are the affordances of this technology for teaching this content (TCK)?
    b. What are the affordances of this technology for the instructional approach (TPK)?

### Learning activity 5. Brainstorm: Technology affordances

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Small groups (3-4) |

**Purpose**

The purpose of this learning activity is for student teachers to identify the affordances of particular technologies and relate them to their teaching and learning goals and strategies.

1. Group the student teachers into small groups of 3–4.
2. Instruct the student teachers to read the list of technologies, content areas and pedagogical elements in Table 2.3.

3. Tell the student teachers that they are going to do a brainstorm on technology affordances. Give each group a large piece of paper and some markers.
4. Instruct the groups to choose one of the technologies from the list and write the name of the technology at the top of the sheet of paper.
5. Tell the groups to think of as many possible affordances of the technology as they can. Remind them about negative affordances.
6. When the groups have identified 5–10 affordances, tell them to choose a content area from the second list. In their groups, tell them to discuss each of the affordances and decide whether it might be useful for teaching the chosen content area. Tell them to write the name of the content area as a label next to the relevant affordances.
7. Next, tell the groups to choose an instructional approach from the pedagogy list. In their groups, tell them to discuss each of the affordances and decide whether it might be useful for that instructional approach. Tell them to write the name of the instructional approach as a label next to the relevant affordances.
8. Ask each of the groups to bring their brainstorm sheet out to the front of the classroom. Ask a spokesperson for each group to explain the brainstorm and give examples of practice to illustrate.

**Assessment**

You will be able to assess understanding when the groups share their brainstorm with the class.

**Possible student teachers' responses**

An example of the affordances of a smartphone has been presented in Figure TG 2.3.

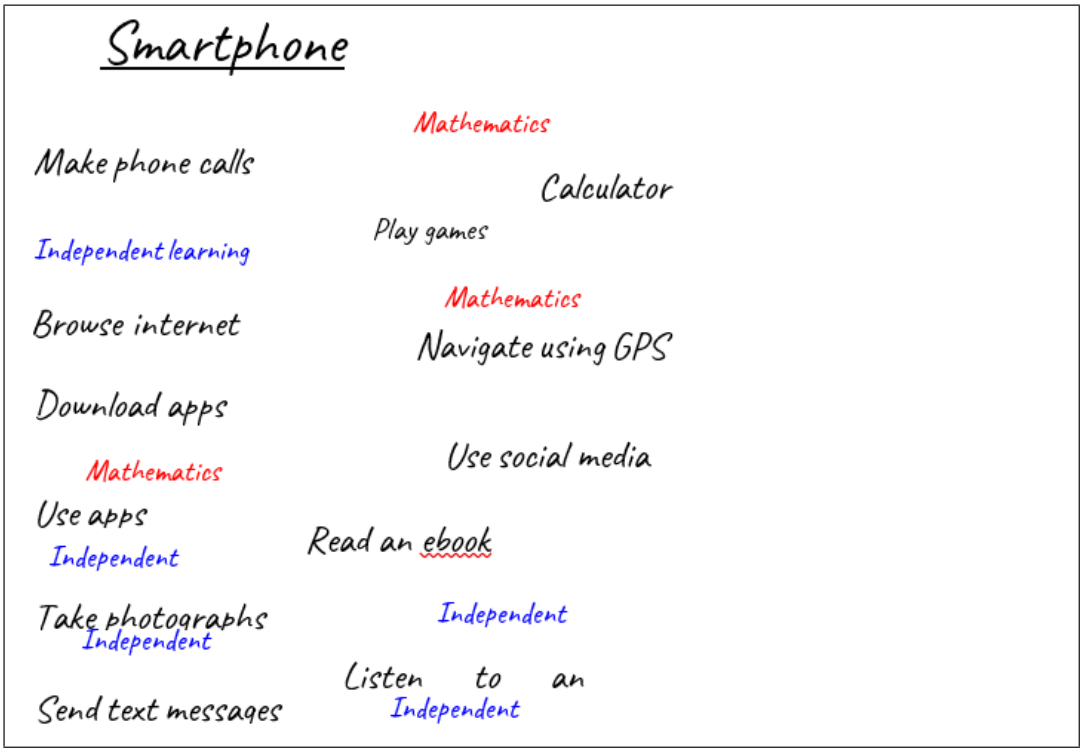



**Figure TG 2.3. Affordances of a Smartphone**[21]

## Learning activity 6. Mind map: Technology integration for a teaching unit

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Small groups |

### Purpose

The purpose of this learning activity is for student teachers to make connections between the learning goals of a lesson and the affordances of available technologies.

1. Put the student teachers in small groups of 3–4.
2. Instruct the student teachers to read through Learning activity 6 in the textbook.

21 Illustration by author, used with permission.

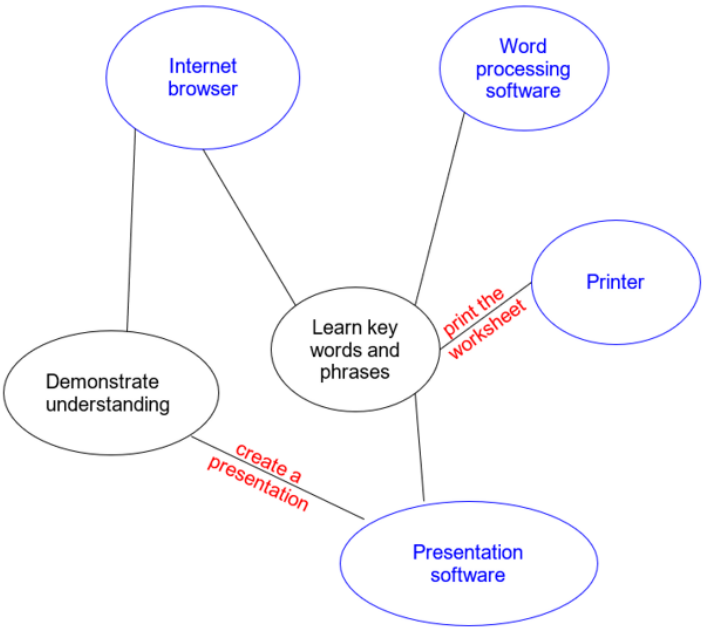
3. Tell the student teachers that they are going to do a mind map of technology integration for a lesson on the water cycle. Draw their attention to the example in Figure 2.5 in the textbook.
4. Instruct the student teachers to write down 3–4 learning goals for the water cycle unit. For example, *to learn key words and phrases.*
5. Next, instruct the student teachers to consider each of the available technologies and write one or two affordances for each.
6. Now, tell the student teachers to choose one of their learning goals and write it on a large piece of paper. Draw a circle around it.
7. Next, using a different colour marker, tell student teachers to write down some of the available technologies that might be useful to address that learning goal. Draw circles around them.
8. Next, tell student teachers to draw a line between each technology and the learning goal. Along the line, write the use of the technology.
9. Tell the students to keep adding learning goals, technologies and uses until they have a map of technology integration for the unit.
10. Tell the students to make a copy of the mind map in Box 2.3 in the textbook.
11. Ask each of the groups to bring their mind map sheet out to the front of the classroom. Ask a spokesperson for each group to explain the mind map. Ask other groups to ask questions and make suggestions.

**Assessment**

You will be able to assess understanding when the groups share their brainstorm with the class.

**Possible student teachers' responses**

An example of a learning goal mind map is presented in Figure TG 2.4.




[See Figure 2.5 in textbook.]

**Figure TG 2.4. Example of a learning goal mind map[22]**

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Individual |

Ask student teachers to think about some technology available in the EDC, for example, *desktop computer in the library.*

Ask student teachers to write down one affordance of the technology that would be useful for teaching, for example, *creating a student worksheet.*

Call on students to read out their examples.

22 Image by author, used with permission.

You will be able to assess understanding when you select student teachers to share responses with class.

*Possible responses:*

The desktop computer in the library can be used to create a student worksheet.

My smartphone could be used to take photos to illustrate a project.

The internet could be used to research information for an assignment.

**Homework activity. Lesson plan: Water cycle**

Explain to student teachers that the purpose of this homework activity is for student teachers to develop understanding of how to integrate technology into teaching and learning practice.

Instruct student teachers to review the mind map they completed in Learning activity 6.

Ask the student teachers to write a short (one page) description of a lesson sequence they would teach on the water cycle. Tell them to explain the technology they would use and why they have chosen to use it.

You will be able to assess understanding when you read the student teachers' written responses. Provide feedback on their suggested uses of technology. Focus on how they identify the purpose of the technology use.

**Period 4**

**Integrating technology across the curriculum**

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |

| | |
|---|---|
| Learning activity 7 | 15 minutes |
| Learning activity 8 | 15 minutes |
| Check student teachers' understanding | 10 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Present learning outcome for the period (written on board):
   By the end of this period, you will be able to:
   - Use the TPACK framework to identify and understand strengths, weaknesses, and opportunities for developing knowledge of good practice with technology.
2. Direct student teachers to the textbook section, 'Understanding and developing my professional knowledge'.
3. Draw student teachers' attention to the original purpose of TPACK:
   - To improve the impact of technology education in teacher education programmes;
   - To understand our teaching practice; and
   - To focus on areas for development and improvement
4. Explain that in order to use TPACK to understand a teacher's practice and monitor development, we need valid and reliable assessment tools.
5. Introduce the Teaching Teachers for the Future (TTF) TPACK Survey as a TPACK assessment tool that was developed and validated in a study of over 13,000 Australian student teachers.
6. Discuss the study's findings about the strengths and weaknesses of the student teachers surveyed. Why do the student teachers think these were the strengths and weaknesses?
   On average, student teachers were most confident to:
   - support students to develop an understanding of the world;
   - demonstrate what they had learnt; and
   - provide motivation for curriculum tasks.

   On average, student teachers were least confident to:
   - support students to synthesise knowledge;
   - develop functional competencies; and
   - integrate curriculum areas to construct multidisciplinary knowledge.

7. Explain that a key finding of the study was that student teachers who were taught to integrate technology in teaching as part of the TTF programme showed a measurable growth in their confidence to use technology as a teacher and to facilitate student use of technology.
8. Explain that as professionals, teachers must continuously develop and improve their understanding and practice. Tools like the TTF TPACK Survey can be used to help teachers understand their current level of knowledge and set goals for development.

### Learning activity 7. Self-reflection: TPACK self-report survey

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | In pairs |

**Purpose**

The purpose of this learning activity is for student teachers to reflect on their current level of confidence in the use of technology in teaching.

1. Put the student teachers in pairs.
2. Instruct the student teachers to read through Learning activity 7 in the textbook.
3. Instruct the student teachers to answer each of the six questions by choosing a response from Not Confident (1) to Very Confident (7).
4. Remind the student teachers that the survey is not a test but a tool to help identify areas for development.
5. Tell the students to explain why they answered the way they did to their partner. For example, they could say: *I answered 2 for the third question because I am just starting to learn about online resources for developing my teaching practice.*
6. Tell the students to give an example of practice related to these areas of understanding. For example, they could say: *I watched some YouTube videos on teaching fractions in Middle School.*
7. Call on some of the students to explain their responses to the whole class. Ask them to give an example of one area in which they are more confident and one in which they are less confident.

## Assessment

You will be able to assess understanding when the student teachers share their self-reflection with the class. Remember, you are assessing the extent to which student teachers can reflect insightfully on their TPACK, not their level of TPACK.

## Possible student teachers' responses

*I answered 2 for the third question because I am just starting to learn about online resources for developing my teaching practice. For example, I watched some YouTube videos on teaching fractions in Middle School.*

*I answered 5 for the first question because I am quite confident, I can use technology to teach science in a creative way. When I taught a lesson on the seasons, I showed the students an animation of seasonal changes I found online.*

## Learning activity 8. Goal-setting: TPACK development goals

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Individual |

### Purpose

The purpose of this learning activity is for student teachers to set some goals for developing their TPACK.

1. Instruct the student teachers to read through Learning activity 8 in the textbook.
2. Ask the student teachers to reflect on their answers to the TTF TPACK Survey and other work they have done in the sub-unit:
   a. What are your strengths and weaknesses?
   b. What are some areas in which you would like to develop your knowledge of effective practice with technology?
3. Draw the student teachers' attention to Box 2.4 in the textbook.
4. Instruct the student teachers to complete the sentences in the box to establish two development goals.

5. Read the example development goal out loud for the class:
   a. I would like to develop my knowledge of … *how to select and use a variety of digital media and formats to communicate information*.
   b. This relates to the TPACK components … TK, TPK.
   c. I can develop this knowledge by … *learning about digital media and how to use it to create presentations for lesson introductions.*
   d. I will use my improved understanding to … *prepare a multimedia presentation for the introduction section of a lesson.*
6. Once the student teachers are finished, call on some of them to read out one of their development goals.

**Assessment**

You will be able to assess understanding when the student teachers share their development goals with the class.

**Possible student teachers' responses**

a. I would like to develop my knowledge of … how to select and use a variety of digital media and formats to communicate information.
b. This relates to the TPACK components … TK, TPK.
c. I can develop this knowledge by … learning about digital media and how to use it to create presentations for lesson introductions.
d. I will use my improved understanding to … prepare a multimedia presentation for the introduction section of a lesson.

**Check student teachers' understanding**

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Pairs |

Ask student teachers to consider what they have learnt about TPACK, technology integration and their own understanding of using technology in teaching during this sub-unit.

Write the following three questions on the board:

1. What is the key insight of TPACK?
2. What are some ways that available technologies in Myanmar schools can be used in teaching?
3. What is one area in which I would like to develop my understanding of using technology in teaching?

Put the student teachers into pairs.

Ask them to discuss their answers to the questions with their partner.

Call on some of the students to give their answers to the whole class.

You will be able to assess understanding when you select student teachers to share responses with class.

*Possible responses:*

1. What is the key insight of TPACK? *That learning to integrate technology into teaching will lead to more effective teaching practice than learning about technology separately.*
2. What are some ways that available technologies in Myanmar schools can be used in teaching? *Smartphones can be used by teachers and students to take photos and videos to illustrate projects; the internet can be used to research information for assignments and projects.*
3. What is one area in which I would like to develop my understanding of using technology in teaching? *I would like to develop my understanding of how to use smartphones to include real world content in my lessons; I would like to develop my understanding of how to teach students to use the internet to research information for their assignments and projects.*

**Expected student teachers' responses for the review questions in TB**

Question 1: What is the relationship between PCK and TPACK?

Answer: *TPACK is an extension of PCK. PCK describes the knowledge that teachers need to teach content effectively to students. TPACK describes the knowledge teachers need to use technology effectively to teach content to students.*

Question 2: What is the key insight of the TPACK framework?

Answer: *That learning to integrate knowledge of technology with pedagogical and content knowledge will lead to better teaching practice than learning about technology separately.*

Question 3: How can thinking about the affordances of technology help teachers integrate technology with purpose?

Answer: *Thinking about a technology's affordances helps us focus on the reasons that we choose to use that technology and how technology can support and enhance our teaching.*

Question 4: How can teachers, as professionals, continue to develop their knowledge of technology integration?

Answer: *Teachers can use the TPACK framework and TPACK self-report tools to reflect on their strengths and weaknesses and set developmental goals for improving their teaching practice.*

# 2.2. Consolidating Understanding of Inquiry-based and Problem-based Learning

In this sub-unit, student teachers will explore inquiry-based learning and problem-based learning in Lower Middle school settings. Student teachers will align discipline-specific inquiry-based learning models with a generic model. They will review the skills required for students to successfully engage in inquiry-based learning and how the teacher supports the development of these skills over students' schooling.

Student teachers will frame problem-based learning scenarios and questions that are appropriate for the Middle school. They will select a scenario and undertake preliminary planning for classroom implementation.

## 2.2.1. Inquiry-based learning models and skills development

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Identify core features of inquiry-based learning models;
- Explain how explicit teaching and scaffolding of skills supports inquiry-based learning; and
- Reflect on stimuli to consider the role of the teacher and student in inquiry-based learning.

**Competencies gained**

A2.1.1 Plan learning experiences that provide opportunities for student collaboration, inquiry, problem-solving and creativity

A5.1.3 Link key concepts, principles and theories to real life applications to build discipline specific foundations and skills for different classes and grade levels taught

A5.2.2 Explain how lessons are contextualised to include localised information and examples related to the subject content, concepts, and themes

B1.1.3 Encourage students' awareness of their own own thought processes and use of reflection to build new understanding

B1.2.2 Use knowledge of different literacy teaching strategies to support development of subject matter literacy

B3.1.2 Encourage students to interact with each other and, to work both independently and in teams

C1.2.1 Identify theories and concepts that inform approaches to teaching and learning

D3.1.2 Search and analyse online or offline information on current trends and research based practices in lower secondary education and for specific subjects taught to improve one's own content knowledge and teaching practice

**Time:** Three periods of 50 minutes

**Learning strategies**

Learning activity 1. Comparison: Aligning inquiry-based learning models

Learning activity 2. Descriptors: Teacher scaffolding in inquiry-based learning

Learning activity 3. Stimulus: Role of the teacher and student in inquiry-based learning

Learning activity 4. Teacher reflection: Facilitating inquiry-based learning

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

## Preparation needed

Read the Educational Studies Student Teacher Textbook Lesson 2.2.1.

## Resources needed

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

Learning activity 3: N/A (other than textbook, note paper, and pen)

Learning activity 4: N/A (other than textbook, note paper, and pen)

## Period 1

### Inquiry-based learning models and skills development

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 20 minutes |
| Learning activity 1 | 20 minutes |
| Check student teachers' understanding | 10 minutes |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Identify core features of inquiry-based learning models.
2. Direct student teachers to the textbook section, 'Core features of inquiry-based learning models'.

3. Ask student teachers to read the definition of inquiry-based learning and discuss the core features with a peer:
   *From textbook:*
   Inquiry-based learning allows opportunities for students to find out answers to questions that are interesting, important, and relevant to them. It enables students to "address curriculum content in integrated, 'real world' ways and to develop the higher-order thinking skills and **habits of mind** that lead to deep learning"
   *Possible Responses:*
   - Driven by questions that are interesting, important, and relevant (or what was referred to as 'powerful' questions in Year 2)
   - Opportunities for integrated curriculum
   - Authentic learning contexts
   - Development of higher order thinking skills
   - Development of habits of mind: Deep learning

   *Note:* You might make links to lifelong learning.
4. Ask student teachers to identify the inquiry-based models that they have been exposed to in the foundational cycle of their programme.
   Note: Students might recall that they explored the 5Es model and Social Inquiry model in Year 2. However, it is important to ask what models they have learnt about in their Curriculum and Pedagogy Studies courses.
5. Ask student teachers to review the 5Es model and Social Inquiry model (Annex 2A) from Year 2 and discuss similarities and differences with a peer. Highlight for student teachers that this was a learning activity that they undertook in Year 2.
6. Direct student teachers to read Table 2.5 and Figure 2.6 and explain that:
   - given the number of inquiry models that are presented in the educational literature, a research team recently undertook a **systematic literature review** to identify core features of inquiry-based learning models; and
   - from their findings, they developed a generic model that combines what they perceive to be "the strengths of existing inquiry-based learning frameworks".
7. Select different student teachers to read out each of the phases in Table 2.5.
8. Explain to student teachers that the authors point out it is possible for discussion (the final phase presented in Table 2.5) to be present at any phase of inquiry – discussion *in action* and discussion *on action.*

## Learning activity 1. Comparison: Aligning inquiry-based learning models

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Pairs |

### Purpose

The purpose of this learning activity is for student teachers to align the phases of the 5Es model and the Social Inquiry model with those of a generic model of inquiry-based learning (as synthesised from the educational literature).

1. Instruct student teachers to stay in their pairs.
2. Direct student teachers to Learning activity 1 in the textbook.
3. Instruct student teachers to:
   - align the phases of the 5Es model and the Social Inquiry model with those of the generic model in Table 2.6.
4. Encourage student teachers to return to Annex 2A for clarification of the purpose of the phases of the 5Es model and the Social Inquiry model.
5. Ask students teachers to share their responses with another pair.

### Assessment

It is important to encourage discussion between students regarding inquiry-based learning models. You might ask questions such as:

Were you able to align both models?

### Correct student teachers' responses

Correct responses are presented in Table TG 2.2.

**Table TG 2.2. Aligning the 5Es model and Social Inquiry model with the generic inquiry-based learning model[23] – completed**

| 5Es | Generic model | Social Inquiry |
|---|---|---|
| Engage | ORIENTATION: Orientation<br>CONCEPTUALISATION: Questioning → Hypothesis Generation | Tune in |
| Explore | INVESTIGATION: Exploration, Experimentation | Find out |
| Explain | INVESTIGATION: Data Interpretation | Sort out |
| Elaborate | CONCLUSION: Conclusion | Go further |
| Evaluate | DISCUSSION: Communication, Reflection | Reflect and act |

[See Table 2.6 in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

Ask student teachers to reflect on the strengths of the generic inquiry-based learning model.

23 Image by author, used with permission.

*Possible responses:*

It is a model that:

- has been synthesised through systematic review of the educational literature relating to inquiry-based learning; and
- accommodates both Social Studies inquiries (i.e., questioning, exploration) and Science inquiries (i.e., questioning, hypothesis generation, experimentation) – that is, it reconciles the differences in emphases that student teachers identified in Year 2 between the 5Es model and Social Inquiry model.

Ask student teachers how the generic inquiry-based learning model might be used in a Middle school classroom.

*Possible response:*

A chart of the model might be displayed on the classroom wall so that it can be referred to when:

- guiding students' learning over successive phases; and
- developing their metacognitive awareness.

**Period 2**

**Inquiry-based learning models and skills development**

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 15 minutes |
| Learning activity 2 | 20 minutes |
| Learning activity 3 | 10 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Ask student teachers to draw upon their prior knowledge to describe in their own words the role of the teacher in facilitating inquiry-based learning.
2. Ask student teachers to write their responses in their notebooks and when finished share them with a peer.
3. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Explain how the explicit teaching and scaffolding of skills supports inquiry-based learning.
4. Direct student teachers to textbook section, 'Development of Inquiry Skills – Explicit Teaching and Scaffolding'.
5. Select student teachers to read sections. .

**Facilitator's notes**

You may wish to discuss the research findings that are presented:

- Students are unlikely to achieve learning outcomes in inquiries that are not well scaffolded by teachers;
- The effectiveness of inquiry-based learning depends "almost entirely on the availability of appropriate guidance"; and
- Inquiry-based learning can lead to deep learning if teachers provide:
  - scaffolding and opportunities for development of the skills needed for students to participate in each inquiry phase; and
  - feedback and opportunities for self and peer assessment to guide student learning.

6. Ask student teachers to reflect on their written response regarding the role of the teacher facilitating inquiry-based learning.
7. Ask student teachers to write down the key skills that are needed by students in inquiry-based learning.

*Possible responses:*
Students may identify:

- broad competencies: critical thinking, creative thinking, collaboration, communication, and
- more specific skills: framing inquiry questions or hypotheses, collecting data, analysing data.

8. Explain to student teachers that:
   - Research evidence suggests that students from five years of age onwards are ready for inquiry learning, given that they "possess a basic ability to generate hypotheses, design and conduct experiments, and evaluate evidence"; and
   - Developing students' inquiry skills takes place over their entire schooling experience.

**Learning activity 2. Descriptors: Teacher scaffolding in inquiry-based learning**

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Groups of 5 |

**Purpose**

The purpose of this learning activity is for student teachers to frame descriptors for a set of Science inquiry skills where the teacher provides a high level of scaffolding.

1. Instruct student teachers to form groups of 5.
2. Direct student teachers to Learning activity 2.
3. Highlight for student teachers that Table 2.7 presents an example of progressive development of Science inquiry skills.
4. Instruct groups to complete the descriptors, in the left-hand column of Table 2.7, for the set of Science inquiry skills where the teacher provides a high level of scaffolding.
5. Instruct each group member to first each address a skill and then share as a group and refine descriptors:

- *Student teacher 1:* Student engages in scientifically-oriented questions.
- *Student teacher 2*: Student gives priority to evidence in responding to questions.
- *Student teacher 3*: Student formulates explanations from evidence.
- *Student teacher 4*: Student connects explanations to scientific knowledge/ sources.
- Student teacher 5: Student communicates and justifies explanations.

6. Select student teachers to share descriptors with class.

**Assessment**

Write all five descriptors on whiteboard – for instance:

- Student engages in question/s provided by teacher.
- Student given data and shown how to analyse it.
- Student provided with evidence and guidance on how to use evidence to formulate explanations.
- Student given connections to scientific knowledge.
- Students given steps and procedures for communication.

Ask student teachers to explain in their own words how explicit teaching and scaffolding of skills can support inquiry-based learning across students' schooling.

**Possible student teachers' responses**

There may be some variation in responses, however, the descriptors will be largely as presented in Table TG 2.3, when mapping back from other descriptors.

**Table TG 2.3. Science inquiry skills and variation in teacher scaffolding[24] – completed**

| Inquiry skills | HIGH---------- Level of teacher scaffolding---------- LIMITED | | |
|---|---|---|---|
| 1. Student engages in scientifically-oriented questions | **Student engages in question/s provided by teacher** | Student selects among questions and refines questions | Student poses questions |
| 2. Student gives priority to evidence in responding to questions | **Student given data and shown how to analyse it** | Student directed to collect certain data and analyse it | Student determines what constitutes evidence, and then collects data and analyses it |

24 Adapted from the National Research Council. (2000).

| | | | | |
|---|---|---|---|---|
| 3. | Student formulates explanations from evidence | **Student provided with evidence and guidance on how to use evidence to formulate explanations** | Student guided in the process of formulating explanations from evidence | Student formulates explanations after summarising evidence |
| 4. | Student connects explanations to scientific knowledge/ sources | **Student given connections to scientific knowledge** | Student directed toward possible areas and sources of scientific knowledge | Student independently examines other sources and makes links to explanations |
| 5. | Student communicates and justifies explanations | **Students given steps and procedures for communication** | Student provided broad guidelines in forming reasonable and logical arguments | Student forms reasonable and logical arguments |
| | | **LIMITED**---------- Level of student self-direction ----------**HIGH** | | |

[See Table 2.7 in textbook.]

## Learning activity 3. Stimulus: Role of the teacher and student in inquiry-based learning

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Pairs |

### Purpose

The purpose of this learning activity is for the student teacher to reflect on the role of the teacher and student across inquiry contexts, ranging from inquiries with a high level of teacher scaffolding to those with a limited level of teacher scaffolding.

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Reflect on stimuli to consider the role of the teacher and student in inquiry- based learning.
2. Instruct student teachers to form pairs.
3. Direct student teachers to Learning activity 3.
4. Instruct student teacher to view each of the four scenes in Figure 2.8 and, with their peer, discuss the role of the teacher and students across these inquiry contexts.
5. Encourage student teacher to consider the following questions:
   a. Where is the teacher positioned in relation to the students? Is there a context where the teacher is absent?

b. What is the teacher doing? How much scaffolding is the teacher providing?
c. How does student activity change over the four scenes?

**Assessment**

Encourage peer-to-peer sharing throughout this activity.

**Possible student teachers' responses**

*Question:* Where is the teacher positioned in relation to the students? Is there a context where the teacher is absent?

*Responses:*

- Scenario 1: In the pool next to the students
- Scenario 2: In the pool next to the students
- Scenario 3: At the pool's edge
- Scenario 4: At the pool's edge.

In all contexts, the teacher is facilitating the activities or guiding students.

*Question:* What is the teacher doing? How much scaffolding is the teacher providing?

*Responses:*

- Scenario 1: Providing instructions alongside; fully active – both arms open
- Scenario 2: Providing instructions alongside; active – one arm open
- Scenario 3: Providing instructions from a distance; active – one arm open
- Scenario 4: Supervising from a distance; hands behind back.

Across these contexts, teacher scaffolding shifts from a high level to limited level.

*Question:* How does student activity change over the four scenes?

*Responses:*

- Scenario 1: All students in water holding on to edge
- Scenario 2: All students swimming with kickboards
- Scenario 3: All students swimming freestyle
- Scenario 4: Students engaging in different activities: standing in water, swimming freestyle, and jumping off diving board.

Students develop skills over time and, hence, are able to successfully engage in inquiry with limited teacher scaffolding as a schooling end-point.

**Check student teachers' understanding**

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask pairs to share their responses with another pair to Learning activity 3.

Ask student teachers to explain in their own words how explicit teaching and scaffolding of skills can support inquiry-based learning across students' schooling.

## Period 3

## Inquiry-based learning models and skills development

This period is structured as follows:

| | |
|---|---|
| Learning activity 4 | 35 minutes |
| Check student teachers' understanding | 15 minutes |

## Learning activity 4. Teacher reflection: Facilitating inquiry-based learning

| | |
|---|---|
| **Time** | 35 minutes<br>(25 minutes activity<br>10 minutes sharing) |
| **Class organisation** | Groups of 4 |

### Purpose

The purpose of this learning activity is for student teachers to read a teacher reflection to further consider the role of the teacher and student in inquiry-based learning.

1. Instruct student teachers to form pairs.
2. Direct student teachers to Learning activity 4.
3. Highlight that Box 2.5 presents a middle school teacher's reflection relating to their growing competency in guiding inquiry-based learning.
4. Instruct student teachers to read the teacher reflection in their pairs and, in Table 2.8, list the:
   - strategies that the teacher uses to scaffold students' learning
   - skills that the students use in inquiry-based learning.
5. In terms of the skills that the students use, ask student teachers to see if they can make links to the descriptors in Table 2.7.
6. Select student teachers to share their responses with the class.

### Assessment

You might generate a table on the whiteboard for recording student teacher responses.

### Possible student teachers' responses

Correct responses are presented in Table TG 2.4.

**Table TG 2.4. Role of the teacher and student in inquiry-based learning – completed**

| Teacher scaffolds<br><br>What strategies does the middle school teacher use to scaffold student inquiry-based learning? | Student skills<br><br>What skills do the students use in inquiry-based learning? [Where appropriate, make any links with the descriptors in Table 2.7] |
|---|---|
| • Promotes student interaction with a range of materials<br>• Promotes teacher-student and student-student interactions<br>• Responds to student statements e.g. "Tell me more about Y"<br>• Questions to develop students' critical thinking skills e.g., *"What is the evidence for that conclusion?" and "How did you decide on that explanation over the one you were convinced of yesterday?"*<br>• Facilitates small group activities that were structured to encourage students to talk and to come up with predictions and explanations<br>• Assesses formatively, on a daily basis<br>• Facilitates orienting activities for students to discuss conceptual ideas<br>• Allows student questions to influence the curriculum<br>• Listens to students | • Engage in teacher-student and student-student interactions<br>• Come up with:<br>- predictions based on initial observations<br>- explanations based on evidence<br><br>• [Table 2.7. Students formulate explanations after summarising evidence]<br>• Discuss conceptual ideas<br>• Pose questions<br>**[Table 2.7. Students pose questions]** |

[See Table 2.8 in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

Revisit the statement from introduction to the lesson in the textbook:

> Inquiry-based learning allows opportunities for students to find out answers to questions that are interesting, important, and relevant to them. It enables students to "address curriculum content in integrated, 'real world' ways and to develop the higher-order thinking skills and habits of mind that lead to deep learning."

Ask student teachers why these emphases are important in the 21st century.

*Possible responses:*

Students need to be lifelong learners. In 21st century society, information and data are readily accessible. Citizens need to have critical and **creative thinking** skills so that they are can individually or collectively:

- access, evaluate, and transform information and data; and
- share it with relevant audiences to address personal, workplace, and societal needs.

Ask student teacher why it is important for teachers to have well-developed inquiry skills.

*Possible responses:*

Teachers need well-developed inquiry skills so that they can:

- Research content for lessons;
- Model skills for students; and
- Research, evaluate, and improve their own practice.

In terms of the enhancing practice, you might draw student teachers' attention to:

- TCSF D3.1.2:
  ***Search and analyse online or offline information*** on current trends and research-based practices in Lower Secondary education and for specific subjects taught to improve one's own content knowledge and teaching practice.
- Box 2.5. Middle school teacher reflection on guiding inquiry-based learning
  Last paragraph: I decided to monitor how much I was listening. I recorded the amount of time I was talking and the amount of time my students were talking. At first, the proportion of teacher/student talk time was approximately 80/20. In a short amount of time, this proportion had been reversed. ***This small piece of research was a turning point*** in my appreciating the value of teaching through inquiry.

The last example reflects an inquiry habit of mind – that is, a teacher's commitment to ongoing inquiry into their own practice.

# 2.2.2. Problem-based learning in the Middle school

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Discuss the benefits of problem-based learning;
- Explain steps in the planning process for problem-based learning;
- Outline problem-based learning scenarios appropriate for the Myanmar Middle school; and
- Undertake preliminary planning for problem-based learning in the Middle school.

**Competencies gained**

A2.1.1 Plan learning experiences that provide opportunities for student collaboration, inquiry, problem-solving and creativity

B1.1.3 Encourage students' awareness of their own thought processes and use of reflection to build new understanding

B1.2.3 Create opportunities for students to investigate subject-related content and concepts through practical activities

B1.3.3 Prepare focused and sequential learning experiences that integrate learning areas and are responsive to students' interests and experience

**Time:** Two period of 50 minutes

**Learning strategies**

Learning activity 1. Framing: Problem-based learning scenarios and questions

Learning activity 2. Planning: Problem-based learning

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 2.2.2.

**Resources needed**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: Basic Education Grade 6 and/or 7 syllabi across subject areas

**Period 1**

**Problem-based learning in the Middle school**

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 15 minutes |
| Learning activity 1 | 30 minutes |
| Check student teachers' understanding | 5 minutes |

**Introduction/Explicit teaching**

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Have relevant learning outcomes for the period written on the board or flip chart paper.
   By the end of this period, student teachers will be able to:
   - Discuss the benefits of problem-based learning;
   - Explain steps in the planning process for problem-based learning; and
   - Outline problem-based learning scenarios appropriate for the Myanmar Middle school.
2. Instruct student teachers to write down:
   - A definition of problem-based learning

- What they think may be the benefits of problem-based learning.

3. Ask student teachers to share their responses with a peer.
4. Direct student teachers to the textbook section, 'Problem-based learning'.
5. Highlight for student teachers (from textbook section) the:
   - *Definition* of problem-based learning: Problem-based learning involves students working in groups and exploring complex, real-world problems as a stimulus for learning, under the guidance of a facilitator.
   - *Benefits* of problem-based learning: A "robust positive effect" on students' skills development. In problem-based learning, students develop cognitive, communication, and collaboration skills through the processes of defining problems, identifying information that is needed, evaluating and making sense of information, and arriving at consensus in terms of possible solutions.
6. Explain to student teacher that in Year 1 in Educational Studies, they were introduced to a planning process for problem-based learning.
7. Select different student teachers to read the teacher's planning steps:
   - Identifies the learning outcomes and success criteria
   - Odentifies or designs a complex scenario, from which the problem will emerge, together with the students
   - Scaffolds research and problem-solving processes (which begins with group brainstorming sessions)
   - Supports students in communicating research findings, solutions, and reflections on learnings (such as through posters and presentations).
8. Highlight for student teachers that when implementing problem-based learning in the Middle school, it is advisable to begin with a focus on real problems in the school or community.

### Learning activity 1. Framing: Problem-based learning scenarios and questions

| | |
|---|---|
| **Time** | 30 minutes<br>(20 minutes activity<br>10 minutes whole class sharing) |
| **Class organisation** | Groups of 4 |

### Purpose

The purpose of this learning activity is for student teachers to identify problem-based learning scenarios and questions that would be appropriate for the Myanmar Middle school.

1. Instruct student teachers to form groups of 4.
2. Direct student teachers to Learning activity 1.
3. Instruct student teachers to outline a problem scenario at the school level and one at the community level in Table 2.9. Provide relevant details that captures the complexity of the problem (e.g., traffic congestion at the school at drop-off and pick-up times). Frame the problem as a question e.g., How do we alleviate traffic congestion in the immediate school surrounds at peak times?
4. Encourage the group to assign the task as follows:
   - Student teachers 1 and 2: School problem
   - Student teachers 3 and 4: Community problem.
5. Ask group members to share their responses within their group and refine with feedback from their peers.
6. Select student teachers from each group to share responses with class.

**Assessment**

Walk around to each group. Write up questions on board.

**Possible student teachers' responses**

School scenarios may relate to, for instance:

- *traffic congestion at the school at drop-off and pick-up times*
- *poor school attendance for middle school students.*

Community scenarios may relate to, for instance:

- *risk of COVID transmission in the community market*
- *fast food outlets negatively impacting eating habits.*

An example is provided in Table TG 2.5, relating to poor school attendance for middle school students.

**Table TG 2.5. Problem-based learning scenario and question – completed**

| | Scenario | Question/s |
|---|---|---|
| **School** | The school is in a rural area in Myanmar. The parents and families of the students are largely agricultural labourers and farmers. Students often have to assist their parents on the farm or look after siblings while their parents are farming. This set of circumstances can result in students missing many days of school or dropping out of school altogether in the middle school grades. | What are the reasons for the high absenteeism among middle school students in our school?<br><br>What are the reasons for middle school students dropping out of school?<br><br>What initiatives can be put in place at our school that can reduce absenteeism among middle school students and retain them at school? |
| | **Scenario** | **Question/s** |
| **Community** | The school is close to downtown Yangon. In recent years, there have been a number of Western style fast food outlets and shopping centres that have been established in the area. As a result, there is greater availability of 'convenience foods'. Further, pesticides and fertilisers are used in the growing of local fresh produce. The community is concerned that these trends are negatively impacting on healthy eating habits. | What do we eat now and why?<br><br>How does what we eat now differ from what was eaten in the recent past?<br><br>What are the underlying causes for these changes? Are some of the changes related?<br><br>Who benefits with these changes? Who is disadvantaged?<br><br>Are current trends likely to persist?<br><br>What can we do as a community to support ongoing access to nutritious foods? |

[See Table 2.9 in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to identify those problems on the board that they think would be highly appropriate and engaging for middle school students.

## Period 2

## Problem-based learning in the Middle school

This period is structured as follows:

| | |
|---|---|
| Learning activity 2 | 40 minutes |
| Check student teachers' understanding | 10 minutes |

### Learning activity 2. Planning: Problem-based learning

| | |
|---|---|
| **Time** | 40 minutes |
| **Class organisation** | Groups of 4 |

### Purpose

The purpose of this learning activity is for student teachers to select one of the problem-based learning scenarios and undertake preliminary planning for implementation in a Grade 6 or Grade 7 classroom.

1. Outline the learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Undertake preliminary planning for problem-based learning in the Middle school.
2. Instruct student teachers to remain in their groups of four from Period 1.
3. Direct student teachers to Learning activity 2.
4. Instruct groups to select one of the problem-based learning scenarios (from Table 2.9 or from a class list) and, in Table 2.10, undertake preliminary planning for implementation in a Grade 6 or Grade 7 classroom.

### Assessment

Walk around to each group and review their progress.

### Possible student teachers' responses

There will be variation in responses. An example is presented in Table TG 2.6.

## Table TG 2.6.Planning for problem-based learning – completed

| Role of the teacher in problem-based learning | Planning details |
|---|---|
| 1. Identifies the learning outcomes | *Can you make **links to the Basic Education Grade 6 or Grade 7 curriculum?** Identify relevant subject areas and learning outcomes.*<br><br>*Grade 6*<br><br>***Life Skills***<br><br>*Strand: Healthy Living*<br><br>*To distinguish between healthy and nutrient foods and unhealthy foods*<br><br>*Possible links to:*<br><br>• ***Physical Education***<br>• ***Local Curriculum.*** |
| 2. Identifies or designs a complex scenario, from which the problem will emerge | *Select a question from Table 2.9 or from a class list*<br><br>The school is close to downtown Yangon. In recent years, there have been a number of Western style fast food outlets and shopping centres that have been established in the area. As a result, there is greater availability of 'convenience foods'. Further, pesticides and fertilisers are used in the growing of local fresh produce. The community is concerned that these trends are negatively impacting on healthy eating habits.<br><br>• What do we eat now and why?<br>• How does what we eat now differ from what was eaten in the recent past?<br>• What are the underlying causes for these changes? Are some of the changes related?<br>• Who benefits with these changes? Who is disadvantaged?<br>• Are current trends likely to persist?<br>• What can we do as a community to support ongoing access to nutritious foods? |
| 3. Scaffolds research and problem-solving processes | ***What information** are students likely to need to access to propose viable solutions?*<br><br>*Students may:*<br>• compile a journal of the foods that they have eaten over the course of the week;<br>• interview parents and grandparents regarding the changes that they have seen to diet in the course of their lifetimes;<br>• undertake an audit of supermarket produce regarding the availability of ready-to-eat pre-packaged foods;<br>• map the fast-food outlets, supermarket stores, and fresh produce markets in their community;<br>• undertake online research into trends in food production and food importation in Myanmar;<br>• directly contact or interview government or industry representative groups;<br>• interview fresh produce market sellers regarding where and how their produce is grown;<br>• analyse food advertising in local community newspapers; and<br>• brainstorm ideas to support ongoing access to locally grown nutritious foods. |

| Role of the teacher in problem-based learning | Planning details |
|---|---|
| | ***What stakeholders*** *might students need to consult in terms of identifying possible solutions?*<br>• Peers, parents, and grandparents<br>• Industry representative groups (e.g., farmers and fishers' associations)<br>• Nutrition Division of the Myanmar Department of Public Health<br>• Fresh produce market sellers |
| 4. Supports students in communicating research findings, solutions, and reflections on learnings | ***What audiences*** *might students present findings to?*<br>• School stakeholders<br>• Parents<br>• Online buddy class<br><br>***What may the best ways to communicate?***<br>• research findings: group research posters, which can be presented to the class and displayed in the school auditorium<br>• proposed solutions: class plenary where students reflect on findings across groups to identify **one action** the class can undertake to support:<br>- awareness of shifts in food production, food availability, and eating habits<br>- local producers and healthy eating habits.<br>• reflections on learnings: project journal |

[See Table 2.10 in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

Revisit lesson learning outcomes:

By the end of this lesson, student teachers will be able to:

- Discuss the benefits of problem-based learning;
- Explain steps in the planning process for problem-based learning;
- Outline problem-based learning scenarios appropriate for the Myanmar Middle school; and
- Undertake preliminary planning for problem-based learning in the Middle school.

Revisit competencies gained:

A2.1.1 Plan learning experiences that provide opportunities for student interaction, inquiry, problem-solving and creativity

B1.1.3 Encourage students' awareness of their own thought processes and use of reflection to build new understanding

B1.2.3 Create opportunities for students to investigate subject-related content and concepts through practical activities

B1.3.3 Prepare focused and sequential learning experiences that integrate learning areas and are responsive to students' interests and experience

**Expected student teachers' responses for the review questions in TB**

Question 1: What does the research literature suggest is necessary for inquiry-based learning to lead to deep learning?

Answer: *The research literature suggests that inquiry-based learning can lead to deep learning if teachers provide:*

- *scaffolding and opportunities for development of the skills needed for students to participate in each inquiry phase; and*
- *feedback and opportunities for self and peer assessment to guide student learning.*

Question 2: What are the benefits of inquiry-based and problem-based learning in terms of student learning outcomes?

Answer: *The research literature suggests that, in inquiry-based and problem-based learning, students develop cognitive, communication, and collaboration skills.*

Question 3: What strategies can teachers employ to support students in inquiry-based learning?

Answer: *Teachers can employ a range of strategies to support students in inquiry-based learning, including:*

- *facilitating orienting activities for students to discuss conceptual ideas and frame questions;*
- *promoting student interactions with a range of materials;*
- *promoting teacher-student and student-student interactions;*
- *questioning and listening to students and responding to their statements;*
- *facilitating small group activities that are designed to encourage students to talk and to come with predictions and explanations; and*
- *assesses formatively on a daily basis.*

Question 4: What steps does the teacher undertake in planning for and facilitating problem-based learning?

Answer: *In planning for and facilitating problem-based learning, the teacher identifies intended learning outcomes and success criteria; designs a complex scenario together with the students from which the problem will emerge; scaffolds research and problem-solving processes, and supports students in communicating research findings, solutions, and reflections on learnings (such as through posters and presentations).*

# 2.3. Consolidating Understanding of Learner Development and Diversity

In this sub-unit, student teachers will further explore learner development and diversity. In the first lesson, they will consolidate understanding of foundational developmental theories, covered in Years 1 and 2. Student teachers will apply their understanding of lifespan development in the design of a learning activity for the Lower Middle school classroom.

In the second lesson, student teachers will examine the literatures on culturally responsive pedagogy and Ethnic Language Based–Multilingual Education (ELB–MLE). They will identify strategies you can draw upon to access cultural and community knowledge to support learning in your Lower Middle School setting. Student teachers will scope a learning sequence which draws on community resources to support children's learning.

## 2.3.1. Lifespan development

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Reflect on core ideas of foundational theories relating to students' cognitive, physical, social, and emotional development in the Lower Middle school; and
- Apply understanding of lifespan development to design a learning activity for the Lower Middle school classroom.

**Competencies gained**

A1.1.2 Prepare learning activities to align with students' level of cognitive, linguistic, social, and physical development

A5.2.1 Describe ways to contextualise learning activities for the age, language, ability and culture of students to develop understanding of subject related principles, ideas and concepts

B1.1.2 Select instructional material to link learning with students' prior knowledge, interests, daily life and local needs

B1.2.3 Create opportunities for students to investigate subject-related content and concepts through practical activities

**Time:** Two periods of 50 minutes

**Learning strategies**

Learning activity 1. Summarise and reflect: Foundational developmental theories

Learning activity 2. Group discussion: Developmental systems theories

Learning activity 3. Learning activity design: Lifespan development

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 2.3.1.

You may also want to revisit the Year 2 Educational Studies Student Teacher Textbook Lessons 2.3.1, 2.3.2, 5.3.1 and 5.3.6.

**Resources needed**

Learning activity 1: Year 2 Educational Studies Student Teacher Textbook (optional)

Learning activity 2: N/A (other than textbook, note paper, and pen)

Learning activity 3: N/A (other than textbook, note paper, and pen)

## Period 1

## Lifespan development

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 15 minutes |
| Explicit teaching | 10 minutes |
| Learning activity 2 | 10 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Reflect on core ideas of foundational theories relating to students' cognitive, physical, social, and emotional development in in the Lower Middle school.
2. Ask student teachers to reflect on what they learnt about development in Years 1 and 2 of Educational Studies.
3. Explain that the key focus of this period will be on revisiting foundational developmental theories and examining contemporary perspectives on development.
4. Ask student teachers to read the section "Revisiting foundational developmental theories" in the textbook.
5. Ensure that student teachers are still engaged in active learning processes in this lesson component.

## Learning activity 1. Summarise and reflect: Foundational developmental theories

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Individual and whole class |

### Purpose

The purpose of this learning activity is for student teachers to summarise and reflect on core ideas of some of the foundational developmental theories.

1. Explain to student teachers that this activity will ask them to consolidate and reflect on their knowledge of some foundational developmental theories.
2. Direct student teachers to complete Learning activity 1 in the textbook. Ensure student teachers incorporate the three key issues (nature or nurture; continuous or discontinuous, and one course or many) in their response in Table 2.11.
3. Support and prompt individual student teachers as they complete the activity. Encourage student teachers to revisit the Year 2 Educational Studies Student Teacher Textbook if needed.
4. Allow 10 minutes for student teachers to complete the activity. After 10 minutes, ask for volunteers to share their responses with the class. Discuss and provide constructive feedback on the different responses.

### Assessment

Ask open-ended questions to encourage student teachers to think about the core ideas of each theory.

You will be able to assess understanding by observing student teacher work and selecting student teachers to share their responses with the class. Ensure that you select both female and male student teachers. The class discussion will provide student teachers with feedback.

## Possible student teachers' responses

Possible responses are presented in Table TG 2.7.

**Table TG 2.7. Summarise and reflect on foundational developmental theories – completed**

| Developmental theory | Core ideas |
|---|---|
| **Erikson's Psychosocial Developmental Theory** | Human development takes place by moving through eight distinct stages (discontinuous).<br><br>One course: All humans follow the same stages.<br><br>Development is influenced by nature and nurture; the interaction of personal impulses and sociocultural experiences.<br><br>Each stage builds on the previous stage.<br><br>Psychosocial and social/emotional development are interdependent.<br><br>To move to the next stage, one needs to overcome a psychosocial crisis.<br><br>Overcoming a psychosocial crisis helps individuals build psychosocial strength, needed to move to the subsequent developmental stages. |
| **Piaget's Cognitive Developmental Theory** | Children develop cognitively by moving through four distinct stages (discontinuous).<br><br>One course: All humans follow the same stages.<br><br>Children's cognitive capacity increases with age (biological maturation) in interaction with their environment (nature and nurture, but relatively strong focus on nature).<br><br>Cognitive capacity changes from sensory to abstract.<br><br>Children actively interact with their environment ('little scientists').<br><br>Children and adults think differently. |
| **Vygotsky's Sociocultural Theory** | Development occurs in social interaction with a more skilled other (mostly continuous).<br><br>Development is influenced by nature and nurture (through social experiences).<br><br>Language is a key tool for cognitive development and becomes a tool for learning.<br><br>A more skilled other can help a child cognitively progress by scaffolding and gradually reducing support until learning is internalised.<br><br>A core concept is the 'Zone of Proximal Development'. This concept describes what a child can do on their own, and what they are capable of learning with help.<br><br>There is variation in how individuals develop (many courses). |

| **Reflection on similarities and differences** |
|---|
| Similarities:<br>• All three theories consider an individual's interaction with their environment to some degree (joint influence of nature and nurture).<br>• Erikson and Piaget's theories are both stage theories (which see development as discontinuous) that claim development is universal (which predicts that everyone moves through the same stages).<br><br>Differences:<br>• Piaget's theory mainly focuses on cognition, whilst Vygotsky's and Erikson's theory also focuses on social and/or emotional development.<br>• Different foci on the impact of an individual's social environment.<br>• Piaget and Erikson do not account for differences in cultures, whereas Vygotsky's theory assumes cognitive development will vary across cultures.<br>• Erikson's theory spans the entire life span, but Piaget's and Vygotsky's theories focus on children. |

[See Table 2.11 in textbook.]

## Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Introduce the key ideas of developmental systems theories.
2. Ask student teachers to read the section "Contemporary perspectives on lifespan development" in the textbook.

### Learning activity 2. Group discussion: Developmental systems theories

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class and individual |

## Purpose

The purpose of this learning activity is for student teachers to reflect on the core ideas of Bronfenbrenner's Ecological Theory of Development using the four key components of developmental systems theories.

1. Facilitate a group discussion that focuses on how Bronfenbrenner's theory relates to each of the four key components of developmental systems theories.
2. Encourage student teachers to record their or the group's responses in Table 2.12 in their textbooks.

### Assessment

You will be able to assess student teacher understanding by evaluating their contributions to the whole class discussion. The discussion will provide student teachers with feedback on their understandings of Bronfenbrenner's theory and developmental systems theories.

### Possible student teachers' responses

Possible responses are presented in Table TG 2.8.

**Table TG 2.8. Reflection on Bronfenbrenner's theory as a developmental systems theory**

| Key components of developmental systems theories[25] | Relation to Bronfenbrenner's Ecological Theory of Development |
|---|---|
| 1. Change and relative plasticity | • Considers development across the lifespan, not limited to childhood.<br>• Considers development as influenced by and influencing the entire ecological system. |
| 2. Relationalism and the integration of levels of organisation | • The theory presents a model of layered systems, which are interrelated.<br>• The interconnectedness of the different systems is the core feature of this theory. |
| 3. Historical embeddedness and temporality | • The theory considers the influence of time and historical embeddedness through the chronosystem aspect. |
| 4. The limits of generalisability, diversity and individual differences. | • The theory considers human development as highly contextual, meaning that it will differ for each individual. |

[See Table 2.12 in textbook.]

25 Lerner et al. (2011, p. 26).

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

- Ask student teachers questions to gauge their emerging understandings of foundational developmental theory.
- Allow opportunity for student teachers to reflect how they believe their knowledge of human development will impact their teaching practice.
- Ask student teachers which developmental theory they think will be most useful to inform their teaching and why.

## Period 2

## Lifespan development

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 3 | 35 minutes |
| Check student teachers' understanding | 5 minutes |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Apply understanding of lifespan development to design a learning activity for the Lower Middle school classroom.
2. Ask student teachers to reflect on what they learnt about lifespan development in Years 1 and 2 of Educational Studies.
3. Explain that the key focus of this period will be on applying understandings of development to design a learning activity.

4. Ask student teachers to read the section "Applying understandings of lifespan development" in the textbook.
5. Provide the opportunity for student teachers to ask questions and discuss their understandings with a peer.

### Learning activity 3. Learning activity design: Lifespan development

| | |
|---|---|
| **Time** | 35 minutes |
| **Class organisation** | Groups of 3 or 4 and whole class |

#### Purpose

The purpose of this learning activity is for student teachers to apply their understanding of lifespan development to design a learning activity for the Lower Middle school classroom.

1. Assign student teachers to groups of 3 or 4. Direct student teachers to Learning activity 3 in the textbook. Encourage student teachers to think about the implications of Baltes' Lifespan Developmental Theory for lower middle school children. Allow approximately 5 minutes for this part of the activity.
2. Allow approximately 20 minutes for the design and justification part of the activity. The activity may be performed using a range of formats, depending on available and preferred resources. For example, student teachers may record their responses using a written, visual or presentation format. It is helpful to encourage student teachers to verbally record their justifications for their design choices. Encourage student teachers to make links to all areas of development as relevant.
3. After 25 minutes, ask some groups to briefly present their learning activity and justify their design choices. Provide constructive feedback and discuss the different applications of lifespan theory for the Lower Middle school classroom.

#### Assessment

Ask open-ended questions to encourage student teachers to think about how they may apply knowledge of lifespan theory to their teaching.

You will be able to assess understanding by observing student teacher work and selecting student teachers to share their responses with the class. Ensure that you select both female and male student teachers. The group work and class discussion will provide student teachers with feedback.

**Possible student teachers' responses**

Given the broad nature of this activity, there is a wide variety of possible student teacher responses. The most relevant features of Baltes' theory to the Lower Middle school classroom are multidimensionality, plasticity and contextuality.

- *Multidimensionality:* Student teachers can take account of multidimensionality by designing an activity that takes account of the interaction between cognitive, physical, social, and emotional development. For example, they can draw connections between the emotional (concrete experience), cognitive (reflective observation and abstract conceptualisation) and physical, cognitive or social development (active experimentation).
- *Plasticity:* Student teachers can take account of plasticity by shaping their activity in a way that fosters learning for all students, no matter their developmental levels and contexts. This can also mean that teachers intentionally challenge children at more advanced levels of development. Another example would be to cater for disability or learning difficulties. The main implication of plasticity is that all learners are capable of achieving systematic change. This should be reflected in student teachers' design of learning activities.
- *Contextualism:* According to Baltes, childhood development is most influenced by normative age-related factors.[26] Nevertheless, pedagogy and curricula are inevitably normative history-graded influences. Student teachers can apply principles of contextual interaction by identifying how the activity is appropriate for the Lower Middle school classroom within Myanmar. They may also identify how different resources and the teaching environment have been designed to provide a suitable context for learning.

26 Lerner et al. (2011).

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

- Ask student teachers questions to gauge their emerging understandings of lifespan theory.
- Allow opportunity for student teachers to reflect how they believe their knowledge of lifespan theory will impact their teaching practice.
- Allow opportunity for student teachers to reflect on the role of context in human development. Developmentally, does it make a difference when or where a child grows up? What are some of the most important contextual influences on development?
- Ask student teachers to reflect on the nature of individual differences in lifespan theory. How does this relate to the dichotomy of one or many courses?

## 2.3.2. Culturally responsive pedagogy

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Discuss the challenges of teaching in culturally and linguistically diverse classrooms;
- Scope a Lower Middle school teaching and learning sequence that draws upon cultural knowledge and community settings; and
- Outline strategies for engaging parents in their children's learning in the Lowe Middle school.

### Competencies gained

A1.2.1 Identify various teaching methods to help students with different backgrounds (gender, ethnicity, culture)and abilities, including special learning needs, learn better

A3.2.2 Be aware of social, linguistic and cultural background of parents, community elders and leaders when interacting with them

B1.1.2 Select instructional material to link learning with students' prior knowledge, interests, daily life and local needs

B4.1.2 Describe strategies to promote parents' involvement in their child's learning at school, at home and in the community

C1.3.1 Show interest in and take time to learn about the students' culture, language and community

C3.1.2 Recognise the different social situations and background of students and treat all students equally

**Time:** Three periods of 50 minutes

**Learning strategies**

Learning activity 1. Paired reflection: Culturally responsive pedagogy

Learning activity 2. Individual reflection and small group discussion: Accessing funds of knowledge

Learning activity 3. Small group discussion: The challenges of ELB–MLE

Learning activity 4. Small group discussion and response: Ideas and strategies to use community resources to support student learning

Learning activity 5. Planning task: Scoping a learning sequence

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 2.3.2.

Write relevant learning outcomes on board.

Research some topics for Learning activity 5 from the Lower Middle School Basic Education Curriculum.

**Resources needed**

Learning activity 1: Flip chart paper/whiteboard and marker pens

Learning activity 2: Flip chart paper/whiteboard and marker pens

Learning activity 3: Flip chart paper/whiteboard and marker pens

Learning activity 4: Flip chart paper/whiteboard and marker pens

Learning activity 5: Flip chart paper/whiteboard and marker pens

**Period 1**

**Culturally responsive pedagogy**

This period is structured as follows:

| | |
|---|---|
| Introduction | 10 minutes |
| Learning activity 1 | 20 minutes |
| Learning activity 2 | 15 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class, pairs, small group |

1. Provide an overview of the 3 periods of this lesson. Inform student teachers that it will be important for them to read the content in the textbook in their own time to maximise their learning in this lesson.
2. Write the learning outcomes for the lesson on the whiteboard.
3. Remind student teachers of the learning about culturally responsive pedagogy they covered in Year 2.
4. Organise pairs for Learning activity 1.
5. Instruct student teachers to read the introductory section to the period.

### Learning activity 1. Paired reflection: Culturally responsive pedagogy

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Pairs |

## Purpose

The purpose of this learning activity is for student teachers to reflect on their understandings of culturally responsive pedagogy.

1. Instruct student teachers to reflect for 5 minutes on their understanding of the principles of culturally responsive pedagogy.
2. With a partner, student teachers should brainstorm a list of challenges in implementing culturally responsive pedagogy. This should take about 10 minutes.
3. Instruct the student teachers to compare and discuss their list of challenges with another group (5 minutes) focussing what was similar/different in their responses.

### Assessment

You will be able to assess understanding by selecting student teachers to share the key points of their small group discussion with the class. Ensure that you select both female and male student teachers. The peer sharing activity and class discussion will provide student teachers with feedback.

### Possible student teachers' responses

- Knowing about the culture and language of students in the class
- Ensuring assessment is inclusive and does not position some students as deficit
- Engaging with the community to support learning
- Building shared understanding with families how they can support learning.

### Learning activity 2. Individual reflection and small group discussion: Accessing funds of knowledge

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Individual, small group, and whole class |

### Purpose

The purpose of this activity is for student teachers to reflect on their own experience and outline strategies that they can use in their class and community to identify the funds of knowledge students bring to school.

1. Ask student teachers to think about their and their family's funds of knowledge and fill out Table 2.13. Student teachers should miss out any categories that do not apply to them. (5 minutes)
2. Ask students teachers to share the funds of knowledge they have identified, and are comfortable sharing, in a small group. Ensure that the groups are inclusive and include a balance of genders and abilities. (10 minutes)

### Assessment

You will be able to assess understanding by observing and questioning student teachers in their small group discussions and reviewing student teachers' responses to the questions.

### Possible student teachers' responses

Student teacher responses will be very individual so there are no correct answers for this learning activity.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Check for understanding in the last 5 minutes of the period by asking volunteers to share responses with whole class. Ensure you choose student teachers equitably to respond.

## Period 2

## Culturally responsive pedagogy

This period is structured as follows:

| | |
|---|---|
| Introduction | 5 minutes |
| Learning activity 3 | 20 minutes |
| Learning activity 4 | 20 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Individual |

Ask the students teachers to read the section "The role of language in education" and highlight the key points in the text.

### Learning activity 3. Small group discussion: The challenges of ELB–MLE

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Small groups |

## Purpose

The purpose of this activity is for student teachers to identify the challenges of delivering ELB–MLE in Myanmar.

1. Ask the student teachers to form small groups. Ensure inclusivity by monitoring that groups are gender and ability balanced.
2. Ask the student teachers to read Table 2.14 so they get a sense of how ELB–MLE can positively impact student engagement and learning in a classroom.
3. Ask the students to think about and discuss the challenges of delivering ELB–MLE in Myanmar and list their ideas in Box 2.8 in the textbook (15 minutes).
4. Ask the student teachers to read the suggested strategies for Lower Middle School classes and identify their top 3 favourite strategies (5 minutes).

### Assessment

You will be able to assess understanding by observing and providing feedback in the small group discussions.

### Possible student teachers' responses

There will be a range of student teacher group responses. Possible responses are presented in Box TG 2.2.

### Box TG 2.2. Challenges of delivering ELB–MLE – completed

- Need for national educational policy that endorsed ELB–MLE
- Need for adequate budget to support implementation
- Need for adequate teacher recruitment from ethnic minority groups
- Need for adequate teacher pre-service teacher education and in-service professional development
- Need for creation of teaching resources in different languages
- Diversity of ethnic languages in Myanmar context and potentially within any one classroom.

[See Box 2.8 in textbook.]

### Learning activity 4. Small group discussion and response: Ideas and strategies to use community resources to support student learning

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Small group, whole class |

### Purpose

The purpose of this activity is for student teachers to brainstorm ideas and strategies that you can use in Lower Middle school classrooms and communities to support student learning, including using students' first languages.

1. Keep the student teachers in the same small groups as for Learning activity 3.
2. Ask the student teachers to discuss the 3 questions in activity and list their responses in Box 2.9.
3. Ask the groups to share their responses with the whole class.

### Assessment

You will be able to assess understanding by observing and providing feedback in the small group discussions.

### Possible student teachers' responses

There will be a range of student teacher group responses. Possible responses are presented in Box TG 2.3.

**Box TG 2.3. Strategies to use community resources to support student learning – completed**

- Invite parents or elders to come into the classroom to teach traditional skills or knowledge that is linked to the regular curriculum.
- Investigate ways in which different cultural groups talk about science concepts (e.g., classification, seasons)
- Share traditional stories about a similar topic.
- Ask a parent/elder to come and demonstrate traditional practices (cultivation, art, storytelling, histories) providing comparative perspectives on the taught curriculum.
- Display the different languages spoken in the classroom through comparative charts.
- Explore the different grammatical structures and origins of languages spoken in your classroom using community members as a valuable language resource.

[See Box 2.9 in textbook.]

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Allow time in the last 5 minutes of the period to identify those strategies that the class believe are likely to be particularly effective. Ensure you choose student teachers equitably to respond. Ask student teachers to provide a rationale for their selection.

## Period 3

## Culturally responsive pedagogy

This period is structured as follows:

| | |
|---|---|
| Learning activity 5 | 45 minutes |
| Check student teachers' understanding | 5 minutes |

### Learning activity 5. Planning task: Scoping a learning sequence

| | |
|---|---|
| **Time** | 45 minutes |
| **Class organisation** | Small groups |

### Purpose:

The purpose of this learning activity is for student teachers to apply their knowledge about culturally responsive pedagogy and ELB–MLE to a teaching situation.

1. Organise the class into small groups paying attention to inclusive practices.
2. Allocate or suggested topics from the Basic Education Curriculum to groups.
3. Inform student teachers that they are not going to plan a full lesson or sequence of lessons, rather they are going to think about how they can develop culturally safe and welcoming learning environments by drawing on students' and families' funds of knowledge.
4. Ask the student teachers to fill out Table 2.15 in their textbook after discussion in their groups. In the left hand column, write the focus of a series of periods or learning activities (up to 5); in the middle column, list the kinds of community resources that would support their teaching and learning activities; in the right hand column, list the strategies they could use.
5. Ask each group to share their table with another group.
6. Revisit the expected learning outcomes and TCSF competencies at the end of the lesson.

## Assessment

You will be able to assess understanding by observing and providing feedback in the small group discussions and listening to responses when groups are sharing.

## Possible student teachers' responses

There will be a range of student teacher group responses. Possible responses are presented in Table TG 2.9.

**Table TG 2.9. Planning – completed**

| Topic | Storytelling | |
|---|---|---|
| **Focus** | **Funds of knowledge** | **Strategies** |
| Recognising that stories are an important way of transmitting and maintaining cultural knowledge and values | Parents/ community elders<br><br>Local historians<br><br>Local guides | Share or collect traditional stories/ histories of the local area from parents/ elders/ local historians/ guides.<br><br>Whole class discussion as to themes, similarities, and differences. |
| Sharing traditional stories | Parents/ community elders<br><br>Local historians<br><br>Local guides | |
| Applying cultural understanding for an authentic audience | | Create a whole class story book for younger students based on one of the cultural stories shared.<br><br>Write a shared text for younger students about an aspect of local history which includes different languages. |
| Applying knowledge about diverse community languages | | Write a bilingual story book based on a traditional story/history. |
| Recognising that stories are an important way of transmitting and maintaining cultural knowledge and values | | Organise a story-telling event with another class using the bilingual text or local history text developed as a class or in groups. |

[See Table 2.15 in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Check for understanding in the last 5 minutes of the period by asking selected student teachers to summarise their learning. Ensure you choose student teachers equitably to respond.

### Expected student teachers' responses for the review questions in TB

Question 1: What does the term lifespan development mean?

Answer: *Broadly speaking, the term lifespan development refers to the continuous process of individual development, from conception to death.*

Question 2: What is the role of context in Baltes' Lifespan Developmental Theory?

Answer: *: Development occurs in interaction between an individual's biological factors and contextual factors. Influences on development may be age-related, history-related, or non-normative.*

Question 3: Why is cultural safety an important concept in an inclusive classroom?

Answer: *Cultural safety is important because it is an important component of inclusion and ensures that all students' knowledge can act as a bridge to learning.*

Question 4: How can teacher unconscious bias impact on minority student learning outcomes?

*Answer: Teacher unconscious bias can influence teachers' expectations of minority students, which in turn will result in poorer educational outcomes.*

Question 5: How does the language of instruction in schools impact on minority language students?

Answer: *Student may come to school with rich language resources but little proficiency in the language of schooling. If students have to learn their initial literacy or new concepts through a language in which they are not proficient, it will impact upon their ability to learn. Students may also become alienated from schooling.*

Question 6: How can parents and communities support student learning?

Answer: *Parents and communities can support student learning through sharing their cultural knowledge, encouraging first language use and development, and having good partnerships with the school.*

# Unit Summary

**Key messages**

- The Technological Pedagogical Content Knowledge framework, or TPACK, describes the knowledge teachers need to use technology effectively to teach content to students.
- The key insight of TPACK is that for teachers to use technology effectively they must learn to integrate technology with knowledge of content and pedagogy rather than learn about technology separately.
- TPACK is a useful framework for understanding the affordances of available technology in teaching and learning and to plan for effective integration of technology in teaching.
- TPACK is a useful framework for reflecting on teachers' strengths and areas for development so that they can actively develop effective teaching practice with technology.
- Inquiry-based learning allows opportunities for students to find out answers to questions that are interesting, important, and relevant to them.
- Two models for inquiry-based learning include the:
  - 5Es model for facilitating inquiry in the Sciences but with wider uptake across subjects; and
  - Social Inquiry model for facilitating inquiry in the Social Sciences (i.e., Social Studies).
- The research literature shows that students are unlikely to achieve learning outcomes in inquiries that are not well scaffolded by teachers. Higher order thinking and communication skills need to be progressively developed over students' schooling for them to successfully engage in inquiry-based learning.
- Teachers can employ a range of strategies to support students in inquiry-based learning, including:
  - Facilitating orienting activities for students to discuss conceptual ideas and frame questions;
  - Promoting student interactions with a range of materials;
  - Promoting teacher-student and student-student interactions;
  - Questioning and listening to students and responding to their statements;
  - Facilitating small group activities that are designed to encourage students to talk and to come with predictions and explanations; and

  - Assessing formatively on a daily basis.
- The research literature shows that, in problem-based learning, students develop cognitive, communication, and collaboration skills through the processes of defining problems, identifying information that is needed, evaluating and making sense of information, and arriving at consensus in terms of possible solutions.
- In planning for and facilitating problem-based learning, the teacher identifies intended learning outcomes and success criteria; designs a complex scenario together with the students from which the problem will emerge; scaffolds research and problem-solving processes, and supports students in communicating research findings, solutions, and reflections on learnings.
- There are many different theories relating to students' cognitive, physical, social, and emotional development that are relevant to children in the Middle school. More recent theories place a strong emphasis on development as occurring in interaction between individual and different contextual systems.
- Lifespan development is the continuous process of individual development, from conception to death. One major lifespan development theory was developed by Baltes, who proposed that development is: lifelong, multidimensional, multidirectional, plastic, and contextual.
- Research shows that Ethnic Language Based–Multilingual Education (ELB–MLE) is very effective, particularly for disadvantaged students. However, providing ELB–MLE for all students is difficult in terms of resources and training.
- All children come to school with funds of existing knowledge. Children whose funds of knowledge are different from those valued by school (e.g., different language or culture) can experience poorer learning outcomes if their teachers are not skilled in using those resources to support learning.
- In linguistically and culturally diverse contexts, it is important to access and value parents and community elders as resources to support children's learning.

**Unit reflection**

Select one of the key themes of this unit:

- Integrating technology in teaching and learning;
- Planning for and supporting students' engagement in inquiry-based and problem-based learning;

- Responding to students' cognitive, physical, social, and emotional developmental needs in teaching and learning; and
- Drawing upon the funds of cultural knowledge of students and their families in teaching and learning.

What artefacts can student teacher incorporate in their TCSF development portfolio to evidence their deepening understanding and proficiency in terms of the theme that they have selected?

It may be helpful when they are reflecting on what artefacts to choose to document their learning over Year 2 and 3 in regard to the theme. For instance, see Annex 2B as an example of the progression of learning over Year 2 and 3 in regard to inquiry-based and problem-based learning.

**Further reading**

**2.1. Consolidating Understanding of TPACK**

Crouch, V., Richardson, R., & Ferguson, M. (2020, December). Developing digital pedagogy skills and knowledge. *Teacher*. https://www.teachermagazine.com/au_en/articles/developing-digital-pedagogy-skills-and-knowledge

Fundación Telefónica. (2012, July 12). *Judi Harris explica el modelo TPACK* [Video]. YouTube. https://www.youtube.com/watch?v=HDwWg_g0JGE

**2.2. Consolidating Understanding of Inquiry-based and Problem-based Learning**

Dochy, F., Segers, M., Van den Bossche, P., & Gijbels, D. (2003). Effects of problem-based learning: A meta-analysis. *Learning and Instruction, 13*(5), 533–568. https://doi.org/10.1016/S0959-4752(02)00025-7

Friesen, S., & Scott, D. (2013). *Inquiry-based learning: A review of the literature.* Paper prepared for the Alberta Ministry of Education. https://galileo.org/focus-on-inquiry-lit-review.pdf

## 2.3. Consolidating Understanding of Learner Diversity and Development


Ball, J. (2011). *Enhancing learning of children from diverse language backgrounds: Mother tongue-based bilingual or multilingual education in the early years*. UNESCO Bangkok. https://bangkok.unesco.org/content/enhancing-learning-children-diverse-language-backgrounds-mother-tongue-based-bilingual-or

Guy-Evans, O. (2020, November 09). Bronfenbrenner's ecological systems theory. *Simply Psychology.* https://www.simplypsychology.org/Bronfenbrenner.html

Lumen Learning. (n.d.). The lifespan perspective. *Module 1: The lifespan development.* https://courses.lumenlearning.com/wm-lifespandevelopment/chapter/the-lifespan-perspective

Raising Children Network. (n.d.). Pre-teens: Development. *The Australian Parenting Website.* https://raisingchildren.net.au/pre-teens/development

Shee, N. K. (2020, November 6). What is MTB-MLE and its implication on education and pedagogical approaches to MTB-MLE? *Inclusion Webinar Series for the Four-year Education College Degree Programme.* [Access in College e-library]

UNESCO Bangkok. (2020). *Mother tongue and early childhood care and education: Synergies and challenges.* https://bangkok.unesco.org/content/mother-tongue-and-early-childhood-care-and-education-synergies-and-challenge

# Unit 3

# Strategies for Effective Learning

In this unit, student teachers will explore a range of strategies and personal qualities that enable effective learning. Firstly, the concepts of critical thinking and creative thinking are critically examined. Student teachers will develop their own critical and creative thinking skills and design activities that will help students in the Lower Middle grades to develop these forms of higher order thinking.

Strategies involving cooperative learning and blended learning can support students' development of critical and creative thinking. In Sub-unit 3.2, student teachers will critically examine these strategies and design learning activities that use cooperative and blended learning strategies to enhance student learning. In Sub-unit 3.3, they will examine the crucial role of feedback in learning and focus on how students receive, interpret, understand and use feedback. They will apply strategies to provide constructive, empathetic feedback that enables students to grow in their learning.

Engagement in learning and self-regulation of learning are important to support school students in developing lifelong learning skills. In Sub-unit 3.4, student teachers will examine four forms of engagement that work together to support learning. They will also investigate different aspects of self-regulated learning and how students can develop the skills to become lifelong learners. Finally, they will reflect on their own strengths and limitations in regulating learning and will develop strategies to build their abilities in self-regulated learning.

## Expected learning outcomes

**By the end of this unit, student teachers will be able to:**

- Define and discuss critical thinking in the Lower Middle school;
- Adapt and use appropriate critical thinking strategies in planning for teaching and learning in the Lower Middle school;
- Define and discuss creative thinking in the Lower Middle school;
- Adapt and design appropriate activities to develop creative thinking skills for effective learning in the Lower Middle school;
- Examine appropriate cooperative learning methods to enhance teaching and learning in the Lower Middle school;
- Design cooperative learning activities to promote learning in the Lower Middle school;
- Define and examine blended learning in the Lower Middle school;
- Plan blended learning activities that can be used effectively in the Lower Middle school;
- Apply strategies to give constructive and empathetic feedback to promote learning for students in the Lower Middle school;
- Define engagement in learning;
- Develop effective strategies for student engagement;
- Explain the concept of self-regulated learning;
- Reflect on personal practices of self-regulated learning;
- Develop the mastery motivation of students; and
- Plan strategies to help lower middle school students build skills for lifelong learning.

## Competencies gained

A1.1 Demonstrate understanding of how students learn relevant to their age and developmental stage

A1.2 Demonstrate understanding of how different teaching methods can meet students' individual learning needs

A2.. Demonstrate understanding of appropriate use of a variety of teaching and learning strategies and resources

A2.2 Demonstrate understanding of appropriate use of Information and Communication Technology (ICT) in teaching and learning

A5.2 Demonstrate understanding of how to vary delivery of subject content to meet students' learning needs and learning context

B1.1 Demonstrate capacity to teach subject-related concepts clearly and engagingly

B1.2 Demonstrate capacity to apply educational technologies and different strategies for teaching and learning

B1.3 Demonstrate good lesson planning and preparation in line with students' learning ability and experience

B2.1 Demonstrate capacity to monitor and assess student learning

B3.1 Demonstrate capacity to create a safe and effective learning environment for all students

B3.2 Demonstrate strategies for managing student behaviour

C1.1 Demonstrate values and attitudes consistent with Myanmar's tradition of perceiving teachers as role models

C1.2 Demonstrate understanding of the underlying ideas that influence one's practice as a professional teacher

C1.4 Demonstrate responsibility and accountability for the use of education resources

C3.1 Demonstrate a high regard for each student's right to education and treat all students equitably

C3.2 Demonstrate respect for diversity of students and the belief that all students can learn according to their capacities

C3.3 Demonstrate capacity to build students' understanding of different cultures and global citizenship

D1.1 Regularly reflect on own teaching practice and its impact on student learning

D3.1 Demonstrate understanding of the importance of inquiry and research-based learning to improve teaching practice

# 3.1. Critical and Creative Thinking

In this sub-unit, student teachers will examine critical and creative thinking within the Lower Middle school context. These skills require students to develop higher order thinking to understand the world around them. Critical and creative thinking are important skills to develop across all learning areas. Student teachers will participate in tasks that will challenge their skills in critical and creative thinking, and student teachers will design tasks for their students to develop their own critical and creative thinking skills.

## 3.1.1. Developing critical thinking in the Lower Middle school

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Define and discuss critical thinking in the Lower Middle school; and
- Adapt and use appropriate critical thinking strategies in planning for teaching and learning in the Lower Middle school.

**Competencies gained**

A1.1.1 Give examples of how the students' cognitive, physical, social, emotional and moral development may affect their learning

A1.1.2 Prepare learning activities to align with students' level of cognitive, linguistic, social, and physical development

A1.2.2 Identify focused and sequenced learning activities to assist students to link new concepts with their prior knowledge and experiences

A2.1.1 Plan learning experiences that provide opportunities for student collaboration, inquiry, problem-solving and creativity

A2.1.2 Use teaching methods, strategies and materials as specified in the textbooks and additional low cost support materials, to support student learning

B1.2.1 Use teaching methods and learning strategies appropriate for the class – culture, size and type

B1.2.3 Create opportunities for students to investigate subject-related content and concepts through practical activities

C1.2.1 Identify theories and concepts that inform approaches to teaching and learning

C1.2.2 Describes own approach to teaching and learning

C3.3.1 Integrate concepts of sustainability, equality, justice and the rights and responsibilities of students into class and school activities

**Time:** Two period of 50 minutes

**Learning strategies**

Learning activity 1. Practical demonstration: Can you solve this?

Learning activity 2. Small group brainstorm: Critical thinking in learning areas

Learning activity 3. Think-pair-share: Supporting critical thinking

Learning activity 4. Small group task: Designing critical thinking activities for a diverse class

**Assessment approaches:** Questioning, observation, peer and whole-class discussion

**Preparation needed:** Read Learning activity 1 in this guide carefully and consider how you will introduce the activity to the student teachers. The following video demonstrates Learning activity 1 and explains the lessons that can be learnt through the activity. Because this activity will be done in the classroom, it will be organised a little differently. Watch the video[27] by clicking on the link:

Video: The Most Common Cognitive Bias

URL: https://www.youtube.com/watch?v=vKA4w2O61Xo

Scan QR Code to watch the video on YouTube. This video has captions that enable you and your student teachers to read the text while viewing the video. Turn on where you see CC.

**Facilitator's notes**

Refer to this description of the video if you are unable to access YouTube:

The video shows an experiment where the presenter, Derek Muller, approaches people on the street to participate in an experiment. He explains to the participants that he will give them three numbers that follow a rule. He will not tell them the rule, because the participants need to guess it. The participants must respond by proposing a series of three numbers that they think will follow the rule. Then, they will need to guess the rule that he has devised.

To begin the activity, Derek Muller says the first three numbers: 2, 4 and 8. Then he asks the participants to give three more numbers that they think might follow his rule. If the numbers follow his rule, he says "Yes, that follows the rule". If the numbers do not follow the rule, he says, "No, that does not follow the rule". Then, he asks them to predict what his rule is.

27 Veritasium. (2014).

In the beginning, the participants look for confirmation that their guess is correct. However, this tactic does not bring them closer to the answer. When Derek Muller challenges the participants to try to disprove their beliefs about the rule, they start to change their approach. They begin proposing three numbers that do NOT follow what they thought might be the rule (i.e., they try to break the rule). By searching for a negative response – "No, that does not fit my rule", the participants can quickly guess the rule.

Please note that the student teacher textbook does not have a full description of this activity. This is because a full description of the activity might diminish student teachers' experience of critical thought.

**Resources needed**

Learning activity 1: No resources needed

Learning activity 2: Butcher's paper and pens for each group of student teachers

Learning activity 3: No resources needed

Learning activity 4: Butchers paper and pens for each group of student teachers

**Period 1**

**Developing critical thinking in the Lower Middle school**

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 5 minutes |
| Learning activity 1 | 10 minutes |
| Explicit teaching | 10 minutes |
| Learning activity 2 | 20 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the lesson.
2. Divide the class into small groups of 3 or 4 student teachers.

### Learning activity 1. Practical demonstration: Can you solve this?

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class split into small groups (3 to 4 student teachers) |

## Purpose

The purpose of this learning activity is for student teachers to:

- challenge the way they approach problems;
- think critically about problem-solving;
- understand the limitations of seeking confirmation of their ideas; and
- to understand the value of trying to disprove their own theories in order to find 'truth'.

Please note: THIS IS THE RULE – (DO NOT REVEAL IT TO THE CLASS!) Numbers MUST be organised in ascending order.

1. Make sure that the student teachers are in their small groups before starting. They will remain in these groups for the entire period.
2. Say to the class:
   "I will give you three numbers in a sequence. These numbers follow a specific rule, but I am not going to tell you what that rule is. You will need to figure out the rule in your groups.
   You can get information about the rule by saying three different numbers back to me. I will tell you if your numbers follow the rule or if they do not follow the rule. Then, you can tell me what you think the rule is.
   Here are my three numbers: 2, 4, 8."

3. Give the groups a short amount of time to discuss which three numbers they will choose and what rule it may follow (the student teachers can give ANY three numbers – they do not have to follow a particular pattern).
4. Choose a group to say their three numbers. The interaction may progress something like this (but not exactly):
   Group 1: 16, 32, 64
   Teacher: That follows the rule. What is the rule?
   Group 1: We are multiplying the numbers by 2
   Teacher: That is not the rule. Who else has 3 numbers?
5. Ask the next group for their numbers. For example, the next group might say something like:
   Group 2: 10, 22, 44
   Teacher: That follows the rule. What is the rule?
   Group 2: We can divide all the numbers by 2.
   Teacher: That is not the rule. Who else has 3 numbers?
6. Allow the interactions to progress in the same way until the groups become frustrated or they cannot think of another sequence of numbers. It is likely that the student teachers will not guess the rule to begin with, because they will try to ***confirm*** their ***beliefs*** about the sequence of numbers. (They are looking for the answer "yes").
7. When the student teachers begin to struggle with finding a sequence of numbers, you may provide a strategy, such as:
   How might you **disprove** a rule or pattern? For example, if I think the rule is multiplying each number by 2, I might try to disprove it by breaking the pattern. Instead of 16, 32, 64, I might say 16, 18, 19. This way you will gather helpful clues about the rule more quickly. The sequence 16, 18, 19 follows the rule. What clues have you found?

**Facilitator's notes**

Try to help the student teachers to see that the rule allows odd numbers and it also does not seem to follow the predictable type of pattern they expected. Allow the student teachers to discuss their new approach.

8. Begin the process again - ask another group to offer three numbers. Hopefully, their approach to selecting the numbers changes, and they will quickly realise

the rule. When the student teachers have discovered the rule, ask them to reflect individually on the task using the guiding questions in their textbook. They should write their responses in their books.

9. Encourage student teachers to think about the importance of reflecting on their understanding of the world and questioning their own beliefs about the world. Link this to the scientific process and reflect on how this is a form of critical thinking.

**Assessment**

For this activity, it is important to observe the level of critical thinking that student teachers apply to the problem. Observe the ways in which the student teachers first approach the problem. Do they try to confirm their own beliefs about the rule? Observe how they negotiate their responses in their groups – are all group members participating equally?

Listen to the group discussions – which student teachers have difficulty changing their approach to the task? Which student teachers are able to change their approach more easily? Do they understand why it is important to change their approach to the problem?

After the individual reflections discuss the student teachers' observations, selecting males and females. Use questioning techniques to encourage the student teachers to think about the experience using higher order thinking skills – analysis and evaluation.

**Possible student teachers' responses**

There are no set responses for this activity. Examples are given in the instructions.

It is likely that student teachers will put forward a range of numbers that are ordered in different ways. To begin, they are likely to try patterns that they think are correct (they will want to prove that their idea is correct). However, after the teacher encourages them to disprove their theory, the pattern of numbers they give should change to become more random.

## Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Ask student teachers to turn to Lesson 3.1.1 in their textbook. Ask them to read the section: Exploring critical thinking. Highlight the challenges involved in developing critical thinking. Also highlight the challenges for teachers. When their students are thinking critically in the classroom, they may not come to the same conclusions as the teacher. This may feel strange or uncomfortable for the teacher and their students. However, healthy disagreement can be an important part of the educational process, as long as their students work through the critical thinking processes and are able to justify their conclusions. It can help them to appreciate the value of other people's opinions.
2. Refer student teachers to Table 3.1. List of critical thinking cognitive skills and sub-skills, in their textbooks. Draw parallels between Bloom's Taxonomy and the critical thinking skills and sub-skills. Encourage student teachers to think about which learning areas in the curriculum focus on different sub-skills.
3. Read about and discuss the three elements of critical thinking processes (Figure 3.1): knowledge, skills and disposition. Ask the student teachers to consider why each of these elements needs to be developed in order to engage in critical thinking. Ask student teachers to give examples of what might happen if a person lacks one of the critical thinking elements.
4. Discuss strategies for encouraging critical thinking in the classroom.

**Facilitator's notes**

If you have access to the internet and a data projector, you may choose to show excerpts from the following videos to show the whole class.

Video: Teaching tips 3: Questions that get students thinking[28]

URL: https://www.youtube.com/watch?v=O0C1kSmUUGo

Scan QR Code to watch the video on YouTube. This video has captions that enable you and your student teachers to read the text while viewing the video. Turn on where you see CC.

Video: Teaching critical thinking through art, 2.4: Looking for details with the elaboration game:[29]

URL: https://www.youtube.com/watch?v=JwsKQGv0cpo

Scan QR Code to watch the video on YouTube. This video has captions that enable you and your student teachers to read the text while viewing the video. Turn on where you see CC.

You may also encourage student teachers to research different critical thinking strategies that they could implement in the Middle school classroom.

## Learning activity 2. Small group brainstorm: Critical thinking in learning areas

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Groups of 3 to 4 |

28 British Council – TeachingEnglish. (2013).
29 National Gallery of Art. (2019).

## Purpose

The purpose of this learning activity is for student teachers to apply critical thinking skills and sub-skills across the curriculum.

1. Refer student teachers to Learning activity 2: Critical thinking in learning areas.
2. Student teachers should remain in the same groups they were in for Learning activity 1. Each group will need a large piece of paper and pens. Allocate a different curriculum learning area to each group. The student teachers will need to work quickly during this activity. It may help to set a timer or stop-watch. Teams may want to allocate different roles. For example, if the group has not finished brainstorming the skills and subskills, two student teachers might continue to finish writing the skills and subskills, while the others in the group begin to brainstorm the activities.
3. On the paper, the groups need to brainstorm the critical thinking skills and subskills (refer student teachers to Table 3.2 Critical thinking in Lower Middle school learning areas, to set up the table with the same headings).
4. As the student teachers discuss their learning area, they should refer back to Table 3.1. List of critical thinking cognitive skills and sub-skills and Figure 3.1. Core components of critical thinking. These will give the student teachers ideas about the types of skills they can include for their learning area. (3 minutes)
5. The groups should add to their brainstorm different activities that they could use to teach each critical thinking skill. Again, it might be helpful to use a timer to ensure that the student teachers work quickly. The following is an example, but please note that there are no right or wrong answers. The student teachers should be able to brainstorm a range of different skills and activities. (5 minutes)

Each group should report ***briefly*** back to the class the critical thinking skills and activities for the learning area they discussed. Student teachers may benefit from writing down ideas from the other groups (5 minutes).

## Assessment

Remember to gauge how well the student teachers are thinking critically about the task. Observe each of the groups, and how they are interacting. Are all members of the group participating and contributing equally to the discussion?

As you observe each group, check that they can explain:

- reasons why they have chosen particular skills for their learning area
- how the activity can help their students to develop the skill.

Monitor and note the skills that the student teachers select for the learning areas. Are they appropriate for the learning area? Are the activities appropriate for developing the skills? Question the student teachers about why they have chosen the activities and how they would implement them to develop critical thinking.

### Possible student teachers' responses

There will be many different responses for this activity – there are no correct answers. Table TG 3.1 gives a brief range of possible responses.

**Table TG 3.1. Examples of possible responses: Critical thinking in middle school learning areas – completed**

| Learning area[30] | Critical thinking sub-skills | Activity to develop the skills |
|---|---|---|
| **Myanmar** | Identifying and analysing arguments | Class debate |
| | Communicating meaning clearly | Writing a persuasive essay |
| | Finding meaning that is implied and not explicitly stated | Reading newspaper articles; Novel studies |
| **English** | Thinking of different ways to solve a problem | Role playing asking for directions to a local building or area |
| **Mathematics** | Identifying errors in your own thinking and correcting your mistakes | Reviewing a test to understand errors in calculation |
| **Science** | Making hypotheses or predictions based on evidence | Doing an experiment – creating hypotheses and testing them |
| **Social Studies (Geography)** | Drawing conclusions based on different types of evidence and observation | Reading information, maps and graphs to gather information about a location |
| **Social Studies (History)** | Comparing and contrasting ideas | Use an example from an event at school (such as a school concert). Each student writes an account of the event and then they share their account with a small group. Each group will compare and contrast their accounts. |
| **Life Skills** | Thinking of different ways to solve a problem | Analyse an interaction within the family where there is conflict between siblings. How might the siblings resolve their differences? |

30 Learning areas are provided in the Myanmar National Basic Education Curriculum (6th Version), DBE n.d.

| Learning area[30] | Critical thinking sub-skills | Activity to develop the skills |
|---|---|---|
| **Physical Education** | Using reasoning and logic to draw conclusions from evidence | Improving running. Students study aspects of human movement relevant to improving running. In pairs, one student runs 100 metres, while the other student observes and records their time. Using the data and what they have learnt from theory, they work together to make small changes to improve running times. Students take turns to run and then record data. |
| **Morality and Civics** | Reflecting on your own thoughts and beliefs | Reflective task that focuses on how the individual can develop the qualities to become a good citizen. |
| **Aesthetics (Music and Art)** | Identifying errors in your own thinking and correcting your mistakes | Students will perform for a class concert. They are required to practise their instrument and work on perfecting their piece bit by bit, identifying mistakes and correcting them, and developing the sense of feeling through the music. |
| **Local Curriculum** | Thinking of different ways to solve a problem | Problem based learning task: Students will be presented with an issue that affects the local community. All students will work on the same issue In groups the students will research the issue and devise a way to solve the problem. The class will then combine their ideas to work out a way to address the issue. |

[See Table 3.2 in textbook.]

## Checking student teacher's understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to reflect on critical thinking practices in the classroom.

1. How might the student teachers integrate critical thinking into the learning areas they teach?
2. What challenges might they face in the classroom when supporting their students to develop critical thinking skills?
3. How might the student teachers also continue to develop their own critical thinking skills further?

## Period 2

## Developing critical thinking in the Lower Middle school

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 3 | 15 minutes |
| Explicit teaching | 5 minutes |
| Learning activity 4 | 15 minutes |
| Check student teachers' understanding | 5 minutes |

### Introduction and explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the lesson.
2. Ask the student teachers to think back to Year 2 (Unit 5) when they studied Piaget's Theory of Cognitive Development. Ask if there are any student teachers who recall the four stages. If anyone remembers, write their responses on the board as they recall them. If they do not remember, begin by writing the stages on the board:
   a. Sensorimotor
   b. Preoperational
   c. Concrete operational
   d. Formal operational

   Do the student teachers remember what development occurred at each stage?
3. Highlight to the student teachers that typically, students in the Lower Middle school are about the age where a child will transition from the concrete operational stage to the formal operational stage. Explain that this does not mean that all lower middle school students are ready to transition from one stage to the next. Some students will make the change early, while others might develop a little later. Some students will not transition to the formal operational stage at all.

4. Ask student teachers to turn to Sub-unit 3.1, Period 2 in the textbook. Ask student teachers to read the information in Table 3.3. Description of Piaget's stages of cognitive development for Lower Middle school: Concrete operational and formal operational stages. What does this mean in relation to what their students can do at the concrete operational stage compared with the formal operational stage? Ask student teachers to think about what this means for planning for teaching and learning.

### Learning activity 3. Think-pair-share: Supporting critical thinking

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Individual, pairs and whole class |

**Purpose**

The purpose of this learning activity is to help student teachers to think about how students might engage in critical thinking as they move from one developmental stage to the next.

1. Instruct student teachers to take a moment to reflect on how they might support students in Lower Middle school to move from the concrete operational stage to the formal operational stage to enable greater critical thought. Pose the following questions to prompt their thinking:
   a. What strategies might they use to help students move from concrete to abstract thinking as they develop their critical thinking skills?
   b. How will they support students who are already able to think abstractly to develop their critical thinking skills further?

   Student teachers should write a few sentences about their reflections in their books. (5 minutes)
2. Ask student teachers to discuss their reflections with the person sitting next to them.

   Ask them to compare and contrast their reflections:
   a. How are their ideas and reflections similar?
   b. How do your reflections differ? (5 minutes)
3. Bring the class together for a whole class discussion. Ask them to consider the likelihood that students in their classes will be at different developmental stages. As a class, lead a discussion about the implications of this for planning

for differentiated teaching and learning for classes with students at different stages of development. (5 minutes)

### Assessment

For this activity, it is important to notice how well the student teachers have understood the different skills and abilities that students develop at the concrete operational and formal operational stages.

Are student teachers able to interpret what the described abilities in the concrete operational and formal operational stages look like in the real world (i.e., what types of behaviours would indicate that a student is at the concrete operational stage or the formal operational stage?).

Observe the student teachers' abilities to compare and contrast information.

### Possible student teachers' responses

Student teachers should look at the characteristics of thinking (Table 3.3 in the TB) for students who are at the concrete operational stage and consider how they can help students to move from concrete thinking to abstract thinking. There will be many different possible responses to this question.

For example, if their students are working on a categorisation task (e.g., categorising animals according to characteristics) they may start with a simple task focusing on grouping animals by their physical characteristics. The next step may involve introducing a taxonomy and scientific rules for classifying animals, such as the Linnaeus Method and introducing them to different ways of representing relationships between different classes of animals, such as a dichotomous key.

## Explicit teaching

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Ask student teachers to turn to Sub-unit 3.1, Period 2 in the textbook and read the section *Strategies to develop Critical Thinking in Lower Middle school.* Ask them to read through Table 3.4. Strategies and activities to develop critical thinking in the Lower Middle school.

**Learning activity 4. Small group task: Designing critical thinking activities for a diverse class**

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Small groups (3 or 4 people) |

## Purpose

The purpose of this activity is for student teachers to design a critical thinking task that is for a Grade 6 class with diverse student needs (such as differences in cognitive stages, second or additional language learners, students with additional needs).

1. Divide the class into small groups of about three or four people.
2. Each group will select a strategy from Table 3.4, Strategies and activities to develop critical thinking in the Lower Middle school (make sure that there is a fairly even spread of different strategies across the groups).
3. Student teachers will use the strategy they have selected to design a learning activity that will enable their Grade 6 students to engage with critical thinking about the topic *"Mutual respect between siblings"* (See Morality and Civics Education curriculum, Unit 1. Social Etiquette, Grade 6). Encourage student teachers to use Table 3.1 and Table 3.4 to guide their ideas.
4. Each group should respond to the questions:
   a. What is the strategy?
   b. What is the main learning objective of the activity?
   c. What is the task?
   d. What will the students need to do to think about the topic critically?
   e. How will the teacher help all students to engage in critical thinking?
   f. How will the students demonstrate what they have learnt?

**Assessment**

For this activity, it is important to assess the following:

- How well do the groups work together to negotiate ideas and resolve differences?
- Are the groups able to select a strategy and develop an activity that will encourage their students to think more critically?
- To what extent do the groups focus on surface level versus deep level thinking?
- Do the groups demonstrate critical thinking in the way they design the task?

**Possible student teachers' responses**

There will be many different possible responses for this activity. A response may look something like this:

a. What is the strategy?
   The strategy will be listening and speaking, encouraging critical analysis of a visual text (cartoon)
b. What is the main learning objective of the activity?
   The students will study a short cartoon of two siblings having a disagreement. The learning objectives are to:
   - critically evaluate an issue from multiple perspectives; and
   - propose alternative strategies for conflict resolution.
c. What is the task?
   In pairs, students will study the cartoon of two siblings arguing about an issue. They will discuss the reasons why there is conflict between the siblings, identifying the reasons why each sibling is upset. They will record their observations. Students will then brainstorm different ways in which the siblings might resolve their conflict. They will evaluate their ideas and recommend the best course of action.
d. What will the students need to do to think about the topic critically (think of the skills in Table 3.1)?
   **Analysis:** The students will need to analyse and interpret a visual text to identify arguments for both siblings.
   **Evaluation:** They will need to judge the strengths and weaknesses of the arguments that each sibling might make to justify their "correctness" in the conflict.

**Explanation:** The students will draw the information together to decide how both parties might compromise so that there is a mutually beneficial result. They will then provide evidence and reasons to support their conclusion.

e. How will the teacher help all students to engage in critical thinking?
The teacher may begin by asking the students to think about a conflict they have had with a friend or sibling (a concrete, real situation). What was the conflict about? What happened with the conflict? How was the conflict resolved? Could there have been a different outcome if you responded differently? etc. After the students have considered their own experience, the activity would be introduced and scaffolded.

f. How will the students demonstrate what they have learnt?
They will perform a short role-play about how the conflict could be resolved amicably.

### Checking student teacher's understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to reflect on critical thinking strategy and task their group developed.

1. What are the strengths of the strategies for supporting a diverse mix of lower middle school students to develop critical thinking skills?
2. What are the limitations of the strategies for supporting a diverse mix of lower middle school students to develop critical thinking?
3. What might teachers need to keep in mind when designing tasks to build critical thinking skills?

# 3.1.2. Developing creative thinking in the Lower Middle school

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Define and discuss creative thinking in the Lower Middle school; and
- Adapt and design appropriate activities to develop creative thinking skills for effective learning in the Lower Middle school.

**Competencies gained**

A1.1.1 Give examples of how the students' cognitive, physical, social, emotional and moral development may affect their learning

A1.1.2 Prepare learning activities to align with students' level of cognitive, linguistic, social, and physical development

A1.2.2 Identify focused and sequenced learning activities to assist students to link new concepts with their prior knowledge and experiences

A2.1.1 Plan learning experiences that provide opportunities for student collaboration, inquiry, problem-solving and creativity

A2.1.2 Use teaching methods, strategies and materials as specified in the textbooks and additional low cost support materials, to support student learning

B1.2.1 Use teaching methods and learning strategies appropriate for the class – culture, size and type

B1.2.3 Create opportunities for students to investigate subject-related content and concepts through practical activities

C1.2.1 Identify theories and concepts that inform approaches to teaching and learning

C1.2.2 Describes own approach to teaching and learning

**Time:** Two period of 50 minutes

**Learning strategies**

Learning activity 1. Practical demonstration: Creative thinking for the classroom

Learning activity 2. Small group brainstorm: Developing creative thinking in different learning areas

Learning activity 3. Individual reflection: Creative development in the Lower Middle school

Learning activity 4. Small group task: Designing a creative thinking activity for Grade 6 students

**Assessment approaches:** Questioning, observation, peer and whole-class discussion

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 3.1.2.

**Resources needed**

Learning activity 1: A bag of rice (not too big – between 2kg and 5kg) and a stopwatch or timer

Learning activity 2: Butcher's paper and pens for each group of student teachers

Learning activity 3: A blank sheet of paper for each student (A4 or A5 size)

Learning activity 4: Butchers paper and pens for each group of student teachers

## Period 1

### Developing creative thinking in the Lower Middle school

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 10 minutes |
| Explicit teaching | 5 minutes |
| Learning activity 2 | 20 minutes |
| Check student teachers' understanding | 5 minutes |

### Introduction and explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the lesson.
2. Student teachers read through the sections: Exploring creative thinking and What is creative thinking?
3. Discuss how creative thinking is different from critical thinking and how they are related.
4. Highlight that creativity is *not* about beautiful or neat work. It is about original thought. Original thought can stem from existing ideas.
5. Highlight the importance of a) idea generation, b) working with *existing* ideas to in unique ways to change and improve them and c) making connections between existing ideas to produce something new.
6. Highlight that creative thinking has two elements: 1) it is purposeful and 2) it is intentional (it doesn't happen by accident) .

## Learning activity 1. Practical demonstration: Creative thinking for the classroom

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Individual and whole class |

### Purpose

The purpose of this learning activity is for the student teachers to think creatively about enhancing teaching and learning, using an everyday item – a bag of rice.

The student teachers will work individually, and they will need to think quickly to record as many uses for the everyday item as possible to address learning and teaching needs within a Grade 6 classroom.

1. Before starting the activity, inform the student teachers that:
   a. There are NO right or wrong answers – they should write every idea that comes to mind as long as they follow the rules.
   b. They should think *beyond* the common uses for the item.
   c. They should not be afraid to interpret the problem in different ways. You may give them a clue: Enhancing teaching and learning is not only about delivering content).
2. Set an alarm for 3 minutes. Tell the students to get ready and begin writing as soon as the timer starts.
3. After the three minutes are finished, ask students: *How many ideas did you generate?*
   a. Ask students to share their ideas. As one person reads their ideas, other students should cross those ideas off their lists if they also thought of them. It is possible that most student teachers will think of similar uses for the rice bag.
   b. How many students are left with original ideas that have not been duplicated by others in the room? What are their ideas?
4. Ask the students to indicate:
   a. How difficult did they find it to continue to generate ideas once their main ideas had been used?
   b. What did they find challenging about the task?
   c. Were there any surprising or unusual suggestions that would be useful to enhance teaching and learning in a Grade 6 classroom?

### Assessment

For this activity, it is important to assess the level of creativity shown by the student teachers.

- Are they able to problem solve with very limited resources?
- Can they think in different or unusual ways?
- Did anyone reinterpret the task in a novel way?
- Make note of the students who demonstrate unusual ways of thinking, unique ideas, ability to reinterpret the question, etc. It may be helpful to place these students carefully during group work so that they can support idea generation and encourage their peers to think in different ways.

### Possible student teachers' responses

The student teachers' brainstorm will differ depending on the packaging and size of the bag of rice. It is expected that the responses will be unusual and varied. It may include things like: make coverings for feet for child who has no shoes; cook breakfast; use rice as counters; experiment – plant rice and watch how it grows; use packaging and rice for artwork; create a skirt from the package; use package to create a toy and use rice to stuff it, etc.

Some students may find it difficult to generate many ideas, while others may have many ideas. It will be important to emphasise that there are NO incorrect responses.

### Explicit teaching

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Direct students to Lesson 3.1.2, Period 1 in the textbook. Ask student teachers to read through the section: *Habits and behaviours of creative thinkers* (including Table 3.6. Creative thinking habits.)
2. Ask student teachers to reflect on the creative thinking habits and behaviours. Which habits and behaviours do they practise? Which habits and behaviours do they find challenging?

3. Highlight the idea that students who are naturally creative may be difficult to identify and may not be the students who are most academically capable.
4. Ask student teachers how they might identify students who are highly creative.

**Learning activity 2. Small group brainstorm: Developing creative thinking in different learning areas**

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Small group |

## Purpose

The purpose of this activity is to brainstorm strategies that student teachers can use to help their students to develop habits and behaviours that enable creative thinking in different learning areas (see Figure 3.2, for example).

1. Divide the class into small groups of three or four students and give each group a large sheet of paper and pens.
2. Allocate one middle school learning area to each group: Myanmar, English, Mathematics, Science, Social Studies (Geography), Social Studies (History), Life Skills, Physical Education, Morality and Civics, Aesthetics (Music and Art), Local Curriculum.
3. Tell the groups that they will create a brainstorm or mind map, similar to the example in Figure 3.2.
4. Ask the groups to write their learning area in the centre of the paper.
5. Ask the student teachers to identify and write the Creative Habits that fit within the learning area (paying attention to the behaviours that demonstrate these habits).
6. Ask the student teachers to identify activities appropriate to their learning area that help their students to develop the creative habits and behaviours.
7. After the groups have brainstormed for 5 minutes, each group will present their brainstorm to the class. Each group member should have an opportunity to explain part of the brainstorm.

## Assessment

This activity tests the student teachers' understanding of domain appropriate skills that support the development of creative habits and behaviours. As you walk around the room, question groups about why they have chosen particular activities. Encourage the student teachers to evaluate and justify their ideas.

## Possible student teachers' responses

There are many different possible responses for this activity and there are no correct or incorrect answers. Ensure that student teachers identify behaviours and activities that fit with the learning area they have been allocated. For example: In Science, collaboration is an appropriate habit, and the student teachers may help their students to develop it through group experiments and group projects. However, Collaboration may look different in aesthetics, where the students may be grouped to practise and perform a song. A very simple example of a brainstorm is presented in Figure TG 3.1.

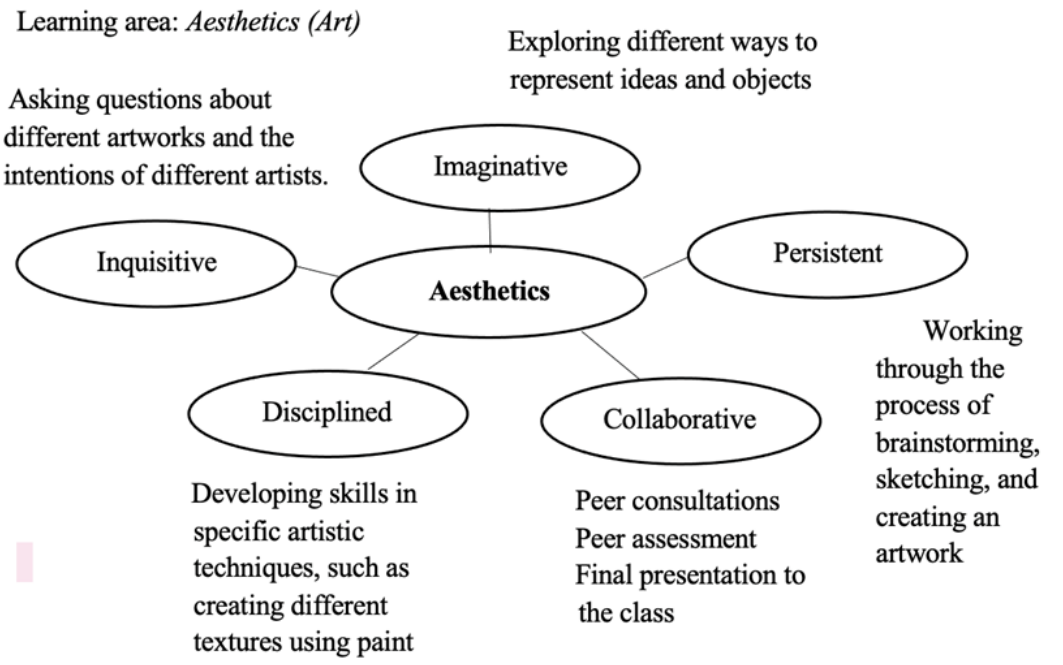



**Figure TG 3.1. Example of brainstorming activities to develop critical thinking in a learning area**[31]

[See Figure 3.2 in textbook.]

## Checking student teacher's understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to reflect on what they believed creative thinking was before they began this lesson.

1. Have the student teachers' understanding of creative thinking changed over the course of this period? If so, what did they believe creative thinking was? What do they understand it to be now?

31 Image by author, used with permission.

2. How might creative thinking differ between different learning areas?
3. Why is it important to develop creative thinking skills across all learning areas?
4. What habits of creative thinking will student teachers try to develop themselves? How will they develop these skills in their own lives and in their teaching and learning practices?

## Period 2

### Developing creative thinking in the Lower Middle school

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 5 minutes |
| Learning activity 3 | 15 minutes |
| Explicit teaching | 5 minutes |
| Learning activity 4 | 20 minutes |
| Check student teachers' understanding | 5 minutes |

### Introduction and explicit teaching

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the lesson.
2. Direct students to Lesson 3.1.2, Period 2 in the textbook and read through the section: Creative thinking in the Lower Middle school.
3. Highlight the idea that although creative thinking will usually develop as a child grows, there are times when a child's creative thinking progress may seem to go backwards.
4. Discuss different factors that might cause a student to regress in their creativity. Perhaps some of the student teachers have experienced regression in their creative thinking development due to different life experiences.

## Learning activity 3. Individual reflection: Creative development in the Lower Middle school

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Individual, pair and whole class |

### Purpose

The purpose of this activity is for student teachers to reflect on things that *encourage* creative thinking or discourage students from developing creative thinking in the Lower Middle school classroom.

1. Each student teacher should be given a blank sheet of paper.
2. Ask the student teachers to remember their own experiences in Middle school.
   a. Do they remember experiences that helped them to develop creative habits?
   b. Do they remember experiences that discouraged them from developing creative habits?
3. Ask the student teachers to imagine that they are in Grade 6. Ask them to draw themselves in the centre of the piece of paper.
4. On the left-hand side of their self-portrait, ask student teachers to list things that can happen in the classroom that *discourage* the development of creative thinking habits.
5. On the right-hand side of their self-portrait, ask student teachers to list things that can happen in the classroom that encourage the development of creative thinking habits.
6. Ask student teachers to share their reflections with the person sitting next to them.
7. As a whole class, reflect on how teachers can establish classrooms that encourage the development of creative thinking and minimise events that discourage creative thinking.

### Assessment

While most student teachers should engage well in these reflective activities, it may bring up some difficult memories for some students. It will be important to be sensitive to this. Monitor the class to see if there are any students who are finding the task challenging. Encourage the class to think forward about how they will establish safe learning environments for students to develop their creativity. Observe how students make connections between classroom management (developing an environment of social and emotional safety) and enabling creative thought.

### Possible student teachers' responses

There are no correct or incorrect responses to this activity. Student teachers' reflections on their experiences in Middle school will be individual and unique. While there are no correct or incorrect responses, the following factors may discourage creative thinking. Factors could include: bullying, disapproval from respected adults (such as teachers and parents), anxiety and worry about giving the wrong answer, embarrassment, insufficient time, discouragement from daydreaming, etc. Factors that might encourage development of creative thinking habits could include: inclusive and accepting learning environment, encouragement by respected adults (such as teachers and parents), positive social relationships, time to daydream or think, belief that *different* does not equal *wrong*, etc.

## Explicit teaching

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Direct students to Lesson 3.1.2, Period 2, in the textbook. Ask students to read the section: *Planning to develop creative thinking in the Lower Middle school* and Table 3.7, Creative skills to develop in Lower Middle school.
2. Encourage student teachers to examine the creative skills in Table 3.7. Ask them to reflect on the skills that they can do well, and also reflect on the skills that they find challenging.

## Learning activity 4. Small group task: Designing a creative thinking activity for Grade 6 students

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Small group |

### Purpose

The purpose of this learning activity is for student teachers to design a creative thinking task that for a Grade 6 class with diverse student needs. Ask them to reflect on how they might cater for the needs of students who are at different cognitive stages, second or additional language learners, and students with additional needs.

1. Divide the class into small groups of three or four students. Each group should be given a large sheet of paper to brainstorm and plan.
2. Write the topic on the board: *Cells and the structure of a cell* (See Science curriculum, Cells, Grade 6).
3. The student teachers will design a learning activity that helps their students to develop creative thinking behaviours.
4. Student teachers should use the following questions to guide the development of their activity:
    a. What is the main learning objective of the activity?
    b. What creative habits and behaviours do you want the students to develop through this task?
    c. What is the task?
    d. What will the students need to do to demonstrate creative thinking?
    e. How will the teacher help students to feel safe to generate ideas and make mistakes?
    f. How will the students demonstrate what they have learnt?
5. At the end of the learning activity, ask each group to share the task they have designed.

**Assessment**

As you move from group to group, monitor how the student teachers have interpreted the task. Will the activities enable their students to develop the creative skills and habits they intend? Ask the groups to explain and justify the design of their tasks in relation to both the development of critical thinking skills and teaching an aspect of the science curriculum.

**Possible student teachers' responses**

There are many different ways for student teachers to approach this activity, so there are no correct or incorrect responses. Here is one example:

a. What is the main learning objective of the activity?
   By the end of this lesson, students will be able to demonstrate understanding of cell structures by creating a model representing a cell's anatomy.
b. What creative habits and behaviours do you want the students to develop through this task?
   - Inquisitive: Students will ask questions about cells and their structures and they will explore the structures of cells by looking at images and reading information.
   - Imaginative: Students will think of different ways that they can represent the various structures within a cell and their functions.
   - Persistent: Students will need to persist in finding the best ways to represent the elements within the cell and how to piece it together so that it can be understood by others. They will need to create the components and work to improve them over time.
   - Collaborative: Students will work in groups and will need to negotiate ideas and cooperate with each other to complete the task.
   - Disciplined: Students will need to think critically about how cell structures might be best represented. They will need to work on improving their product, going through phases of brainstorming, design, drafting, considering appropriate materials to use and making the final product.
c. What is the task?
   In small groups, students will create a diorama of a cell, using different materials that they can find within the school grounds to represent the different elements within the cell.

d. What will the students need to do to demonstrate creative thinking?
   They will need to go through processes of brainstorming the design and materials for their diorama, they will need to evaluate and negotiate the ideas to create the final design. They will need to work together to create the diorama, solving problems as they arise.
e. How will the teacher help students to feel safe to generate ideas and make mistakes?
   During the brainstorming phase, the teacher will encourage divergent thinking (even if it is impractical), students will be encouraged to think and dream big and to write everything that comes to mind. During the evaluation phase, students will be encouraged to consider the ideas that might work. They will be encouraged to listen to each other. They will be encouraged to experiment with different materials, textures and colours to find the best ways to represent the components of the cell and their functions. **Classroom rules regarding safety and respect will be enforced**.
f. How will the students demonstrate what they have learnt?
   When the dioramas are complete, the class will have an exhibition where they share their creations and celebrate their learning.

### Checking student teacher's understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers for their reflections on the following:

1. How can teachers establish safe learning environments to enable students to develop their creative thinking skills?
2. What creative thinking skills do students need to develop? What strategies can teachers use to help their students to develop these skills?

**Expected student teacher's responses for the review questions in TB**

Question 1: What is critical thinking? Why is it important for students to develop critical thinking skills?

Answer: *Critical thinking involves a higher order thinking process. The core skills include interpretation, analysis, evaluation, inference, explanation and self-regulation. It is important for students to develop these skills because they help them to understand the world and solve problems.*

Question 2: What strategies can teachers use to help students in Lower Middle school to develop higher order thinking skills?

Answer: *Teachers can use strategies such as project and problem-based learning, collaborative learning, reading, writing, listening and speaking, questioning techniques, peer and self-assessment and technology to help students develop higher order thinking skills.*

Question 3: What is creative thinking? Why is creative thinking an important skill for students to develop?

Answer: *Creative thinking is about using higher order thinking to solve problems by producing something unique to meet a specific need or purpose. It is an important skill for students to develop because they can view problems from different angles. They can solve problems in unique ways.*

Question 4: What factors will you need to consider as you create inclusive activities that build critical and creative thinking skills?

Answer: *The answers to this question could vary. Some examples of responses might include:*

- *The students' ages and developmental levels will determine how they can engage in critical and creative thinking.*
- *The students' individual contexts and experiences.*
- *The resources available to them.*

# 3.2. Cooperative Learning and Blended Learning

In this sub-unit, student teachers will examine how cooperative learning can help their students to develop critical and creative thinking. Student teachers will consider cooperative methods that can be used to enhance teaching and learning in the Lower Middle school. They will examine blended learning and how this method of teaching fits within different school contexts. They will design activities based on a blended learning model to enhance critical and creative thinking.

## 3.2.1 Cooperative methods for learning in the Lower Middle school

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Examine appropriate cooperative learning methods to enhance teaching and learning in the Lower Middle school; and
- Design cooperative learning activities to promote learning in the Lower Middle school.

**Competencies gained**

A1.1.1 Give examples of how the students' cognitive, physical, social, emotional and moral development may affect their learning

A1.1.2 Prepare learning activities to align with students' level of cognitive, linguistic, social, and physical development

A1.2.2 Identify focused and sequenced learning activities to assist students to link new concepts with their prior knowledge and experiences

A2.1.1 Plan learning experiences that provide opportunities for student collaboration, inquiry, problem-solving and creativity

A5.2.1 Describe ways to contextualise learning activities for the age, language, ability and culture of students to develop understanding of subject related principles, ideas and concepts

B1.2.1 Use teaching methods and learning strategies appropriate for the class – culture, size and type

B1.2.3 Create opportunities for students to investigate subject-related content and concepts through practical activities

B3.1.2 Encourage students to interact with each other and to work both independently and in teams

B3.2.1 Create, explain, display and enforce the agreed classroom rules and procedures to ensure student health and safety

B3.2.2 Encourage students to interact with each other with mutual respect and safety

B3.2.4 Encourage well-adjusted behaviour of students by collaborative teamwork and independent learning

C1.2.1 Identify theories and concepts that inform approaches to teaching and learning

C3.2.1 Organise the classroom to encourage all students' participation in the lesson content, activities and interactions with the teacher

**Time:** One period of 50 minutes

**Learning strategies**

Learning activity 1. Small group task design: Cooperative learning activities to develop critical and creative thinking

Learning activity 2. Small group task development: Scaffolding cooperative learning activities to develop critical and creative thinking

**Assessment approaches:** Questioning, observation, peer and whole-class discussion

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 3.2.1.

**Resources needed**

Learning activity 1: Butcher's paper and pens for each group of student teachers

Learning activity 2: Butcher's paper and pens for each group of student teachers; Copies of the 4 Class profiles

**Period 1**

**Cooperative methods for learning in the Lower Middle School**

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 10 minutes |
| Explicit teaching | 5 minutes |

| | |
|---|---|
| Learning activity 2 | 20 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction and explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the lesson.
2. Ask student teachers what they recall from the Year 2 course about cooperative learning.
3. Highlight the idea that **cooperative learning** is an important 21st century skill because it teaches communication skills, social and emotional skills and enables students to learn from each other.
4. Direct students to Lesson 3.2.1 in the textbook. Ask them to read through sections: *Cooperative learning; Social development and cooperative learning in Lower Middle school,* and; *Inquiry-base cooperative learning.*

### Learning activity 1. Small group task design: Cooperative learning activities to develop critical and creative thinking

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Small groups (3 or 4 people) |

## Purpose

The purpose of this activity is for student teachers to design a cooperative, inquiry-based learning task.

1. Divide the class into small groups of 3 or 4 people. Each group will need a large sheet of paper and pens.
2. Introduce the task. Student teachers will design a cooperative inquiry-based learning task for Grade 6 to teach the concept "We can be different" (See Life Skills curriculum, Self-awareness and Interpersonal Skills, Grade 6).

3. Student teachers should include elements of critical and creative thinking in the activity they design.
4. In Learning activity 1, the student teachers will plan the activity:
   a. What is the learning goal for this task (what do the student teachers want the Grade 6 students to learn)?
   b. What is the aim of the task? (What is the common goal that the students need to work together to achieve?)
   c. What will the students need to do to complete the task?
5. Groups should record the information on the large sheet of paper. They will add to this information in Learning activity 2.

**Assessment**

The student teachers will need to practise cooperative learning strategies to complete this activity. Monitor the interactions within each group of student teachers: Are all student teachers contributing equally to the task? Are all student teachers able to explain and expand their ideas?

Are the groups negotiating or are there students who are dominating the conversation, or are there students who are not participating in the conversation?

Check that the groups develop activities that are inquiry-based and that the idea *"We can be different"* is a central component of the task they design.

Ask each group how they will integrate critical and creative thinking into the task they design.

**Possible student teachers' responses**

There will be many different approaches to this task. There are no correct or incorrect responses, as long as each group focuses on the topic: *We can be different.* Here is one possible approach:

a. What is the learning goal for this task (what do the student teachers want the Grade 6 students to learn)?
   Students will learn that their differences can be their strengths and can help them to be a valuable member of a team. They will learn to use their

different strengths to support others. They will learn about accepting their own limitations and the limitations of others. They will learn to appreciate differences.

b. What is the aim of the task? (What is the common goal that the students need to work together to achieve?)
   Students will work in small, diverse groups to solve a mystery and find treasure. The aim is to use the different strengths of each student in the group to find clues and interpret them to search for a treasure. Each group will look for a different treasure, so there is no competition between groups. This means that individuals can focus on their team and their team's inquiry. The clues will be written by the teacher, who will use their knowledge of the students' abilities to construct challenges that encourage inclusive behaviours and inquiry skills.
c. What will the students need to do to complete the task?
   The students will work together to decipher the clues and search for their treasure. Each clue will be hidden. When found it will lead the groups to the next clue.
   Clues will require a range different skill sets to decipher and find the next clue, until they find the treasure. At the end of the task, the class will reflect on the ways in which their differences enabled them to achieve their goals.

## Explicit teaching

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Ask students to read the section: **Scaffolding cooperative learning for all students**.
2. Discuss the importance of planning cooperative tasks carefully so that the task is inclusive for all students.

## Learning activity 2. Small group task development: Scaffolding cooperative learning activities to develop critical and creative thinking

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Small groups (3 or 4 people) |

### Purpose

The purpose of this learning activity is to scaffold the inquiry-based cooperative learning task that student teachers designed in Learning activity 1 to ensure that all students benefit from the cooperative learning experience. Inclusion is key for this activity.

1. Student teachers remain in the same groups that they were in for Learning activity 1.
2. There are four class profiles. Give each group of student teachers one class profile. The profile will provide information that they will need to use to organise the cooperative task they have designed.

   **Class 1**

   **The school**

   School: No.6 Basic Education Middle School, Insein Township

   Grade: Grade 6

   Location: Yangon

   School facilities: One library; one general assembly hall

   Classroom equipment: One whiteboard, tables, chairs and one clock

   Class size: 36 students – 17 boys, 19 girls

## Students and families

Student family and home life: Most students live in extended families and speak Myanmar at home. Families are mostly large and poor.

Languages spoken at home: Myanmar

Religions: 33 students are Buddhist or Theravada Buddhist; the other students are a mixture of different religions and cultures.

Student access to technology at home: Half of the students have access to a mobile phone or tablet at home.

Students with additional needs: 3 students have social and communication difficulties (one has a formal diagnosis of Autism Spectrum Disorder), each of these students struggle with group work; 1 gifted student; two students have a diagnosis of dyslexia; three students; 2 students have a diagnosis of Attention Deficit/Hyperactivity Disorder (ADHD)*.

*ADHD is a developmental disorder that impacts on a child's ability to pay attention (they find it difficult to maintain their attention on tasks and tend to make errors in their work. They may act impulsively (without thinking) and struggle to follow instructions. Students with ADHD tend to be very disorganised and forgetful.[32] Although many students can struggle with these issues from time to time, students with ADHD have a consistent pattern of behaviour across all aspects of life. Due to the nature of this developmental condition, teachers should understand that students with ADHD struggle to control these behaviours and harsh discipline can be counterproductive. Instead, teachers should help students with ADHD to develop strategies to improve their organisational skills, time management skills and planning skills.

32 American Psychiatric Association. (2013).

**Class 2**

**The school**

School: Urban Private High School

Grade: Grade 6

Location: Taung Gyi, Southern Shan State

School Facilities: Library, music room, computer room, playground

Classroom equipment: Tables, chairs, whiteboard, air-conditioning, book corner, teaching aids

Class size: 25 students – 12 males, 13 females

**Students and families**

Student family and home life: There are three students from single parent families. Many students live with extended families.

Languages spoken at home: Mostly Myanmar, one student speaks Shan, one student speaks Paoh.

Religions: 19 students are Buddhist or Theravada Buddhist; the other students are a mixture of different religions and cultures.

Student access to technology at home: 18 students have a mobile phone.

Students with additional needs: One student with working memory difficulties; One student has mobility difficulties; two students are often absent; three students struggle academically and do not submit work; One gifted student who struggles with social interactions and group work.

## Class 3

### The school

School: No.1 Basic Education Middle School, Tachileik Monastic School

Grade: Grade 6

Location: A hilly region in Eastern Shan State of Myanmar that borders Thailand and Laos

School Facilities: One playground

Classroom equipment: Tables and Chairs as well as chalkboard and chalk

Class size: 44 students – 26 male and 18 female

### Students and families

Student family and home life: Extended families that live together.

Languages spoken at home: Diversity of ethnic families, such as: Kachin, Kayah, Rakhine, Wa, Shan, Pa-oh, Arka, Lahu.

Religions: 31 students are Buddhist or Theravada Buddhist; the other students are a mixture of different religions and cultures.

Student access to technology at home: Three students have access to a mobile phone at home.

Students with additional needs: One student who has behavioural difficulties (they struggle to pay attention to the teacher and do not remember the class rules); One student who has speech difficulties (stutter); One student who is very shy and does not like to speak; 13 students are very poor; Three students do not like group work and they will often struggle to participate in group tasks.

**Class 4:**

**The school**

School: Private High School

Grade: Grade 6

Location: Sintgaing Township, Kyaukse District, Upper Myanmar

School Facilities: One Library, one Multi-media classroom, one playground, three laboratories

Classroom equipment: White board, marker pens, flip charts, flip board, computer, bluetooth speaker, laptop, projector, free Wi-Fi access (teachers only)

Class size: 40 students – 15 males, 25 females

**Students and families**

Student family and home life: A mix of extended, nuclear and single parent families.

Student access to technology at home: 7 students have access to a mobile phone at home, 5 students have a home computer. 25 students have access to a TV.

Languages spoken at home: Myanmar

Religions: 36 students are Buddhist or Theravada Buddhist; the other students are a mixture of different religions and cultures.

Students with additional needs: One student with very high level of Mathematics, but is very shy and does not like group work; One student who has cerebral palsy; one student has severe vision impairment and needs large

font size for printed materials; one student has a hearing impairment and needs an assistant to translate through sign language; One student is highly creative, but struggles socially and does not like group work.

3. The student teachers will need to divide their class into cooperative groups. Ask them to justify why they have chosen to organise the class in that way.
4. Student teachers will discuss and write how they might support cooperative groups of their own students to do the following:
   - pose questions that drill into the topic they are investigating;
   - investigate and find resources and information to answer the questions; and
   - synthesise the information and draw conclusions.
5. Next, the student teachers will discuss and record their responses to the following questions, using their class profile to inform their discussion.
   a. How will they explain the task to their group of students?
   b. What are the rules of the task?
   c. How will they assess whether the students have achieved the learning goal?
6. Ask each group of student teachers to present their ideas to the class. They will need to:
   a. explain the needs of the students in their class profile; and
   b. explain their responses to the questions.
7. Ask the groups to keep their class profiles because they will need them in the next lesson. They will also be working in the same groups for the next lesson.

**Assessment**

As the groups of student teachers discuss the questions and write responses, gauge how they are trying to cater for the needs within their class profile. Use questioning techniques to drill down into the reasons behind their decisions.

**Possible student teachers' responses**

TThe student teachers' responses will depend upon the class profile they have been given and the task they developed in Learning activity 1. Using the example of the treasure hunt activity combined with Class 4, may be as follows:

1. Student grouping:
   4 students per group; mixed gender; mixed religion where possible; students with additional needs will be placed with at least one other person that they have shown they work well with (this will alleviate anxiety and provide social support). Groups will have a mix of students with different skill sets, (mathematical, literacy skills, creative and sporty – most clues will revolve around a combination of these skill areas).
2. Pose questions that drill into the topic they are investigating:
   Each group will need to find out which student(s) have the skills to decipher the clue and which students have the skills required to find the next clue.
3. Investigate and find resources and information to answer the questions
   Each clue will utilise different resources within the school, including the library, the class computer, the playground, and a laboratory.
4. Synthesise the information and draw conclusions
   Students will need to combine their abilities to interpret the clues and figure out where the next clue is hidden.
5. How will they explain the task to their group of students?
   Each group will be given a sheet of paper with the first clue. The teacher will explain that the clues will require special and unique skills from each person in the group. The groups must focus on allowing the person or people who have relevant strengths to decipher the clues and/or find the next clue. The teacher should emphasise the importance of teamwork and utilising strengths.
6. What are the rules of the task?
   All members of the team must work together to achieve the goal (finding the treasure). Teams must negotiate and evaluate ideas together. All team members must use reflective listening to clarify ideas.
7. How will they assess whether the students have achieved the learning goal?
   The teacher will observe how teams interact and utilise the strengths of each person. Ultimately, the groups will find the treasure and discuss how they worked together to achieve their goals.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers for their reflections on the following:

1. What skills do cooperative learning tasks help students to develop?
2. Why is it important to scaffold cooperative learning tasks carefully?
3. What factors do teachers need to consider when they set cooperative learning tasks?

## 3.2.2. Blended learning in the Lower Middle school

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Define and examine blended learning in the Lower Middle school; and
- Plan blended learning activities that can be used effectively in the Lower Middle school.

**Competencies gained**

A2.2.1 Describe the function and purpose of online and offline educational tools and materials to support the teaching and learning process

A2.2.2 Evaluate and match available online and offline ICT tools and materials to curriculum content and pedagogical strategies, including online and offline

A2.2.3 Describe and demonstrate the understanding of basic concepts and principles of media and information literacy

A5.2.1 Describe ways to contextualise learning activities for the age, language, ability and culture of students to develop understanding of subject related principles, ideas and concepts

B1.2.1 Use teaching methods and learning strategies appropriate for the class – culture, size and type

B1.2.3 Create opportunities for students to investigate subject-related content and concepts through practical activities

C1.4.1 Use school supplies and resources appropriately

**Time:** Two period of 50 minutes

**Learning strategies**

Learning activity 1. Individual brainstorm, small group discussion: Technologies for blended learning

Learning activity 2. Small group task: Blended learning in context

Learning activity 3. Small group task: Designing a blended learning lesson

**Assessment approaches:** Questioning, observation, peer and whole class discussion

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 3.2.2.

**Resources needed**

Learning activity 1: No additional resources

Learning activity 2: Butcher's paper and pens for each group of student teachers; copies of class profiles (see class profiles from Lesson 3.2.1)

Learning activity 3: Butcher's paper and pens for each group of student teachers; copies of class profiles (see class profiles from Lesson 3.2.1)

## Period 1

### Blended learning in the Lower Middle school

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 5 minutes |
| Learning activity 1 | 10 minutes |
| Explicit teaching | 10 minutes |
| Learning activity 2 | 20 minutes |
| Check student teachers' understanding | 5 minutes |

### Introduction and explicit teaching

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the lesson.
2. Ask students to read the section: **Blended learning in the classroom**.
3. Discuss the types of blended learning and how their class contexts will impact on how they implement blended learning in the classroom.

### Learning activity 1. Individual brainstorm, small group discussion: Technologies for blended learning

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Individual and small groups (3 to 4 people) |

### Purpose

The purpose of this learning activity is for student teachers to think about the different types of technology that can be used for blended learning. The activity will help them to consider different resources that may be available to use in the classroom.

1. The first task requires the students to reflect on the technology that they own and the technology they have seen in the classroom. Student teachers should write their responses to the following questions:
   a. What technologies do you own?
   b. What technologies have you seen that students own?
   c. What technologies have you seen in schools and in classrooms?
2. When the students have written their responses they should share their observations in a small group. They should discuss the following:
   a. How are their responses similar to others in the group?
   b. How are their responses different?
   c. What factors can determine the types of technologies available to support student learning in the classroom?
   d. What implications does this have for designing blended learning classes?
3. As a whole class discuss reasons why blended learning may look different within different classroom contexts.

**Assessment**

Observe how the student teachers reflect on the technologies they own and that they have seen. Pay attention to the ways in which they interpret the concept of "technology". Encourage student teachers to take a broad view of technology.

Observe group interactions and ensure that all student teachers participate meaningfully in the discussions.

**Possible student teachers' responses**

All responses to this activity will be based on the student teachers' individual experiences. There are no correct responses. Responses are likely to vary considerably.

## Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Ask students to read the sections: Benefits of blended learning and issues to consider.
2. Discuss the benefits and challenges of blended learning.

## Learning activity 2. Small group task: Blended learning in context

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Small groups (3 to 4 people) |

### Purpose

The purpose of this activity is to encourage student teachers to think about the limitations and possibilities for blended learning within a Lower Middle school context. This activity involves problem solving and creative thinking about how teachers can implement blended learning for classes with diverse needs.

1. Ask the student teachers to return to the same groups they were in during the previous period. The groups will be using the same class profiles that they used in the previous period.
2. Each group should be given a large sheet of paper and pens.
3. Ask the groups to draw a table like the one shown in Table 3.8. Evaluating resources for blended learning classes, in the textbook. They should also include the headings above each column.
4. Ask the groups to read through their class profiles. In the first column they should record all the available resources they can use for blended learning within that context.
5. Next, they should list the limitations for each of the resources they have identified.
6. Finally, they should list the possibilities for learning and teaching using those resources.
7. As a whole class, discuss how the context can impact on the type of resources that are available and how those resources can be used for teaching and learning.

### Assessment

For this activity, monitor the level of creative thinking the student teachers demonstrate regarding the resources within their classroom contexts and how they can use those resources to enhance learning and teaching. Use questioning techniques to encourage the students to think from different perspectives.

## Possible student teachers' responses

Possible responses for this activity will vary considerably depending on the groups' class profiles. A response may look similar to the example presented in Table TG 3.2, which is based on Class profile 4.

**Table TG 3.2. Evaluating resources for blended learning classes – completed**

| Resources available<br>At the school<br>For teachers<br>For students | Limitations | Possibilities |
|---|---|---|
| **Multi-media classroom** | • All classes use the same multi-media room, so it will need to be booked well in advance.<br>• Some students do not have computers or modern technology at home, so they may need additional support to use them.<br>• Use of some of the equipment may depend on the strength of Wi-Fi. | Develop collaborative learning opportunities when using the computer lab.<br>Different technologies can be used for different purposes, which may be useful for setting up different learning stations. |
| **Computer in the classroom** | • There is only one computer, so the teacher will need to allocate time for students to use the computer in an equitable but needs-based way. | Students can become familiar with the computer and the keyboard.<br>It can become a form of assistive technology for students who struggle with handwriting. |
| **Bluetooth speaker** | • Needs to be paired with the computer and laptop<br>• If it is not paired, it can be time consuming (and frustrating) to fix | Enables the whole class to view videos and listen to audio recordings. |
| **Laptop** | • There is only one computer, so the teacher will need to allocate time for students to use the computer in an equitable but needs-based way. | Students can become familiar with the computer and the keyboard.<br>It can become a form of assistive technology for students who struggle with handwriting. |
| **Projector** | • Needs to be compatible with the computer and/or laptop (the right connections) | Enables the whole class to view videos and visual aids. |
| **Free Wi-Fi access for the teacher** | • The teacher will need to be present to enable access (small groups cannot access Wi-Fi without the teacher being present)<br>• Student understanding of Cyber safety is vital | The teacher can use online resources<br>Students can learn how to navigate the internet |

[See Table 3.8 in textbook.]

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask the student teachers to reflect on the following:

1. What is blended learning? What are the benefits of blended learning and what are the challenges that teachers face when planning blended learning classes?
2. Consider different class contexts. What can teachers do to maximise the use of technology in classrooms where there are limited resources?

**Facilitator's notes**

If you have access to a computer lab or if students have access to their own devices and internet, you could model blended learning approach for Period 1.

One suggestion may be to create stations where groups of student teachers rotate through activities where they research, brainstorm and access information.

## Period 2

## Blended learning in the Lower Middle school

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 3 | 35 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction and explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the lesson.
2. Discuss the benefits of blended learning outlined in the section: Blended learning in the Lower Middle school.
3. Briefly highlight the four blended learning strategies. Student teachers will discuss these in greater depth when they work on Learning activity 3.
4. Ask student teachers to read the section: *Planning blended learning activities for diverse classes in the Lower Middle school.*

## Learning activity 3. Small group task: Designing a blended learning lesson

| | |
|---|---|
| **Time** | 35 minutes |
| **Class organisation** | Individual and small groups (3 to 4 people) |

### Purpose

The purpose of this learning activity is for student teachers to design a lesson using a blended learning strategy.

1. Ask student teachers to move into the same groups they were in during the last period. Allocate a blended learning strategy to each group (see the strategies in the TB). Each group will need a large piece of paper and pens. The groups should also refer to the table they constructed in the previous period.
2. In their groups, student teachers will read the blended learning strategy they have been allocated and discuss how it might be implemented in a Grade 6 classroom.
3. The groups should then read their class profile again. Their task is to design a lesson for that class using the blended learning strategy they have been allocated. All groups will focus on the topic *"Three dimensional shapes"* (Mathematics curriculum, Geometry, Grade 6).

4. Student teachers should discuss the questions as a group and record their responses the sheet of paper. The questions are as follows (note that these are also in the textbook):
    a. What learning needs and diversities are identified within this class?
    b. What are the learning objectives and how will these be met best through the blended learning approach?
    c. What technologies (equipment, programmes, etc.) will be used? Why?
    d. Have the students used these technologies before?
    e. How will the face to face and technology be blended? How will the classroom space be organised? (If they have time, they may also draw how they would set up the learning space to facilitate the blended learning lesson).
    f. How will the classroom space be organised?
    g. Are there safety considerations or lessons that need to be discussed first?
    h. Are there behaviour management issues that need to be planned for?
    i. How will the activities be timed?
5. Ask each group to briefly explain their lesson to the class and how it would work for their specific context.
6. As a class ask the student teachers to reflect on the pros and cons of blended learning in the Lower Middle school.

**Assessment**

Observe the level of creative thinking as the students discuss their class profiles and plan the blended learning activity using the strategy they have been allocated. Are they thinking realistically about the resources that will be available to them? Are they able to problem solve? Use questioning techniques to ascertain the depth of understanding the groups have about the needs within their contexts. Monitor the dynamics of the groups to ensure that each member of the group participates and that they negotiate differences of opinion effectively.

**Possible student teachers' responses**

Student teacher responses will vary considerably, depending on the class profile they have been given and the blended learning strategy. It will be important to monitor their understanding of the strategy they are using.

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. How can teachers use critical and creative thinking to implement blended learning within a range of different class contexts?
2. How might the different models of blended learning be used to enhance teaching and learning?
3. What are some of the challenges that teachers face when implementing blended learning lessons?

### Expected student teachers' responses for the review questions in TB

Question 1: How can cooperative learning be used to develop students' critical and creative thinking?

Answer: *Some responses might include:*

- *Students learn to negotiate ideas and work together.*
- *They need to explain their ideas to help others understand.*
- *Students can share knowledge, which can make their understanding of the world richer and deeper.*

Question 2: What strategies can teachers use to support students to develop cooperative and collaborative skills?

Answer: *Responses may include (but are not limited to) the following: Ensure that groups have common goals; roleplay social interactions; teach students to break down tasks; define different roles for members of the groups.*

Question 3: What is blended learning? What are the benefits of blended learning and what challenges might blended learning present for the classroom?

Answer: ***Blended learning*** *is when a range of technologies are used in a class to enhance learning and teaching.*

*The benefits of blended learning can include: Flexibility; adaptability; personalisation and differentiation of content; sometimes teachers can gather data on student learning quite easily; it can increase student engagement; it encourages active learning; it helps student develop self-regulation of learning; it helps students develop skills with technology.*

*The challenges can include issues such as: A lack of resources particularly in disadvantaged areas; behaviour management; monitoring student learning in different ways; school structures, etc.*

Question 4: How can different models of blended learning be used to enhance teaching and learning?

Answer: *There is no correct answer for this question, but responses may include ideas such as: The flipped classroom can provide more time during class for students to engage actively in activities; Station rotation models can enable students to complete a range of tasks, while the teacher can attend to the needs of small groups and individuals; Flex model can allow for considerable personalisation of learning; Project and problem-based learning can provide students with opportunity to engage in authentic tasks.*

# 3.3. Feedback to Enhance Learning

In this sub-unit, student teachers will examine the role of feedback in helping students in the Middle school to engage with learning. In Years 1 and 2, they examined how feedback should be structured to promote learning. However, feedback is only useful if students can engage with it and integrate it into their learning. In this sub-unit, student teachers will focus on the process of receiving and using feedback to inform learning. They will reflect on their own responses to receiving feedback. Then, student teachers will evaluate feedback in relation to the level of usefulness and empathy for the recipient and they will design feedback that encourages students to engage with it in a meaningful way.

## 3.3.1. Designing feedback to enhance engagement in learning

**Expected learning outcome**

**By the end of this lesson, student teachers will be able to:**

- Apply strategies to give constructive and empathetic feedback to promote learning for students in the Lower Middle school.

**Competencies gained**

A2.1.1 Plan learning experiences that provide opportunities for student collaboration, inquiry, problem-solving and creativity

B2.1.1 Use assessment techniques as part of lessons to support students to achieve learning outcomes

B2.1.3 Use questioning and discussion techniques to check students understanding and provide feedback

C1.2.1 Identify theories and concepts that inform approaches to teaching and learning

C1.2.2 Describes own approach to teaching and learning

C3.1.1 Show awareness of the right to education of every child and a commitment to nurturing the potential in each student

**Time:** Two period of 50 minutes

**Learning strategies**

Learning activity 1. Individual reflection: Feedback processes from a student's perspective

Learning activity 2. Group analysis and discussion: Evaluating feedback

Learning activity 3. Small group task: Designing constructive, empathetic and inclusive feedback

**Assessment approaches:** Questioning, observation, peer and whole-class discussion

**Preparation needed**

Read through the class profiles (See Annex 3A).

**Resources needed**

Learning activity 1: No resources needed. Students will require their textbooks.

Learning activity 2: Large sheets of paper and pens for each group

Learning activity 3: Copies of the Class profiles (see Annex 3A). There should be enough copies for at least *one class profile per group* of 3 or 4 students; large sheets of paper and pens

## Period 1

### Designing Feedback to enhance engagement in learning

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 13 minutes |
| Explicit teaching | 5 minutes |
| Learning activity 2 | 17 minutes |
| Check student teachers' understanding | 5 minutes |

### Introduction and explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for this lesson.
2. Explicitly create links to prior learning. Question students about what they recall about feedback from Year 1 and 2. Write their responses on the board. Highlight the technique of feed up, feedback and feed forward.
3. Explain that feedback is only helpful when students can engage with the feedback and use it to enhance their learning.
4. Direct student teachers to Lesson 3.3.1, Period 1, in the textbook and ask student teachers to read through the section: The process of receiving, interpreting and using feedback. Briefly discuss the implications for how teachers design feedback.
5. Explain that a student's emotional response is an element that impacts considerably on how students interact with feedback. Ask student teachers to read the section: Emotions and feedback.

## Learning activity 1. Individual reflection: Feedback processes from a student's perspective

| | |
|---|---|
| **Time** | 13 minutes |
| **Class organisation** | Individual reflection and class discussion |

### Purpose

The purpose of this learning activity is for student teachers to reflect on the ways in which they respond to feedback.

1. Ask student teachers to read Part A of Learning activity 1. Tell student teachers that their responses are for their own reflection and will not be shared with others. Encourage them to be as honest with themselves as possible. (3 minutes)
2. Ask student teachers to reflect on their responses in Part A as they answer the questions for Part B. (5 minutes)
3. Class discussion – ask the student teachers to share strategies that they use (or that they might try to use) to receive feedback, understand it and implement it to improve their own learning. (5 minutes)

### Assessment

Walk around the classroom and observe how student teachers reflect on their own learning (this is important in relation to self-regulation and links to Lesson 3.4.2). If student teachers appear to find self-reflection challenging, prompt with questions to scaffold their reflective thinking.

### Possible student teachers' responses

Note that there are no correct or incorrect responses to the questions, as it is a personal reflection on their own practices.

## Explicit teaching

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Direct student teachers to Lesson 3.3.1, Period 1. Ask student teachers to read the section: Communicating constructive and empathetic feedback.
2. Discuss the importance of task-centred feedback as opposed to person-centred feedback. Link these approaches to growth mindset (i.e., the approach to a task is something that the student can change and control) versus fixed mindset (i.e., focusing on the person may imply that there are innate qualities that are fixed and unlikely to change). Highlight that negative feedback which focuses on the person is more difficult for a student to work through emotionally, and it is usually not helpful for improving skills and knowledge.

**Learning activity 2. Group analysis and discussion: Evaluating feedback**

| | |
|---|---|
| **Time** | 17 minutes |
| **Class organisation** | Individual reflection and class discussion |

## Purpose

The purpose of this activity is for student teachers to evaluate different examples of feedback from the students' perspectives..

1. Write the following on the board as prompts:
   The three feedback questions:
   a. Where am I going?
   b. How am I going?
   c. Where do I go next?
2. Work through the example given in Table 3.8 with the class. Ask student teachers to think about other theories they have learnt that might impact on the quality of feedback (such as growth mindset) and the importance of linking feedback to learning outcomes and criteria.
3. Ask student teachers to organise themselves into groups of three or four people.

4. Allocate one example from Table 3.9, Evaluation of feedback: Usefulness and emotional responses, to each group (exclude Example 1, as this is already demonstrated). Student teachers should discuss their example in relation to each of the headings in the columns. They should record their group's responses. (An example is given in the textbook).
5. Bring the class together for a discussion about each of the examples and how they can be improved.

**Assessment**

Walk around the classroom observing the group discussions.

- Ensure that each group is on task.
- Answer any questions that the groups may have.
- Ask the groups questions that help the student teachers to critically evaluate the ideas and link them with relevant theory.
- Make sure that the student teachers' suggestions for improvement centre on elements discussed during this period, such as task-centred feedback (not person-centred); the three questions for feedback, and; the language of the feedback.

**Possible student teachers' responses**

Possible responses for each example of feedback are presented in Table TG 3.3, however, student teachers may have other relevant suggestions.

**Table TG 3.3. Evaluation of feedback: usefulness and emotional responses – completed**

| Example of feedback | Possible emotional responses | Level of usefulness | Suggestions for improvement | Rewrite feedback |
|---|---|---|---|---|
| 1. Excellent work! You are an A+ student. | Proud of ability (but it encourages a fixed mindset) | Not useful – No information about "where am I going?" No information about "Where do I go next?" Very general information about "How am I going?" but not related to learning goals. | 1. Consider growth mindset – praise the effort, not the person.<br><br>2. State the learning goal.<br><br>3. Give information about how the student is going in relation to the goal.<br><br>4. Give suggestions about the next steps the student needs to take to reach their goal. | Your efforts to demonstrate your learning about…… show in your work. The next step is to learn how to….<br><br>To do this, you could start by …. |
| 2. Your project shows that you have researched the topic deeply. Well done! You have given detailed answers to each of the questions. You need to work on improving the neatness and presentation of your work. | The student may feel proud that their hard work has been recognised by the teacher. They may feel motivated to improve their work. However, if they had tried their best to present their work neatly, they may feel frustrated and not know what to do. | Quite useful, because it shows what the student has done well and gives feedback about what they can improve. It does not give information about HOW that student can improve. | Give suggestions about the next steps the student needs to take to reach their goal. | Your project shows you have researched deeply. Sometimes it the writing was difficult to understand because it was unclear…To improve the neatness of your presentation, you could…. |
| 3. You have not answered the question and you have made many silly mistakes. To improve, you need to check your work and study harder. | The student may feel embarrassed. They may also feel that this is unfair. They may not feel very motivated to improve. | Not very useful. It is likely that the student will have a negative emotional response. The teacher is being negative about the student and it is not task focused. They provide information about what to improve, but not HOW they can improve. | 1. Consider growth mindset – needs to be task centred, not person centred.<br><br>2. Let the student know what they did well.<br><br>3. State the learning goals that the student is working towards.<br><br>4. Give information about how the student is going in relation to the goal.<br><br>5. Give suggestions about the next steps the student needs to take to reach their goal. | In this project. you have demonstrated that you understand… Your work is beginning to show,,,,<br><br>It is important to always edit your work to find and fix your mistakes.<br><br>I encourage you to continue working towards…<br><br>You are almost at the point where you can…<br><br>To get there, you could … |

| Example of feedback | Possible emotional responses | Level of usefulness | Suggestions for improvement | Rewrite feedback |
|---|---|---|---|---|
| 4. Each criterion has been addressed to the minimum standard. Next time, read the criteria carefully to understand what is required. | The student may be confused, particularly if they thought they had addressed the criteria. They may feel embarrassed. Alternatively, if they really did not try, they may feel that the comment was deserved. Alternatively, the minimum standard may represent their actual level of ability. If this is the case, the student may feel ashamed and frustrated. | Although it is task centred and references the criteria, it is not specific feedback. The student may not know how to interpret the rubrics and they may not understand what the minimum and maximum standards look like. It does not say what the student can do. | 1. Provide positive feedback about what the student has achieved.<br><br>2. Explain the next learning goal for the student (using the criteria as a guide).<br><br>3. Explain HOW the student can work towards the goal. | You have addressed all the criteria and demonstrated that you can…<br><br>The next thing that you should focus on is reading the criteria carefully to identify everything that you need to do. You can do this by using different colours to highlight the tasks and crossing off tasks as you complete them. |
| 5. Very poor effort. You are very messy, and I cannot understand your work. | This is very negative about the student. The student may feel embarrassed and ashamed. If the student has a learning disorder that impacts on their ability to write or organise their work, they may feel helpless and worthless. | Not useful. It is negative about the student, so it is unlikely that the student will be able to receive the feedback or work with it effectively. It does not tell the student where they are in relation to their goals and it does not reference criteria or how the student can improve. | 1. What HAS the student achieved? Keep the feedback task focused.<br><br>2. Look into the student's needs more closely to see if there is anything else going on that impacts on their ability to show what they can do.<br><br>3. Provide support for the student, giving templates and feedback as they work, so they can implement it at the time. | In this task, you have demonstrated that you can…<br><br>There are times when the meaning is lost because the writing is unclear. I encourage you to …in order to improve the clarity of your handwriting. |

[See Table 3.9 in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Ask student teachers: When you provide feedback to your students, what do you need to do to help them to engage with the feedback and use it effectively?

## Period 2

## Designing Feedback to enhance engagement in learning

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 15 minutes |
| Learning activity 3 | 30 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction and explicit teaching

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Write the learning outcome for this lesson on the board.
2. Make links to the previous period, highlight the importance of providing students with the opportunity to engage and implement feedback.
3. Refer student teachers to Lesson 3.3.1, Period 2, in the textbook. Ask student teachers to read the section: Designing feedback.
4. Discuss with the class how this information can be applied to the middle school context.
5. Use questions to lead the students more deeply into the issues of inclusion. For example:
   a. Most students in the Lower Middle school will have sufficient literacy levels to understand written feedback. However, if you have a class that has a number of students who cannot read or speak Myanmar, how could you give them feedback and help them to use it in a meaningful way?
   b. If you have a student with hearing impairment (or dyslexia or vision impairment, etc.) in your class, how might you provide meaningful feedback to support their learning?

   Use contextual knowledge to drill down into the importance of providing feedback in a way that different students can access the ideas and use the feedback to improve learning.

## Learning activity 3. Small group task: Designing constructive, empathetic and inclusive feedback

| | |
|---|---|
| **Time** | 30 minutes |
| **Class organisation** | Small groups |

### Purpose

The purpose of this activity is for student teachers to consider how different types of feedback can be embedded into learning, teaching and assessment activities to promote student learning for a class with diverse needs.

1. Divide the class into groups of 3 or 4 student teachers.
2. Each group will study a class profile (see Annex 3A in textbook).
3. Ask the groups to read the Scenario in Learning activity 3.
4. Next, the groups should read the class profile, paying attention to the different learning and teaching needs within the class.
5. Ask the groups to use the class profiles to inform their strategies for feedback. They should work through the questions (below the scenario) and record their responses on a large sheet of paper.
6. At the end of the activity, each group should briefly present what they have discussed:
   - the needs of students within the class;
   - strategies for feedback; and
   - how the strategies will help their students to receive, understand and use the feedback.

### Assessment

Walk around the classroom, observing the group discussions. This task requires application of theory to practise. Some student teachers may find this challenging. Ensure that the groups link the needs of the students in their Class Profiles with the strategies they will use for feedback. Use questions to prompt critical and creative thinking. Also, be mindful of the level of collaboration within the groups, ensuring that all group members participate meaningfully and share their ideas. While each group presents their strategies, each student teacher within the group should actively participate in the presentation.

### Possible student teachers' responses

The groups' responses are likely to be varied. There is no right or wrong response, however, it is important that the responses reflect the ideas discussed throughout the lesson.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

As a class, discuss the following:

1. What are the challenges teachers face when they plan to provide feedback to students about their learning?
2. What strategies might teachers use to provide constructive and empathetic feedback to support the learning of students? In particular, how do teachers provide feedback to student who do not meet the academic standards expected for their year level?

### Expected student teachers' responses for the review questions in TB

Question 1: What are some of the barriers that students face when they receive feedback? How can teachers help to reduce these barriers?

Answer: *There are many possible answers to this question. Some suggested responses include:*

- *Students with additional needs might not be able to access the feedback. Teachers need to provide feedback in a way that all students can access and understand it.*

- *Students may have had negative feedback in the past that has impacted their self-esteem. Teachers can make sure that feedback is task oriented and relate to the learning outcomes. Teachers can give sincere praise about areas of achievement the student has shown. Teachers can help the student to see how far they have progressed and help them build self-esteem.*
- *Students may not feel motivated to engage with the feedback. Teachers can help the student to see how the feedback can help them to improve in their learning.*

Question 2: What are some barriers students may face when they try to interpret and understand feedback? How can teachers reduce these barriers?

Answer: *There are many possible answers to this question. Some suggested responses include:*

- *Students may not understand the language that the teacher uses in the feedback. Teachers should use clear language or visual cues that the student can understand.*
- *Students may not see how the feedback relates to their work. Feedback should relate to the criteria and provide specific suggestions about how the student can improve.*
- *The task may have been very complex, and the student is confused by the feedback. Teachers should ensure that tasks and feedback are broken down into small chunks, and that feedback focuses on only a few important points for the student to improve.*

Question 3: What are some barriers students may face when they try to use feedback? How can teachers reduce these barriers?

Answer: *There are many possible answers to this question. Some suggested responses include:*

- *There may not be time or opportunity for the student to implement the feedback. Teachers should provide feedback formatively, so that students can integrate it into their work as they learn. Teachers can provide opportunity for students to use the feedback soon after they receive it.*
- *A student may not be willing to implement the feedback. Teachers should ensure that the feedback is constructive and provides guidance. The teacher can help the student to reflect on their learning and help the student to see that when they try to use the feedback their learning improves.*

# 3.4. Engagement and Self-regulated Learning

In this sub-unit, student teachers will discuss the concept of student engagement in learning. They will examine four forms of engagement that contribute to deep engagement in learning. These forms of engagement are **cognitive engagement,** behavioural engagement, emotional engagement and social engagement. They will undertake case studies to analyse student engagement and consider strategies to enable students to engage more deeply in their learning. Student teachers will also explore the idea of self-regulated learning, which is an important 21st century skill that enables lifelong learning. They will critically examine factors that can either enable or hinder students as they try to regulate their own learning. Finally, student teachers will reflect on their habits of self-regulated learning and consider strategies to overcome challenges.

## 3.4.1. Engaging students in learning

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Define engagement in learning; and
- Develop effective strategies for student engagement.

**Competencies gained**

B1.1.3 Encourage students' awareness of their own thought processes and use of reflection to build new understanding

B1.2.3 Create opportunities for students to investigate subject-related content and concepts through practical activities

B1.3.2 Provide lesson introductions to link new learning to prior learning, to engage students' interest and to motivate them in learning

B1.3.3 Prepare focused and sequential learning experiences that integrate learning areas and are responsive to students' interests and experience

C1.2.1 Identify theories and concepts that inform approaches to teaching and learning

C1.2.2 Describes own approach to teaching and learning

**Time:** Two period of 50 minutes

**Learning strategies**

Learning activity 1. Case study: Identifying engagement and disengagement in learning

Learning activity 2. Small group task: Planning for engagement in learning

**Assessment approaches:** Questioning, observation, peer and whole-class discussion

**Preparation needed:** Read the case studies (see Annex 3B). Each case study corresponds to one of the Class profiles (i.e., Class profile 1: Case study 1; Class profile 2: Case study 2). It may be helpful to read each class profile to be familiar with the wider context for the student described in the case study.

**Resources needed**

Learning activity 1: Copies of the case studies for each group (these will need to be given to groups who studied the corresponding class profile in the previous lesson). Spare copies of the class profiles (in case groups have lost them). A large piece of paper and pens for each group.

Learning activity 2: Large pieces of paper and pens for each group. Spare copies of the Class Profiles and Case Studies in case a group has lost their original copy.

## Period 1

## Engaging students in learning

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 15 minutes |
| Learning activity 1 | 30 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction and explicit teaching

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Write the learning outcomes for this lesson on the board.
2. Connect to student teachers' prior learning by asking: How does a teacher know when a student is engaged in learning?
3. Ask students to read the section: Understanding engagement in learning and Cognitive engagement.
4. Challenge their understanding of cognitive engagement by asking questions that encourage critical thinking. Questions such as the following may help to probe:
   - Is a student who is achieving the lowest grades in the class cognitively engaged? (The answer will depend on what the student's actual cognitive ability level is; whether they have a learning disability; whether the teacher has differentiated effectively; etc.).
   - What helps you to engage cognitively? Will all your students engage in the same way?
5. Ask students to read the section: Behavioural engagement.
6. Challenge their understanding of behavioural engagement by asking questions that encourage critical thinking. Questions such as the following may help to probe:
   - Is a student who is talking during class showing behavioural engagement? (The answer will depend on what the student is talking about, who they are talking to, what the instructions from the teacher were, etc.). Ask student

teachers to reflect on the behaviours they show when they are engaged.
    - Will all your students engage in the same way?
7. Ask students to read the section: Emotional engagement.
8. Challenge their understanding of emotional engagement by asking questions that encourage critical thinking. Again, ask questions such as:
    - What are the signs that a student is emotionally engaged in learning?
    - What helps you to engage emotionally?
    - Will all your students engage in the same way?
9. Ask students to read the section: *Social engagement.*
10. Challenge their understanding of Social engagement by asking questions that encourage critical thinking. Ask questions such as:
    - What signs might indicate that students are socially engaged in a Grade 6 class?
    - What helps you to engage socially?
    - Will all your students engage in the same way?

**Learning activity 1. Case study: Identifying engagement and disengagement in learning**

| | |
|---|---|
| **Time** | 30 minutes |
| **Class organisation** | Small groups |

**Purpose**

The purpose of this learning activity is for student teachers to identify different signs of engagement and disengagement in learning.

1. Student teachers will work in the same small groups that they were in for the previous period. Each group will need to have large pieces of paper and different coloured pens.
2. Ask the groups to read their class profile again (Annex 3A in textbook). Explain that the class profile provides a context for the student that they will be studying for the case study.
3. Give each group a case study (Annex 3B in textbook). Ask them to read their case study. Using the evidence in the case study, the groups will create a mind map that demonstrates the level of engagement their student has in their learning for each type of engagement (cognitive, behavioural, emotional and social).

4. In their groups, student teachers will discuss aspects of engagement that the case study does not provide information about. In a different colour, the groups will add questions to the mind map that the teacher will need to ask to gain more information about the student's needs.
5. At the end of the activity, each group should present briefly their mind maps and explain their findings and questions.

### Assessment

As the groups are working, walk around the room. Observe interactions between group members (are all members participating meaningfully?). Help the groups to think deeply about their case studies. Use probing questions to help the student teachers think critically about the information they have and the additional information they may need to collect.

### Possible student teachers' responses

The responses for this activity will be varied according to the case studies and student teacher's ability to think critically about student learning and engagement. If there are groups with the same case studies, it is likely that they will have different approaches. This is expected. During the group presentations to the class, it may be helpful to highlight the similarities differences between their observations.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

As a class, discuss the complexities of engagement in learning.

1. What challenges do teachers face as they try to engage students in learning?
2. How can teachers try to overcome these challenges?

## Period 2

## Engaging students in learning

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 2 | 35 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction and explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Write the learning outcomes for this lesson on the board.
2. Reflect on the learning from the previous lesson to draw out prior knowledge and extend on it.
3. Highlight the importance of inclusion when considering engagement in learning. Explain that some students with additional needs may find aspects of engagement more difficult than their peers.
4. Direct student teachers to Lesson 3.4.1, Period 2 in the textbook. Ask student teachers to read the section: Engagement and inclusive education.
5. Ask students what they recall about differentiation from Year 1 and Year 2. Explain the importance of differentiation to encourage engagement in learning for all students.
6. Refer student teachers to Lesson 3.4.1, Period 2 in the textbook. Ask student teachers to read the section: Differentiation for engagement in learning in Lower Middle school.

### Learning activity 2. Small group task: Planning for engagement in learning

| | |
|---|---|
| **Time** | 35 minutes |
| **Class organisation** | Groups of 3 or 4 |

**Purpose**

The purpose of this activity is for student teachers to develop strategies to enable all students to engage more deeply in their learning.

1. Student teachers remain in the same groups that they have worked in for the previous two periods. They will be working with the same Class profile (Annex 3A) and Case study (Annex 3B) as previous periods. All groups will create an activity based on "the Solar System". Refer students to the textbook to follow the steps.
2. Ask groups to decide what activity they will design. (2 minutes)
3. Ask the groups to discuss their case study in relation to the questions in Step 2 in the textbook. (3 minutes)
4. Ask the groups to discuss their Class Profile in relation to the questions in Step 3. (5 minutes)
5. Ask the groups to do Step 4. Remind them that they should not aim for something that is too complex. (5 minutes)
6. Step 5 – Students will need to write their task description and draw up a table on their sheet of paper (like the example in Table 3.9 in the textbook). (This will be the longest part of the activity and should take about 10 minutes). Student teachers will need to work quickly and decisively. (10 minutes)
7. Ask each group to present what they have designed and explain a) how it has been differentiated and b) how the different forms of engagement have been addressed. (10 minutes)

**Assessment**

The main skills to observe are:

a. Teamwork and decision making – are the teams acting together? Are all members participating meaningfully? Are the teams decisive? The teams may choose different strategies, such as dividing the work between them. Encourage teams to develop strategies to increase their productivity.
b. Critical and creative thinking – are the teams thinking creatively and critically about how they can encourage engagement and how they differentiate for different learning needs?

As you monitor the activity by walking around the room, use high order questioning techniques to encourage critical and creative thinking, and team strategy building.

**Possible student teachers' responses**

There are no correct responses for this activity. Encouragement of engagement through collaboration and high order thinking is important.

**Check student teachers' understanding**

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

At the end of the period, ask student teachers to reflect on their own engagement in learning.

1. Are there forms of engagement that they find challenging?
2. Can student teachers remember times when they have been fully engaged in learning? What forms of engagement did they experience? (Note that if it is an individual task, social engagement may not be relevant)?
3. What factors (environmental? psychological? educational? etc.) enabled the deep level of engagement in learning?

# 3.4.2. Developing skills for self-regulated learning

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Explain the concept of self-regulated learning;
- Reflect on personal practices of self-regulated learning;
- Develop the mastery motivation of students; and
- Plan strategies to help lower middle school students build skills for lifelong learning.

**Competencies gained**

A1.1.2 Prepare learning activities to align with students' level of cognitive, linguistic, social, and physical development

A1.2.1 Identify various teaching methods to help students with different backgrounds (gender, ethnicity, culture) and abilities, including special learning needs, learn better

A2.1.1 Plan learning experiences that provide opportunities for student collaboration, inquiry, problem-solving and creativity

B3.1.2 Encourage students to interact with each other and to work both independently and in teams

B3.2.4 Encourage well-adjusted behaviour of students by collaborative teamwork and independent learning

C1.1.2 Consistently express positive attitudes, values and behaviours, consistent with what is expected of teachers by students, colleagues, parents and communities

C1.2.1 Identify theories and concepts that inform approaches to teaching and learning

C1.2.2 Describes own approach to teaching and learning

D1.1.1 Use evidence of students learning to reflect on the impact of own teaching practice

D3.1.1 Identify relevant professional learning material to improve own practice

**Time:** Three periods of 50 minutes

**Learning strategies**

Learning activity 1. Jigsaw activity (Part 1): Understanding the components of self-regulated learning

Learning activity 2. Jigsaw activity (Part 2): Understanding the components of self-regulated learning

Learning activity 3. Think-pair-share: Reflecting on self-regulated learning

Learning activity 4. Group reflection: Planning for lifelong learning

**Assessment approaches:** Questioning, observation, peer and whole-class discussion

**Preparation needed**

Read through the learning materials and consider the logistics of the Jigsaw activity in Periods 1 and 2.

**Resources needed**

Learning activity 1: Copies of the reading material for each element of self-regulation, in case a student teacher has forgotten their textbook.

Learning activity 2: A timer with an alarm

Learning activity 3: Blank sheets of paper (one for each student)

Learning activity 4: None

## Period 1

## Developing skills for self-regulated learning

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 35 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction and explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Write the learning outcomes for this lesson on the board.
2. Ask student teachers briefly about changes they have noticed in education over their lifetime. How do they think their role as a teacher may change in the future?
3. Ask student teachers to read the section: Lifelong learning skills.
4. Ask student teachers to reflect on why self-regulated learning is so important.
5. Briefly introduce the components of self-regulated learning in Figure 3.8.

### Learning activity 1. Jigsaw activity (Part 1): Understanding the components of self-regulated learning

| | |
|---|---|
| **Time** | 35 minutes |
| **Class organisation** | Small groups (6 -7 student teachers) |

## Purpose

The purpose of this leraning activity is for student teachers to work with each other to think critically and build a deeper understanding of each element that underpins self-regulated learning.

1. Divide the class into groups of 6 students (or 7 students if needed).
2. This will form the "home" group. In the "home" groups, ask student teachers to allocate a different element of self-regulated learning to each member of the group. (If there are seven students in a group, two people will need to study one element). Tell the student teachers that they will study their element with their expert groups during this lesson, and report back to the "home" group in the next lesson.
3. Ask student teachers to move to their "expert" groups.
4. In the "expert" groups, student teachers will read the material about their element. They will discuss the information and answer the five guiding questions.
5. If possible, encourage the groups to search for additional information about their element, using the library, internet and/or other sources of information.

**Assessment**

Observe group interactions as you walk around. Check that all students are participating meaningfully in the discussion. Use questioning to help student teachers move into higher order thinking. Check that all student teachers have recorded notes about the element they have investigated and remind them that they will need to share their notes with their "home" group in the next period.

**Possible student teachers' responses**

There are no correct responses for this activity. However, it is important to encourage student to think critically about the sources and trustworthiness of any additional information they find.

**Check student teachers' understanding**

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

At the end of the period:

- Ask student teachers to reflect on what they have learnt about their element;
- Ask them to consider how they will report the information back to their "home" groups; and

- If there is time between this period and the next period, encourage student teachers to research their element further.

## Period 2

### Developing skills for self-regulated learning

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 5 minutes |
| Learning activity 2 | 40 minutes |
| Check student teachers' understanding | 5 minutes |

### Introduction

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Write the learning outcomes for this lesson on the board. Ask student teachers to move into their "home" groups.
2. Review what happened in the last period (i.e., the student teachers gathered information about their element that impacts on self-regulated learning). Tell student teachers that they will now report their information back to their "home" groups.

### Learning activity 2. Jigsaw activity (Part 2): Understanding the components of self-regulated learning

| | |
|---|---|
| **Time** | 40 minutes |
| **Class organisation** | Pairs |

### Purpose

The purpose of this learning activity is for student teachers to report the information to their "home" group that they have discussed in the previous period and gain information from their peers.

1. Ask the groups to select a person to begin reporting about their element (It does not matter in which order they report back to the group). They should work through the notes they took while working with the Expert Group.
2. The report should address each of the guiding questions in the Textbook (see Learning activity 1).
3. Advise the other students in the group to take notes and ask questions. Let the student teachers know that if they do not know the answer for a particular question it is a good opportunity to look further into the issues. This can be a helpful model for the classroom, where students have opportunity to see their teachers model lifelong learning skills. Encourage student teachers to look into the issues and report their findings back to the group later.
4. Allow 6 minutes for students to report on each topic to their group. Give warnings to help the speakers pace their reporting (e.g., at 3 minutes, 5 minutes, and 5 minutes 30 seconds). At 6 minutes, indicate that the next topic must be discussed (an alarm and timer might be helpful).
5. If a student teacher does not finish their report within the six minutes, encourage them to share their notes with their group.

**Assessment**

Walk around the room. Gauge how the groups communicate (that they are actively listening to the person reporting). Use questions to help student teachers to think critically about connecting theory with practice in the classroom (e.g., What might this look like in the classroom? What behaviours might a teacher observe? Will this be the same for all students?).

**Possible student teachers' responses**

There are no correct responses for this activity.

**Check student teachers' understanding**

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

- Ask the class to reflect on some of the complexities of self-regulated learning.
- Raise the concept of mastery motivation as this is an important part of self-regulated learning. *How can teachers support students to develop mastery motivation?*
- Challenge the student teachers to think about how engagement and the elements that lead to self-regulation can work together to help students develop mastery motivation.

## Period 3

### Developing skills for self-regulated learning

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 5 minutes |
| Learning activity 3 | 25 minutes |
| Explicit instruction | 5 minutes |
| Learning activity 4 | 10 minutes |
| Check student teachers' understanding | 5 minutes |

### Introduction

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Write the learning outcomes for this lesson on the board.
2. Check the student teachers' understanding of the elements that students need to develop to self-regulate their learning.
3. Ask the class: Why is it important for *teachers* to continually develop their own skills in self-regulated learning? Write the responses on the board.

## Learning activity 3. Think-pair-share: Reflecting on self-regulated learning

| | |
|---|---|
| **Time** | 25 minutes |
| **Class organisation** | Individual, pairs and whole class |

### Purpose

The purpose of this activity is for student teachers to use their knowledge about self-regulated learning to reflect on their own self-regulated learning practices.

1. This type of reflection can be challenging for student teachers because it requires them to look at their own strengths and challenges objectively and plan for improvement. As such, it is important to establish a safe learning environment.
2. Give all student teachers a blank sheet of paper. Ask the student teachers to draw themselves in the middle of the paper, then write the 6 elements of self-regulated learning around the image (see Figure 3.9). This will form the beginning of the mind map. (5 minutes)
3. *Think*: Ask the student teachers to reflect on their strengths and challenges for each element. Ask the student teachers to reflect on their challenges and think about strategies they could use to improve in those areas. Student teachers should write the strengths, challenges, and strategies around the image they drew. They should choose a challenge and strategy to share with the person sitting next to them. (5 minutes)
4. *Pair*: Before students discuss their challenge and strategy with the person next to them, remind the class that even the best learners experience challenges in their learning. Explain the importance of respecting each other's experiences and supporting each other. Give each student teacher 5 minutes to talk (a timer with an alarm could be used). After 5 minutes they need to swap. (10 minutes)
5. *Share*: Each pair should choose one strategy that they think might be helpful for other people and briefly share it with the class. (5 minutes)

### Assessment

Observe how the student teachers engage in the task. During the "Think" stage, be mindful of student teachers who appear to find self-reflection challenging. Use questions to prompt critical and creative thinking about the student teachers' learning. During the "Pair" stage, observe the interactions between student teachers, monitoring to ensure respectful and collegial conversations. Make sure that both students in each pair have had a chance to share and observe that students use active listening.

### Possible student teachers' responses

There are no correct responses for this activity.

## Explicit instruction

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Ask student teachers to read the section: *Bringing it all together.*
2. Discuss the links between the elements in Figure 3.10, with the goal to enable lifelong learning.

### Learning activity 4. Group reflection: Planning for lifelong learning

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Small group |

## Purpose

The purpose of this activity is for student teachers to reflect on the educational changes that they have observed over their lifetime in Myanmar and to think about how they will support their own classes to develop lifelong learning skills.

1. Ask the student teachers to form small groups of 3 or 4 students.
2. Ask the student teachers to discuss their observations to the questions in the textbook. Help them to understand how, as teachers, reflection on their teaching practice will help them to discover areas for professional development.

### Assessment

As you walk around the room, observe how the student teachers are able to think critically about their own experiences and observations (observing both strengths and challenges and giving reasons for their responses). Observe how the students link their experiences with the need for future professional development.

### Possible student teachers' responses

There are no correct or incorrect responses for this activity.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

At the end of the lesson, discuss the importance for teachers to reflect and self-regulate their own learning as a class. Link this with identifying areas in which they, as teachers, need professional development.

**Expected student teachers' responses for the review questions in TB**

Question 1: What are the four forms of engagement that work together to enable students to engage more deeply in their learning?

Answer: *Cognitive engagement, behavioural engagement, emotional engagement and social engagement.*

Question 2: How does each form of engagement support learning?

Answer: *There are many different responses to this question. Some responses might include:*

- *Cognitive engagement is about how much a student is invested in learning. When students are cognitively engaged, they are able to build on their prior knowledge and progress in their learning. This means that learning and teaching needs to target students' ZPDs.*
- *Behavioural engagement means that students are behaving in a way that enables them to learn. This involves learning in the classroom as well as participation in other aspects of school life. Behavioural engagement is about being proactive in learning.*
- *Emotional engagement is about how students feel about learning. Positive feelings about learning enable students to be receptive to learning and helps them to engage in other ways.*
- *Social engagement can also impact on other areas of engagement. When students are socially engaged, they can learn from each other.*

Question 3: What are some of the challenges that teachers face in helping students to engage deeply in their learning?

Answer: *The responses to this may vary considerably. They may include (but are not limited to):*

- *There are many things that teachers cannot control, such as what happens to a student outside school.*
- *A class may be very diverse, so it is difficult to engage all students at all levels all the time.*

Question 4: What strategies can teachers use to support deeper engagement in learning?

Answer: *The responses to this may vary considerably. They may include (but are not limited to):*

- *Teachers can differentiate for different student needs.*
- *Teachers can use the interests of their students to teach different skills.*
- *Teachers can provide scaffolding to help students to interact positively in cooperative situations.*

Question 5: Self-regulation of learning involves a complex mix of elements that need to work together. What are the different elements that can enable or prevent self-regulation of learning?

Answer: *Cognition and metacognition, motivation and mastery motivation, emotions and feelings, environmental factors, social factors, and behaviour.*

Question 6: What challenges might some of your students face that hinder them from developing skills in the different aspects of self-regulated learning?

Answer: *The responses to this may vary considerably. They may include (but are not limited to):*

- *Some students with additional needs find some aspects of self-regulation very challenging.*
- *If class work is not targeted to the students' ZPDs, they cannot access learning opportunities, which can impact on their motivation and emotions.*
- *If students are not supported to develop strategies to learn they may struggle to regulate their learning.*

Question 7: What strategies may help to support students to overcome these challenges?

Answer: *The responses to this may vary considerably. They may include (but are not limited to):*

- *Scaffolding learning and strategies for learning*
- *Differentiating learning so students can access learning opportunities*
- *Using po*sitive *and sincere language to encourage students in their learning.*

Question 8: How might you need to adjust your teaching practices in response to your students' differences in their ability to self-regulate their learning?

Answer: *The responses to this may vary considerably. They may include:*

- *Teachers need to understand the needs of students with additional needs. This will help them to differentiate more effectively.*
- *Teachers need to be aware of how they give feedback to students. They may need to adjust the way in which feedback is given to make sure that their students can interact with it.*

Question 9: What strategies do you use in your own learning to enhance your self-regulation of learning and what new strategies might you try?

Answer: *The answers to this will be personal to each student teacher. There is no correct or incorrect answer.*

# Unit Summary

**Key messages**

- In order for feedback to help a student to progress in their learning, the student needs to go through the process of engaging with it, interpreting and understanding it, and using it.
- A student's emotional response to feedback impacts on how they engage with it.
- Feedback should be communicated using clear language, and provide advice, guidance and sincere praise.
- There are many different ways in which feedback can be provided. It should be provided in a way that students can engage with it (i.e., age appropriate, appropriate to the context, provided by a person they trust).
- There are four forms of engagement that come together to enable deep learning: cognitive engagement, behavioural engagement, emotional engagement and social engagement.
- Different students will engage in different ways. Some students with additional needs may find some forms of engagement more challenging than their peers.
- Well-planned differentiation of learning and teaching may provide an environment that supports engagement.
- Self-regulation of learning is vital for students if they are to become lifelong learners.
- There are six main elements that are associated with self-regulated learning: cognition and metacognition, motivation and mastery motivation, emotions and feelings, environmental factors and social factors. These elements are not usually innate and need to be taught.
- Some students may find mastery motivation more challenging to develop than their peers. It is important for teachers to understand these students' learning needs and plan learning opportunities that enable success experiences.
- Each class of students will have a diverse range of abilities in relation to self-regulation.
- It is important for teachers to develop lifelong learning skills through self-regulated learning.

## Unit reflection

All the concepts that the student teachers have studied in Unit 3 are connected in different ways and lead towards developing lifelong learning skills. In this unit, they have studied critical and creative thinking, cooperative and blended learning, the role of feedback in the learning process, engagement and self-regulated learning.

Task:

As the student teachers review this unit, they should create a mind map that demonstrates the complexities of, and interconnection between, the concepts and theories they have studied. Alongside the concepts and theories, they should include:

- observations they have made during your practicum placements that illustrate the concepts;
- strategies that they can implement as a teacher to build their students' engagement, self-regulated learning and critical and creative thinking;
- strategies that they can implement to develop their own engagement and self-regulation of learning; and
- concepts that they need to research further to understand in greater depth.

## Further reading

### 3.1. Critical and Creative Thinking

Brown, S. Jackson, J. Zhang & R. E. West, *Creativity and innovation in education.* Press Books. https://educationinnovation.pressbooks.com/chapter/developing-critical-and-creative-thinkers

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Treffinger, D. J. (2008). Preparing creative and critical thinkers. *Educational Leadership, 65*. https://www.ascd.org/el/articles/preparing-creative-and-critical-thinkers

### 3.2. Cooperative Learning and Blended Learning

Brame, C. J., & Biel, R. (2015). *Setting up and facilitating group work: Using cooperative learning groups effectively.* http://cft.vanderbilt.edu/guides-sub-pages/setting-up-and-facilitating-group-work-using-cooperative-learning-groups-effectively

Department of Education and Early Childhood Development. (2012). *Blended learning: A synthesis of research findings in Victorian Education, 2006-2011*. Victorian State Government. https://www.education.vic.gov.au/documents/about/research/blendedlearning.pdf

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### 3.3. Feedback to Enhance Learning

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Pekrun, R. (2014). *Emotions and learning. Educational Practices Series, 24. International Academy of Education*. https://unesdoc.unesco.org/ark:/48223/pf0000227679

### 3.4. Engagement and Self-regulated Learning

Fredricks, J. A. (2011). Engagement in school and out-of-school contexts: A multidimensional view. *Theory into practice, 50,* 327–335. https://doi.org/10.1080/00405841.2011.607401

Usher, E. L., & Schunk, D, H. (2017). Social cognitive theoretical perspective of self-regulation. In D.H. Schunk & J. A. Greene (Eds.), *Handbook of self-regulation of learning and performance* (2nd ed., pp.19–35). Routledge. https://doi.org/10.4324/9781315697048

# Unit 4

# Planning and Preparation

In this unit, planning and preparation is located in the broader context of a planning, teaching, assessment, and review cycle. So too, lesson planning is located in the broader context of year plans and units of work, through close reference to Basic Education Curriculum materials.

Student teachers will explore the extent to which the Year 3 lesson plan template accommodates the Basic Education's Introduce–Teach–Practise–Review model, as well as other pedagogical models, including the direct instruction model and the 5Es inquiry model.

The unit highlights principles of constructive alignment, differentiation, and evidence and data informed planning. Student teachers will be provided opportunity to plan an inquiry-based lesson for a hypothetical Grade 6 class, utilising the Year 3 lesson plan template. They will refer to relevant Basic Education Curriculum documents, class and learner profiles, and other stimuli materials.

**Expected learning outcomes**

**By the end of this unit, student teachers will be able to:**

- Describe practices at each stage of the planning, teaching, assessment, and review cycle;
- Explain how the use of data and evidence informs practices over this cycle;
- Compare Middle and High school curriculum structure and elements;
- Explain how an annual plan for teaching, learning, and assessment is structured to support student learning;

- Explain how an annual plan for teaching, learning, and assessment is constructively aligned;
- Design a constructively aligned teaching and learning sequence for a lesson scenario;
- Discuss the Basic Education's Introduce–Teach–Practise–Review (ITPR) model;
- Explain the purpose of a pedagogical model in the context of lesson planning;
- Consider the effect of disrupting the ITPR sequence on student engagement and learning;
- Examine the extent to which the Year 3 lesson plan template accommodates different pedagogical models;
- Identify elements of a lesson that can be differentiated;
- Explain how the Year 3 lesson plan template supports teachers to plan for differentiation;
- Reflect on lower middle school scenarios to explain elements that have been differentiated;
- Outline how a selected lower middle lesson can be differentiated to respond to diverse students' needs and support learning;
- Identify sources of data and evidence that inform daily and longer-term planning and evaluation;
- Use whole class and individual student profiles to plan an inquiry-based lesson for a Grade 6 class;
- Plan to assess formatively throughout the learning and teaching sequence and review phase of the Grade 6 lesson; and
- Frame teacher evaluation questions that are linked to lesson elements and selected pedagogical models.

## Competencies gained

A4.1 Demonstrate understanding of the structure, content and expected learning outcomes of the basic education curriculum

B1.1 Demonstrate capacity to teach subject-related concepts clearly and engagingly

B1.3 Demonstrate good lesson planning and preparation in line with students' learning ability and experience

B2.1 Demonstrate capacity to monitor and assess student learning

B2.2 Demonstrate capacity to keep detailed assessment records and use the assessment information to guide students' learning progress

C1.2 Demonstrate understanding of the underlying ideas that influence one's practice as a professional teacher

D1.1 Regularly reflect on own teaching practice and its impact on student learning

# 4.1. Evidence-informed Planning

In this sub-unit, planning and preparation is located in the broader context of a planning, teaching, assessment, and review cycle. Student teachers will consider how data and evidence is used by the teacher to improve practice and student learning.

## 4.1.1. Planning, teaching, assessment, and review cycle

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Describe practices at each stage of the planning, teaching, assessment, and review cycle; and
- Explain how the use of data and evidence informs practices over this cycle.

**Competencies gained**

B2.1.2 Use assessment information to plan lessons

B2.2.1 Record students learning progress accurately and consistently

D1.1.1 Use evidence of student learning to reflect on the impact of own teaching practice

D1.1.2 Use information from a variety of sources to improve teaching practice and student learning

**Time:** One period of 50 minutes

**Learning strategy**

Learning activity. Discussing practice: Planning, teaching, assessment, and review cycle

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 4.1.1.

**Resources needed**

Learning activity 1: N/A (other than textbook, note paper, and pen)

## Planning, teaching, assessment, and review cycle

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 15 minutes |
| Learning activity | 25 minutes |
| Check student teachers' understanding | 10 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the period.
   By the end of this period, student teachers will be able to:
   - Describe practices at each stage of the planning, teaching, assessment, and review cycle; and
   - Explain how the use of data and evidence informs practices over this cycle.
2. Direct student teachers to textbook section, 'Linking to prior learning'.
3. Select different student teachers to read out elements of lesson planning:
   - Framing learning objectives, (SMART) learning outcomes, and criteria for success;
   - Determining teaching and learning approaches, strategies, methods, and techniques;
   - Identifying teaching and learning aids and resources;
   - Designing activities for different stages of the lesson (i.e., Lesson Introduction, Body, and Review)
   - Considering how to differentiate teaching and learning in response to students' needs and interests; and
   - Planning questions for teacher evaluation.
4. Refer student teachers to Annex 4A. Year 3 lesson plan template.
5. Highlight that it is the same as the Year 2 lesson plan template, with minor modifications only.
6. Ask student teachers to indicate, by raising their hands if in other subjects they have already used the Year 3 lesson plan template in planning activities.
7. Select student teachers to provide details. Record student teacher responses on board: subject and nature of planning activity (e.g., Science: framing learning objectives, learning outcomes, and criteria for success for a Grade 6 lesson)
8. Explain to student teachers that in Year 3:
   - lesson planning is located in the broader context of year plans and units of work; and
   - planning and preparation is located in the broader context of a planning, teaching, assessment, and review cycle.
9. Draw cycle on board:


[See Figure 4.1 in textbook.]

**Figure TG 4.1. Planning, teaching, assessment, and review cycle**[33]

**Learning activity. Discussing practice: Planning, teaching, assessment, and review cycle**

| | |
|---|---|
| **Time** | 25 minutes |
| **Class organisation** | Groups of 4 |

## Purpose

The purpose of this learning activity is for student teachers to identify the teacher practices that occur at each stage of the planning, teaching, assessment, and review cycle.

33 Image by author, used with permission.

1. Instruct student teachers to form groups of 4.
2. Direct student teachers to Learning activity in the textbook.
3. Instruct student teachers to discuss each stage of the cycle in Figure 4.1. In Table 4.1, list the teacher practices that occur at each stage.
4. You might recommend that, after discussion, each group member works to generate a list of practices for an assigned stage before peer review and refinement of responses within group:
   - Student teacher 1: Planning and preparation
   - Student teacher 2: Teaching and learning
   - Student teacher 3: Assessment and feedback
   - Student teacher 4: Reflection and evaluation.
5. Select student teachers to share final responses with class.

**Assessment**

Walk around to support peer discussion and review within groups.

Draw Table 4.1 on board and record student teacher responses.

**Possible student teachers' responses**

Possible responses are presented in Table TG 4.1.

**Table TG 4.1. Teacher practices across planning, teaching, assessment, and review cycle – completed**

| **Planning and preparation** | **Teaching and learning** |
|---|---|
| ● Use Basic Education Curriculum documents and other relevant materials to plan teaching and learning sequences and lessons that are:<br>- constructively aligned (i.e., curriculum, assessment, and pedagogy)<br>- responsive to students' learning needs.<br>● Interpret a range of data to establish students':<br>- current and desired levels of performance<br>- readiness for learning<br>- learning needs. | ● Employ a range of challenging and engaging teaching and learning strategies that:<br>- connect to and build on students' prior learning<br>- develop targeted knowledge and skills.<br>● Promote 21st century/soft skills, including the literacy and numeracy skills required for student success in learning.<br>● Provide differentiated teaching and learning opportunities.<br>● Make adjustments to teaching based on ongoing student data collection and analysis. |

| Reflection and evaluation | Assessment and feedback |
|---|---|
| • Analyse the scope and adequacy of assessment data choices for identifying students' learning needs and informing teaching.<br>• Connect theory, practice, and data and evidence to:<br>- evaluate the effectiveness of teaching<br>- demonstrate its impact on student learning. | • Select and use a variety of assessment tools and practices that are fit for purpose and address good practice principles.<br>• Provide constructive feedback to students to progress learning and inform student self-assessment and goal setting *("How am I going"; "Where to next?").*<br>• Make judgements of the quality of student work with reference to the curriculum (learning objectives and outcomes) and achievement standards.<br>• Engage in moderation of student work. |

[See Table 4.1 in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 10 minutes (5 minutes per question) |
| **Class organisation** | Whole class |

Ask student teachers to reflect on the questions:

*Question:*

What is the relationship between teaching and learning with assessment and feedback? For instance, should these set of practices be presented in separate boxes?

*Response:*

Some student teachers may say that teaching, learning, and assessment should not be represented as separate boxes given that:

1. Assessment does not occur at the end of the teaching and learning process as might be suggested by the representation.
2. Assessment is an ongoing process, providing evidence to support decisions regarding improvements to teaching and student learning. Assessment occurs prior to (diagnostic assessment), during (formative assessment), and after (summative assessment) teaching and learning episodes.

3. Throughout every lesson, teachers assess formatively by:

- *observing* students participating in activities and tasks;
- *questioning* students and assessing what types of questions students ask;
- *listening* to students' contributions in class or group discussions;
- *scaffolding* students in the process of learning;
- *reviewing* students' work; and
- facilitating *peer and self-assessment* processes.

Other student teachers may recognise that assessment is integrally related to teaching and learning but should be presented in a separate box, given that teachers require a repertoire of practices to:

- assess through diverse and inclusive diagnostic, formative, and summative tools;
- provide constructive feedback; and
- interpret assessment data and other evidence to differentiate teaching and learning and evaluate practice.

*Question:*

How do teachers use evidence and data over the cycle to enhance student learning and improve practice?

*Response:*

Direct student teachers to the table on the board and highlight practices (in bold in Table TG 4.2) within each of the quadrants that relate to collecting, interpreting, or using assessment data and other evidence.

**Table TG 4.2. Teacher practices across planning, teaching, assessment, and review cycle – board**

| **Planning and preparation** | **Teaching and learning** |
|---|---|
| • Use Basic Education curriculum documents and other relevant materials to plan teaching and learning sequences and lessons that are:<br>- constructively aligned (i.e., curriculum, assessment, and pedagogy)<br>- responsive to students' learning needs<br>• Interpret a range of data to establish students':<br>- current and desired levels of performance<br>- readiness for learning<br>- learning needs. | ● Employ a range of challenging and engaging teaching and learning strategies that:<br>- connect to and build on students' prior learning<br>- develop targeted knowledge and skills.<br>● Promote 21st century/soft skills, including the literacy and numeracy skills required for student success in learning.<br>● Provide differentiated teaching and learning opportunities.<br>● Make adjustments to teaching based on ongoing student data collection and analysis. |
| **Reflection and evaluation** | **Assessment and feedback** |
| • Analyse the scope and adequacy of assessment data choices for identifying students' learning needs and informing teaching.<br>• Connect theory, practice, and data and evidence to:<br>- evaluate the effectiveness of teaching<br>- demonstrate its impact on student learning. | • Select and use a variety of assessment tools and practices that are fit for purpose and address good practice principles.<br>• Provide constructive feedback to students to progress learning and inform student self-assessment and goal setting *("How am I going"; "Where to next?").*<br>• Make judgements of the quality of student work with reference to the curriculum (learning objectives and outcomes) and achievement standards.<br>• Engage in moderation of student work. |

You can summarise as follows:

Over the planning, teaching, assessment, and review cycle, teachers use data and evidence to:

- establish students' levels of performance, readiness for learning, and learning needs;
- make adjustments to teaching and provide constructive feedback to students;
- make judgements of the quality of student work; and
- evaluate the effectiveness of teaching and demonstrate its impact on student learning.

*Question:* What may be the advantages of planning collaboratively with other teachers?

*Responses:*

Collaborative planning allows teachers to *share their expertise* with their colleagues in teaching and assessment practices and data interpretation, with the view to improving student learning.

The group's belief in their capacity to make change (i.e., their *collective efficacy*) is strengthened when improvements can be evidenced in student learning and achievement data over time.

In this question, student teachers were also invited to draw on the notion of a professional learning community. You may highlight for students the definition of a professional learning community from Unit 1. A professional learning community is created when a group of professionals:

- collaborate and investigate practice to improve student learning outcomes;
- participate in decision-making informed by evidence and data,
- pilot and adapt new strategies for improvement; and
- are accountable and responsible for the impact of their collective efforts.

Importantly, teachers take responsibility for their collective efforts to make a positive impact on student learning and achievement rather than focusing on students' inadequacies or limitations. It is an enabling and transformative mindset on the part of teachers.

**Expected student teacher's responses for the review questions in TB**

Question 1: What is the relationship between teaching, learning, and assessment?

*Answer:*

- *Assessment provides evidence to support decisions regarding improvements to teaching and student learning.*
- *Assessment is an ongoing process. It occurs prior to (diagnostic assessment), during (formative assessment), and after (summative assessment) teaching and learning episodes.*
- *Teachers assess formatively by observing students participating in activities and tasks, questioning students, listening to students' contributions in class or group discussions, scaffolding students in the process of learning, reviewing students' work, and facilitating peer and self-assessment processes.*

Question 2: What is the role of data and evidence over the planning, teaching, assessment, and review cycle?

Answer: *Over the planning, teaching, assessment, and review cycle, teachers use data and evidence to:*

- *establish students' levels of performance, readiness for learning, and learning needs;*
- *make adjustments to teaching and provide constructive feedback to students;*
- *make judgements of the quality of student work; and*
- *evaluate the effectiveness of teaching and demonstrate its impact on student learning.*

# 4.2. Curriculum Elements and Constructive Alignment

The research literature[34] has found that teacher preparation programmes, in the highest-performing educational systems in the world, focus sharply on the curriculum that teachers will be expected to teach. In this sub-unit, student teachers will consolidate understanding of Myanmar's Basic Education Curriculum structures and elements. They will explore constructive alignment as it applies at the level of the year plan, unit of work, and lesson.

## 4.2.1. Basic Education Curriculum structure and elements

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Compare Middle and High school curriculum structure and elements; and
- Explain how an annual plan for teaching, learning, and assessment is structured to support student learning.

**Competencies gained**

A4.1.1 Describe key concepts, content, learning objectives and outcomes of the lower secondary curriculum for the subjects and grade level/s taught

B1.1.1 Use different ways to explain the subject matter, related ideas and concepts to meet a range of learning abilities and intended learning outcomes

34 National Center on Education and the Economy. (2020).

**Time:** Two period of 50 minutes

**Learning strategies**

Learning activity 1. Comparison: Basic Education Curriculum elements

Learning activity 2. Selected sample structure: Student learning

**Assessment approaches:** Questioning, observation, peer and whole-class discussion

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 4.2.1.

**Resources needed**

Learning activity 1: Basic Education Curriculum documents

Learning activity 2: N/A (other than textbook, note paper, and pen)

**Period 1**

**Basic Education Curriculum structure and elements**

This period is structured as follows:

| | |
|---|---|
| Learning activity 1 | 40 minutes |
| Check student teachers' understanding | 10 minutes |

## Learning activity 1. Comparison: Basic Education Curriculum elements

| | |
|---|---|
| **Time** | 40 minutes |
| **Class organisation** | Groups of 4 |

### Purpose

The purpose of this learning activity is for student teachers to compare curriculum elements of a selected lower middle school subject (i.e., either Grade 6 or Grade 7) with those of a high school subject.

1. Instruct student teachers to form groups of 4.
2. Distribute Lower Middle school and High school curriculum documentation to groups.
3. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Compare Middle and High school curriculum structure and elements.
4. Direct student teachers to Learning activity 1.
5. Highlight for student teachers that in Myanmar the curriculum is typically articulated through elements as outlined in Table 4.2.
6. Select student teachers to read through elements in Table 4.2.
7. Highlight for student teachers that there is variation between curriculum documents across phases of schooling (KG, Primary, Middle school, and High school) and learning areas/subjects.
8. Instruct student teachers to:
   - select a lower middle school subject for which they can access Basic Education Curriculum documentation;
   - compare the curriculum elements for your selected subject with those elements of a selected high school subject;
   - identify and list the curriculum elements for the lower middle school subject and high school subject in Table 4.3;
   - refer to the elements in Table 4.2 as a point of reference; and
   - discuss the similarities and differences of the curriculum elements of the selected lower middle school subject and high school subject.
9. Instruct groups to share their findings with another group.

## Assessment

Walk around to groups to ensure that student teachers are identifying the key curriculum elements. Encourage student teachers to draw rows in Table 4.3 (as per Table 4.2) to organise the elements according to tiers (e.g., schooling phase, grade level, unit and lesson level).

## Possible student teachers' responses

There will be variation depending on the subject/learning area chosen. An example is provided in Table TG 4.3.

**Table TG 4.3. Curriculum elements for selected lower middle and high school subjects – completed**

| Reflection and evaluation | High school: Biology |
|---|---|
| **G6-G9 English scope and sequence**<br><br>• Grade-level learning outcomes – By strand (Receptive skills, productive skills, knowledge about language) | **G10-G12 Biology scope and sequence**<br><br>• Basic subject goals<br>• Grade-level learning outcomes – By strand and sub-strand |
| **G6 English Teacher Guide**<br><br>*Syllabus*<br><br>• Topics and soft skills by unit and strand<br><br>*Year plan*<br><br>• Unit number (Lesson number: 4 lessons per unit)<br>• Unit topic<br>• Review<br>• Project<br>• Poem<br>• Number of periods<br>• Total number of periods for each unit<br>• Location in year (by month) | **G10 Biology Teacher Guide**<br><br>*Syllabus*<br><br>• Basic subject goals<br><br>*By strand and sub-strand:*<br><br>• Expanded objectives<br>• Learning outcomes<br>• Learning activities<br>• Achievement indicators<br>• Assessment strategies<br><br>*Year plan*<br><br>• Month of year<br>• Chapter titles<br>• Chapter outline (Sub-chapters and lessons)<br>• Sub-chapter<br>• Number of periods<br>• Total number of periods for each chapter<br><br>*Weekly plan*<br><br>• 5 periods per week (also as per MoE's Basic Education Curriculum Framework (6th version) |

| *English lesson plans* | *Biology lesson plans* |
|---|---|
| • Unit learning outcomes and soft skills<br>• Lesson objectives<br>• Words and expressions<br>• Resources and preparation<br>• Procedure – Introduction, Teaching/Practice, Review | • Lesson objectives<br>• Preparation<br>• Procedure– Introduction, Teaching, Practice, Activity, Review and Assessment |

[See Table 4.3 in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

Revisit relevant learning outcome for the period.

By the end of this period, student teachers will be able to:

- Compare Middle and High school curriculum structure and elements.

Ask student teachers to report back on the similarities and differences between the way that a lower middle school subject curriculum is organised and that of a high school subject.

*Possible response:*

The key similarity is the overarching structure of both the Middle school and High school curriculum wherein there is articulation for the subject at various tiers:

- Phase of schooling, grade level
- Year plan
- Unit and lesson level.

Differences will depend on what subjects were compared and what documentation is available. Notably for Grade 10 Biology, there is clear and detailed alignment between the following elements in presentation of its syllabus (by strand and sub-strand):

- Expanded objectives
- Learning outcomes
- Learning activities
- Achievement indicators
- Assessment strategies.

## Period 2

### Basic Education Curriculum structure and elements

This period is structured as follows:

| | |
|---|---|
| Learning activity 2 | 40 minutes |
| Check student teachers' understanding | 10 minutes |

### Learning activity 2. Selected sample structure: Student learning

| | |
|---|---|
| **Time** | 40 minutes |
| **Class organisation** | Pairs |

### Purpose

The purpose of this learning activity is for student teachers to reflect on a specific curriculum structure to identify how it supports student learning.

1. Instruct student teachers to form pairs.
2. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Explain how an annual plan for teaching, learning, and assessment is structured to support student learning.
3. Direct student teachers to Learning activity 2 in the textbook.
4. Explain to student teachers that:
   - A detailed curriculum structure is provided in the Grade 4 English Teacher Guide.
   - It is an interesting example to focus on, irrespective of specialisation.
5. Read the details together as a class.

Grade 4 English comprises 10 units, 5 review lessons, and 5 projects.
Each unit is made up of 2 lessons.
Each lesson is made up of 6 periods.
After every 2 units, there is a review lesson (2 periods) and a project (3 periods).
Assessment comprises informal assessment in class, student self-assessment at the end of the projects, performance assessments (i.e., writing tasks, role plays, dialogues, presentations, and the projects), and quarterly tests.

6. Instruct student teachers to:
   - view the curriculum structure in Figure 4.3;
   - read about curriculum elements in Box 4.1; and
   - reflect on how this structure and its elements support student learning.
7. Select student teachers to report back to the class.

**Assessment**

You might:

- walk around to different pairs and listen to discussions.
- record student teachers' responses on the board.

**Possible student teachers' responses**

Student teachers might discuss:

a. Learning through listening, speaking, reading, and writing.
b. Overall structure: 5 cycles comprising learn, review learning, and apply learning in projects.
c. Pedagogical models:
   - Lesson periods 1-2 & 3-4: Learn (i.e., listen, practise) and apply (i.e., try) or extend
   - Lesson periods 5 & 6: Prepare, read/write, respond/practise/share
   - Review periods: Speak, listen, read, write, and
   - Project periods: Plan, do, present.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Peer assessment |

Ask student teachers to reflect on the curriculum structure from the perspective of inclusive education.

You may ask probing questions, such as:

a. Does this structure appear to set students up for success?
b. Does this structure appear to be engaging – that is, diverse learning and assessment experiences?

## 4.2.2. Constructive alignment

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Explain how an annual plan for teaching, learning, and assessment is constructively aligned; and
- Design a constructively aligned teaching and learning sequence for a lesson scenario.

### Competencies gained

A4.1.2 Prepare lesson plans reflecting the requirements of the curriculum and include relevant teaching and learning activities and materials

C1.2.1 Identify theories and concepts that inform approaches to teaching and learning

**Time:** Two period of 50 minutes

**Learning strategies**

Learning activity 1. Selected sample structure: Constructive alignment

Learning activity 2. Design task: Constructively aligning lesson elements

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 4.2.2.

**Resources needed**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

**Period 1**

**Constructive alignment**

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 15 minutes |
| Learning activity 1 | 30 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Ask student teachers to write down what they understand about constructive alignment and share their understanding with a peer.
2. Ask pairs to arrive at their best written definition of constructive alignment.
3. Select student teachers to share their responses with the class.
   *Possible response:* Constructive alignment is alignment between learning outcomes, assessment tasks, success criteria, and learning and teaching activities, and content.
4. Direct student teacher to textbook section, **'Constructive alignment'.**
5. Highlight for student teachers that, in Year 2, they explored broad steps for planning a unit of work, as follows:
   a. Determine ***unit-level learning outcomes*** (i.e., what knowledge and understandings and skills and dispositions are to be developed and assessed over the unit?)
   b. Design the assessment tasks, which will determine whether a student has achieved the learning outcomes. These tasks will include rich ***performance assessment tasks.*** Develop clear success criteria and criteria–standards rubrics.
   c. Create the ***daily teaching and learning activities*** and ***formative assessments*** that scaffold the performance tasks. Through these activities, students develop the competencies that they apply in the assessment tasks.
6. Explain that in this way, unit-level learning outcomes, assessment tasks, success criteria, and learning and teaching activities can be said to be constructively aligned.
7. Read definition in textbook:
   Constructive alignment is a design approach in which:
   What it is *intended students should learn* is clearly stated before teaching and learning takes place.
   Assessment is designed to enable clear *judgements* as to how well the learning outcomes have been met.
   Teaching is designed to engage students in learning activities that *optimise their chances* of achieving the intended learning outcomes.

## Learning activity 1. Selected sample structure: Constructive alignment

| | |
|---|---|
| **Time** | 30 minutes |
| **Class organisation** | Pair (same as per previous Lesson 4.2.1, Learning activity 2) |

### Purpose

The purpose of this learning activity is for student teachers to reflect further on the teaching, learning, and assessment structure of the Grade 4 English Curriculum with respect to the principle of constructive alignment.

1. Instruct student teachers to work with the same partner as per previous period.
2. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Explain how an annual plan for teaching, learning, and assessment is constructively aligned.
3. Direct student teachers to Learning activity 1.
4. Instruct student teachers to reflect on how constructive alignment is evidenced in the teaching, learning, and assessment sequence in Box 4.1 (and Figure 4.3) by answering the following questions, which are based on the definition of constructive alignment by Biggs.[35]
   a. How is assessment designed to enable *clear judgments* as to how well the learning outcomes have been met? Review the rubrics in Annex 4B to support you in answering this question.
   b. How do the daily teaching and learning activities and formative assessments scaffold students undertaking the performance tasks (i.e., *optimise student chances* of achieving the intended learning outcomes)?
   c. What would be day-to-day considerations on the part of the teacher regarding teaching and learning? How would the teacher plan and prepare for each lesson to ensure that *every* student in their classroom has the opportunity to progress their learning?
5. Select student teachers to share their responses with the class.

35 Biggs, J. (2014, pp. 5-6).

**Assessment**

The objective is to facilitate rich peer-to-peer and whole class discussion about planning and pedagogical decision-making.

**Possible student teachers' responses**

*Question:*

How is assessment designed to enable *clear judgments* as to how well the learning outcomes have been met? Review the rubrics in Annex 4B to support you in answering this question.

*Response:*

Teacher judgments about how well students have met learning outcomes occur through:

- performance assessments (i.e., writing tasks, role plays, dialogues, presentations, the projects); and
- quarterly tests.

Notably, teacher judgements in terms of the performance assessments are supported through criteria–standards rubrics. For each criterion for success, performance at three standards are identified: advanced, satisfactory, and emerging.

*Questions:*

How do the daily teaching and learning activities and formative assessments scaffold students undertaking the performance tasks (i.e., *optimise student chances* of achieving the intended learning outcomes)?

What would be day-to-day considerations on the part of the teacher regarding teaching and learning? How would the teacher plan and prepare for each lesson to ensure that every student in their classroom has the opportunity to progress their learning?

*Response:*

In the previous learning activity, the overall curriculum structure, and the embedded pedagogical models (sequences within the structure) were seen to support student learning.

However, on a day-to-day basis, Grade 4 teachers need to be adapting the proposed sequence and lessons for their own specific learning contexts. They would do this by:

- observing students and providing immediate feedback on challenges or issues that students are facing;
- using formative assessment data to differentiate teaching and learning to respond to students' learning needs;
- using flexible groupings (i.e., whole class, small groups, and pair arrangements) to target instruction and to allow students opportunity to interact and work together; and
- locating and/or make teaching aids and resources that can scaffold students at different levels of proficiency (e.g., visual stimuli, writing exemplars, etc.).

**Check student teachers' understanding**

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to reflect on the benefit of the sequence of the two learning activities:

- *broad* review of Grade 4 English Curriculum (as presented in Figure 4.3 and Box 4.1) from the perspective of *student learning;*
- revisit the principle of constructive alignment as it applies to longer term planning; and
- more informed review Grade 4 English Curriculum (as presented in Figure 4.3 and Box 4.1 and annexed performance assessment rubrics) from the perspective of *constructive alignment.*

Also highlight that while the Grade 4 curriculum reflects the principle of constructive

alignment in its design, there was also opportunity to reflect on the day-to-day planning considerations of teachers, who have to:

- adapt national curriculum materials for their specific teaching and learning contexts; and
- assess student learning progress in an ongoing way so that every lesson is purposeful and inclusive.

If time, you might facilitate conversation about the need for graduate teachers to have high-level planning skills albeit that detailed lesson plans are provided in Teacher Guides in the new Basic Education curriculum.

## Period 2

### Constructive alignment

This period is structured as follows:

| | |
|---|---|
| Learning activity 2 | 40 minutes |
| Check student teachers' understanding | 10 minutes |

### Learning activity 2. Design task: Constructively aligning lesson elements

| | |
|---|---|
| **Time** | 40 minutes |
| **Class organisation** | Groups of 3 |

### Purpose

The purpose of this learning activity is for student teachers to review a lesson's intended learning outcomes and assessment task and criteria for success to outline teaching and learning strategies and activities that will support students to develop the requisite knowledge and skills.

1. Instruct student teachers to form groups of 3.

2. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Design a constructively aligned teaching and learning sequence for a lesson scenario.
3. Direct student teachers to Learning activity 2 and Table 4.4 in the textbook.
4. Instruct student teachers to:
   - sequence teaching and learning activities that will support students to undertake the task (i.e., to produce a labelled diagram of an insect) and achieve the learning outcome and meet the criteria for success
   - identify the teaching aids and resources that are required for the teaching and learning activities.
5. Highlight for student teachers that their teaching and learning sequence must reflect the principles of effective teaching and learning, as identified in the preface section of the Teacher Guides of the Basic Education curriculum:
   - Teachers make learning outcomes clear
   - Teachers and students use different teaching and learning approaches
   - Teachers and students work together, and
   - Teachers and students give precise mutual feedback.

**Assessment**

Walk around to different groups and provide a sounding board for their planning ideas.

Ensure that all group members are engaging in collegial conversation.

**Possible student teachers' responses**

One possible teaching and learning sequence is presented in Table TG 4.4.

## Table TG 4.4. Lesson plan elements[36] – completed

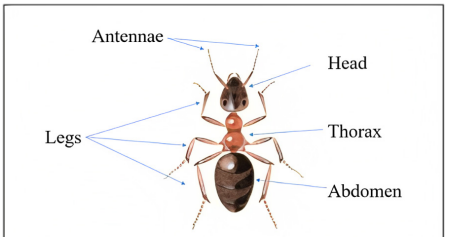
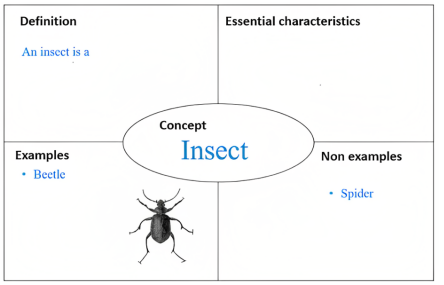
<table>
<tr><th colspan="2">Learning objective and outcomes</th></tr>
<tr><td colspan="2">Lesson objective<br><br>The lesson will introduce the key features of insects.<br><br>Learning outcomes<br><br>Students will be able to: Draw and label a diagram of an insect.</td></tr>
<tr><th>Assessment</th><th>Teaching and learning activities</th></tr>
<tr><td>In-class task<br><br>Produce a labelled diagram of an insect.<br><br> 

Figure 1. Parts of an Insect</td><td>Introduce<br><br>Teacher has a large Frayer Model on the whiteboard, with some information already in the appropriate quadrants:<br><br>• Definition: An insect is a ..<br>• Essential characteristics<br>• Examples: Beetle<br>• Non-examples: Spider<br><br>Teacher questions students:<br><br>• Why is a beetle an insect?<br>• Why is a spider not an insect?<br><br>Teacher asks students to consider how their responses can inform a list of essential characteristics (e.g., an insect has 6 legs).</td></tr>
<tr><td>Criteria for success<br><br>✓ Diagram has a title<br>✓ Body parts are accurately drawn<br>✓ Body parts are accurately named<br>✓ All terms are spelt correctly<br>✓ Terms are connected to body parts with arrows</td><td> 
<br><br>Practise<br><br>Students form small groups. Each group is given:<br><br>• a task sheet<br>• flip char paper on which a Frayer Model is drawn<br>• samples of insects<br>• a magnifying glass.</td></tr>
</table>

36 Images by author, used with permission.

| | |
|---|---|
| | Students are asked to:<br>• examine sample of insects that are assigned to their group<br>• complete Frayer Model (as a group) to share with whole class.<br>**Teach**<br>Teacher records accurate responses in class Frayer Model on whiteboard.<br>Collectively, the class complete the Frayer Model.<br>Teacher introduces technical terms (e.g., antennae, thorax, abdomen), if necessary.<br>**Review and Assessment**<br>Teacher asks student to draw and label a diagram of an insect (individually in their Science notebooks).<br>Students are asked to ensure that the 'essential characteristics' (in the Frayer Model) serve as a point of reference for accurately drawing the diagram of the insect. |
| **Teaching aids and resources**<br>• Frayer Model on whiteboard<br>• Flip chart paper<br>• Insect samples<br>• Magnifying glass<br>• Students' Science notebooks | |

[See Table 4.4 in textbook.]

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Groups of 6 |

Ask groups to share their teaching and learning sequence with another group so as to:

- Reflect on whether the lesson might have been approached using different teaching and learning strategies, methods and/or activities.

It is anticipated that groups will find that different teaching and learning sequences can support students in meeting intended learning outcomes and criteria for success (i.e., different paths to achieve the same end-goal).

**Expected student teachers' responses for the review questions in TB**

Question 1: What are tiers and elements of Myanmar's Basic Education Curriculum?

Answer:

- *Year*
  - *Syllabus: Year-level learning objectives, learning outcomes, and achievement indicators by strand*
  - *Year-level plan, including assessment.*
- *Unit*
  - *learning outcomes*
  - *reflection.*
- *Lesson*
  - *Lesson learning objectives*
  - *ITPR*
  - *Key messages.*

Question 2: What are the broad planning steps of planning a unit of work?

Answer: *The three broad steps for planning a unit of work are to:*

- *determine unit-level learning outcomes;*
- *design the assessment tasks, which will determine whether a student has achieved the learning outcomes, and success criteria and, where necessary, criteria–standards rubrics; and*
- *create the daily teaching and learning activities and formative assessments that scaffold the performance tasks.*

Question 3: What elements in a unit or lesson are constructively aligned?

Answer: *Constructive alignment is alignment between learning outcomes, assessment tasks, success criteria, and teaching and learning activities.*

# 4.3. Lesson Planning

In this sub-unit, student teachers will explore the Introduce–Teach–Practise–Review (ITPR) model that is used in Myanmar's Basic Education lessons. Student teachers will align the ITPR model and the direct instruction model. They will consider the purpose of pedagogical models in the context of lesson planning. They will reflect upon a lesson with an adapted IPTR sequence in terms of impact on student engagement and learning.

Student teachers will explore the fit between the Year 3 lesson plan template with a range of pedagogical models. They will arrive at a conclusion about whether the Year 3 lesson plan template privileges any specific teaching and learning model.

## 4.3.1. Pedagogical models

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Discuss the Basic Education's Introduce–Teach–Practise–Review (ITPR) model;
- Explain the purpose of a pedagogical model in the context of lesson planning;
- Consider the effect of disrupting the ITPR sequence on student engagement and learning; and
- Examine the extent to which the Year 3 lesson plan template accommodates different pedagogical models.

**Competencies gained**

A4.1.2 Prepare lesson plans reflecting the requirements of the curriculum and include relevant teaching and learning activities and materials

B1.3.1 Plan and structure lesson to ensure all of the lesson time is used effectively

B1.3.2 Provide lesson introductions to link new learning to prior learning, to engage students' interest and to motivate them in learning

B1.3.3 Prepare focused and sequential learning experiences that integrate learning areas and are responsive to students' interests and experience

**Time:** Three period of 50 minutes

**Learning strategies:**

Learning activity 1. Comparison and reflection: Pedagogical models for lessons

Learning activity 2. Discussion: Disrupting ITPR

Learning activity 3. Mapping: 5Es and the Year 3 lesson plan template

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

**Preparation needed:**

Read the Educational Studies Student Teacher Textbook Lesson 4.3.1.

**Resources needed:**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

Learning activity 3: N/A (other than textbook, note paper, and pen)

## Period 1

### Pedagogical models

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 30 minutes |
| Check student teachers' understanding | 10 minutes |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the period.
   By the end of this period, student teachers will be able to:
   - Discuss the Basic Education's Introduce–Teach–Practise–Review (ITPR) model; and
   - Explain the purpose of a pedagogical model in the context of lesson planning.
2. Highlight for student teachers that in Myanmar's Basic Education Curriculum, one of the most common pedagogical models that is used to structure a lesson is the Introduce–Teach–Practise–Review (ITPR) model.
3. Ask student teachers to write down a brief description of each phase and share with a peer.
4. Direct pairs to the textbook section, 'Introduce–Teach–Practise–Review (ITPR)' to check their responses with the textbook information, which states that in the ITPR model, the teacher:
   - ***introduces*** the topic and links to prior learning;
   - ***teaches*** the new concepts or skills;
   - allows opportunity for students to ***practise***; and
   - concludes the lesson with ***review*** of student achievement of learning outcomes and student reflection.
5. Highlight for student teachers that, as indicated in the Basic Education Teacher Educator Guides, the Teach-Practise stages can happen many times in each lesson, as depicted in the sequence in Figure 4.5.

## Learning activity 1. Comparison and reflection: Pedagogical models for lessons

| | |
|---|---|
| **Time** | 30 minutes |
| **Class organisation** | Pairs |

### Purpose

The purpose of this learning activity is for student teachers first to compare the direct instruction model with ITPR and then to reflect on why teachers apply pedagogical models in lesson planning.

1. Instruct student teachers to stay in their pairs.
2. Direct student teachers to Learning activity 1.
3. Highlight for student teachers that one pedagogical model that they learnt about in Year 2 was the direct instruction model.
4. Direct student teachers to Table 4.5, which presents the 5 stages of direction instruction and the purpose of each stage.
5. Instruct the pairs to read the table and consider the following questions:
   a. How do the 5 stages of the direct instruction model relate to the 4 stages of the ITPR model? Annotate Table 4.5 when responding to this question.
   b. Why are there two stages of practice in the direct instruction model?
   c. When would the direct instruction model be effective? What lessons? What learning outcomes?
   d. When would the direct instruction model be ineffective? What lessons? What learning outcomes?
   e. Why do teachers use pedagogical models? What determines the choice of model?
6. Select student teachers to share their responses with the class.

### Assessment

Walk around to pairs and listen to discussion and review student teachers' responses.

## Correct student teachers' responses

*Question:*

How do the 5 stages of the direct instruction model relate to the 4 stages of the ITPR model? Annotate Table 4.5 when responding to this question.

*Response:*

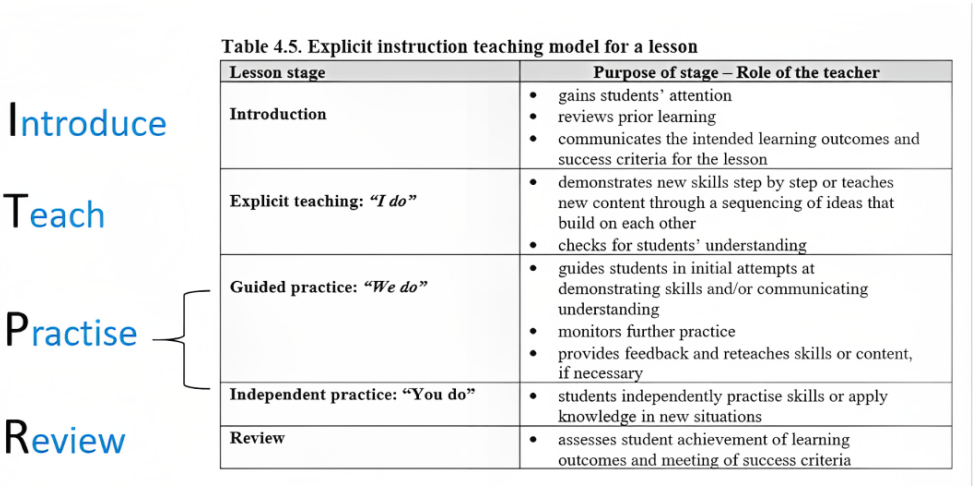



**Table 4.5. Explicit instruction teaching model for a lesson**

| Lesson stage | Purpose of stage – Role of the teacher |
|---|---|
| **Introduction** | • gains students' attention<br>• reviews prior learning<br>• communicates the intended learning outcomes and success criteria for the lesson |
| **Explicit teaching: *"I do"*** | • demonstrates new skills step by step or teaches new content through a sequencing of ideas that build on each other<br>• checks for students' understanding |
| **Guided practice: *"We do"*** | • guides students in initial attempts at demonstrating skills and/or communicating understanding<br>• monitors further practice<br>• provides feedback and reteaches skills or content, if necessary |
| **Independent practice: "You do"** | • students independently practise skills or apply knowledge in new situations |
| **Review** | • assesses student achievement of learning outcomes and meeting of success criteria |

**Figure TG 4.2. Annotated Table 4.5.**[37]

*Question:*

Why are there two stages of practice in the direct instruction model?

*Response:*

The guided practice phase is very important in an explicit instruction lesson. The teacher can tend to move students to independent practice too quickly, without providing sufficient guided practice and feedback opportunities.

37 Illustration by author, used with permission.

It may also be important for the teacher to continue to guide the practice of those students who require additional support, while other students in the class have moved on to independent practice.

*Question:*

When would the direct instruction model be effective? What lessons? What learning outcomes?

*Response:*

Direct instruction is associated with but not limited to highly structured skills development in literacy and numeracy education.[38]

Direct instruction is potentially beneficial for students for whom the language of instruction is not their first language, given attention to providing very clear instructions and feedback, in a consistent sequence.

*Question:*

When would the direct instruction model be ineffective? What lessons? What learning outcomes?

*Response:*

The direct instruction model would be inappropriate for a lesson targeting the building of students':

- Understanding of big picture ideas and concepts
- Higher order thinking skills.

38 Luke, A. (2014).

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

Ask student teachers to reflect on the final questions.

Questions: Why do teachers use pedagogical models? What determines the choice of model?

Response:

A pedagogical model organises/ sequences the learning. The choice of model depends on the:

- Intended learning outcomes: The targeted knowledge and understanding, skills – related to the learning area as well 21st century skills – and dispositions
- Subject/learning area: Different subjects have generated evidence bases around certain pedagogical models
- Teachers' expertise: PCK
- Students' readiness to engage in different learning approaches
- Other elements: Available time, resources, size of class, etc.

**Period 2**

**Pedagogical models**

This period is structured as follows:

| | |
|---|---|
| Learning activity 2 | 35 minutes |
| Check student teachers' understanding | 15 minutes |

## Learning activity 2. Discussion: Disrupting ITPR

| | | |
|---|---|---|
| **Time** | 35 minutes | - 20 minutes group activity<br>- 15 minutes class discussion |
| **Class organisation** | Groups of 3 | |

### Purpose

The purpose of this learning activity is for student teachers to consider how shifting the sequence from ITPR to IPTR can impact student engagement and disrupt teacher-centred practice.

1. Instruct student teachers to form groups of 3.
2. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Consider the effect of disrupting the ITPR sequence on student engagement and learning.
3. Direct student teachers to Learning activity 2.
4. Highlight for student teachers that the Grade 6 Life Skills lesson, outlined in Box 4.2, has an IPTR sequence (Figure 4.6).
5. Write the sequence on the board: Introduce – Practise – Teach – Review.
6. Instruct student teachers to reflect on the lesson from the perspective of student engagement. Would the lesson be engaging for Grade 6 students?
7. Select student teachers to share their responses with the class.

### Assessment

Write initial responses on board.

You might facilitate a class discussion where you ask students teachers to assist you in broadly outlining the teaching and learning sequence on the board from the perspective of student activity:

***Introduce:*** Students respond to questions.

***Practise:*** Students reflect on and share personal experiences (i.e., their responsibilities).

***Teach:*** Students review the collective experience to assess how responsibilities may be classified. [Note it is only at this stage that the teacher introduces abstract concepts (i.e., responsibility types)]

***Review:*** Students demonstrate understanding of concepts by writing definitions. Students reflect on learning with reference to student-generated definitions.

**Possible student teachers' responses**

Anticipate a variety of responses. However, it is likely that student teachers arrive at the conclusion that the lesson would be engaging for Grade 6 students, given opportunity for active participation and connection to personal experiences.

**Check student teachers' understanding**

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

Ask student teachers to consider this lesson if it followed an I-T-P-R sequence, along the lines of:

- Introduce: As per Box 4.2.
- Teach: Teacher outlines different types of responsibilities and asks students to copy definitions from the board in their notebooks
- Practise: Students discuss in groups how they meet those responsibilities types
- Review: Teacher lists group responses on board and asks students to reflect on learning.

*Question:*

What may occur at the Teach stage of the lesson if the teacher followed the introduction with teacher talk about abstract notions of responsibility types?

*Response:*

It is likely that the teacher may 'lose' many students at this stage, (i.e., students may disengage).

Discuss how the shift to the I-P-T-R sequence facilitates a more student-centred lesson, where the teacher only introduces new concepts once all students (in their groups) have had opportunity to draw upon their own experiences and understanding (as per Box 4.2)

## Period 3

## Pedagogical models

This period is structured as follows:

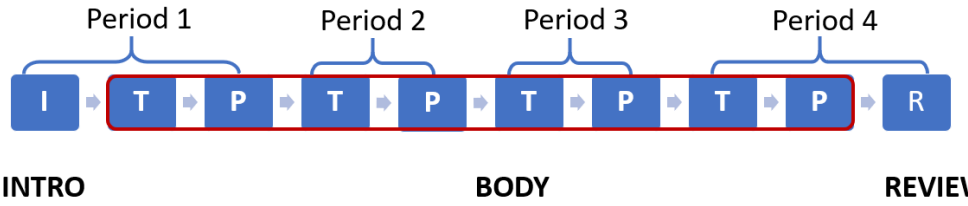
| | |
|---|---|
| Introduction/Explicit teaching | 15 minutes |
| Learning activity 3 | 25 minutes |
| Check student teachers' understanding | 10 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Examine the extent to which the Year 3 lesson plan template accommodates different pedagogical models.

2. Direct student teacher to Annex 4A and highlight that the template has three broad stages, with prompts as follows:
   *Introduction:* How will you gain students' attention; connect to prior learning; and communicate intended learning outcomes and success criteria?
   Body: Will there be different stages in the body of the lesson (e.g., T: Explicit teaching; P: Guided practice and independent practice)?
   *Review:* How will you assess student achievement of learning outcomes and support students reflecting on learning?
3. Instruct student teachers to discuss Figure 4.7 and 4.8 with a partner.
4. You might write the sequence on the board.




[See Figure 4.7 in textbook.]

**Figure TG 4.3. Lesson sequence[39]**

## Learning activity 3. Mapping: 5Es and the Year 3 lesson plan template

| | |
|---|---|
| **Time** | 25 minutes |
| **Class organisation** | Groups of 3 |

### Purpose

The purpose of this learning activity is for student teachers to assess whether the Year 3 lesson plan template only accommodates the ITPR/IPTR model.

39 Image by author, used with permission.

1. Instruct student teachers to form groups of 3.
2. Direct student teachers to Learning activity 3.
3. Highlight for student teachers that in Unit 2, they explored the 5Es model, which:
   - is used to facilitate science inquiry but with wider uptake across learning areas; and
   - unfolds as phases over the course of a unit of work, or stages of a lesson.
4. Select different student teachers to read out the phases, as follows:
   ***Engage:*** Teacher stimulates students' interest; connects to prior knowledge; and supports students to raise questions.
   ***Explore:*** Students engage in investigations/ hands-on experiences.
   ***Explain:*** Students communicate developing understandings, drawing on their experiences and observations, as well as concepts introduced by the teacher.
   ***Elaborate:*** Students apply what they have learnt to a new situation.
   ***Evaluate:*** Students review and reflect on new understandings and skills.
5. Instruct student teachers to align the 5Es with the 3 broad stages of the Year 3 lesson plan, in Table 4.6, and answer the following questions:
   a. What can be said about the Year 3 lesson plan template? Does it accommodate the 5Es model?
   b. What other pedagogical models for lessons can fit with the Year 3 lesson plan?
6. Select student teachers to share responses with class.

**Assessment**

Draw table on board on board and record responses.

**Correct student teachers' responses**

Correct responses are presented in Table TG 4.5.

**Table TG 4.5. Year 3 lesson plan template – completed**

| Basic Education ITPR | Direct instruction model | Year 3 lesson plan template | 5Es |
|---|---|---|---|
| Introduction | Introduction | Introduction | Engage |
| Teach | Explicit teaching | Body | Explore |
| Practice | Guided practice | | Explain |
| | Independent practice | | Elaborate |
| Review | Review | Review | Evaluate |
| **Conclusion regarding the Year 3 lesson plan template:**<br><br>The Year 3 lesson plan template does not privilege the ITPR model. It also accommodates the 5Es model. In fact, with the 3 simple phases of Introduction, Body and Review, it can accommodate any pedagogical model. | | | |

[See Table 4.6 in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

Revisit learning outcomes.

By the end of this lesson, student teaches will be able to:

- Discuss the Basic Education's Introduce–Teach–Practise–Review (ITPR) model;
- Explain the purpose of a pedagogical model in the context of lesson planning;
- Consider the effect of disrupting the ITPR sequence on student engagement and learning; and
- Examine the extent to which the Year 3 lesson plan template accommodates different pedagogical models.

Highlight for student teachers that the intention of the Year 3 lesson plan template is not to constrain pedagogical decision-making in any way. It is to enable the best possible choices given:

- Intended learning outcomes
- Subject/learning area
- Teaching and learning context.

# 4.3.2. Differentiation of teaching and learning

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Identify elements of a lesson that can be differentiated;
- Explain how the Year 3 lesson plan template supports teachers to plan for differentiation;
- Reflect on lower middle school scenarios to explain elements that have been differentiated; and
- Outline how a selected lower middle lesson can be differentiated to respond to diverse students' needs and support learning.

**Competencies gained**

B1.3.2 Provide lesson introductions to link new learning to prior learning, to engage students' interest and to motivate them in learning

B1.3.3 Prepare focused and sequential learning experiences that integrate learning areas and are responsive to students' interests and experience

C1.2.1 Identify theories and concepts that inform approaches to teaching and learning

D1.1.2 Use information from a variety of sources to improve teaching practice and student learning

**Time:** Two period of 50 minutes

**Learning strategies**

Learning activity 1. Linking to prior learning: Differentiation

Learning activity 2. Linking to Year 3 lesson plan template: Differentiation

Learning activity 3. Scenarios: Differentiation

Learning activity 4. Plan: Basic Education Grade 6 lesson

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

**Preparation needed:**

Read the Educational Studies Student Teacher Textbook Lesson 4.3.2.

**Resources needed:**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

Learning activity 3: N/A (other than textbook, note paper, and pen)

Learning activity 4: Basic Education Curriculum documents and, if available, flip chart paper and marker pens

**Period 1**

**Differentiation of teaching and learning**

This period is structured as follows:

| | |
|---|---|
| Learning activity 1 | 20 minutes |
| Learning activity 2 | 20 minutes |
| Check student teachers' understanding | 10 minutes |

## Learning activity 1. Linking to prior learning: Differentiation

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Pairs |

### Purpose

The purpose of this learning activity is for student teachers to review their understanding of planning for differentiation.

1. Instruct student teachers to form pairs.
2. Outline the relevant learning outcomes for the period.
   By the end of this period, student teachers will be able to:
   - Identify elements of a lesson that can be differentiated; and
   - Explain how the Year 3 lesson plan template supports teachers to plan for differentiation.
3. Direct student teachers to Learning activity 1.
4. Highlight for student teachers that, in Year 2, they learnt that an effective teacher differentiates:
   - The curriculum (i.e., content, process, and product)
   - Learning environment

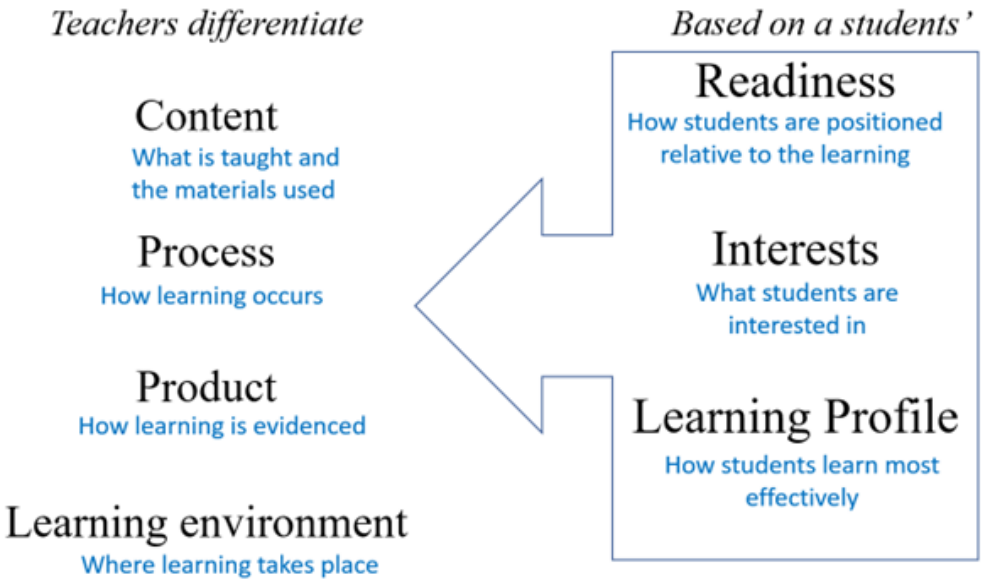
   in response to students':
   - Readiness
   - Interests
   - Learning profiles.
5. Instruct student teachers to write the definitions of all key terms in Figure 4.9 underneath the words.
6. Highlight that simple definitions have been presented for student teachers to choose from following Figure 4.9.
7. Select student teachers to share responses with class.

### Assessment

Draw figure on board.

### Correct student teachers' responses

Correct responses are presented in Figure TG 4.4.




[See Figure 4.9 in textbook.]

**Figure TG 4.4. Key elements of differentiation[40]– completed**

### Learning activity 2. Linking to Year 3 lesson plan template: Differentiation

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Pairs |

#### Purpose

The purpose of this learning activity is for student teachers to explain how the Year 3 lesson plan template supports teachers to plan for differentiation.

40 Illustration by author, used with permission.

1. Instruct student teachers to stay in their pairs.
2. Direct student teachers to Learning activity 2.
3. Ask students teachers to explain how the elements in the 'Know the Students' section of the Year 3 lesson plan template (Figure 4.10) relate to the elements in Figure 4.9.
4. Consider what other sections of the Year 3 lesson plan template support planning for differentiation.
5. Select student teachers to share responses.

### Assessment

Draw 'Know the Students' section of the Lesson plan' on the board.

### Correct student teachers' responses

Correct responses are presented in Figure TG 4.5.

| Year 3 Lesson Plan Template | | | |
|---|---|---|---|
| **Class:** | **Date:** | **Time:** | **Teacher:** |
| **Lesson:** *(what is the topic/title of your lesson?)* | | | |
| **Know the Students:**<br><br>a. Prior Knowledge *(What do students know? What can students already do?)*<br>Readliness<br><br>b. Student Profile *(What do you need to consider regarding individual students' needs?)*<br>Learning Profile; [Interests] | | | |

[See Figure 4.10 in textbook.]

**Figure TG 4.5. 'Know the Students' section of Year 3 lesson plan[41] – completed**

Other relevant sections of the template:

- Differentiation column: How will you differentiate teaching and learning to respond to students' needs?
- Teacher evaluation: Did all your students understand and meet the intended learning outcomes? Were the learning outcomes suitable for students' level/s?

41 *Adapted from source:* Year 3 lesson plan template excerpt.

Some student teachers may also say:

- Formative asessment opportunities, as data generated through formative assessment allows the teacher to plan for differentiation.

**Check student teachers' understanding**

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

Direct student teachers to the perspective from international experts:

> Differentiation is a philosophy. It is a way to think about teaching and learning. Learning to differentiate instruction requires each teacher to think about *what is working* and *what is not working* and for *whom* in the classroom.
>
> It requires each teacher to be reflective about their practice and to be willing to try out ideas, thinking through them first, trying to make them work, and celebrating when that happens, and then being willing to adjust when things do not go as well.

*Question:*

Why is the 'for whom' question important?

*Response:*

A teacher who asks 'for whom' has the expectation and seeks to ensure that all students are learning in every lesson.

## Period 2

## Differentiation of teaching and learning

This period is structured as follows:

| | |
|---|---|
| Learning activity 3 | 15 minutes |
| Learning activity 4 | 30 minutes |
| Check student teachers' understanding | 5 minutes |

### Learning activity 3. Scenarios: Differentiation

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Groups of 4 |

### Purpose

The purpose of this learning activity is for student teachers to reflect on classroom scenarios and explain how the teachers respond to students' diverse needs and interests.

1. Instruct student teachers to form groups of 4.
2. Outline the relevant learning outcomes for the period.
   By the end of this period, student teachers will be able to:
   - Reflect on lower middle school scenarios to explain elements that have been differentiated; and
   - Outline how a selected lower middle lesson can be differentiated to respond to diverse students' needs and support learning.
3. Direct student teachers to Learning activity 3.
4. Ask student teachers to reflect on the scenarios in Table 4.7. Identify the elements that have been differentiated and discuss with reference to key terms in Figure 4.9.
5. Select student teachers to share their responses with the class.

## Assessment

Listen to responses and students' rationale. Invite differing interpretations.

## Possible student teachers' responses

There may be some variation in interpretation. Possible responses are presented in Table TG 4.6. Ask student teachers why they have arrived at various conclusions.

**Table TG 4.6. Middle school classroom scenarios – completed**

| Scenario | Explanation |
|---|---|
| In a Grade 6 setting, students can choose to undertake a Mathematics activity involving estimating and measuring lengths either indoors or outdoors. The teacher has set up learning stations with task cards in both the classroom and outdoor assembly area. | **Learning environment** has been differentiated in response to students' **interests** and **learning profile.** |
| In a Grade 6 setting, the teacher often facilitates flexible groupings (including small-group and pair arrangements) to target instruction and for students to share ideas and work together. The teacher allows some students to work independently on **enrichment tasks.** | **Process** has been differentiated in response to students' **readiness** and **learning profile.** |
| In a Grade 7 setting, the teacher allows for some flexibility in terms of classroom-level assessment. In research presentation tasks, students have the option to present to the class in person, via digital media, or through a poster display. | **Product** has been differentiated in response to students' **interests** and **readiness**. |
| In a Grade 7 setting, a class is reading Myanmar stories. The teacher ensures that she sources Myanmar stories that are at different levels of difficulty and of different types (e.g., a series of short stories, fiction novels, non-fiction autobiographies, etc.). | **Content** has been differentiated in response to students' **readiness** and **interests**. |

[See Table 4.7 in textbook.]

## Learning activity 4. Plan: Basic Education Grade 6 lesson

| | |
|---|---|
| **Time** | 30 minutes |
| **Class organisation** | Groups of 4 |

### Purpose

The purpose of this learning activity is for student teachers to review a selected Grade 6 lesson and outline how it can be differentiated to respond to diverse students' needs and support learning.

1. Instruct student teachers to stay in their groups of 4.
2. Direct student teachers to Learning activity 3.
3. Instruct student teachers to:
   - review the stages of the Grade 6 History lesson in Box 4.3;
   - identify ways in which the lesson can be differentiated to respond to diverse students' needs and support learning; and
   - indicate how you have differentiated content, process, product, and/or the learning environment.

**Assessment**

Ask groups to display their flip charts on the walls or alternatively discuss with another group.

**Possible student teachers' responses**

There will be a range of possible responses. One example is presented in Box TG 4.1.

**Box TG 4.1. Grade 6 History Lesson – completed**

**2.1.1. The development of technology, knowledge, and skills in ancient city-states**

**Lesson objectives**

- To learn the definition of city-states, their characteristics, and how they emerged.
- To learn about the development of ancient city-states within the context of the advancement of technology, economies, and knowledge.

**Introduction**

The teacher will explain to students that ancient city-states existed in Myanmar from AD 200. The teacher will explain to students that they will learn about the rise and features of city-states.

**Differentiated introduction**

- Teacher writes the **focus questions** on the board:
  - What was the economy of ancient Myanmar societies (prior to AD 200)?
  - How did city-states emerge in Myanmar?
  - What were features of Myanmar city-states?

  *(Process: providing clear and explicit focus for all students)*
- Teacher draws large **timeline** on the board or flip chart paper with some key milestones, including AD 200 to support understanding.
  *(Content: Providing different representations of information)*

**Teaching**

The teacher asks students to read the text from the lesson. Then, ask some students to talk about what they understand from reading it. At the end of the presentation, the teacher will ask students where ancient city-states were located in present Myanmar. After students answer, the teacher will display the map of Myanmar and point out the areas where ancient city-states were established, as well as explain how the locations of ancient city-states were based on their proximity to water for using in agriculture.

**Differentiated teaching**

- Teacher divides students into small groups. Teacher asks students to read the relevant section in the textbook and discuss the focus questions within their groups.
- Teacher **works with a group of students** who need support in reading the textbook.
  *(Process: Providing different levels of scaffolding for students)*
- Teachers brings whole class together to **discuss understandings**, marking further milestones on the timeline.
- Teacher displays map and indicates locations of ancient city states. Teacher asks students to **discuss observations with their peer** in terms of the locations of ancient city states (i.e., proximity to water for agriculture).
  *(Process: Providing opportunities for discussion)*

**Practice**

The teacher will split the class into three groups. In each group, the teacher will have students discuss how ancient people built societies, the features of ancient city-states, and the technologies, knowledge and skills which were developed. The teacher will check on progress during the discussion. The teacher will ask a representative from each group to present the results of their discussion to the class. The teacher will examine whether presented facts are relevant or not, and record their presented information on the board. The teacher will ask students to write content down in their notebooks.

**Differentiated practice:**

- Teacher asks students to reconvene in their groups and discuss and write responses to final two questions on the board:
  - How did city-states emerge in Myanmar?
  - What were feature of Myanmar city-states?

  *(Process: Providing opportunities for building shared understanding)*

**Reflection and evaluation**

The teacher will examine the fluency of students by asking the following questions orally:

- Explain the economic situation of ancient societies before the establishment of ancient city-states in Myanmar.
- Explain the features of city-states in Myanmar.
- State the causes of the emergence of ancient city-states in Myanmar.

**Differentiated reflection and evaluation:**

- Teacher asks students to move away from desks and sit in a big circle in the open area of the classroom.
  *(Learning environment: providing a relaxed environment for reflection)*
- Teacher facilitates a whole class reflection, encouraging students to consult notes when sharing responses to teacher questions.
- Teacher requests students to submit notebooks so as to provide feedback for formative assessment purposes.
  *(Product: Providing opportunity for oral and written response to questions)*

[See Box 4.3 in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to reflect on whether they think that their differentiated Grade 6 History lesson would more successfully promote student learning and to provide a rationale for their response.

*Possible response:*

Student teachers will reflect upon their own lesson suggestions to arrive at a conclusion. They may conclude something along the lines of the following:

> Importantly, the teacher identifies the focus questions in the introduction. Rather than students individually reading the textbook, they are assigned to groups, where they can build understanding together. The teacher works with one group of students, who require support reading. The timeline and the map situate students in both time and place. Students have opportunity to discuss and write responses to focus questions. The teacher facilitates a whole of class question and answer session, permitting students to refer to their written responses. The teacher collects their notebooks in order to provide feedback.

# 4.3.3. Assessment and evaluation

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Identify sources of data and evidence that inform daily and longer-term planning and evaluation;
- Use whole class and individual student profiles to plan an inquiry-based lesson for a Grade 6 class;
- Plan to assess formatively throughout the learning and teaching sequence and review phase of the Grade 6 lesson; and
- Frame teacher evaluation questions that are linked to lesson elements and selected pedagogical models.

**Competencies gained**

A4.1.3 Describe the assessment principles underpinning the Lower Secondary curriculum

B1.3.4 Use questioning techniques and examples to introduce and illustrate concepts to be learnt

B2.1.1 Use assessment techniques as part of lessons to support students to achieve learning outcomes

B2.1.3 Use questioning and discussion techniques to check students understanding and provide feedback

D1.1.1 Use evidence of students learning to reflect on the impact of own teaching practice

D1.1.2 Use information from a variety of sources to improve teaching practice and student learning

**Time:** Four period of 50 minutes

**Learning strategies**

Learning activity 1. Mapping: Assessment data and evidence base

Learning activity 2. Framing: Teacher evaluation questions

Learning activity 3 (Part A). Lesson plan: Informed decision-making

Learning activity 3 (Part B). Lesson plan: Lesson introduction, body, and review

Learning activity 3 (Part C). Lesson plan: Formative assessment and teacher evaluation

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 4.3.3.

**Resources needed**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

Learning activities 3 Part A-C: Basic Education Curriculum documents, Grade 6 Middle school hypothetical profiles in EDC e-library system

## Period 1

### Assessment and evaluation

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 15 minutes |
| Explicit teaching | 5 minutes |
| Learning activity 2 | 15 minutes |
| Check student teachers' understanding | 5 minutes |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the period.
   By the end of this lesson, student teachers will be able to:
   - Identify sources of data and evidence that inform daily and longer-term planning and evaluation; and
   - Frame teacher evaluation questions that are linked to lesson elements and selected pedagogical models.
2. Direct student teachers to textbook section, 'Assessment and feedback: Linking to prior learning'.
3. Ask different student teachers to read the five principles relating to assessment, selected from Myanmar's *National Assessment Policy in Basic Education:*
   a. Assessment should be built into curriculum design and relate directly to the *curriculum aims* and *learning outcomes.*
   b. *Diagnostic* assessment may be used to assess prior learning and misconceptions.
   c. *Formative* assessment should be utilised to motivate, create learning opportunities, and provide *constructive ongoing feedback* to both students and teachers.
   d. *Summative* assessment for the purpose of grading and as a quality assurance mechanism is undertaken less frequently than formative

assessment and the results should be used by the teacher to improve teaching.

e. Assessment should be *inclusive and equitable* without compromising academic standards, i.e., tasks and procedures do not disadvantage any group or individual, due to gender, ethnic group, disability, socio-economic status, or other circumstances.

4. Ask student teachers to work with a peer to provide a short summary of the principles.
   *Possible summary:*
   Assessment needs to constructively align with learning outcomes and be fair and inclusive for all students. While different types of assessment occur over the teaching and learning cycle, the purpose of assessment is to primarily improve teaching and learning.
5. Select student teachers to share their responses with the class.

### Learning activity 1. Mapping: Assessment data and evidence base

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Groups of 4 |

**Purpose**

The purpose of this learning activity is for student teachers to identify assessment data and evidence to support daily planning and decision making, as well as longer term planning and evaluation of practice.

1. Instruct student teachers to form groups of 4.
2. Direct student teachers to Learning activity 1.
3. Ask student teachers to draw upon their deepening understanding of assessment *and differentiation* to identify assessment data and other evidence to support:
   - Daily planning and evaluation of practice
   - Longer-term planning and evaluation of practice.
4. Highlight that examples have been provided for them in Table 4.8.
5. Select student teachers to share responses with class.

## Assessment

Walk around to each group and listen to group discussions. Draw table on board and record responses.

## Possible student teachers' responses

There will be some variation in student teachers responses. Possible responses are presented in Table TG 4.7.

**Table TG 4.7. Assessment data and other evidence – completed**

| To inform daily planning and evaluation | To inform longer-term planning and evaluation |
|---|---|
| • Teacher observations (Individual student profiles/ running records)<br>• Teacher questioning/conferencing<br>• Student reflections on learning (Student learning journals)<br>• Student work<br>• Teacher reflection/evaluation of lesson | • Student assessment performance data: Disaggregated by gender and ethnicity<br>• Teacher self-evaluation<br>• Collegial peer review<br>• School Improvement Plan (SIP)<br>• Educational research literature |

[See Table 4.8 in textbook.]

## Explicit teaching

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class (but allow students to stay seated in their groups) |

1. Direct student teachers to textbook section, 'Teacher evaluation questions'.
2. Ask different student teachers to read the teacher evaluation questions provided in the:
   - Year 3 lesson plan template
   - Basic Education Teacher Guides.
3. Ask student teachers to work with a partner to identify the lesson elements that are in focus in the evaluation questions.
   Response:

   - Learning outcomes (suitability and student achievement)

- Teaching and learning strategies/methods
- Formative assessment and feedback.

4. Ask student teachers to identify those questions that are future looking (i.e., considering implications for future lessons)?
   Response:
   - What would you do differently next time to enhance student learning?
   - Did the lesson produce additional critical questions for students?
   - Could the lesson have been approached using a different teaching method?
   - What will be required to improve this lesson or further lessons?
5. Highlight that these lists of evaluation questions are not exhaustive. They can be added to. For example, teachers may evaluate whether learning activities reflected considerations regarding gender and inclusion.

### Learning activity 2. Framing: Teacher evaluation questions

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | [Same] groups of 4 |

**Purpose**

The purpose of this learning activity is for student teachers to outline a lesson scenario and frame teacher evaluation questions which link to the specific pedagogical model that has been selected for the lesson.

1. Instruct student teachers to stay in their groups of 4.
2. Direct student teachers to Learning activity 2.
3. Explain to student teachers that Box 4.3a presents an example of teacher evaluation questions for a Grade 6 direct instruction lesson that focuses on Mathematics skills development.
4. Instruct student teachers to outline a lesson scenario and frame teacher evaluation questions that link to the specific pedagogical model that has been selected for the lesson, in Box 4.3b.
5. Suggest to student teachers that they may wish to focus on the 5Es pedagogical model.

**Assessment**

Walk around to each group and listen to group discussions. Draw table on board and record responses.

**Possible student teachers' responses**

There will be variation in response depending on the pedagogical model that is selected. The example provided in Box TG 4.2 relates to the 5Es pedagogical model.

**Box TG 4.2. Teacher evaluation of effectiveness of lesson – completed**

| |
|---|
| ***Lesson scenario:*** Grade 6 lesson focusing on Science inquiry<br><br>***Pedagogical model:*** 5Es |
| **Teacher evaluation questions:**<br><br>☐ Were all students engaged in the topic?<br>☐ Were all students able to draw on prior knowledge and raise questions?<br>☐ Were the investigations/ hands-on experiences effective in building new understanding?<br>☐ Were students provided the opportunity to discuss their emerging understanding with peers at different points in the lesson?<br>☐ Were all students able to connect concepts introduced by the teacher to their investigations and hands-on experiences?<br>☐ Were there any concepts that were too abstract or complex for the majority of students to understand?<br>☐ Were all students able to apply their learning in 'Elaborate' phase?<br>☐ Were there opportunities for students to communicate their learning in a variety of ways (writing, drawing, speaking)<br>☐ Were there opportunities for students to review and reflect on learning?<br>☐ Did all students achieve learning outcomes? |

[See Box 4.3b in textbook.]

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Reflect on competency standards:

- D1.1.1 Use evidence of student learning to reflect on the impact of own teaching practice
- D1.1.2 Use information from a variety of sources to improve teaching practice and student learning

Ask student teachers to spend some time reflecting on Unit 4 learning, as they approach the culminating lesson planning activity.

## Period 2

### Assessment and evaluation

This period is structured as follows:

| | |
|---|---|
| Learning activity 3 (Part A) | 40 minutes |
| Check student teachers' understanding | 10 minutes |

### Learning activity 3 (Part A). Lesson plan: Informed decision-making

| | |
|---|---|
| **Time** | 40 minutes |
| **Class organisation** | Groups of 3 |

## Purpose

The purpose of this learning activity is for student teachers to plan an inquiry-based lesson for a hypothetical Grade 6 class.

1. Instruct student teachers to form groups of 3.
2. Outline the relevant learning outcome for the period.
   By the end of this lesson, student teachers will be able to:
   - Use whole class and individual student profiles to plan an inquiry-based lesson for a Grade 6 class.
3. Direct student teachers to Learning activity 3A.
4. Explain to student teachers that their task, over the next 3 periods, is to collaboratively plan a 2-period (90 minute) lesson for a Grade 6 class within an inquiry-based unit of work.
5. Highlight for student teachers that in Year 2, they planned for the Tuning-in phase, utilising the Social Inquiry model. For this task, they are required to plan for a 2-period lesson in the 'Find out' phase of a Social Inquiry unit. Direct student teachers to Figure 4.12 and Table 4.10.
6. Select a student teacher to read out the purpose the 'Find out' phase:
   a. Students use a range of resources and methods to gather information (i.e., read, view, interview, survey, experiment, observe)
   b. Students critically assess the value of the information
   c. Students document information in a range of ways.
7. Explain to student teachers that to undertake this lesson planning task, they are to refer to the following:
   a. Grade 6 syllabi across subject/learning areas
   b. Year 3 lesson plan template (Annex 4A)
   c. Hypothetical profiles accessed through College EDC e-library system
      - Rural Public: Situational analysis of Grade 6 class and 5 learner profiles
      - Rural Private: Situational analysis of Grade 6 class and 5 learner profiles
      - Urban Public: Situational analysis of Grade 6 class and 5 learner profiles
      - Urban Private: Situational analysis of Grade 6 class and 5 learner profiles
   d. Lesson 2.2.1. Inquiry-based learning models and skills development

   e. Annex 2B. Progression of learning regarding inquiry-based and problem-based learning
8. Instruct groups to scope the lesson and complete the foreword sections (i.e., sections up to and including 'Teaching aids and resources').
9. Ask groups to ensure that they:
   - draw upon the learner profiles in the 'Know the students' section;
   - make appropriate links to Grade 6 syllabi when framing learning outcomes and criteria for success; and
   - identify inquiry-based learning as the 'Teaching and learning strategy'.

**Assessment**

Walk around to each group and listen to group discussions and extend ideas, where necessary.

**Possible student teachers' responses**

There will be a wide range of responses, dependent on the selected lesson topic, objective/s, and learning outcomes.

**Check student teachers' understanding**

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

Instruct groups to check in with another group and discuss decision-making and review completed sections.

Suggest that one member of the group takes notes relating to feedback received from the other group.

## Period 3

### Assessment and evaluation

This period is structured as follows:

| | |
|---|---|
| Learning activity 3 (Part B) | 40 minutes |
| Check student teachers' understanding | 10 minutes |

### Learning activity 3 (Part B). Lesson plan: Lesson introduction, body, and review

| | |
|---|---|
| **Time** | 40 minutes |
| **Class organisation** | Same groups of 3 |

### Purpose

The purpose of this learning activity is for student teachers to plan an inquiry-based lesson for a hypothetical Grade 6 class.

1. Direct student teachers to Learning activity 3B.
2. Instruct student teachers to:
   - review work from the previous period and refine details as required in the foreword sections; and
   - plan the 'Introduction', 'Body', and 'Review' stages of the lesson.
3. Ask student teachers to:
   - write the 'Teacher activity' as a series of instructions (e.g., *instruct* students to form groups, *refer* students to the Social Inquiry model);
   - refer to the sample Basic Education lesson in Figure 4.8 to see how to frame 'Teacher activity' and 'Student activity'; and
   - identify how they might differentiate teaching and learning in response to students' needs and interests, in the 'Differentiation' column.

### Assessment

Walk around to each group and listen to group discussions and extend ideas, where necessary.

### Possible student teachers' responses

There will be a wide range of responses, dependent on the selected lesson topic, objective/s, and learning outcomes.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

Instruct groups to check in with another group and discuss decision-making and review completed sections.

Suggest that one member of the group takes notes relating to feedback received from the other group.

## Period 4

### Assessment and evaluation

This period is structured as follows:

| | |
|---|---|
| Learning activity 3 (Part C) | 40 minutes |
| Check student teachers' understanding | 10 minutes |

## Learning activity 3 (Part C). Lesson plan: Formative assessment and teacher evaluation

| | |
|---|---|
| **Time** | 40 minutes |
| **Class organisation** | Same groups of 3 |

### Purpose

The purpose of this learning activity is for student teachers to plan an inquiry-based lesson for a hypothetical Grade 6 class.

1. Direct student teachers to Learning activity 3C.
2. Instruct student teachers to:
   - review and refine details as required in 'Introduction', 'Body', and 'Review' stages of the lesson;
   - plan to assess formatively throughout the learning and teaching sequence and review phase of the Grade 6 lesson;
   - script some of the teacher dialogue and questions; and
   - frame 'Teacher Evaluation' questions that are linked to the selected pedagogical model and lesson elements.

### Assessment

Walk around to each group and listen to group discussions and extend ideas, where necessary.

### Possible student teachers' responses

There will be a wide range of responses, dependent on the selected lesson topic, objective/s, and learning outcomes.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

Instruct groups to check in with another group and discuss decision-making and review completed sections.

Suggest that groups make final refinements to lesson plans.

**Expected student teachers' responses for the review questions in TB**

Question 1: Why do teachers use pedagogical models? What determines the choice of model?

Answer: *A pedagogical model organises/ sequences the learning at the level of the unit or lesson. The choice of model depends on the:*

- *Intended learning outcomes: the targeted knowledge and understanding, skills – related to the learning area as well 21st century skills – and dispositions*
- *Subject/learning area: Different subjects have generated evidence bases around certain pedagogical models*
- *Teachers' expertise: PCK;*
- *Students' readiness to engage in different learning approaches*
- *Other elements: Available time, resources, size of class, etc.*

Question 2: What are the key elements of the curriculum that can be differentiated? What informs teachers' decision-making regarding planning for differentiation?

Answer: An effective teacher differentiates:

- *The curriculum*
  - *Content: what is taught*
  - *Process: how learning occurs*
  - *Product: how learning is evidenced*
- *Learning environment: where learning takes place.*

*The teacher differentiates these elements according to students:*

- *Readiness (i.e., how students are positioned relative to the learning)*
- *Interests*
- *Learning profiles (i.e., how students learn most effectively).*

Question 3: What types of assessment data and other evidence are used for planning and evaluation on a daily basis and longer-term basis (year, unit of work)?

Answer:

- *Daily planning and evaluation: teacher observations (individual student profiles/running records), teacher questioning/conferencing, student reflections on learning (student learning journals), student work, and teacher reflection/evaluation of lesson.*
- *Longer-term planning and evaluation: student assessment performance data, disaggregated by gender and ethnicity, teacher self-evaluation, collegial peer review, School Improvement Plan (SIP), and educational research literature.*

# Unit Summary

**Key messages**

- Over the planning, teaching, assessment, and review cycle, teachers use data and evidence to:
  - establish students' levels of performance, readiness for learning, and learning needs;
  - make adjustments to teaching and provide constructive feedback to students;
  - make judgements of the quality of student work; and
  - evaluate the effectiveness of teaching and demonstrate its impact on student learning.
- Collaborative planning allows teachers to share their expertise with their colleagues in teaching and assessment practices and data interpretation, with the view to improving student learning. The teaching team's belief in their capacity to make change (i.e., their *collective efficacy*) is strengthened when improvements can be evidenced in student learning and achievement data over time.
- The Myanmar Basic Education Curriculum involves the following tiers and elements:
  - Year
    - Syllabus: Year-level learning objectives, learning outcomes, and achievement indicators by strand
    - Year-level plan, including assessment.
  - Unit
    - Learning outcomes
    - Reflection.
  - Lesson
    - Lesson learning objectives
    - ITPR
    - Key messages.
- The broad steps for planning a unit of work are to: 1) determine unit-level learning outcomes; 2) design the assessment tasks, which will determine whether a student has achieved the learning outcomes, and success criteria

and, where necessary, criteria–standards rubrics; and 3) create the daily teaching and learning activities and formative assessments that scaffold the performance tasks.

- Constructive alignment, at both unit and lesson levels, involves alignment between learning outcomes, assessment tasks, success criteria, and teaching and learning activities.
- A pedagogical model organises/ sequences the learning. The choice of model depends on the:
  - Intended learning outcomes: the targeted knowledge and understanding, skills – related to the learning area as well 21st century skills – and dispositions
  - Subject/learning area: Different subjects have generated evidence bases around certain pedagogical models
  - Teachers' expertise: PCK
  - Students' readiness to engage in different learning approaches
  - Other elements: Available time, resources, size of class, etc.
- In Myanmar's Basic Education Curriculum, one of the most common pedagogical models that is used to structure a lesson is the ITPR model, wherein the teacher:
  - ***Introduces*** the topic and links to prior learning;
  - ***Teaches*** the new concepts or skills;
  - Allows opportunity for students to ***practise***; and
  - Concludes the lesson with **review** of student achievement of learning outcomes and student reflection.
- A shift to an IPTR sequence may facilitate a more student-centred lesson where, for instance, the teacher only introduces new concepts once all students have had opportunity to draw upon their own experiences and understanding.
- The Year 3 lesson plan template does not privilege the ITPR model. It also accommodates the 5Es model. In fact, with the 3 simple phases of Introduction, Body and Review, it can accommodate any pedagogical model.
- Learning to differentiate instruction requires each teacher to think about ***what is working*** and ***what is not working*** and ***for whom*** in the classroom. The teacher differentiates the curriculum and the learning environment according to students:
  - Readiness (i.e., how students are positioned relative to the learning)
  - Interests
  - Learning profiles (i.e., how students learn most effectively).

- A range of assessment data and other evidence are used for planning and evaluation on a daily basis and longer-term basis, including:
  - *Daily planning and evaluation:* teacher observations (individual student profiles/running records), teacher questioning/conferencing, student reflections on learning (student learning journals), student work, and teacher reflection/evaluation of lesson.
  - *Longer-term planning and evaluation:* student assessment performance data, disaggregated by gender and ethnicity, teacher self-evaluation, collegial peer review, School Improvement Plan (SIP), and educational research literature.

**Unit reflection**

Ask student teachers to share with their group's lesson plan with another group. Ask the other group to review their lesson plan from the perspective of:

- Whether it is constructively aligned; and
- the extent to which it responds to students' diverse needs and interests, as informed by the data provided (i.e., situational analysis of Grade 6 class and 5 individual learner profiles).

**Further reading**

**4.1. Evidence-informed Planning**

Department of Myanmar Examinations. (2019). *National Assessment Policy for Basic Education.* Ministry of Education.

**4.2. Curriculum Elements and Constructive Alignment**

Biggs, J. (2014). Constructive alignment in university teaching. *HERDSA Review of Higher Education, 1*(1), 5–22. https://www.herdsa.org.au/herdsa-review-higher-education-vol-1/5-22

## 4.3. Lesson Planning

Tomlinson, C., & Imbeau, M. (2010). *Leading and managing a differentiated classroom.* ASCD.

# Unit 5

# Educational Psychology

In this unit, student teachers will learn more about the importance of educational psychology for teaching and learning. Building on content covered in Year 1 and Year 2, this unit will enhance their understanding of theories of learning and how these may be applied in their teaching practice. Student teachers will learn to critically evaluate educational psychology theories and reflect on translation of theory to classroom practice. This unit will also expand their knowledge of foundational theories to contemporary perspectives.

**Expected learning outcomes**

**By the end of this unit, student teachers will be able to:**

- Explain and illustrate the conceptual relationship between psychology, learning and teaching;
- Identify and provide an example of a theory of learning in practice;
- Reflect on key principles of cognitive theories of learning;
- Reflect on key principles of social constructivist theories of learning;
- Apply theories of learning to design a lesson plan;
- Define mental health and provide examples of different states of wellbeing;
- Identify the general implications of children's mental health for learning and teaching;
- Identify risk factors and protective factors for student mental health;
- Apply strategies for supporting student mental health;
- Explain and evaluate a criticism of the theory of multiple intelligences;
- Illustrate and critique a teaching strategy for multiple intelligences in practice;
- Reflect on core ideas of major intelligence theories;

- Explain and illustrate the implications of intelligence theories for teaching and learning;
- Identify and explain the principles of Universal Design for Learning (UDL);
- Relate UDL and differentiation;
- Evaluate teaching and learning scenarios, including for students with additional needs, according to UDL principles;
- Apply principles of UDL to design assessment for a diverse group of students;
- Explain how historical educational psychology theories underpin contemporary perspectives;
- Reflect on the complexity of contemporary educational psychology;
- Critically evaluate common myths in educational psychology; and
- Reflect on the application of educational psychology to classroom practice.

**Competencies gained**

A1.1 Demonstrate understanding of how students learn relevant to their age and developmental stage

A1.2 Demonstrate understanding of how different teaching methods can meet students' individual learning needs

A3.2 Demonstrate respect for the social, linguistic, and cultural diversity of the students and their communities

A5.2 Demonstrate understanding of how to vary delivery of subject content to meet students' learning needs and learning context

B1.2 Demonstrate capacity to apply educational technologies and different strategies for teaching and learning

B2.2 Demonstrate capacity to keep detailed assessment records and use the assessment information to guide students' learning progress

B3.1 Demonstrate capacity to create a safe and effective learning environment for all students

B3.2 Demonstrate strategies for managing student behaviour

C1.2 Demonstrate understanding of the underlying ideas that influence one's practice as a professional teacher

C3.1 Demonstrate a high regard for each student's right to education and treat all students equitably

# 5.1. Consolidating Understanding of Educational Psychology

In this sub-unit, student teachers will consolidate their understanding of educational psychology by exploring the relationship between psychology, learning, and teaching. They will explore how psychological theories inform models of learning. They will also explore how psychological theories inform models of teaching. Understanding this relationship will help them to identify and apply principles of educational psychology for effective teaching in many different situations.

## 5.1.1 Relating psychology, learning and teaching

**Expected learning outcome**

**By the end of this lesson, student teachers will be able to:**

- Explain and illustrate the conceptual relationship between psychology, learning and teaching.

**Competencies gained**

A5.2.1 Describe ways to contextualise learning activities for the age, language, ability, and culture of students to develop understanding of subject related principles, ideas and concepts

C1.2.1 Identify theories and concepts that inform underpin approaches to teaching and learning

**Time:** One period of 50 minutes

**Learning strategies**

Learning activity 1. Compare and contrast: Psychology as a field of knowledge

Learning activity 2. Definitions and examples: Teaching and learning

Learning activity 3. Diagram of relationships: Educational psychology

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work.

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 5.1.1.

Write relevant learning outcomes on board.

Write relevant concepts on board: *Educational psychology, psychology, teaching, learning.*

**Resources needed**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

Learning activity 3: N/A (other than textbook, note paper, and pen)

## Relating psychology, learning and teaching

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 5 minutes |
| Learning activity 1 | 10 minutes |
| Learning activity 2 | 15 minutes |
| Learning activity 3 | 15 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Welcome student teachers to Year 3, Unit 5. Educational Psychology.
2. Ask some student teachers to volunteer to share some of their own experiences by picking a number from 1-5 and answering the corresponding question. Briefly share your own experiences in relation to the questions chosen:
   a. Describe something that you have learnt to do during the last year that you could not do well before.
   b. Identify a term or concept in Educational Psychology that you found most interesting.
   c. Identify a term or concept in Educational Psychology that you found confusing or difficult to understand.
   d. Identify a way of teaching that helps you to learn.
   e. Identify a way of teaching that makes learning difficult for you.
3. Relate the student teachers' responses to the importance of Educational Psychology and the complex relationship between teaching, learning, and psychology.
4. Outline the relevant learning outcome for the lesson.
   By the end of this lesson, student teachers will be able to:
   - Explain and illustrate the conceptual relationship between psychology, learning and teaching.

## Learning activity 1. Compare and contrast: Psychology as a field of knowledge

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

### Purpose

The purpose of this learning activity is for student teachers to consolidate their understanding of psychology as a field of knowledge.

1. Explain that this activity is designed to consolidate student teachers' understanding of psychology as a field of knowledge. This will help them to understand how it relates to teaching and learning.
2. Ask student teachers to identify fields of knowledge or disciplines other than psychology and write them on the board.
3. Direct student teachers to complete Learning activity 1 in the textbook.
4. Support and prompt individual student teachers as they complete the activity.
5. Ask for volunteers to share their responses and/or reflect on some of the responses you have seen during the activity.

### Assessment

Check and support individual student work during the activity. Try to do this by encouraging conversation rather than checking for right or wrong answers.

You will be able to assess understanding by selecting student teachers to share the key points of their peer discussion with the class. Ensure that you select both female and male student teachers. The peer sharing activity and class discussion will provide student teachers with feedback.

During the whole group sharing – ask open-ended questions to encourage student teachers to justify the reasoning behind their responses.

### Possible student teachers' responses

Responses may be entirely individual and open-ended (hence, there are no incorrect responses).

For example, a student teacher may have selected biology as a field of knowledge to compare with psychology. In relation to the questions, they may share something like:

1. "Psychology is the study of the mind and how it makes sense of the world".
2. "Biology is the study of the structure and behaviour of living things".
3. "They are different because psychology tends to focus on the cognitive or mental activity of humans and animals with this capacity, whereas Biology encompasses the physical structure and materials of all life".
4. "They are related because the way the mind represents the world depends on the structure and materials of the body that biology studies".

### Learning activity 2. Definitions and examples: Teaching and learning

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Pairs and whole class |

#### Purpose

The purpose of this learning activity is for student teachers to consolidate their understanding of *learning* and *teaching*.

1. Link this activity to the previous activity. Explain that student teachers are building an understanding of Educational Psychology as a field of knowledge and way of knowing that is important for teachers.
2. Draw student teachers' attention to Table 5.1.
3. Allow student teachers to discuss the table and share ideas with a partner for five minutes.
4. After five minutes, encourage student teachers to complete the remainder of the table individually.
5. Prompt and support student teachers individually as they complete the activity.

6. Ask one or two student teachers to share their responses.
7. Ask the prompt question at the end of the lesson. Use it to encourage student teachers to understand learning and teaching as concepts that are much broader than school-based or institutional education.

### Assessment

Check and support individual student work during the activity. Try to do this with encouraging conversation rather than checking for right or wrong answers.

You will be able to assess understanding by selecting student teachers to share the key points of their peer discussion with the class. Ensure that you select both female and male student teachers. The peer sharing activity and class discussion will provide student teachers with feedback.

During the whole group sharing – ask open-ended questions to encourage student teachers to justify the reasoning behind their responses.

### Possible student teachers' responses

Example responses are provided in Table TG 5.1.

**Table TG 5.1. Definitions and examples – completed**

| Concept | Definition | Example (Non-human) | Example (Human) |
|---|---|---|---|
| Learning | The acquisition of information such that it can be recalled to inform behaviour. | A bird that learns to mimic another bird to warn off a predator. | A child who learns to swim faster by kicking their legs in a rhythm. |
| Teaching | The facilitation of learning with strategies that are responsive to the ways that groups or individuals process information. | A lioness that allows her cubs to tackle a smaller prey to teach them how to hunt. | A parent who teaches a child to remember the planets in the Solar System by learning a rhyme. |

[See Table 5.1 in textbook.]

## Learning activity 3. Diagram of relationships: Educational psychology

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Pairs or threes and whole class |

### Purpose

The purpose of this learning activity is for student teachers to consolidate their understanding of the relationship between psychology, learning, and teaching.

1. Link this activity to the previous activity. Explain that this activity allows them to represent their understanding of Educational Psychology as a field of knowledge and way of knowing that is important for teachers.
2. Draw student teachers' attention to the activity description. Ask a student teacher to read the description: "Use basic shapes, arrows and labels to create a diagram that represents the relationship between psychology, learning and teaching."
3. Allow student teachers to discuss the activity and share ideas with a partner or a group of three for five minutes.
4. After five minutes, encourage student teachers to complete the diagram individually in Box 5.1.
5. Prompt and support student teachers individually as they complete the activity. Use the prompt questions to encourage thinking about the nature and relationships between the key concepts.

### Assessment

Check and support individual student work during the activity. Try to do this by encouraging conversation rather than checking for right or wrong answers.

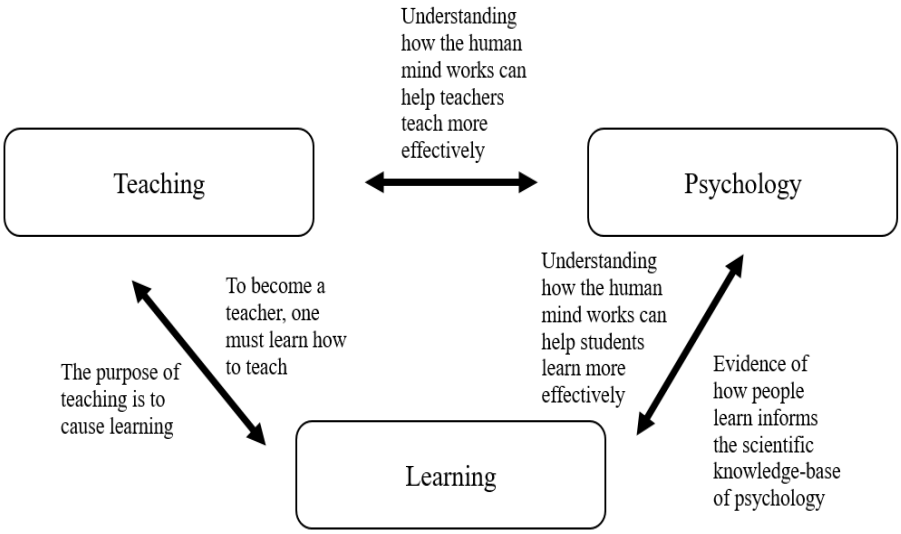
You will be able to assess understanding by selecting student teachers to share the key points of their peer discussion with the class. Ensure that you select both female and male student teachers. The peer sharing activity and class discussion will provide student teachers with feedback.

During the whole group sharing ask open-ended questions to encourage student teachers to justify the reasoning behind their responses.

### Possible student teachers' responses

Example responses could involve Venn Diagrams, hierarchical, parallel or nested arrangements of concepts. More complex responses will represent more abstract and concrete, general and specific expressions of the same concept. An example of a diagram that clearly explains the relationship between teaching, psychology and learning is provided in Box TG 5.1.

**Box TG 5.1. Relationship between psychology, learning, and teaching[42] – completed**




[See Box 5.1 in textbook.]

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

42 Illustration by author, used with permission.

At the end of the lesson:

- Ask student teachers to recall something from the activities or discussion that captured their interest, then explain how 'capturing interest' relates to educational psychology;
- Allow opportunity for student teachers to reflect on their understanding of educational psychology beyond the school context;
- Revisit the learning outcomes and TCSF competencies;
- Explain that future lessons will now be exploring and applying psychological theories and models of teaching and learning for teachers; and
- Thank student teachers for their participation and attentiveness.

## 5.1.2. Psychological theories of learning and implications for teaching

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Identify and provide an example of a theory of learning in practice;
- Reflect on key principles of cognitive theories of learning;
- Reflect on key principles of social constructivist theories of learning; and
- Apply theories of learning to design a lesson plan.

**Competencies gained**

A5.2.1 Describe ways to contextualise learning activities for the age, language, ability and culture of students to develop understanding of subject related principles, ideas and concepts

B1.2.1 Use teaching methods and learning strategies appropriate for the class-culture, size and type

C1.2.1 Identify theories and concepts that inform approaches to teaching and learning.

**Time:** Three period of 50 minutes

**Learning strategies**

Learning activity 1. Identify and describe: Foundational learning theories

Learning activity 2. Reflection assignment: Application of learning theories to your personal learning experiences

Learning activity 3. Think-pair-share: Cognitivist theory

Learning activity 4. Visualisation: Social constructivist theory

Learning activity 5. Lesson planning: Apply psychological theories of learning

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, peer and self-assessment, reviewing student work

**Preparation needed**

Revisit the Educational Studies Student Teacher Textbook from Year 1 and 2 to refresh your knowledge of foundational learning theories.

Write relevant learning outcomes on board.

**Resources needed**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: Dependent on the selected assignment format

Learning activity 3: N/A (other than textbook, note paper, and pen)

Learning activity 4: Dependent on the selected assignment format

Learning activity 5: Lesson plan template

## Period 1

## Psychological theories of learning and implications for teaching

This period is structured as follows:

| | |
|---|---|
| Introduction | 5 minutes |
| Learning activity 1 | 10 minutes |
| Learning activity 2 | 30 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Welcome student teachers to the lesson. Explain that in this period will focus on exploring and applying psychological theories and models of teaching and learning for teachers.
2. Outline the relevant learning outcomes for this period.
   By the end of this period, student teachers will be able to:
   - Identify and provide an example of a theory of learning in practice.
3. Engage the learner and make links to prior learning.
4. Refer to sections in the textbook rather than repeating information.

### Learning activity 1. Identify and describe: Foundational learning theories

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Pairs and whole class |

## Purpose

The purpose of this learning activity is for student teachers to identify and describe the three foundational learning theories addressed in Year 1 and 2.

1. Direct student teachers to Learning activity 1 in the textbook.
2. Ask student teachers to complete the activity together with a peer, drawing on their prior knowledge.
3. Allow five minutes for pairs to complete the activity in Table 5.2.
4. After five minutes, ask several volunteers to share their responses.

### Assessment

Ask open-ended questions to encourage student teachers to elaborate on their description of each learning theory. Provide hints if needed.

You will be able to assess understanding by selecting pairs to share the key points of their peer discussion with the class. Ensure that you select both female and male student teachers. The peer sharing activity and class discussion will provide student teachers with feedback.

### Possible student teachers' responses

Possible responses are presented in Table TG 5.2.

**Table TG 5.2. Foundational learning theories and description – completed**

| Learning theory | Describe the central ideas of the learning theory in your own words |
|---|---|
| Behaviourism | Central concepts are stimulus and response, which are used to reward or punish student behaviour. Learning is a change in behaviour. |
| Cognitivism | Central concepts are internal (cognitive) processing of information. Learning takes place in the minds of learners. |
| Constructivism | Central concepts are construction of knowledge building on prior knowledge. Each learner constructs their own knowledge. Therefore, the outcomes of teaching on student learning are unpredictable. |

[See Table 5.2 in textbook.]

## Learning activity 2. Reflection assignment: Application of learning theory to your personal learning experiences

| | |
|---|---|
| **Time** | 30 minutes |
| **Class organisation** | Individual and whole class |

### Purpose

The purpose of this learning activity is for student teachers to reflect on how the three foundational learning theories apply to their personal learning experiences.

1. Direct student teachers to Learning activity 2 in the textbook.
2. The textbook lists four questions as a stimulus for the reflection assignment.

**Facilitator's notes**

Provide options for student teachers to complete the reflection assignment. These options may depend on individual preferences and available resources.

You may want to modify these reflection questions as you see fit.

3. Allow student teachers at least 20 minutes to complete this activity. After 20 minutes, ask volunteers to share some of their reflections with the class.

**Facilitator's notes**

You may want to provide the opportunity to let student teachers complete the activity after the lesson.

## Assessment

You will be able to assess understanding by selecting student teachers to share the key points of their peer discussion with the class. The class discussion will provide individual student teachers with feedback. Student teachers may be asked to submit their assignment for further assessment and feedback.

## Possible student teachers' responses

Student teachers are likely to generate a variety of responses based on their personal experiences and chosen assignment format. Examples indicative of possible responses are:

1. What is your earliest memory of having learnt something new? What or who helped you learn this?
   Responses are likely to relate to behaviourist theory and learning through external stimuli (punishment or reward).
2. What was the role of external and internal factors in helping you learn?
   Responses are likely to relate to a range of factors spanning behaviourist, cognitivist and constructivist theory. For example, student teachers may reflect on rewards (behaviourist), their drive to explore (cognitivist) or learning in interaction with peers (constructivist).
3. What helps you learn most effectively? Reflect on what helps you learn using a taxonomy of learning, such as Bloom's taxonomy.
   Responses are likely to reflect that the different learning theories are all helpful to some extent, but behaviourism has limitations for achieving complex learning outcomes.

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

- Ask student teachers questions;
- Allow opportunity for student teachers to reflect on their learning;
- Revisit the learning outcomes and TCSF competencies; and
- Explain that the next period will focus specifically on cognitive and social constructivist theories of learning.

## Period 2

## Psychological theories of learning and implications for teaching

This period is structured as follows:

| | |
|---|---|
| Introduction /Explicit teaching | 15 minutes |
| Learning activity 3 | 10 minutes |
| Explicit teaching | 10 minutes |
| Learning activity 4 | 10 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Welcome student teachers to the second period of the lesson. Explain that this period will focus on cognitive and social constructivist theories of learning.
2. Outline the relevant learning outcomes for the period.
   By the end of this period, student teachers will be able to:
   - Reflect on key principles of cognitive theories of learning; and
   - Reflect on key principles of social constructivist theories of learning.
3. Engage the learner and make links to prior learning.
4. Ask student teachers to read the section "Cognitive theories of learning" in the textbook.
5. Once student teachers have read the textbook, ask volunteers to verbalise their understandings of the Atkinson and Shiffrin model of memory.

### Learning activity 3. Think-pair-share: Cognitivist theory

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Individual and whole class |

## Purpose

The purpose of this learning activity is for student teachers to reflect on key principles of cognitivist theory.

1. Direct student teachers to Learning activity 3 and Table 5.3 in the textbook.
2. When student teachers have formulated responses individually after approximately five minutes, ask them to share their responses with a peer and discuss.
3. Ask some volunteers to share their responses and discuss different responses.

## Assessment

Ask open-ended questions to encourage student teachers to elaborate on their description of each aspect. Provide hints if needed.

You will be able to assess understanding by selecting pairs to share the key points of their peer discussion with the class. Ensure that you select both female and male student teachers. The peer sharing activity and class discussion will provide student teachers with feedback.

## Possible student teachers' responses

Possible responses are provided in Table TG 5.3.

**Table TG 5.3. Key principles of cognitivist theory – completed**

| Aspect | Role in cognitivist theory |
|---|---|
| Learning | • Learning is considered to be internal to students.<br>• The use of effective strategies to processes new information for the acquiring knowledge, skills, concepts and strategies.<br>• External information provides sensory input for learning.<br>• The learning process involves attention, perception and memory to store new information in long-term memory.<br>• Learning involves acquiring knowledge of information that is considered objective and accurate. |
| Prior knowledge | • Students use prior knowledge to process new information in short-term memory.<br>• Prior knowledge is stored in long-term memory. |

| Aspect | Role in cognitivist theory |
|---|---|
| Student | • Students need to actively process information for it to result in learning.<br>• Students interact with their environment and selectively attend to sensory input.<br>• Students organise and reorganise information in interaction with their environment. |
| Teacher | • Designs learning environments so that students can more easily process information. For example, teachers can use various strategies to support memorisation or link new information to prior knowledge.<br>• Teachers also play an important role in helping students transfer new information to long-term memory by facilitating memorisation through opportunity for practice. |
| Peers | • Are not necessary to successful learning, but can interact with other learners, providing an opportunity for engaging with new information and viewing information from various perspectives. |

[See Table 5.3 in textbook.]

## Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Ask student teachers to read the section "Social constructivist theories of learning" in the textbook.
2. Once student teachers have read the textbook, ask volunteers to verbalise their understandings of key principles of constructivist theory.

### Learning activity 4. Visualisation: Social constructivist theory

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Groups of 3 or 4 and whole class |

## Purpose

The purpose of this learning activity is for student teachers to think about key principles of social constructivist theory and their relationships.

1. Direct student teachers to Learning activity 4 in the textbook.
2. Divide student teachers into groups of 3 or 4. Depending on available resources, student teachers may complete this activity using flipchart paper, whiteboards, or digital resources.

3. Allow approximately eight minutes for groups to complete the activity. When groups have created their visualisation, ask on member of each group to share their responses. Discuss and encourage reflection on key social constructivist principles and their implications for teaching and learning.

**Assessment**

Ask open-ended questions to encourage student teachers to discuss their understandings of key principles of social constructivist theory. Encourage student teachers to continue to elaborate on their ideas.

You will be able to assess understanding by selecting a member of each group to share their visualisation with the class. Ensure that you select both female and male student teachers. The group activity and class discussion will provide student teachers with feedback.

**Possible student teachers' responses**

Student teachers may represent their visualisations (in Box 5.2 in the textbook) in various ways. For example, some may choose to draw a concept map, while others may indicate relationships between students, teachers and peers using arrows and descriptions. Examples of themes in relation to the activity stimulus are:

- Learning: Actively constructed by learners. Occurs through socially-constructed opportunities and interaction with the environment. How an individual learns depends on what they already know.
- Teaching: Eliciting information about students' current knowledge and understanding so instruction can build on this, creating opportunities for interaction, challenging, thinking, and selecting appropriate learning tools.
- Students: Actively think and construct meaning, interact with others and learning tools, actively communicate, ask questions and co-construct knowledge with others.
- Teachers: Facilitate learning (i.e., by scaffolding) and also learn (co-construct knowledge).
- Peers: Stimulate thinking, interact, co-construct knowledge.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

- Ask student teachers to reflect on their responses to Learning activities 3 and 4. How are their responses similar or different?
- Allow opportunity for student teachers to reflect on their learning.
- Revisit the learning outcomes and TCSF competencies.
- Explain that the next period will focus on the application of learning theories to teaching.

## Period 3

### Psychological theories of learning and implications for teaching

This period is structured as follows:

| | |
|---|---|
| Introduction /Explicit teaching | 5 minutes |
| Learning activity 5 | 40 minutes |
| Check student teachers' understanding | 5 minutes |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Welcome student teachers to the third period of the lesson. Explain that this period will focus on applying knowledge of psychological theories to plan a lesson.
2. Outline the relevant learning outcomes for the period.
   By the end of this period, student teachers will be able to:
   - Apply theories of learning to design a lesson plan.
3. Engage the learner and make links to prior learning. It may be helpful to briefly revisit key learning theories discussed in the previous two periods.

4. Briefly discuss potential teaching strategies as related to each theory of learning.

## Learning activity 5. Lesson planning: Apply psychological theories of learning

| | |
|---|---|
| **Time** | 40 minutes |
| **Class organisation** | Groups of 3-4 and whole class |

### Purpose

The purpose of this learning activity is for student teachers to apply their knowledge of psychological theories of learning to plan a lesson.

1. Direct student teachers to Learning activity 5 in the textbook.
2. Divide student teachers into groups of 3 or 4. Using the lesson plan template (Annex 5A) as a guide, ask student teachers to design a lesson plan on a topic of their choice.
3. Allow approximately thirty minutes for groups to complete the activity. When groups have created their lesson plan, ask one member of each group to talk about their plan. Discuss and encourage reflection on the application of different learning theories to teaching practice.

### Assessment

Ask open-ended questions to encourage student teachers to discuss their understandings of how different learning theories may translate to classroom practice. Encourage student teachers to continue to elaborate on their ideas and justify their design choices.

You will be able to assess understanding by selecting a member of each group to talk about their lesson plan with the class. Ensure that you select both female and male student teachers to represent groups. The group activity and class discussion will provide student teachers with feedback.

**Possible student teachers' responses**

Given the broad nature of the fundamental learning theories, there are many possible responses to this learning activity. The following responses provide an indication of possible student teachers' responses for each of the three fundamental learning theories:[43]

Behaviourism:

- Activities are strongly teacher-led.
- Students generally complete activities individually.
- Direct instruction
- Use of stimulus and response mechanisms and drill and practice
- Use of punishment and reward. For example, teachers may use sticker systems as rewards for good behaviour.
- Focus on recall, understanding or behavioural outcomes
- Assessment of individual learning as demonstrated by changes in behaviour.

Cognitivism:

- Activities are guided by the teacher.
- Students complete activities individually, in pairs, or in small groups.
- Linking new learning material to what has already been learnt
- Modelling with and without explanations
- Use of worked-out examples, gradually reducing task support
- Classifying or chunking information to help students process information
- Providing structure to gradually and logically build knowledge and skills
- Providing opportunity for practice and retrieval of prior knowledge
- Using pictures or other visual devices
- Using multimedia and different modes of presentation
- Using mnemonic devices to help memory. Examples include the use of acronyms to help students remember grammatical rules.

43 O'Donnell et al. (2015); van Merriënboer, J. J. G., & Kirschner, P. A. (2018)

Constructivism:

- Teachers play a facilitating role in designing opportunities for learning that challenges and motivate learners.
- Students complete activities in interaction with peers and the teacher.
- Learning outcomes are generally more complex than knowledge and recall, focusing on higher-order learning outcomes such as analysis.
- Popular constructivist teaching strategies are problem-based learning and inquiry-based learning.
- Examples of teaching and learning methods include: research projects, creative projects, brainstorming, group work, discovery learning and simulations. The use of authentic and meaningful tasks is critical. There may be many different possible responses to learning activities. These activities may address ill-structured problems
- Students may be asked to use tools to support learning. For example, students may use real-life objects to explore how they can measure volume of different shapes.
- Teachers should facilitate student engagement in group activities.
- Teachers and peers use scaffolding to help students build competence, whilst gradually withdrawing support.
- Assessment of co-constructed understandings
- Reflection on what has been learnt and how this may apply in different situations.

**Check student teachers' understanding**

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

- Ask student teachers to reflect on their application of psychological theories to plan a lesson. What did they find useful and what was perhaps difficult? How does applying these theories to lesson planning help teach more effectively?
- Allow opportunity for student teachers to reflect on their learning.
- Revisit the learning outcomes and TCSF competencies.

**Expected student teachers' responses for the review questions in TB**

Question 1: How does the role of the teacher differ in behaviourism, cognitivism and constructivism?

Answer: *In behaviourism, teachers use mechanisms of punishment and reward to change student behaviour. In cognitivism, teachers guide students in effectively using cognitive mechanisms for learning. In constructivism, the teachers' role is mainly facilitative. Rather than playing an expert role, teachers themselves are co-constructors of knowledge.*

Question 2: How are cognitivist and social constructivist theories similar or different?

Answer: *Both theories identify the importance of prior knowledge in learning. What is learnt depends on how an individual perceives information, which is determined by their prior knowledge and experiences. While cognitive theories focuses on individual learning, social constructivist theories focus on how learning takes place in social interactions.*

# 5.2. Student Mental Health

In this sub-unit, student teachers will learn about students' mental health. Having an understanding of students' mental health and how teachers can support this is critical to effective teaching and learning.

Whilst much psychological research has focused on mental issues, the positive psychology[44] approach has stimulated a more strengths-based approach to mental health. Good mental health is inextricably related to human capacity for development and learning.

Student teachers will learn about the continuum of mental illness versus mental wellbeing, and associated mental states. In addition, student teachers will learn about the implications of each of these mental states for teaching and learning. Finally, this unit will focus on applying knowledge of student mental health to teach resilience as a preventative strategy to maintain good mental wellbeing.

## 5.2.1. Student mental health and implications for teaching and learning

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Define mental health and provide examples of different states of wellbeing; and
- Identify the general implications of children's mental health for learning and teaching.

44 Seligman & Csikszentmihalyi. (2000).

**Competencies gained**

A1.1.2 Prepare learning activities to align with students' level of cognitive, linguistic, social, and physical development

B3.1.3 Model and promote good health and safety practices to ensure students' wellbeing and safety within the classroom and school

C1.2.1 Identify theories and concepts that inform underpin approaches to teaching and learning

C3.1.2 Recognise the different social situations and background of students and treat all students equally

**Time:** One period of 50 minutes

**Learning strategies**

Learning activity 1. Complete visual continuum: Mental illness versus mental wellbeing

Learning activity 2. Group discussion: Implications of mental health for teaching and learning

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, peer and self-assessment, reviewing student work.

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 5.2.1.

Write relevant learning outcomes on board.

**Resources needed**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

## Student mental health and implications for teaching and learning

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 15 minutes |
| Learning activity 2 | 20 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the lesson.
   By the end of this lesson, student teachers will be able to:
   - Define mental health and provide examples of different states of wellbeing; and
   - Identify the general implications of children's mental health for learning and teaching.
2. Engage student teachers and make links to prior learning. The following suggestions may be helpful to engage student teachers by encouraging them to relate the topic of the lesson to their personal context:
   - Ask student teachers to share their personal definition of mental health;
   - Ask student teachers to share examples of poor and good mental health; and
   - Ask student teachers to share personal experiences of fluctuating mental wellbeing, and which factors contributed to any changes.
3. Ask student teachers to read the section "Defining mental health" in the textbook.

4. Ensure that student teachers are still engaged in active learning processes in this lesson component.

### Learning activity 1. Complete visual continuum: Mental illness versus mental wellbeing

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Individual and whole class |

**Purpose**

The purpose of this learning activity is for student teachers to consider a range of mental states along the continuum of mental illness versus mental wellbeing.

1. Direct student teachers to Learning activity 1 in the textbook.
2. Ask student teachers to look at Figure 5.3 and the examples provided. Then ask them to think of more examples of different mental states of mental illness versus mental wellbeing.
3. Ask student teachers to come up with at least 4 examples for the three points along the continuum. Student teachers may find it helpful to start at the extremes before thinking of examples at the middle of the continuum.
4. Ask some volunteers to share their responses and discuss different responses.

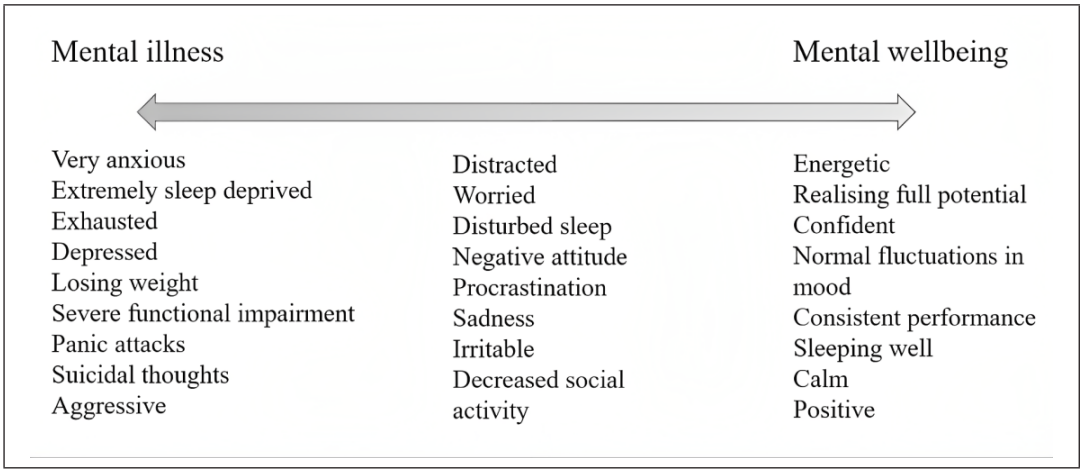
**Assessment**

Ask open-ended questions to encourage student teachers to think of various mental states across the continuum. Encourage student teachers to think of examples based on their personal experiences and those of others in their community.

You will be able to assess understanding by observing student teachers' individual work and selecting student teachers to share their responses with the class. Ensure that you select both female and male student teachers. The class discussion will provide student teachers with feedback.

### Possible student teachers' responses

Possible responses are presented in Figure TG 5.1.




[See Figure 5.4 in textbook.]

**Figure TG 5.1. Mental illness versus mental wellbeing[45] – completed**

### Learning activity 2. Group discussion: Implications of mental health for teaching and learning

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Whole class |

## Purpose

The purpose of this learning activity is for student teachers to consider the implications of mental health for teaching and learning. This will help student teachers understand why supporting student mental health is critical to achieving the best possible educational outcomes for all students.

45 Illustration by author, used with permission.

1. Ask student teachers to read the section "Prevalence of mental health issues in school-aged children" in the textbook.
2. Direct student teachers to Learning activity 2 in the textbook.
3. Explain to student teachers that this activity will ask them to consider the implications of mental health for teaching and learning.
4. Direct student teachers to read the discussion questions for Learning activity 2 in the textbook.
5. Lead a whole class discussion using the discussion questions.

**Assessment**

You will be able to assess student teacher understanding by evaluating their contributions to the whole class discussion. The discussion will provide student teachers with feedback on their understandings of the implications for teaching and learning.

**Possible student teachers' responses**

1. What are the potential consequences of poor mental health to students' cognitive, physical, social and emotional development?
   Poor mental health can have profound impacts on students' cognitive development. For example, students may have difficulty concentrating, resulting in underperformance. Physically, poor mental health can result in symptoms such as lack of sleep, which can inhibit physical growth. Certain maladaptive habits, such as substance abuse, can also have profound negative physical consequences. Socially, students may withdraw, which can negatively impact their social relationships. Emotionally, students may enter a downward spiral of negative emotions, which could result in depression.
2. What are potential indicators of reduced student mental health?
   Sadness, changes in mood, social withdrawal, disruptive behaviour, changes in physical appearance due to changes in eating or sleeping patterns.
3. Take a specific mental illness from Figure 5.3 as an example. What are the particular implications for teaching and learning?
   For example, anxiety. This may impact a student's capacity to function and fully participate in classroom life. Teachers can help by providing a structured and supportive learning environment, encouraging students to use self-calming strategies, and encouraging the student to seek professional help if needed.

4. Look back at your responses to Learning activity 1. What are appropriate follow-up actions for teachers and students for each of the stages along the continuum?
   Moderate mental health: Identify and try to address problems, take breaks, talk about feelings and concerns, and seek support if needed. Mentally ill: Seek professional care.

**Check student teachers' understanding**

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

- Ask student teachers questions. Examples of questions you may like to ask are:
  - "What is your definition of mental health?"
  - "Has your definition of mental health changed compared to your definition at the beginning of the lesson?"
  - "Why is it important for teachers to understand the implications of poor mental health for teaching and learning?"
- Allow opportunity for student teachers to reflect on their learning.
- Revisit the learning outcomes and TCSF competencies.

## 5.2.2. Supporting student mental health

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Identify risk factors and protective factors for student mental health; and
- Apply strategies for supporting student mental health.

**Competencies gained**

A1.1.2 Prepare learning activities to align with students' level of cognitive, linguistic, social, and physical development

A3.2.1 Give examples of inclusive communication to support all students' participation and engagement in classroom activities

B3.1.3 Model and promote good health and safety practices to ensure students' wellbeing and safety within the classroom and school

B3.2.3 Learn to know each student's background and needs and interact regularly with all students

C3.1.2 Recognise the different social situations and background of students and treat all students equally

**Time:** One period of 50 minutes

**Learning strategies**

Learning activity 1. Think-pair-share: Mental health risk factors and protective factors

Learning activity 2. Role play: Supporting student resilience

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, peer and self-assessment, reviewing student work

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 5.2.2.

Write relevant learning outcomes on board.

**Resources needed:**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

## Supporting student mental health

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 5 minutes |
| Learning activity 1 | 15 minutes |
| Explicit teaching | 5 minutes |
| Learning activity 2 | 20 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the lesson.
   By the end of this lesson, student teachers will be able to:
   - Identify risk factors and protective factors for student mental health; and
   - Apply strategies for supporting student mental health.
2. Engage student teachers and make links to prior learning. Briefly discuss key learning outcomes from Lesson 5.2.1. Explain that this lesson will build on student teachers' emerging knowledge of student mental health, but will focus specifically on how teachers can support student mental health.
3. Ask student teachers to reflect on which factors influence their own mental health.
4. Introduce the concepts risk factor and protective factor and briefly discuss the examples provided in the textbook. Then direct student teachers to read the section "Factors that influence student mental health" in the textbook.

5. Ensure that student teachers are still engaged in active learning processes in this lesson component.

### Learning activity 1. Think-pair-share: Mental health risk factors and protective factors

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Individual or pairs |

#### Purpose

The purpose of this learning activity is for student teachers to identify factors that increase or mitigate the risks of reduced mental health in school-aged children.

1. Explain that this activity is designed to help student teachers develop their understanding of factors that influence student mental health. This knowledge is fundamental to supporting student mental health.
2. Direct student teachers to complete Learning activity 1 and Table 5.4 in the textbook.
3. Support and prompt individual student teachers as they complete the activity. Encourage student teachers to discuss and expand their responses in pairs.
4. Allow 10 minutes for student teachers to individually complete the activity, first individually and then in pairs. After 10 minutes, ask for volunteers to share their responses with the class. Discuss and provide constructive feedback on the different responses.

#### Assessment

Ask open-ended questions to encourage student teachers to think about possible responses across various categories, such as individual characteristics and factors in the home, school or community environment.

You will be able to assess understanding by observing student teacher work and selecting student teachers to share their responses with the class. Ensure that you select both female and male student teachers. The peer sharing activity and class discussion will provide student teachers with feedback.

### Possible student teachers' responses

Table TG 5.4 identifies risk factors and protective factors based on scientific evidence analysed in a recent review.[46] Student teachers may identify factors in addition to these evidence-informed factors.

**Table TG 5.4. Identify risk factors and protective factors to mental health – completed**

| Risk factors | Protective factors |
|---|---|
| Chronic illness | Supportive community environment |
| Refugee status | Student resilience and self-esteem |
| Homelessness | Positive family functioning |
| Out of home care | Social support |
| High-demand academic environments | Physical activity |
| Screen time | |
| Cyberbullying | |
| Sedentary behaviour | |
| Obesity | |
| Maternal illness | |
| Poor family functioning | |

[See Table 5.4 in textbook.]

## Explicit teaching

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Building on the identified risk factors and protective factors, shift the focus of the lesson to what schools and teachers can do to support student mental health.
2. Explain that whilst some students may require specialised support, research evidence shows powerful effects of interventions that support all students' mental health.

46 Rickwood D. J., & Thomas, K. A. (2019).

3. Ask student teachers to reflect on having overcome a difficult situation. Link student teachers' own experiences to the concept of resilience.
4. Allow student teachers time to read the section "Supporting student mental health" in the textbook.
5. Encourage student teachers to ask questions and discuss their emerging understandings.

### Learning activity 2. Role play: Supporting student resilience

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Groups of 3 or 4 and whole class |

## Purpose

The purpose of this learning activity is for student teachers to identify and apply practical strategies that teachers can use to build students' resilience.

1. Explain to student teachers that this activity will ask them to think of strategies that teachers may use to build student resilience, and role play how these strategies can be applied in a classroom context.
2. Divide student teachers into groups of 3 or 4.
3. Direct each group to complete Learning activity 2 in the textbook.
4. Depending on available resources, you may want to encourage students to use materials to encourage recording of their group's ideas. For example, this activity can be supported by using flipchart paper, posters, whiteboards or digital resources.
5. Support and prompt individual student teachers as they complete the activity. Encourage student teachers to collaborate in groups.
6. Allow 5 minutes for groups to identify strategies. After 5 minutes, ask each group to role play the application of their identified strategies for 10 minutes. Encourage student teachers to take on the role of teacher as well as student.

**Facilitator's notes**

Student teachers may wish to complete this part of the activity in collaboration with other groups.

7. After 15 minutes, ask some student teachers to share their strategies and how teachers can apply these in the classroom. Discuss and provide constructive feedback on the different ideas. Encourage student teachers to take note of further strategies their group had not yet identified.

## Assessment

Ask open-ended questions to encourage student teachers to think about strategies teachers could use and how these could be embedded in classroom practice.

You will be able to assess understanding by observing group work and selecting student teachers to share their group's responses with the class. The group discussions during the activity and class discussion will provide student teachers with feedback.

## Possible student teachers' responses

Evidence-informed examples include:[47]

- Discuss the meaning of resilience in relation to everyday examples.
- Emphasise that everyone needs to build their resilience. Therefore, experiencing challenging situations can be an opportunity to learn.
- Use storytelling to illustrate examples of people who manage to overcome difficult situations by using resilience.
- Discuss students' personal experiences in overcoming challenges and relate this to resilience.
- Remind children that it is ok to ask for help if they find themselves in a difficult situation. Discuss the various support persons that they may reach out to and who is best equipped to help out with particular situations

47 Based on Beyond Blue. (2017).

- Help students build supportive relationships, such as with their parents and peers. Talk to students about how they can support their friends during difficult times.
- Talk to students about developing plans for coping with difficult situations.
- Help students articulate their feelings and acknowledge their feelings.
- Encourage students to adopt healthy mindsets that help them respond positively in the face of challenging circumstances, such as self-compassion.
- Help students develop strategies to cope with anxiousness. For example, encourage a student to practise an oral presentation with a friend before doing it for the whole class.

In addition to these strategies focused on students, research evidence suggests that involving students' family and community is beneficial to building their resilience.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

- Ask student teachers questions to gauge their emerging understandings of how teachers can support student mental health.
- Provide the opportunity for student teachers to ask questions.
- Ask student teachers how they think they may be able to apply knowledge of student mental health in their own teaching practice.
- Revisit the learning outcomes and TCSF competencies.
- Thank student teachers for their participation and attentiveness.

**Expected student teachers' responses for the review questions in TB**

Question 1: What are some risk factors and protective factors to student mental health?

Answer: *Examples of risk factors are: refugee status, homelessness, screen time, chronic illness and poor family functioning. Examples of protective factors are: positive family functioning, social support and physical activity.*

Question 2: Why is it important for teachers to support student mental health?

Answer: *Students spend many hours a day at school. Schooling should equip students with the skills to adapt to ever-changing circumstances and challenges. Poor mental health can have negative consequences for students' academic outcomes and success in life. If teachers support student mental health, this can have many benefits, including better classroom climates and individual student learning outcomes.*

# 5.3. Theories of Intelligence

In this sub-unit, student teachers will learn about historical developments in intelligence theory. This knowledge can help student teachers determine the implications of intelligence theory for teaching and learning. Several major theories of intelligence have been developed. Student teachers have already learnt about two of these major theories: Gardner's Theory of Multiple Intelligences and Piaget's stage theory of development. However, after more than 100 years of research in psychology, there is still much debate about the concept of intelligence.

First, student teachers will consolidate their knowledge of the theory of multiple intelligences. In addition, they will learn about critiques on this theory. Finally, this sub-unit will focus on broader developments in intelligence theory.

## 5.3.1. Consolidating and critiquing the theory of multiple intelligences

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Explain and evaluate a criticism of the theory of multiple intelligences; and
- Illustrate and critique a teaching strategy for multiple intelligences in practice.

**Competencies gained**

A1.1.2 Prepare learning activities to align with students' level of cognitive, linguistic, social, and physical development

B1.2.1 Use teaching methods and learning strategies appropriate for the class - culture, size and type

**Time:** One period of 50 minutes

**Learning strategies**

Learning activity 1. Think-pair-share: Examining a critique of the theory of multiple intelligences

Learning activity 2. Role-playing and reflection: Illustrate and critique a teaching strategy based on MI

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, peer and self-assessment, reviewing student teacher work.

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 5.3.1.

Write relevant learning outcomes on board.

Identify examples of critiques on MI theory from the Internet.

**Resources needed**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

## Consolidating and critiquing the theory of multiple intelligences

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 20 minutes |
| Learning activity 2 | 15 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the lesson.
   By the end of this lesson, student teachers will be able to:
   - Explain and evaluate a criticism of the theory of multiple intelligences; and
   - Illustrate and critique a teaching strategy for multiple intelligences in practice .
2. Engage student teachers and make links to prior learning. A useful way to make links to prior learning is to ask student teachers what they remember from previous study years. The theory of multiple intelligences was introduced in Year 1 and discussed in more detail in Year 2.
3. Ask student teachers to read the sections "Consolidating the theory of multiple intelligences" and "Critiques on the theory of multiple intelligences" in the textbook.
4. Ensure that student teachers are still engaged in active learning processes in this lesson component.

## Learning activity 1. Think-pair-share: Examining a critique of the theory of multiple intelligences

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Individual and pairs |

### Purpose

The purpose of this learning activity is for student teachers to explain and evaluate an article that criticises the theory of multiple intelligences.

1. Direct student teachers to Learning activity 1 in the textbook.
2. Ask student teachers to read the text segment of an article that critiques MI theory. You may request student teachers to do this in pairs or small groups as appropriate.
3. Ask student teachers to summarise the main points of critique in their own words in Table 5.5.
4. Ask student teachers to evaluate each point of critique. Do they agree with the author? Why or why not?
5. When student teachers have formulated responses individually, ask them to share their responses with a peer and discuss.
6. Ask some volunteers to share their responses and discuss different points of view.

### Assessment

Ask open-ended questions to encourage student teachers to evaluate the critique. Be prepared to address some common misconceptions. For example, student teachers might think MI is a model of teaching instead of a psychological theory.

You will be able to assess understanding by selecting student teachers to share the key points of their peer discussion with the class. Ensure that you select both female and male student teachers. The peer sharing activity and class discussion will provide student teachers with feedback.

### Possible student teachers' responses

A completed example is presented in Table TG 5.5.

**Table TG 5.5. Summary and evaluation of critique of MI – completed example**

| Summary of the main points of critique in your own words | Evaluation of the points of critique. Do you agree with the author? Why or why not? |
|---|---|
| There is no evidence that the eight intelligences exist. | Although I like the idea of MI, I think I have to agree. The fact that MI theory has been widely criticised supports this critique. |
| MI sees intelligence as something people are born with. | I partly agree. Research evidence seems to show the importance of the influence of biology and the environment in human development. |
| MI classifies learners as having more or less intelligence by nature, making them believe that they are not capable of learning. | I partly agree. MI has been useful in helping learners who do not possess the intelligences that are measured by traditional IQ tests see their own strengths. |
| It is unclear if using MI helps students learn. | I partly agree. This strongly depends on how educators apply MI in their classrooms. |

[See Table 5.5 in textbook.]

### Learning activity 2. Role-playing and reflection: Illustrate and critique a teaching strategy based on MI

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Individual and whole class |

## Purpose

The purpose of this learning activity is for student teachers to illustrate and critique a teaching strategy for multiple intelligences in practice.

1. Direct student teachers to Learning activity 2 in the textbook.
2. Ask student teachers to review the example of teaching strategies based on MI.
3. Divide the group in three, assigning student teachers one of the following roles: teacher, student, or critic.

4. Teachers and students will role-play a classroom teaching scenario based on the learning strategies example. Critics will comment on the enacted scenario. If time permits, you can let student teachers take on different roles in the role play.
5. Ask student teachers to reflect on the potential benefits, limitations, and misinterpretations of MI for classroom practice based on the role-play. Direct them to record their reflections in Table 5.7 in the textbook.

### Assessment

You will be able to assess student teacher capacity to illustrate and critique a teaching strategy for multiple intelligences in practice by observing the role-play. The role-play will provide student teachers with feedback on their understandings of multiple points of view. You may ask volunteers to share their reflections on the role-play.

### Possible student teachers' responses

Possible student teachers' responses are provided in Table TG 5.6.

**Table TG 5.6. Reflect on the potential benefits, limitations, and misinterpretations of MI – completed**

| Benefits | Limitations | Misinterpretations |
|---|---|---|
| It is useful for teachers to consider that all individuals learn differently; what is effective for one student may not be effective for another student.<br><br>It is useful for teachers to think about how they can best teach something and to consider different modes of information presentation.<br><br>It is useful to acknowledge individual strengths and weaknesses. | It is practically impossible to cater for all eight intelligences in a classroom situation.<br><br>Not all intelligences are relevant to all learning outcomes.<br><br>Intelligence is too complex to be captured in distinct intelligences.<br><br>There is limited evidence of how MI can be applied to enhance the effectiveness of teaching.<br><br>Needs to be cautious of classifying students as being specific types of learners or seeing intelligence as fixed. | MI is not the same as learning styles.<br><br>Using MI does not mean that all intelligences need to be catered for in one lesson. |

[See Table 5.7 in textbook.]

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

- Ask student teachers questions. For example, "why do you think MI theory is popular among educators?"
- Allow opportunity for student teachers to reflect on their learning.
- Revisit the learning outcomes and TCSF competencies.

## 5.3.2. Intelligence theory and implications for teaching and learning

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Reflect on core ideas of major intelligence theories; and
- Explain and illustrate the implications of intelligence theories for teaching and learning.

### Competencies gained

B1.2.1 Use teaching methods and learning strategies appropriate for the class - culture, size and type

C1.2.1 Identify theories and concepts that inform approaches to teaching and learning

**Time:** Two period of 50 minutes

### Learning strategies

Learning activity 1. Concept map: Spearman's two factor theory of intelligence

Learning activity 2. Think-pair-share: Fluid and crystallised intelligence

Learning activity 3. Definitions and examples for teaching and learning: Sternberg's triarchic theory of intelligence

Learning activity 4. Group discussion: Intelligence theories

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, peer and self-assessment, reviewing student teacher work

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 5.3.2.

Write relevant learning outcomes on board.

**Resources needed**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

Learning activity 3: N/A (other than textbook, note paper, and pen)

Learning activity 4: N/A (other than textbook, note paper, and pen)

## Period 1

### Intelligence theory and implications for teaching and learning

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 10 minutes |
| Explicit teaching | 10 minutes |
| Learning activity 2 | 15 minutes |
| Check student teachers' understanding | 5 minutes |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the period.
   By the end of this period, student teachers will be able to:
   - Reflect on core ideas of major intelligence theories; and
   - Explain and illustrate the implications of intelligence theories for teaching and learning.
2. Engage student teachers and make links to prior learning. One way to do this is by asking student teachers think back at the IQ test they took in Year 2 of Educational Studies.
3. Ask student teachers to formulate their own definition of intelligence.
4. Introduce Spearman's two factor theory of intelligence and explain the meaning of general intelligence and specific abilities. After a brief introduction, direct student teachers to read "Spearman's two factor theory of intelligence" in the textbook.
5. Ensure that student teachers are still engaged in active learning processes in this lesson component.

## Learning activity 1. Concept map: Spearman's two factor theory of intelligence

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Individual or pairs |

### Purpose

The purpose of this learning activity is for student teachers to visually show the relationships between the concepts of *g* and *s* as defined by Spearman.

1. Explain that this activity is designed to help student teachers develop their understanding of a foundational intelligence theory.
2. Direct student teachers to complete Learning activity 1 in the textbook.
3. Support and prompt individual student teachers as they complete the activity in Box 5.5 in their textbook. Encourage student teachers to collaborate in pairs.
4. Allow five minutes for student teachers to complete the activity. After 5 minutes, ask for volunteers to share their visualisation with the class. Discuss and provide constructive feedback on the different responses.

### Assessment

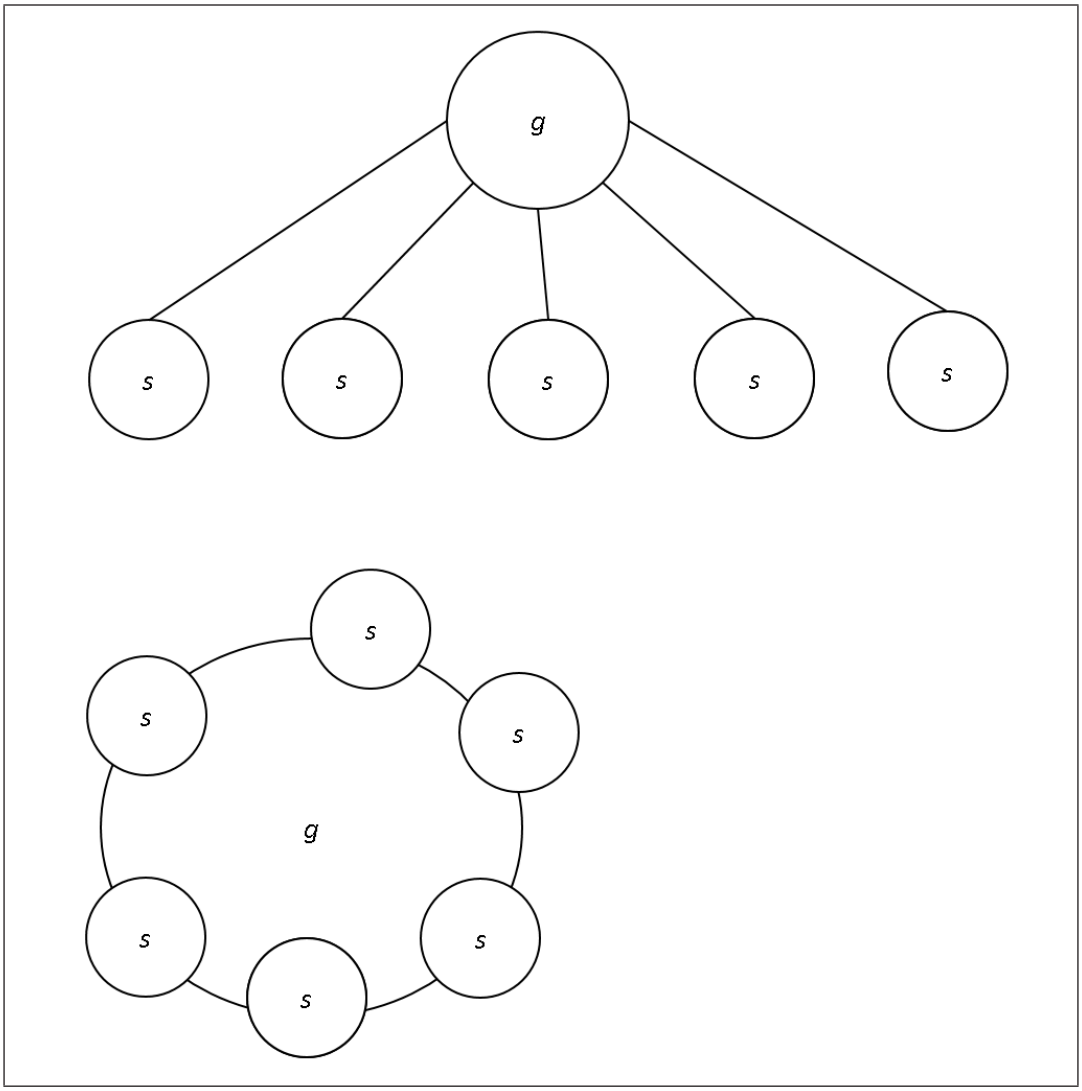
Ask open-ended questions to encourage student teachers to think about Spearman's theory.

You will be able to assess understanding by observing student teacher work and selecting student teachers to share their visualisation with the class. Ensure that you select both female and male student teachers. The peer sharing activity and class discussion will provide student teachers with feedback.

### Possible student teachers' responses

An example of a visual representation is presented in Box TG 5.2.

## Box TG 5.2. Draw a visual representation of Spearman's theory of intelligence[48] – completed




[See Box 5.5 in textbook.]

## Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

48 Illustration by author, used with permission.

## Hierarchical views of intelligence

1. Building on Spearman's theory of intelligence, introduce the three-stratum theory of cognitive abilities.
2. Explain the concepts of fluid and crystallised intelligence.
3. Allow student teachers time to read the section "Hierarchical views of intelligence" in the textbook.
4. Encourage student teachers to ask questions and discuss their emerging understandings.

### Learning activity 2. Think-pair-share: Fluid and crystallised intelligence

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Individual and pairs |

### Purpose

The purpose of this learning activity is for student teachers to reflect on the implications of hierarchical theories of intelligence for teaching and learning.

1. Explain to student teachers that this activity will ask them to apply their new knowledge to the context of teaching and learning.
2. Direct student teachers to complete Learning activity 2 in the textbook.
3. Support and prompt individual student teachers as they complete the activity in Table 5.7. Encourage student teachers to collaborate in pairs.
4. Allow 10 minutes for student teachers to complete the activity and share their responses with a peer. After 10 minutes, ask for volunteers to share their responses with the class. Discuss and provide constructive feedback on the different responses.

### Assessment

Ask open-ended questions to encourage student teachers to think about the implications of hierarchical theories of intelligence for teaching and learning.

You will be able to assess understanding by observing student teacher work and selecting student teachers to share their responses with the class. Ensure that you select both female and male student teachers. The peer sharing activity and class discussion will provide student teachers with feedback.

### Possible student teachers' responses

Responses are likely to show a continuum, demonstrating limited to extensive implications for teaching and learning. Possible responses are shown in Table TG 5.7.

**Table TG 5.7. Implications of intelligence theory concepts for teaching and learning – completed**

| Intelligence theory concepts | Implications for teaching and learning |
|---|---|
| General intelligence (*g*) | Students are born with this. It will determine their general capacity to learn. Teachers cannot influence *g*. |
| Fluid intelligence | Students are born with a certain degree of fluid intelligence. Their fluid intelligence increases until they are in late adolescence. This means that the fluid intelligence of children develops as they progress through school. Teachers therefore need to realise that children think and learn differently compared to adults. |
| Crystallised intelligence | Students acquire crystallised intelligence through school and other experiences. Crystallised intelligence is developed by using fluid intelligence. Teachers can have a great influence on the development of this intelligence. Learners may show differences in crystallised intelligence based on different learning experiences. |

[See Table 5.7 in textbook.]

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

- Ask student teachers questions to gauge their emerging understandings of intelligence theory.
- Allow opportunity for student teachers to reflect on the key ideas of intelligence theory.
- Allow opportunity for student teachers to reflect on the implications of intelligence theory on teaching and learning.

## Period 2

### Intelligence theory and implications for teaching and learning

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 15 minutes |
| Learning activity 3 | 15 minutes |
| Learning activity 4 | 10 minutes |
| Check student teachers' understanding | 10 minutes |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the period.
   By the end of this period, student teachers will be able to:
   - Reflect on core ideas of major intelligence theories; and
   - Explain and illustrate the implications of intelligence theories for teaching and learning.
2. Engage the learner and make links to prior learning. For example:
   a. Ask student teachers to think back at the elephant in Lesson 5.1.1. This elephant had learnt to use dust and grass as sunscreen. Does this mean that the elephant is intelligent?
   b. If a fish would demonstrate the same behaviour as this elephant, would you consider that intelligent behaviour?

   Explain that the key focus of this period will be on intelligence as a cultural and contextualised concept.
3. Introduce Sternberg's triarchic theory of intelligence[49] and its three core components. Ask student teachers to read the section "Cognitive-contextual intelligence theories" in the textbook.
4. Ensure that student teachers are still engaged in active learning processes in this lesson component.

49 Sternberg, R. J. (1985).

## Learning activity 3. Definitions and examples for teaching and learning: Sternberg's triarchic theory of intelligence

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Individual and pairs |

### Purpose

The purpose of this learning activity is for student teachers to define and reflect on the implications of Sternberg's triarchic theory of intelligence for teaching and learning.

1. Explain to student teachers that this activity will ask them to apply their new knowledge to the context of teaching and learning.
2. Direct student teachers to complete Learning activity 3 in the textbook.
3. Support and prompt individual student teachers as they complete the activity in Table 5.8. Encourage student teachers to collaborate in pairs.
4. Allow 10 minutes for student teachers to complete the activity and share their responses with a peer. After 10 minutes, ask for volunteers to share their responses with the class. Discuss and provide constructive feedback on the different responses.

### Assessment

Ask open-ended questions to encourage student teachers to think about the implications of Sternberg's theory of intelligence for teaching and learning.

You will be able to assess understanding by observing student teacher work and selecting student teachers to share their responses with the class. Ensure that you select both female and male student teachers. The peer sharing activity and class discussion will provide student teachers with feedback.

### Possible student teachers' responses

Possible responses are presented in Table TG 5.8.

**Table TG 5.8. Core components of Sternberg's theory and examples for teaching and learning – completed**

| Component | Definition | Examples for teaching and learning |
|---|---|---|
| 1. Analytic intelligence | Thinking processes:<br>Reasoning abstractly<br>Processing information<br>Acquiring knowledge<br>Verbal abilities | Asking a student to compare and contrast two perspectives<br>Evaluate the core assumptions underlying a persuasive writing text |
| 2. Creative intelligence | Coping with new experiences:<br>Using knowledge experience and creativity to:<br>Solve unfamiliar problems<br>Create solutions<br>Generate new ideas | Create a new recipe using a list of ingredients<br>Brainstorm about solutions to new problems |
| 3. Practical intelligence | Adapting to context:<br>Adapting to a particular context<br>Shaping one's opportunities within a particular environment | Determine the appropriateness of solutions to a problem to different context<br>Seeking a quiet place to study |

[See Table 5.10 in textbook.]

## Learning activity 4. Group discussion: Intelligence theories

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

### Purpose

The purpose of this learning activity is for student teachers to reflect on the implications of a range of intelligence theories for teaching and learning.

1. Explain to student teachers that this activity will ask them to apply their new knowledge about a range of intelligence theories to the context of teaching and learning.
2. Direct student teachers to read the discussion questions for Learning activity 4 in the textbook.

3. Lead a whole class discussion using the discussion questions. Ask student teachers to try to relate their responses to one of the specific theories discussed.

### Assessment

You will be able to assess understanding by observing student teacher contributions to the discussion. Ensure that all student teachers actively participate in the discussion. The class discussion will provide student teachers with feedback.

### Possible student teachers' responses

Student teachers may share a range of experiences. Each question can be linked to one or multiple intelligence theories, for example:

1. Fluid versus crystallised intelligence or Piagetian stages of development.
2. This is most relevant to the theories that see intelligence as flexible, rather than fixed.
3. This can relate to all theories discussed.
4. This relates to implications of theories that see intelligence as fixed versus flexible. There is scope to link this to Dweck's motivational theory. Dweck identified the need for students to see intelligence as something that can be improved through effort (growth mind set).[50]
5. This relates to Sternberg's theory as it highlights the contextual dependence of what is valued as intelligence.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

- Ask student teachers questions to gauge their emerging understandings of intelligence theory.
- Allow opportunity for student teachers to reflect how they believe their knowledge of intelligence theory will impact their practice.

50 Dweck, C. S. (2008).

- Allow opportunity for student teachers to reflect on the implications of intelligence theory on teaching and learning.
- Ask student teachers which intelligence theory they think will be most useful to inform their teaching and why.

**Expected student teachers' responses for the review questions in TB**

Question 1: How do hierarchical theories of intelligence and MI theory relate?

Answer: *According to hierarchical theories of intelligence such as the one by Spearman, intelligence is the combination of g and s. In MI theory, the different intelligences are considered to be independent. Although these multiple intelligences can work together when performing a task, they are regarded to develop independently.*

Question 2: Why is it important for teachers to be aware of theories of intelligence?

Answer: *Teachers' personal beliefs about intelligence influence how they teach. Being aware of core ideas of different theories of intelligence can help teachers make informed decisions in their professional practice. Teachers' views of intelligence have a strong impact on their teaching and their students' learning. It is critical that teachers help students believe in their capacity to learn, even when students find learning challenging.*[51]

51 Kirschner, P., & Hendrick, C. (2020).

# 5.4. Universal Design for Learning (UDL)

In this sub-unit, student teachers will learn more about Universal Design for Learning (UDL), which was introduced in Years 1 and 2. Student teachers have already learnt that education is internationally recognised as a basic human right.[52] Equal access to education means that teachers need to make all aspects of education accessible to all students. This includes students who may not be able to access certain learning opportunities, for example, due to disability. UDL has been identified as a means to ensure accessibility to education for all students.[53] Understanding the foundations of UDL will help you to identify and apply UDL principles to create equal access to educational opportunities.

First, student teachers will consolidate their knowledge of principles of UDL. They will then use these principles to evaluate teaching and learning scenarios, including for students with additional needs.

## 5.4.1. Principles of Universal Design for Learning (UDL)

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Identify and explain the principles of Universal Design for Learning (UDL); and
- Relate UDL and differentiation.

52 United Nations. (2016); United Nations. (1948).
53 Cologon, K., & Lassig, C. (2020).

**Competencies gained**

A1.2.1 Identify various teaching methods to help students with different backgrounds (gender, ethnicity, culture) and abilities, including special learning needs, learn better

C3.1.1 Show awareness of the right to education of every child and a commitment to nurturing the potential in each student

**Time:** One period of 50 minutes

**Learning strategies**

Learning activity 1. Think-pair-share: Core principles of UDL

Learning activity 2. Matching: UDL strategies as aligned to core UDL principles

Learning activity 3. Compare and contrast: UDL and differentiation

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work.

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 5.4.1.

Write relevant learning outcomes on board.

Write relevant concepts on board: *Access, Participation, Universal Design for Learning.*

**Resources needed**

Learning activity 1: CAST 2018 UDL Guidelines (can be accessed in the College e-library); these may be displayed using a format most appropriate to the specific classroom context

Learning activity 2: N/A (other than textbook, note paper, and pen)

Learning activity 3: N/A (other than textbook, note paper, and pen)

## Principles of Universal Design for Learning (UDL)

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 15 minutes |
| Learning activity 2 | 5 minutes |
| Learning activity 3 | 15 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Welcome student teachers to the lesson.
2. Briefly share your own experiences in relation to several of the questions numbered 1-4. Ask some student teachers to volunteer to share some of their own experiences and share their perspectives on these topics:
   a. Describe a situation in which you or someone you know could not physically access something. How was this situation resolved?
   b. Think back at your secondary school. Can you think of aspects in the physical environment that were not accessible to some students?
   c. Were there any aspects of the learning environment that were not accessible to some students?
   d. Do you think that changing the learning environment to make it more accessible to these particular students would have impacted the learning opportunities for other students? Why or why not?
3. Relate the teacher student teachers' responses to the importance of the right to access to education for all students and the importance of Educational Psychology in enabling teachers to inform the effective design of teaching and learning opportunities.

4. Outline the relevant learning outcome for the lesson.
   By the end of this lesson, student teachers will be able to:
   - Identify and explain the principles of Universal Design for Learning (UDL); and
   - Relate UDL and Multiple Intelligences.
5. Ask student teachers to review the section called 'Building on Prior Knowledge' which consolidates prior learning about differentiation and links it to UDL.

### Learning activity 1. Think-pair-share: Core principles of UDL

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

## Purpose

The purpose of this learning activity is for student teachers to be able to identify and explain the three core principles of UDL.[54]

1. Explain that this activity is designed to enable students to identify and understand the three core principles of UDL. This will help them to understand how these principles relate to teaching and learning.
2. Display the CAST 2018 UDL Guidelines in a format most appropriate within your context (these can be accessed in the College e-library).
3. Direct student teachers to complete Learning activity 1 in the textbook.
4. Support and prompt individual student teachers and student teacher pairs as they complete the activity in Table 5.9.
5. Ask for volunteer student teacher pairs to share their responses, ensuring that responses to all three principles are discussed. Discuss any misunderstandings based on some of the responses you have seen during the activity.

54 CAST. (2018).

**Assessment**

Check and support individual teacher student and pair work during the activity. Try to do this by encouraging conversation between teacher student pairs rather than checking for right or wrong answers.

You will be able to assess understanding by asking student teachers to share the key points of their peer discussion with the class. Asking different student teachers to elaborate on one another's responses is a helpful way to facilitate rich discussion. The think-pair-share activity and whole class discussion will provide student teachers with feedback. By providing further examples of explanation of the three UDL principles, students will be able to compare their own responses with those of others and make changes if needed.

During the whole group discussion - ask open-ended questions to encourage student teachers to further explain their responses. This will help you assess in-depth understanding.

**Possible student teachers' responses**

Responses are likely to be very similar to the CAST 2018 Guidelines. If the student teacher responses use highly similar wording to the CAST 2018 Guidelines, make sure to ask them to elaborate in the whole class discussion. In relation to the questions, they may share responses similar to those in Table TG 5.9.

**Table TG 5.9. Explain the three core principles of UDL – completed**

| Multiple means of engagement: why? | Multiple means of representation: what? | Multiple means of action and expression: how? |
|---|---|---|
| The 'why' of learning<br><br>Offering different means to engage with the learning material<br><br>Aims to enhance student interest, motivation, persistence and self-regulation | The 'what' of learning<br><br>Using multiple means of presenting information such as using written texts and images<br><br>Aims to support the effective building of knowledge | The 'how' of learning<br><br>Providing options for interaction with the learning environment<br><br>Providing options for expression of their learning<br><br>Assisting with goal setting and planning<br><br>Aims to support effective demonstration of what has been learnt and further goal-directed learning |

[See Table 5.11 in textbook.]

## Learning activity 2. Matching: UDL strategies as aligned to core UDL principles

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Pairs and Whole class |

### Purpose

The purpose of this learning activity is for student teachers to identify the application of the three core principles of UDL. In this activity, student teachers will match UDL strategies to one of the three UDL core principles.

1. Link this activity to the previous activity. Explain that students are building an understanding of UDL principles and how these principles can be used to inform teacher practice.
2. Direct teacher students to complete Learning activity 2 in the textbook.
3. Prompt and support students individually as they complete the activity in Table 5.11.
4. Ask one or two students to share their responses, making sure to cover all UDL strategy examples.

## Assessment

Check and support individual student teacher work during the activity. Try to do this by being open to questions and providing hints rather than checking for right or wrong answers.

You will be able to assess understanding by selecting student teachers to share the key points of their peer discussion with the class. The peer sharing activity and class discussion will provide student teachers with feedback.

During the whole group discussion – ask open-ended questions to encourage student teachers to further explain their responses. This will help you assess in-depth understanding.

## Correct student teachers' responses

Correct responses are presented in Table TG 5.10.

**Table TG 5.10. Match the UDL strategy to the relevant UDL principle – completed**

| UDL strategy | Multiple means of engagement | Multiple means of representation | Multiple means of action and expression |
|---|---|---|---|
| Using a visual and written representation of learning materials | | ✓ | |
| Allowing verbal and written responses in assessing student learning progress | | | ✓ |
| Highlighting key terms in a written text | | ✓ | |
| Offering a choice of topic for a project | ✓ | | |

[See Table 5.12 in textbook.]

## Learning activity 3. Compare and contrast: UDL and differentiation

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Groups of 3 or 4 and whole class |

### Purpose

The purpose of this learning activity is for student teachers to relate UDL and differentiation. Both approaches are helpful in creating an inclusive classroom environment. In this activity, student teachers will think about how these approaches are similar and different, which will help them understand how they can complement one another.

1. Link this activity to the lesson introduction and previous two activities. Explain that this activity allows them to explore the differences and similarities between UDL and differentiation. Both approaches are important for teachers and can effectively be used to complement one another.
2. Draw students' attention to the activity description. Ask a student teacher to read the description: "Complete the Venn diagram to compare and contrast UDL and differentiation and their implications for education practice". Remind student teachers of the aspects that can be differentiated (content, process, product and learning environment) and the three core UDL principles.
3. Ask one student teacher to name one aspect that UDL and differentiation have in common. Ask another student teacher to identify one aspect where UDL and differentiation differ. Then ask student teachers to complete the activity in groups of 3 or 4.
4. Allow students to complete and discuss the activity and share ideas with their group of for ten minutes.
5. Prompt and support groups of students as they complete the activity. Use questions to encourage student teachers to think about the nature and relationships between the key concepts.

### Assessment

Check and support student group work during the activity. Try to do this by encouraging conversation rather than checking for right or wrong answers.

You will be able to assess understanding by selecting student teachers to share the key points of their peer discussion with the class. Ensure that you select one student teacher to represent each group. During the whole group discussion – ask open-ended questions to encourage student teachers to further explain their responses. This will help you assess in-depth understanding.

**Possible student teachers' responses**

Based on the content, student teachers should be able to identify at least two points of difference and similarity in their Venn Diagrams in Figure 5.7 in their textbook. Example responses are:

Emphases in UDL:

- can benefit the learning of all students;
- has the possible differing needs of all students in mind;
- is used proactively; and
- provides flexible opportunities for learners to demonstrate their knowledge and skills.

Emphases in differentiation:

- responds to individual student needs;
- is used retrospectively; and
- varies expectations and requirements for demonstrating of knowledge and skills.

Common to both (i.e., the overlap of the circles):

- provide benefits for student learning;
- support the learning process; and
- consider modifications to support learning.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

At the end of the lesson:

- Allow opportunity for student teachers to reflect on their understanding of UDL principles for application to the school context. This can apply to the physical as well as the learning environment.
- Briefly return to examples from personal experiences of lack of access to aspects of the learning environment at the beginning of the period. How could UDL principles be used to remove these access barriers?
- Revisit the learning outcomes and TCSF competencies.
- Explain that the next lesson will build on this lesson by evaluating teaching and learning scenarios using UDL principles.
- Thank student teachers for their participation and attentiveness.

## 5.4.2. Universal Design for Learning (UDL) strategies, including for students with additional needs

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Evaluate teaching and learning scenarios, including for students with additional needs, according to UDL principles; and
- Apply principles of UDL to design assessment for a diverse group of students.

**Competencies gained**

B1.2.1 Use teaching methods and learning strategies appropriate for the class - culture, size and type

B2.2.2 Use varied assessment practices to monitor and record students' learning progress and inform further planning of the curriculum

C1.2.1 Identify theories and concepts that inform approaches to teaching and learning

C3.1.1 Show awareness of the right to education of every child and a commitment to nurturing the potential in each student

**Time:** One period of 50 minutes

**Learning strategies**

Learning activity 1. Evaluate teaching and learning Scenario 1: Application of UDL principles

Learning activity 2. Evaluate teaching and learning Scenario 2: Application of UDL principles

Learning activity 3. Group discussion: UDL and implications for assessment design

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 5.4.2.

Write relevant learning outcomes on board.

## Resources needed

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

Learning activity 3: N/A (other than textbook, note paper, and pen)

## Universal Design for Learning (UDL) strategies, including for students with additional needs

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 15 minutes |
| Learning activity 2 | 10 minutes |
| Learning activity 3 | 10 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Ask student teachers to recall what they learnt in Year 2 about students with special needs.
2. Outline the relevant learning outcomes for the lesson.
   By the end of this lesson, student teachers will be able to:
   - Evaluate teaching and learning scenarios, including for students with additional needs, according to UDL principles; and
   - Apply principles of UDL to design assessment for a diverse group of students.

3. Direct student teachers to read the "Building on prior knowledge" section in the textbook. This section consolidates prior learning about inclusive education and links it to UDL.

## Learning activity 1. Evaluate teaching and learning Scenario 1: Application of UDL principles

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Individual, pairs and whole class |

### Purpose

The purpose of this learning activity is for student teachers to evaluate a teaching and learning scenario using the three UDL principles.

1. Explain that this activity is designed to enable students to recognise the application or lack of application of UDL principles. This will help them to understand how these principles can be applied when designing teaching and learning.
2. Display the CAST 2018 UDL Guidelines in a format most appropriate within your context.
3. Direct student teachers to complete Learning activity 1 in the textbook.
4. Support and prompt individual student teachers and student teacher pairs as they complete the activity in Table 5.13.
5. Ask for volunteer student teacher pairs to share their responses, ensuring that responses to all four lesson aspects are discussed. Discuss any misunderstandings based on some of the responses you have observed during the activity.

### Assessment

Check and support individual student teacher and pair work during the activity. Try to do this by encouraging conversation between teacher student pairs rather than checking for right or wrong answers. Asking questions is a useful way to encourage students to think critically about the lesson aspects.

You will be able to assess understanding by asking student teachers to share the key points of their peer discussion with the class. Asking different student teachers to elaborate on one another's responses is a helpful way to facilitate rich discussion. The peer sharing activity and whole class discussion will provide student teachers with feedback. Allow student teachers to modify their responses to the activity as needed.

During the whole group discussion - ask open-ended questions to encourage student teachers to further explain their responses. This will help you assess in-depth understanding.

### Possible student teachers' responses

Student teachers are likely to comment on one of the UDL principles for each aspect. In relation to the different aspects of the questions, they may share something like those responses in Table TG 5.11.

**Table TG 5.11. Evaluate a lesson vignette using UDL principles – 1[55] – completed**

| Lesson aspects | Application of UDL principles |
|---|---|
| The lesson starts with the teachers sharing the lesson goals. The goal as formulated by the teacher is:<br><br>By the end of this lesson, students will be able to:<br><br>Describe the four stages in the life cycle of a butterfly. | *Multiple representation and multiple engagement:*<br><br>The lesson goal raises student awareness of what they are going to learn about. It is formulated in a way that does not limit the mode of expression for demonstrating student knowledge. |
| The teacher first leads a brainstorm session, asking students what they know about the lesson's topic. She organises and categorises student ideas, and writes them on the whiteboard. She then reads the class a story and shows pictures of each stage in a butterfly's life. | *Multiple representation and multiple engagement:*<br><br>The teacher uses different ways to present content whilst stimulating interest by using a variety of representations in her teaching. |
| The teacher assesses student understanding by asking them to draw and write the names of the four stages of a butterfly's life cycle. | *Multiple means of action and expression:*<br><br>The teacher has asked students to draw and write, but could have let students have other means to express their knowledge. For example, the teacher could have uses oral presentations, work sheets or an art project. |

[See Table 5.13 in textbook.]

55 Adapted from: CAST. (2006), http://lessonbuilder.cast.org/explore.php?op=static&pid=butterflies_1

## Learning activity 2. Evaluate teaching and learning Scenario 2: Application of UDL principles

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Pairs and Whole class |

### Purpose

The purpose of this learning activity is for student teachers to evaluate a teaching and learning scenario using the three UDL principles.

1. Link this activity to the previous activity. Explain that students are building an understanding of UDL principles and how these principles can be used to inform teacher practice.
2. Direct teacher students to complete Learning activity 2 in the textbook in pairs.
3. Prompt and support pairs as they complete the activity in Table 5.14. Specifically prompt student teacher to consider possible barriers to access of the lesson aspects. For example, you may ask "How can these barriers be removed or lessened to enable the students to learn and demonstrate what they know and can do?"
4. Ask one or two pairs to share their responses.

### Assessment

Check and support pair work during the activity. Try to do this by being open to questions and providing hints rather than checking for right or wrong answers.

You will be able to assess understanding by selecting student teachers to share the key points of their peer discussion with the class. The peer sharing activity and class discussion will provide student teachers with feedback.

During the whole group discussion - ask open-ended questions to encourage student teachers to further explain their responses. This will help you assess in-depth understanding.

## Possible student teachers' responses

Possible responses are presented in Table TG 5.12.

**Table TG 5.12. Evaluate a lesson vignette using UDL principles – 2 – completed**

| Lesson aspect | Evaluate the (lack of) application of one or more of the UDL principle |
|---|---|
| Introduction | Multiple means of engagement and representation:<br><br>The teacher has outlined the learning objective and its relevance to real life contexts. She has used multiple means of representation to communicate key ideas and engage learners.<br><br>Multiple means of engagement, representation and action:<br><br>The teacher has only provided one way for students to engage in the learning activity. |
| Learning activity | The way in which the worksheet has been designed may pose barriers to some learners. For example, it may not be accessible for students with vision problems due to the small size of the objects used. Students with colour vision deficiency would also have difficulty accessing this material. Hence, the worksheet may not allow all learners to demonstrate their understandings. |

[See Table 5.14 in textbook.]

## Learning activity 3. Group discussion: UDL and implications for assessment design

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

### Purpose

The purpose of this learning activity is for student teachers to reflect on the implications of UDL for assessment design.

1. Link this activity to the previous two activities. Explain that the purpose of this activity is to discuss the implications of UDL for inclusive assessment design.
2. Ask student volunteers to recall what they learnt in Year 2 about the design of

assessment and which key concepts come to mind when thinking of inclusive assessment.

3. Lead a whole-class discussion on the implications of UDL for inclusive assessment. You may want to use the Figure 9.1. Bias in teaching on page 153 of Year 1 Semester 2 as an icebreaker for the discussion. Ensure the discussion focuses on implications for the design of assessment. You may draw on examples from Learning activities 1 and 2 to stimulate discussion.
4. Prompt and support individual student teachers as they complete the activity. Encourage student teachers to take notes. Use questions to encourage student teachers to elaborate and explain their answers and respond to each other's contributions.

**Assessment**

You will be able to assess understanding by listening to responses from student teachers in the discussion. Ensure that each student teacher get the opportunity to contribute to the discussion. During the whole group discussion – ask open-ended questions to encourage student teachers to further explain their responses. This will help you assess in-depth understanding.

**Possible student teachers' responses**

Student teachers will document their notes in Table 5.15. The most relevant UDL principle is the principles of multiple representation and multiple action and expression. Whilst the principle of multiple representation plays a role in the assessment stimulus design, the principle of multiple action and expression is relevant to modes of response.

The most relevant assessment concepts are *construct validity and fairness.* Remember that construct validity is about how to design assessment that enables students to demonstrate what they know and can do in the clearest way possible. Applying UDL principles can enhance fairness and construct validity by removing potential barriers that are a result of poor assessment design.

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

At the end of the lesson:

- Allow opportunity for student teachers to reflect on their understanding of UDL principles for application to teaching, learning and assessment;
- Provide the opportunity for student teachers to ask questions;
- Ask student teachers how they think they may be able to apply UDL principles in their own teaching practice;
- Revisit the learning outcomes and TCSF competencies; and
- Thank student teachers for their participation and attentiveness.

### Expected student teachers' responses for the review questions in TB

Question 1: What are the principles of UDL?

Answer: *The three main principles are (1) multiple means of engagement, (2) multiple means of representation, and (3) multiple means of action and expression.*

Question 2: How does UDL contribute to inclusive classroom practices?

Answer: *UDL reduces barriers to access to educational opportunity, enabling access and participation for all students.*

# 5.5. Historical Trends and Contemporary Educational Psychology Perspectives

In this sub-unit, student teachers will learn about historical trends and contemporary perspectives in educational psychology. Student teachers will learn how historical educational psychology theories underpin contemporary perspectives.

Student teachers will explore contemporary educational psychology perspectives, drawing connections between past, present and future challenges in this field. In addition to understanding key developments in educational psychology research, student teachers will reflect on the application of educational psychology to the classroom context. Finally, student teachers will learn about common myths misconceptions of educational psychology. The contents of this sub-unit will enhance student teachers' understanding of benefits and challenges of applying educational psychology to classroom practice.

## 5.5.1. Historical and contemporary perspectives

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Explain how historical educational psychology theories underpin contemporary perspectives; and
- Reflect on the complexity of contemporary educational psychology.

**Competencies gained**

A1.2.1 Identify various teaching methods to help students with different backgrounds (gender, ethnicity, culture) and abilities, including special learning needs, learn better

A1.2.2 Identify focused and sequenced learning activities to assist students to link new concepts with their prior knowledge and experiences

A5.2.1 Describe ways to contextualise learning activities for the age, language, ability and culture of students to develop understanding of subject related principles, ideas and concepts

C1.2.1 Identify theories and concepts that inform approaches to teaching and learning

**Time:** Two period of 50 minutes

**Learning strategies**

Learning activity 1. T-chart: Shifts in educational psychology

Learning activity 2. Similarities and differences: Cognitive load theory and earlier theories

Learning activity 3. Think-pair-share: Expertise reversal effect

Learning activity 4. Group discussion: Complexity of contemporary educational psychology

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, peer and self-assessment, reviewing student teacher work.

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 5.5.1.

Write relevant learning outcomes on board.

**Resources needed**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

Learning activity 3: N/A (other than textbook, note paper, and pen)

Learning activity 4: N/A (other than textbook, note paper, and pen)

## Period 1

## Historical and contemporary perspectives

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 10 minutes |
| Explicit teaching | 10 minutes |
| Learning activity 2 | 15 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the period:
   By the end of this period, student teachers will be able to:
   - Explain how historical educational psychology theories underpin contemporary perspectives.
2. Engage student teachers and make links to prior learning. One way to do this is by asking student teachers to reflect on what they learnt in Sub-unit 5.1.
3. Ask student teachers to reflect on how they think the field of educational psychology has progressed in the past century.
4. After a brief introduction, direct student teachers to read "Educational psychology: past and present" in the textbook.
5. Ensure that student teachers are still engaged in active learning processes in this lesson component.

## Learning activity 1. T-chart: Shifts in educational psychology

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Individual or pairs and whole class |

### Purpose

The purpose of this learning activity is for student teachers to compare and contrast early and contemporary perspectives on educational psychology.

1. Direct student teachers to complete the T-chart in Box 5.7 based on their understanding of early versus contemporary educational psychology perspectives.
2. Support and prompt individual student teachers as they complete the activity. Encourage student teachers to collaborate with a peer if they get stuck.
3. Allow approximately five minutes for student teachers to complete the activity individually or with a peer. After five minutes, ask some volunteers to share their responses. Discuss and provide constructive feedback on the different responses.

### Assessment

Ask open-ended questions to encourage student teachers to think about how the field of educational psychology has evolved.

You will be able to assess understanding by observing student teacher work and selecting student teachers to share their responses with the class. Ensure that you select both female and male student teachers. The peer sharing activity and class discussion will provide student teachers with feedback.

### Possible student teachers' responses

An example of a T-chart is presented in Box TG 5.3.

**Box TG 5.3. T-chart of perspectives on educational psychology – completed**

| Early educational psychology | Contemporary educational psychology |
|---|---|
| • Behaviorist perspective.<br>• Learning is a change in behaviour.<br>• Findings from experiments using animals are applicable to all learning.<br>• If students have learnt something, they will demonstrate this learning in behaviour. | • Cognitive and constructivist perspectives.<br>• Learning is complex and requires cognitive processing and/or construction of knowledge.<br>• Research on human learning needs to take account of the complexity of cognition.<br>• Evidence of student learning can be obtained by creating tasks that require student to demonstrate their knowledge and skills. |

[See Box 5.7 in textbook.]

## Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

## A snapshot of contemporary educational psychology

1. Ask students to recall the basic structure of human memory. You may want to refer to the Atkinson and Shiffrin's model of memory that was discussed in Year 2 and Lesson 5.1.2. Explain that theories of information processing and memory have continued to evolve, building on this foundational model.
2. Introduce cognitive load theory. Explain the concepts of intrinsic and extraneous cognitive load. Allow student teachers time to read the section "A snapshot of contemporary educational psychology" in the textbook.
3. Encourage student teachers to ask questions and discuss their emerging understandings.

## Learning activity 2. Similarities and differences: Cognitive load theory and earlier theories

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Pairs and whole class |

### Purpose

The purpose of this learning activity is for student teachers to compare and explain the relationship between cognitive load theory and early theories of memory and learning.

1. Explain to student teachers that this activity will ask them to compare cognitive load theory to earlier theories of memory and learning.
2. Direct student teachers to complete Learning activity 2 in the textbook. Encourage student teachers to collaborate in pairs.
3. Support and prompt student teacher pairs as they complete the activity in Table 5.16.
4. Allow 10 minutes for student teachers to complete the activity in pairs. After 10 minutes, ask for volunteers to share their responses with the class. Discuss and provide constructive feedback on the different responses.

### Assessment

Ask open-ended questions to encourage student teachers to think about the similarities and differences in these theories.

You will be able to assess understanding by observing student teacher work and selecting student teachers to share their responses with the class. Ensure that you select both female and male student teachers. The collaboration with a peer and class discussion will provide student teachers with feedback.

### Possible student teachers' responses

Possible responses are presented in Table TG 5.13.

**Table TG 5.13. Similarities and differences between cognitive load theory and early theories of information processing – completed**

| Similarities | Differences |
|---|---|
| • Both conceptualise learning as a change in long-term memory.<br>• Both recognised that short-term memory is limited.<br>• Students retrieve information from long-term memory when working on a task.<br>• Interference can be seen as a form of extraneous cognitive load that disrupts learning. | • Early theories of memory proposed that information is processed via one channel only. Cognitive load theory builds on the idea of dual coding theory. This means that students process verbal and visual via separate channels.<br>• Early theories of memory proposed that information is processed via one channel only. Cognitive load theory builds on the idea of dual coding theory. This means that students process verbal and visual via separate channels.<br>• In early theories, students connect new knowledge to prior knowledge retrieved from long-term memory. In cognitive load theory the extent of prior knowledge determines the extent of intrinsic load.<br>• Cognitive load theory conceptualises cognitive load as multifaceted. Teachers can influence the amount of cognitive load placed upon students.<br>• Cognitive load theory is more relevant to contemporary perspectives on teaching and learning, which require students to develop more complex skills. |

[See Table 5.16 in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

- Ask student teachers questions to gauge their emerging understandings of how educational theory has changed over time.
- Allow opportunity for student teachers to reflect on how historical theories underpin contemporary perspectives.
- Allow opportunity for student teachers to reflect on the implications of historical and contemporary educational psychology theories for teaching.

## Period 2

## Historical and contemporary perspectives

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 15 minutes |
| Learning activity 3 | 10 minutes |
| Explicit teaching | 10 minutes |
| Learning activity 4 | 10 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Reflect on the complexity of contemporary educational psychology.
2. Engage the learner and make links to prior learning. For example:
   a. Briefly discuss key learnings from Period 1 of this lesson.
   b. Ask student teachers to share their perspectives on complex issues discussed in this unit.

   Explain that this period will build on Period 1, but will elaborate on the complexity of educational psychology.
3. Briefly introduce the expertise reversal effect.[56] Ask student teachers to read the section "Educational psychology: A complex field" in the textbook.
4. Encourage student teachers to ask questions if they require clarification.

56 Kalyuga et al. (2003).

## Learning activity 3. Think-pair-share: Expertise reversal effect

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Individual, pairs and whole class |

### Purpose

The purpose of this learning activity is for student teachers to understand and think about the implications of the expertise reversal effect in classroom practice.

1. Explain to student teachers that this activity will ask them to verbalise their understanding of the expertise reversal effects. Then they will be asked to apply their new knowledge the classroom context.
2. Direct student teachers to Learning activity 3 in the textbook.
3. Allow five minutes for student teachers to individually complete the activity. After five minutes, ask them to share their responses with a peer and discuss.
4. Ask some volunteers to share their responses and discuss different responses.

### Assessment

Ask open-ended questions to encourage student teachers to think about different examples of the expertise reversal effect in classroom practice. Provide hints if needed.

You will be able to assess understanding by reviewing student teacher work and selecting pairs to share key points of their peer discussion with the class. Ensure that you select both female and male student teachers. The peer sharing activity and class discussion will provide student teachers with feedback.

### Possible student teachers' responses

Student teachers may formulate a range of explanations and examples in Table 5.17.

The explanation of the expertise reversal effect should include at least the following components:

- What is effective for novice learners/learners with limited prior knowledge is not necessarily effective for experts/ learners with extensive prior knowledge.
- The difference in effectiveness is caused by the relative cognitive load for different expertise levels.

Student teachers may formulate a range of examples, including:[57]

- *Problem-based learning* is more effective for expert learners compared to novice learners. This is because in unstructured problem-solving conditions, novices need to direct much short-term memory load to the problem-solving process. These problem-solving activities are unrelated to the construction of knowledge schemas. This means that whilst the learner works hard, the problem-solving process gets in the way of learning. In contrast, experts can draw on their existing knowledge schemas to effectively solve the problem. This leaves cognitive capacity to expand their knowledge schemas. Teachers therefore need to be mindful of prior knowledge when designing problem-solving activities
- *Worked examples* are more effective for novice learners compared to expert learners. In expert learners, much information in the worked example is redundant. This results in unnecessary cognitive load. In practice, students are likely to be completely novice or completely expert. Teachers can design their learning activities in a way that gradually removes explicit support, for example, by providing worked out examples
- *The level of interactivity between to be learnt material* has implications for cognitive load. One example is language learning. Students can learn individual words relatively easily; these do not interact. However, when learning to use these words in grammatically correct sentences, learning becomes much more complex. The knowledge of grammatical correct sentences interacts with knowledge of individual words. As a result, the cognitive load imposed by such an activity depends heavily on prior knowledge structures. In other words, "interactivity is always relative to the level of expertise of an intended learner"[58]. In classroom practice, teachers can address the challenge of limited prior knowledge by gradually presenting complex learning material in isolated chunks of information. This will allow novice learners to build prior knowledge, enabling them to understand the more complex material.

57 Based on Kalyuga et al. (2003).
58 Kalyuga et al. (2003, p. 28).

## Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Individual, pairs and whole class |

1. Ask student teachers to read the section "Trends, limitations and future challenges in educational psychology" in the textbook. Encourage student teachers to discuss their understandings with a peer.
2. Ask some student teachers to summarise key points.

### Learning activity 4. Group discussion: Complexity of contemporary educational psychology

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

## Purpose

The purpose of this learning activity is for student teachers to reflect on the complexity of contemporary educational psychology in relation to key topics discussed in this unit.

1. Explain to student teachers that this activity will ask them to reflect on the complexity of contemporary psychology. Based on the content of this period, they will be asked to contribute to a whole class discussion.
2. Direct student teachers to read the discussion questions for Learning activity 4 in the textbook.
3. Lead a whole class discussion, addressing the past, current and future challenges in relation to the following topics:
   - Psychological theories of learning
   - Student mental health
   - Theories of intelligence
   - Universal design for learning.

## Assessment

You will be able to assess understanding by observing student teacher contributions to the discussion. Ensure that all student teachers actively participate in the discussion. The class discussion will provide student teachers with feedback.

## Possible student teachers' responses

Student teachers may share a range of responses. For example:

- Psychological theories of learning
  *Past:* Some theories had limitations, as they were highly generic or did not apply to a broad range of learning outcomes.
  *Present:* Learning theories have become highly ideological and are not always underpinned by a solid evidence base. For teachers it can be very confusing to make sense of the contrasting ideas put forward by different paradigms such as cognitivism and constructivism.
  *Future:* Educational psychologists are striving towards a more unified theoretical framework. For teachers, a challenge is to identify evidence-informed principles and avoid falling into the trap of educational psychology myths.

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

- Ask student teachers questions to gauge their emerging understandings of the complex field of educational psychology.
- Allow opportunity for student teachers to ask questions.
- Allow opportunity for student teachers to reflect on the implications of historical and contemporary educational psychology theories for teaching.

# 5.5.2. Educational psychology: Myths and misconceptions

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Critically evaluate common myths in educational psychology; and
- Reflect on the application of educational psychology to classroom practice.

**Competencies gained**

A1.2.1 Identify various teaching methods to help students with different backgrounds (gender, ethnicity, culture) and abilities, including special learning needs, learn better

A1.2.2 Identify focused and sequenced learning activities to assist students to link new concepts with their prior knowledge and experiences

A5.2.1 Describe ways to contextualise learning activities for the age, language, ability and culture of students to develop understanding of subject related principles, ideas and concepts

B1.2.1 Use teaching methods and learning strategies appropriate for the class – culture, size and type

C1.2.1 Identify theories and concepts that inform approaches to teaching and learning

**Time:** One period of 50 minutes

**Learning strategies**

Learning activity 1. Jigsaw: Debunking educational psychology myths

Learning activity 2. Group discussion: Applying educational psychology in classroom practice

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, peer and self-assessment, reviewing student teacher work

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 5.5.2.

Write relevant learning outcomes on board.

**Resources needed**

Learning activity 1: Students will require access to the excerpts provided for each myth (see Annex 5B)

Learning activity 2: N/A (other than textbook, note paper, and pen)

**Educational psychology: Myths and misconceptions**

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 5 minutes |
| Learning activity 1 | 25 minutes |
| Learning activity 2 | 15 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the lesson.
   By the end of this lesson, student teachers will be able to:
   - Critically evaluate common myths in educational psychology; and
   - Reflect on the application of educational psychology to classroom practice.
2. Engage the learner and make links to prior learning. For example:
   a. Ask student teachers to think of an educational psychology theory that has been interpreted incorrectly by education practitioners.
   b. Ask student teachers to reflect on how they were taught in high school, and how this relates to their emerging knowledge of educational psychology.
3. Discuss the complexity of applying evidence from educational psychology research to classroom practice. Explain that teachers need to be aware of myths and misconceptions. Then ask student teachers to read the section "Myths and misconceptions" in the textbook.
4. Ensure that student teachers are still engaged in active learning processes in this lesson component. Encourage student teachers to ask questions and discuss their emerging understandings.

**Learning activity 1. Jigsaw: Debunking educational psychology myths**

| | |
|---|---|
| **Time** | 25 minutes |
| **Class organisation** | Groups of 3-6 |

## Purpose

The purpose of this learning activity is for student teachers to critically evaluate and debunk common educational psychology myths.

1. Explain to student teachers that this activity will ask them to critically evaluate popular educational psychology myths.
2. Direct student teachers to read the instructions for Learning activity 1 in the textbook.
3. Divide student teachers into groups of 3-6 for the expert groups. Aim to create one expert group for each of the five myths listed in the textbook. The excerpts for each myth can be found in Annex 5B. Allow 10 minutes for student teachers to become an expert in debunking one myth.

4. After 10 minutes, regroup student teachers into groups of five (ensuring groups consist of members who are an expert in each of the myths). Encourage student teachers to teach their peers about the myth they evaluated. Ask student teachers to summarise key points of the group discussion in relation to each myth in Table 5.18.

### Assessment

Ask open-ended questions to encourage student teachers to critically think about the relevant myths. Encourage student teachers to summarise their critical evaluations of each myth in their own words.

You will be able to assess understanding by observing student teacher work and by observing group interactions. The group discussions will provide student teachers with feedback.

### Possible student teachers' responses

Possible responses are presented in Table TG 5.14.

**Table TG 5.14. Critical evaluation of educational psychology myths – completed**

| Myth | Summary of critical evaluation |
|---|---|
| 1. The learning pyramid reflects the effectiveness of different forms of teaching, from highly effective to ineffective. | • There is no evidence for the different percentages in the model.<br>• There are many different versions of the learning pyramid, but these are not based on evidence.<br>• The pyramid presents a misleading picture of the effectiveness of different teaching and learning strategies. It appears to be based on a model for classifying abstract to concrete learning experiences.<br>• The different percentages in the model are not useful for application in classroom practice. |
| 2. Students learn best when teachers cater for their learning styles. | • Most studies about learning styles actually examined learners' learning preferences.<br>• How students prefer to learn says little about what is most effective for them. Students are likely to prefer methods that do not challenge their thinking or require them to actively engage with the material.<br>• The learning style classifications that are propagated do not exist.<br>• It is impossible for teachers to cater for the vast number of combinations of learning styles.<br>• Classifying learners as being a certain type of learner hinders rather than promotes learning. |

| Myth | Summary of critical evaluation |
|---|---|
| | • Most studies about learning styles actually examined learners' learning preferences.<br>• How students prefer to learn says little about what is most effective for them. Students are likely to prefer methods that do not challenge their thinking or require them to actively engage with the material.<br>• The learning style classifications that are propagated do not exist.<br>• It is impossible for teachers to cater for the vast number of combinations of learning styles.<br>• Classifying learners as being a certain type of learner hinders rather than promotes learning. |
| 3. Students born in recent decennia are digital natives. | • The term digital natives does not have a scientific evidence base; it is based on personal observations<br>• There is no evidence that children born in recent decennia have different or unique characteristics when it comes to learning.<br>• Just like previous generations, these students need to be taught skills for discovery learning, etc.<br>• There is a popular belief that education should respond to specific talents and needs of this generation. Once again, there is no evidence for this. |
| 4. Students are capable of multitasking. | • Humans are only capable of doing one task at the time because we only have one brain (our processing unit).<br>• We can do two or more things at the same time in case of automated tasks (such as brushing our teeth and walking).<br>• Multitasking requires constantly switching between tasks; switching requires time and short-term memory space. Doing two tasks at the same time therefore causes cognitive overload.<br>• Multitasking tends to result in poorer quality task execution, and tends to take up more time than doing one thing after another. |
| 5. Knowledge is no longer important to 21st century learning. | • There is no knowledge on the internet, only information.<br>• Much of the information that can be found on the internet is of poor quality. Students need knowledge to critically evaluate such information.<br>• Prior knowledge determines how we are able to identify, evaluate and use information<br>• Knowledge remains essential to learning, even though information constantly changes and the information on the internet continues to expand. |

[See Table 5.18 in textbook.]

## Learning activity 2. Group discussion: Applying educational psychology in classroom practice

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

### Purpose

The purpose of this learning activity is for student teachers to evaluate the benefits and challenges of applying educational psychology in classroom practice.

1. Explain to student teachers that this activity will ask them to draw on their knowledge of educational psychology. In this activity, they will be asked to discuss the benefits and challenges of applying educational psychology in classroom practice.
2. Direct student teachers to Learning activity 2 in the textbook. Ask student teachers to read Box 5.8.
3. Lead a whole class discussion using the quote in Box 5.8 as a stimulus. Try to elicit responses that will contrast perspectives from educational psychologists and teachers.

### Assessment

You will be able to assess understanding by observing student teacher contributions to the discussion. Ensure that all student teachers actively participate in the discussion. The class discussion will provide student teachers with feedback.

### Possible student teachers' responses

Given the open-ended nature of this learning activity, there are many possible responses. Examples of possible responses are provided in Table TG 5.15.

**Table TG 5.15. Benefits and challenges of applying educational psychology in classroom practice – completed**

| Benefits | Challenges |
|---|---|
| • It can help teachers make evidence-informed decisions.<br>• It can provide teachers with suggestions on how to best accommodate learners with specific needs.<br>• It can help teachers identify strategies in areas where they are less familiar, for example in relation to the use of new media.<br>• It can encourage teachers to pay attention to aspects they may have previously overlooked. | • What works is highly context-dependent.<br>• What works for one student may not work for another student.<br>• The field of educational psychology is highly complex and ever-evolving. It is very hard for teachers to keep up.<br>• Much of the research has been conducted in western countries. Research findings may not translate well to the myanmar context.<br>• Teachers' professional judgement of what is appropriate within their classroom is most important.<br>• Teachers need to allow sufficient time to try new teaching and learning strategies before deciding if they are effective. |

[See Table 5.19 in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

- Ask student teachers questions to gauge their emerging understandings of myths and misconceptions in educational psychology.
- Allow opportunity for student teachers to reflect how they believe their knowledge of educational psychology will impact their practice.
- Allow opportunity for student teachers to reflect on the implications of educational psychology for teaching and learning.
- Ask student teachers what was the most valuable thing they learnt in this unit and why.

**Expected student teachers' responses for the review questions in TB**

Question 1: What are some of the shifts that have occurred in the field of educational psychology in the past century?

Answer: *According to Mayer, there have been three main shifts:*[59]

1. *the shift from behavioural to cognitive views of learning;*
2. *the shift from general theories of learning to specialised subject-specific theories of learning; and*
3. *the shift from measuring learning as behavioural outcomes to measuring cognitive learning strategies.*

*Other major shifts include:*

- *a shift from how individuals learn to attention to their interaction with their learning environment; and*
- *a shift from reactive to proactive approaches, including attention to wellbeing and inclusion.*

Question 2: What are some of the common myths in educational psychology?

Answer: *Common myths include:*[60]

1. *The learning pyramid reflects the effectiveness of different forms of teaching, from highly effective to ineffective*
2. *Students learn best when teachers cater for their learning styles*
3. *Students born in recent decennia are digital natives*
4. *Students are capable of multitasking*
5. *Knowledge is no longer important to 21st century learning.*

59 Mayer, R. E. (2018).
60 Kirschner, P., & Hendrick, C. (2020).

# Unit Summary

**Key messages**

- A teacher needs to understand the relationship between psychology, learning and teaching. This understanding will help them to identify and apply principles of educational psychology for effective teaching in many different situations.
- Three foundational learning theories are behaviorism, cognitivism and constructivism.
- Cognitive theories of learning focus on the mental processes that result in learning. Social constructivist theories of learning emphasise the importance of social participation. Both theories emphasise the importance of building on prior knowledge.
- Each learning theory has benefits and limitations. Effective teaching requires that teachers select the most appropriate combination of strategies to achieve the intended learning outcomes.
- Student mental health is critical to their success in school and in life in general.
- Certain risk factors increase children's risk of developing mental health issues. In contrast, certain protective factors can help prevent children from developing mental health issues. Teachers play an important role in fostering these protective factors, such as resilience.
- Whilst many educators embraced Gardner's Theory of Multiple Intelligences, it has received much criticism from psychologists. Overall, there appears to be limited empirical evidence to support the theory. However, it is important to realise that it has often been misinterpreted by both groups. One common misinterpretation is that multiple intelligences means the same as learning styles.
- Intelligence theories have become increasingly become more complex. Early theories claimed that humans possessed one general intelligence. More recent theories proposed that intelligence is hierarchical, meaning that intelligence is made up of general intelligence and various hierarchical abilities.
- Sternberg proposed that intelligence is determined by an individual's cultural and environmental context. Intelligence theories have important implications for teaching. Teachers' beliefs about intelligence and the extent to which it can be influenced directly impact their teaching and their students' learning.

It is critical that teachers help students believe in their capacity to learn, even when students find learning challenging.

- Understanding the foundations of UDL will help teachers to identify and apply UDL principles to create equal access to educational opportunities.
- By embedding UDL into their professional practice, teachers can remove possible barriers for students with diverse needs to access educational opportunities. This helps create inclusive classroom environments where students feel safe, valued and can learn without unnecessary obstacles.
- Teachers need to have knowledge of foundational and contemporary educational psychology. Whilst some theories remain relevant, others now have limited relevance. One major contemporary theory is cognitive load theory'. This theory has important implications for designing effective learning environments.
- Educational psychology is a highly complex field. Teachers can effectively use educational psychology to enhance their teaching practice when they:
  - critically evaluate educational psychology evidence;
  - combine elements of different theories as appropriate within the teaching context;
  - design teaching strategies that are appropriate to the to be achieved learning goal;
  - take account of individual student differences, for example, by taking account of the expertise reversal effect and cognitive load theory; and
  - keep up to date with new or updated research evidence.
- Teachers need to be able to critically evaluate educational psychology evidence to avoid falling into the traps of common myths and misconceptions.

**Unit reflection**

Ask student teachers to describe the three most important things they have learnt in this unit that will inform their future teaching. In formulating their response, think about how the contents of the sub-units relate and can inform teaching and learning.

## Further reading

### 5.1. Consolidating Understanding of Educational Psychology

Weinstein, Y., Smith, M., & Caviglioli, M. (n.d.). *Six strategies for effective learning: Materials for teachers and students.* Learning Scientists. https://www.learningscientists.org/downloadable-materials

### 5.2. Student Mental Health

American Psychological Association. (2012). *Building your resilience.* https://www.apa.org/topics/resilience/building-your-resilience

Be You. (n.d.-a). *Pre-service educators.* https://beyou.edu.au/get-started/pre-service-educators

See Me. (n.d.). *'What's on your mind? Resource pack for teachers and students* [Information pack]. Scottish Government. https://www.seemescotland.org/young-people/whats-on-your-mind

### 5.3. Theories of Intelligence

Lumen Learning. (n.d.). *Introduction to psychology Module 6: Thinking and intelligence.* https://courses.lumenlearning.com/wmopen-psychology/chapter/the-source-of-intelligence

Terada, Y. (2018, October 15). *Multiple intelligences theory: Widely used, yet misunderstood.* Edutopia. https://www.edutopia.org/article/multiple-intelligences-theory-widely-used-yet-misunderstood

### 5.4. Universal Design for Learning (UDL)

Agarwal, P. K. (2021). *Retrieval practice: Unleash the science of learning*. https://www.retrievalpractice.org

CAST. (n.d.-a). *Online tools.* https://www.cast.org/products-services/online-tools

CAST. (n.d.-b). *UDL studio.* http://udlstudio.cast.org

## 5.5. Historical Trends and Contemporary Educational Psychology Perspectives

Centre for Education Statistics and Evaluation. (2017). *Cognitive load theory: Research that teachers really need to understand.* New South Wales Government. https://www.cese.nsw.gov.au/publications-filter/cognitive-load-theory-research-that-teachers-really-need-to-understand

Willingham, D. (n.d.). *Daniel Willingham: Science & Education.* http://www.danielwillingham.com/learning-styles-faq.html

# Unit 6

# Myanmar's Education Reforms and Curriculum Agendas

In this unit, student teachers will explore educational reforms in Myanmar as part of the National Education Strategic Plan as well as the transformative curriculum agendas of Education for Peace and Sustainable Development and Human Right Education. The unit culminates on an opportunity to scope aspects of an integrated unit based on a selected human rights education issue.

**Expected learning outcomes**

**By the end of this unit, student teachers will be able to:**

- Align recent educational reforms with NESP priority areas;
- Discuss impacts of educational reforms in the Middle school;
- Reflect on the importance of futures thinking in the educational policy environment;
- Reflect on the intersection between ESD and Peace Education by comparing conceptual frameworks and targeted competencies;
- Review EPSD competencies, values, and challenges to identify links across the Basic Education Curriculum;
- Identify teaching and learning strategies and techniques for EPSD;
- Explain broad pedagogical principles of a service-learning pedagogy;
- Scope a service-learning experience for the Lower Middle school;
- Explain the value of learning spaces or 'learnscapes' for EPSD learning;
- Design a whole school environment depicting EPSD learning spaces and projects-in-action and other features of a sustainable school;
- Develop an EDC policy outlining a vision statement, principles, and goals for EPSD;
- List attributes of a human rights friendly school;

- Describe elements of a whole school approach to human rights education;
- Review key concepts and teaching and learning strategies drawn upon in human rights education and curriculum documents to scope a learning activity for a Lower Middle school classroom;
- Reflect on strategies for engaging with controversial human rights issues in the curriculum;
- Review different approaches to integrated curriculum for the Lower Middle school; and
- Scope aspects on an integrated unit based on a selected human rights education issue.

**Competencies gained**

A2.1 Demonstrate understanding of appropriate use of a variety of teaching and learning strategies and resources

A3.2 Demonstrate respect for the social, linguistic, and cultural diversity of the students and their communities

A4.1 Demonstrate understanding of the structure, content and expected learning outcomes of the basic education curriculum

A5.1 Demonstrate understanding of the subject matter to teach the assigned subject/s for the specified grade level/s

A5.2 Demonstrate understanding of how to vary delivery of subject content to meet students' learning needs and learning context

B1.1 Demonstrate capacity to teach subject-related concepts clearly and engagingly

B1.3. Demonstrate good lesson planning and preparation in line with students' learning ability and experience

B3.1 Demonstrate capacity to create a safe and effective learning environment for all students

B3.2 Demonstrate strategies for managing student behaviour

C1.3 Demonstrate understanding of the possible effect of local culture and context on student participation in school

C3.1 Demonstrate a high regard for each student's right to education and treat all students equitably

C3.3 Demonstrate capacity to build students' understanding of different cultures and global citizenship

# 6.1. Myanmar's Educational Reforms

In this sub-unit, student teachers will reflect upon the high-level vision statements and current educational reforms associated with the nine priority areas in the NESP, 2016-21. Student teachers will explore the importance of futures thinking in the context of educational reform policy development.

## 6.1.1. Reforms in the Middle school

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Align recent educational reforms with NESP priority areas;
- Discuss impacts of educational reforms in the Middle school; and
- Reflect on the importance of futures thinking in the educational policy environment.

**Competencies gained**

A4.1.1 Describe key concepts, content, learning objectives and outcomes of the lower secondary curriculum for the subjects and grade level/s taught

C3.1.1 Show awareness of the right to education of every child and a commitment to nurturing the potential in each student

**Time:** Two period of 50 minutes

**Learning strategies**

Learning activity 1. Reflection: Desired educational future

Learning activity 2. Discussion: Aligning recent reforms with NESP priorities

Learning activity 3. Reading: Futures thinking

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 6.1.1.

**Resources needed**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

Learning activity 3: N/A (other than textbook, note paper, and pen)

**Period 1**

**Reforms in the Middle school**

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 15 minutes |
| Learning activity 2 | 20 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the period.
   By the end of this period, student teachers will be able to:
   - Align recent educational reforms with NESP Priority areas; and
   - Discuss impacts of educational reforms in the Middle school.
2. Ask student teachers to reflect on what they have learnt about the Ministry of Education's *National Education Strategic Plan (NESP), 2016-2021;* in particular, ask if they can recall:
   - the goal of the NESP?
     Response: Improved teaching and learning leading to measurable improvements in student achievement in all schools and educational institutions.
   - any of the nine priority areas for transformation?
     *Response:* Student teachers are likely to discuss reforms across educational sub-sectors (e.g., Preschool, Basic Education, TVET, Higher Education).
3. Direct student teachers to textbook section, 'NESP Priority Areas' and Figure 6.1.
4. Explain to student teachers that these nine priority areas are articulated as high-level vision statements of a **desired future.**
5. Ask students to write down a definition of a desired future.
   *Response:* Vision of the future that we aspire to and are working towards.
6. Select student teachers to share their responses. Write a definition on the board.

### Learning activity 1. Reflection: Desired educational future

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Groups of 3 |

**Purpose**

The purpose of this learning activity is for student teachers to reflect upon the high-level vision statements associated with the NESP priorities of most relevance to schooling.

1. Instruct student teachers to form groups of 3.
2. Direct student teachers to Learning activity 1 in the textbook.
3. Highlight for students that the high-level vision statements associated with the priorities, which are related to schooling, are outlined in Table 6.1.
4. Instruct student teachers to:
   - reflect upon each of the high-level vision statements and [in the centre column of Table 6.1], identify what is central to each statement – that is, what is the key focus for change?
   - discuss whether they believe these vision statements will be achieved in Myanmar. If not, why not? If so, in what timeframe?
5. Select student teachers to share their responses with the class.

**Assessment**

Ask student teachers the following question:

*Question:*

How do these key foci for change relate to your learning in Unit 1 regarding school-based management and improvement?

*Response:*

Under the SQASF, each school is to take responsibility for improving the quality of teaching and learning. Schools are to engage in continuous quality improvement cycles, involving planning, implementation, and evaluation of SQIPs, on the basis of student data and other evidence.

## Possible student teachers' responses

There will be some variation in student teacher responses. Possible responses are presented in Table TG 6.1.

**Table TG 6.1. High level vision statements of a desired future – completed**

| Priority area | High level vision statement: Desired future | Key focus for change |
|---|---|---|
| Preschool and KG<br><br>Basic Education – Access, quality, and inclusion | All children get a head start on their learning pathway through accessing quality KG education.<br><br>All children access, progress through, and successfully complete quality Basic Education. | Student access and achievement |
| Basic Education Curriculum | All school children develop knowledge, skills, attitudes, and competencies that are relevant to their lives and to the socio-economic development needs of 21st century Myanmar. | Student learning outcomes |
| Student assessment and examinations | Teachers and education managers implement a quality assessment system to improve student learning achievement. | Assessment for and of learning |
| Teacher education and management | Teachers support, develop and apply interactive classroom teaching and learning benefiting all students. | Teaching quality |
| Management, capacity development and quality assurance | Education managers at all levels apply evidence-based decision making and demand accountability for improved teaching and learning in schools and educational institutions. | Continuous quality improvement |

[See Table 6.1 in textbook.]

## Learning activity 2. Discussion: Aligning recent reforms with NESP priorities

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Groups of 3 |

**Purpose**

The purpose of this learning activity is for student teachers to align recent reforms with the NESP priority areas.

1. Instruct student teachers to form groups of 3.
2. Direct student teachers to Learning activity 2 in the textbook.
3. Read recent reforms in the Myanmar educational context.
4. Instruct student teachers to match each reform with the most relevant NESP priority area in Table 6.2.
5. Highlight that an example has been provided for them.
6. Select student teachers to share their responses with the class.

**Assessment**

Ask student teachers questions like:

*Question:*

To what extent is implementation of the *new curriculum* (**recent reform**) likely to lead to the **desired future** of: *All* children developing knowledge, skills, attitudes, and competencies that are relevant to their lives and to the socioeconomic development needs of 21st century Myanmar?

*Response:*

Student teachers might focus on the reference to '*All* children' in the vision statement and discuss the need for differentiation of teaching and learning in response to students' needs.

*Question:*

To what extent is the implementation of the new four-year Education Degree Programme (**recent reform**) likely to lead to the **desired future** of: Teachers supporting, developing, and applying interactive classroom teaching benefitting all students?

*Response:*

Student teachers might discuss their growing confidence in facilitating active, interactive, and collaborative learning. They might also highlight the need for continuous professional development.

**Correct student teachers' responses**

Correct responses are presented in Table TG 6.2.

**Table TG 6.2. Recent educational reforms aligned with NESP priority areas – completed**

| National Education Strategic Plan, 2016-2021 | | Recent reforms |
|---|---|---|
| **Priority areas** | **Desired future** | |
| KG and Basic Education – Access, quality, and inclusion | All children get a head start on their learning pathway through accessing quality KG education.<br><br>All children access, progress through, and successfully complete quality Basic Education. | Introduction of new school structure: KG; Primary (Grades 1 to 5); Middle school (Grades 6 to 9); and High school (Grades 10 to 12) |
| Basic Education Curriculum | All children develop knowledge, skills, attitudes, and competencies that are relevant to their lives and to the socioeconomic development needs of 21st century Myanmar. | Implementation of new curriculum at all grade levels: Primary (developed by JICA-Create); Secondary (developed by ADB-DERPT Curriculum Development Team)<br><br>Release of the 6th version of the Basic Education Curriculum Framework |
| Student assessment and examination | Teachers and education managers implement a quality assessment system to improve student learning achievement. | New National Assessment Policy in Basic Education based on quality design principles and four pillars |
| Teacher education and management | Teachers support, develop, and apply interactive classroom teaching benefitting all students. | New four-year Education Degree Programme for Primary and Middle school specialisations: UNESCO's Strengthening Pre-Service Teacher Education in Myanmar (STEM) Project<br><br>Publication of Teacher Competency Standards Framework (TCSF) |
| Management capacity development and quality assurance | Education managers at all levels apply evidence-based decision making and demand accountability for improved teaching and learning in schools. | Publication of Competency Standards Framework for School Heads and Education Officers in Basic Education<br><br>Publication of School Quality Assurance Standards Framework |

[See Table 6.2 in textbook.]

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers what impacts these educational reforms are likely to have for them as future middle school teachers?

*Responses:* Student teachers might say that as future teachers they will be:

- teaching a new curriculum that emphasises 21st century skill development in addition to knowledge outcomes;
- utilising a more diverse and inclusive assessment regime with emphasis on formative/classroom-level assessment; and
- working together with the staff and the school community to implement school quality improvement plans.

## Period 2

## Reforms in the Middle school

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 3 | 35 minutes |
| Check student teachers' understanding | 5 minutes |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Reflect on the importance of futures thinking in the educational policy environment.

2. Explain to student teachers that **futures thinking:**
   - involves exploration into how society and its physical and sociocultural environment can be shaped in the future, and
   - highlights ways that policy, strategies, and actions can promote 'desirable futures'.
3. Direct student teachers to Figure 6.2 in the textbook.
4. Instruct student teachers to reflect on the image and explain in their own words why futures thinking is important.

### Learning activity 3. Reading: Futures thinking

| | |
|---|---|
| **Time** | 35 minutes<br>(20 minutes activity<br>15 minutes sharing) |
| **Class organisation** | Groups of 6 |

**Purpose**

The purpose of this learning activity is for student teachers to read about futures thinking and its relationship with education.

1. Instruct student teachers to work in groups of 6.
2. Direct student teachers to Learning activity 3 in the textbook.
3. Instruct student teachers to read the OECD excerpt in Box 6.1a and respond to the questions in Box 6.1b.
4. Select student teachers to share responses with class.

### Assessment

Allow substantial time for deep discussion.

### Possible student teachers' responses

Possible student teachers' responses as per Box 6.1b are as follows:

*Question:* Why is futures thinking essential in the context of education policy development?

*Response:*

Futures thinking is essential given the pace and complexity of change in 21st century society. Many countries are rapidly transforming into knowledge societies with increasing demands for education.

Examining trends over time and drivers of change highlights ways that educational policy, strategies, and actions can promote 'desirable futures'. Futures thinking creates opportunities for informed decision-making, balancing short-term and long-term policy goals.

*Question:* What changes have you witnessed to education and schooling in Myanmar in your own lifetime? What do you know of the schooling experiences of your parents?

Note that student teachers will speak from their own experience.

*Question:* What might the difference be between reform and reinvention in terms of change to educational systems and schooling?

To support student teachers to answer this question, it might be helpful to recall from Unit 1, the efforts made by education systems to respond to the COVID-19 pandemic. These efforts illuminate that wide-scale change is possible in a short period of time. In many countries, COVID restrictions required *a shift to working and learning from home.*

One might argue though that the wide-scale reforms taking place in Myanmar at the same time and in a relatively short period (as outlined in Table 6.2) will result in an educational system *that appears to be entirely new* (i.e., reinvented rather than reformed).

**Check student teachers' understanding**

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Highlight to student teachers that the new National Education Strategic Plan is under development. Ask student teachers what they:

- know about its status and the processes involved in developing the plan; and
- anticipate in the new plan.

Direct student teachers to review questions for sub-unit.

**Expected student teachers' responses for the review questions in TB**

Question 1: What is the purpose of the high-level vision statements associated with the nine priority areas in the NESP, 2016-21?

Answer: *The NESP identifies nine areas of Myanmar's educational system for transformative change. A high-level vision statement was framed for each area, which describes a desired future state.*

*Changes across these areas will collectively contribute to the achievement of the NESP goal – that is, improved teaching and learning leading to measurable improvements in student achievement in all schools and educational institutions.*

Question 2: Why is futures thinking essential in the context of educational policy development?

Answer: *Futures thinking is essential given the pace and complexity of change in 21st century society. Many countries are rapidly transforming into knowledge societies with increasing demands for education.*

*Examining trends over time and drivers of change highlights ways that educational policy, strategies, and actions can promote 'desirable futures'. Futures Thinking creates opportunities for informed decision-making, balancing short-term and long-term policy goals.*

# 6.2. Education for Peace and Sustainable Development (EPSD)

In this sub-unit, student teachers will examine Educational for Peace and Sustainable Development (EPSD) frameworks and principles. Student teachers will review the competencies, which are developed through an EPSD programme, and the learning and teaching strategies and techniques that are most effective in developing these competencies. They will collaboratively plan for a whole school approach to EPSD. A whole school approach to EPSD is holistic. Along with curriculum and teaching and learning, a whole school approach to EPSD recognises the importance of school leadership, resource management, grounds, and collaboration with parents and the community, in pursuing an EPSD agenda.

## 6.2.1. Conceptual framework, competencies, and curriculum links

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Reflect on the intersection between ESD and Peace Education by comparing conceptual frameworks and targeted competencies; and
- Review EPSD competencies, values, and challenges to identify links across the Basic Education Curriculum.

**Competencies gained**

B1.1.1 Use different ways to explain the subject matter, related ideas and concepts to meet a range of learning abilities and intended learning outcomes

B3.2.2 Encourage students to interact with each other with mutual respect and safety

C1.3.1 Show interest in and take time to learn about the students' culture, language, and community

C3.3.1 Integrate concepts of sustainability, equality, justice and the rights and responsibilities of students into class and school activities

**Time:** Two period of 50 minutes

**Learning strategies**

Learning activity 1. Reading: EPSD in the Myanmar context

Learning activity 2. Review: EPSD frameworks

Homework activity. Reading: Policy documents

Learning activity 3. Review: EPSD competencies

Learning activity 4. Brainstorm: EPSD links to the Basic Education Curriculum

Homework activity. Illustration: EPSD values underpinning wellbeing

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work.

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 6.2.1.

Draw Table 6.3 on flip chart paper.

## Resources needed

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: One piece of flip chart paper (to attach to whiteboard)

Homework activity: Environmental policy documents in College e-library

Learning activity 3: N/A (other than textbook, note paper, and pen)

Learning activity 4: Flip chart paper and coloured markers, Basic Education Curriculum documents (G6 and G7).

Homework activity: Flip chart paper and coloured markers, if available for student teacher homework

## Period 1

### Conceptual framework, competencies, and curriculum links

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 15 minutes |
| Learning activity 2 | 20 minutes |
| Check student teachers' understanding | 5 minutes |
| Homework activity | own time |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the period.

By the end of this period, student teachers will be able to:

- Reflect on the intersection between ESD and Peace Education by comparing conceptual frameworks and targeted competencies.

2. Highlight that in Year 3, the notion of ESD is expanded to include reference to peace – that is, Education for Peace and Sustainable Development (EPSD).
3. Direct student teachers to textbook section, 'EPSD' definition; in particular as follows:
   EPSD empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability, and a just society, for present and future generations, rejecting violence, respecting diverse identities and cultures and living together peacefully.
4. Divide the class into six groups and assign each group a term:
   Group 1 - Informed decisions
   Group 2 - Responsible actions
   Group 3 - Environmental integrity
   Group 4 - Economic viability
   Group 5 - Just society
   Group 6 - Respecting diverse identities and cultures

**Facilitator's notes**

You may write the definition on the whiteboard and highlight or circle the targeted terms:

> EPSD empowers learners to take **informed decisions** and **responsible actions** for **environmental integrity, economic viability,** and a **just society,** for present and future generations, rejecting violence, **respecting diverse identities and cultures** and living together peacefully.

5. Instruct each group to arrive at <u>one key</u> aspect of their assigned terms in the context of the definition.
   *Possible responses:*
   - Informed decisions: Decisions that are informed by **scientific evidence**
   - Responsible actions: Our collective actions take into consideration the **needs of future generations** as well as those of current generations
   - Environmental integrity: Natural systems remain healthy enough to **sustain essential processes**

- Economic viability: Economies allow for citizens to have access to **employment** so as to secure their **livelihoods**
- Just society: A society where the **rights of all citizens** are respected
- Respecting diverse identities and cultures: **Inclusion of groups** that have been subject to **discrimination**, such as women and girls, ethnic minorities, migrants and refugees, people with disabilities, LGBT community, etc.

6. Ask groups to report back to the class so a shared understanding of the EPSD definition can be built.

### Learning activity 1. Reading: EPSD in the Myanmar context

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Groups of 3 |

**Purpose**

The purpose of this learning activity is for student teachers to reflect on the importance of the EPSD agenda for Myanmar.

1. Instruct student teachers to form groups of 3.
2. Direct student teachers to Learning activity 1 in the textbook.
3. Inform student teachers that the excerpt of the media article in Box 6.2 reflects the importance of the EPSD agenda for Myanmar.
4. Instruct student teachers to read the excerpt and answer the following questions in their notebooks:
   a. What does 'mutually dependent' mean?
   b. What are the 'mutually dependent' goals being referred to in the excerpt?
   c. How can education be a key driver in realising these goals?
5. Select student teachers to share their responses with the class.
6. Inform student teachers that they can access the full article in the College e-library.

### Assessment

You might encourage students to draw upon their learnings in Unit 1 regarding education as a driver for change.

### Possible student teachers' responses

*Question:* What does 'mutually dependent' mean?

*Response:* Achievement of these goals are interrelated (i.e., achieving one relies on achieving the other).

*Question:* What are the 'mutually dependent' goals being referred to in the excerpt?

*Response:*

- Building a sustainable future
- Building a peaceful society.

*Question:* How can education be a key driver in realising these goals?

*Response:* Myanmar's new Basic Education Curriculum is designed to shape 21st century competencies.

You might return to Unit 1:

- the 5Cs (Figure 1.11 in the textbook), and
- the 'Four Aims' of education (Box 1.1 in the textbook).

### Learning activity 2. Review: EPSD frameworks

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Groups of 3 |

**Purpose**

The purpose of this learning activity is for student teachers to align the Myanmar Sustainable Development Plan with the Sustainable Development Dimensions and assess the extent to which these frameworks recognise the importance of peace in achieving sustainable development.

1. Instruct student teachers to stay in their groups of 3.
2. Ask student teachers to write down what they recall about the Sustainable Development Dimensions.
   *Possible responses:* Student teachers may recollect that they compared different representations of the Sustainable Development Dimensions in Year 2 Educational Studies:
   - one representation with four dimensions: 1) natural/environmental systems; 2) economic systems; 3) cultural/social systems and 4) political systems (as per Figure 6.5 in the Year 3 textbook); and
   - another representation with three dimensions: economy (i.e., economic systems), society (which includes cultural/social and political systems) and environment (i.e., natural/environmental systems).
3. Highlight to student teachers that:
   - there are a number of different representations of the Sustainable Development Dimensions (in terms of the number of dimensions, as well as the ways in which these dimensions interrelate)
   - the framework with the four dimensions has been selected for the purposes of this exercise, given the crucial importance of good governance and the role of public participation in governmental and community decision-making in achieving sustainable development goals.
4. Direct student teachers to Figure 6.5 and the left-hand column of Table 6.3.
5. Read through each of the Sustainable Development Dimensions as a class.
6. Instruct student teachers to:
   - align the pillars and goals of Myanmar's Sustainable Development Plan in the right-hand column with the Sustainable Development Dimensions;
   - highlight the emphases on peace in both framings; and
   - reflect on the extent to which these frameworks (i.e., Sustainable Development Dimensions and Myanmar Sustainable Development pillars and goals):
     - are aligned; and
     - recognise the importance of peace in achieving sustainable development.
7. Select student teachers to share their responses with the class.

**Assessment**

You might wish to have Table 6.3 on a flip chart or on the white board so student teachers can come up to the board and draw the links.

## Correct student teachers' responses

*Task:* Align the pillars and goals of Myanmar's Sustainable Development Plan with the Sustainable Development Dimensions.

Correct responses are presented in Table TG 6.3.

**Table TG 6.3. Sustainable Development Dimensions and the Myanmar Sustainable Development Plan – completed**

| Sustainable development dimensions | Myanmar Sustainable Development Plan, 2018-2030 |
|---|---|
| • *Environmental systems* provide life support systems (air, water, food)<br>• *Economic systems* provide a means of livelihood (employment and money)<br>• *Cultural/social systems* provide ways for people to live together peacefully and equitably<br>• *Political systems* shape policy and decision-making regarding the ways social and economic systems use the natural environment | *Pillar 1. Peace and Stability*<br>• Goal 1: Promoting peace, national reconciliation, security, and good governance<br>• Goal 2: Promoting economic stability and strengthened macroeconomic management<br>*Pillar 2. Prosperity and Partnership*<br>• Goal 3: Promoting job creation and private sector led growth<br>*Pillar 3. People and Planet*<br>• Goal 4: Strengthening human resources and social development for the 21st century society<br>• Goal 5: Protecting natural resources and the environment. |

[See Table 6.3 in textbook.]

*Task:* Highlight the emphases on peace in both framings.

Correct responses are highlighted in Table TG 6.4 and are as follows:

Emphasis on peace in the Sustainable Development Dimensions

- Cultural/social systems provide ways for people to live together peacefully and equitably

Emphasis on peace in the Myanmar Sustainable Development Plan, 2018-2030

- Pillar 1: Peace and Stability

  Goal 1: Promoting peace, national reconciliation, security, and good governance

**Table TG 6.4. Sustainable Development Dimensions and the Myanmar Sustainable Development Plan – completed**

| Sustainable Development Dimensions | Myanmar Sustainable Development Plan, 2018-2030 |
|---|---|
| • **Environmental** systems provide life support systems (air, water, food)<br>• Economic systems provide a means of livelihood (employment and money)<br>• Cultural/social systems provide ways for people to **live together peacefully and equitably**<br>• Political systems shape policy and decision-making regarding the ways social and economic systems use the natural environment | ***Pillar 1. Peace and Stability***<br>• Goal 1: Promoting peace, national reconciliation, security, and good governance<br>• Goal 2: Promoting economic stability and strengthened macroeconomic management<br><br>Pillar 2. Prosperity and Partnership<br><br>• Goal 3: Promoting job creation and private sector led growth<br><br>Pillar 3. People and Planet<br><br>• Goal 4: Strengthening human resources and social development for the 21st century society<br>• Goal 5: Protecting natural resources and the environment. |

[See Table 6.3 in textbook.]

*Task:* Reflect on the extent to which these frameworks (i.e., Sustainable Development Dimensions and Myanmar Sustainable Development pillars and goals):

- are aligned, and
- recognise the importance of peace in achieving sustainable development.

*Correct responses:* The frameworks are aligned as follows:

Pillar 1. Peace and Stability is aligned with:

- Cultural/social systems
- Political systems
- Economic systems.

Pillar 2. Prosperity and Partnership is aligned with:

- Economic systems.

Pillar 3: People and Planet is aligned with:

- Cultural/social systems
- Environmental systems.

Highlight for student teachers that the very first goal of the Myanmar Sustainable Development Plan is to promote peace, national reconciliation, security, and good governance.

**Check student teachers' understanding**

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to make final observations about the Myanmar Sustainable Development Plan.

*Possible responses:* The Myanmar Sustainable Development Plan:

- adopts a systems perspective; and
- recognises the inter-relationship between working towards achieving peace and stability and working towards achieving sustainable development.

Direct student teachers to 'Homework activity. Reading: Policy documents'.

**Homework activity. Reading: Policy documents**

Explain to student teachers that the purpose of this homework activity if for them to peruse relevant policy documents and discuss them within your learning community.

Instruct student teachers to peruse the following documents all of which can be accessed in their College e-library:

- UNESCO policy brief: *Education for Sustainable Development and the SDGs. Learning to act, Learning to achieve*[61]
- Myanmar Sustainable Development Plan, 2018-2030[62]
- Myanmar's National Environmental Policy[63]
- Myanmar's Climate Change Policy.[64]

Encourage them to discuss these policy documents within their learning community.

## Period 2

### Conceptual framework, competencies, and curriculum links

This period is structured as follows:

| | |
|---|---|
| Learning activity 3 | 20 minutes |
| Learning activity 4 | 25 minutes |
| Check student teachers' understanding | 5 minutes |
| Homework activity | own time |

### Learning activity 3. Review: EPSD competencies

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Pairs |

### Purpose

The purpose of this learning activity is for student teachers to examine the extent to which ESD competencies integrate peace education competencies.

1. Instruct student teachers to form pairs.
2. Direct student teachers to Learning activity 3.

61 UNESCO Global Action Programme on Education for Sustainable Development. (2018).
62 Ministry of Planning and Finance. (2018).
63 Republic of the Union of Myanmar. (2019b).
64 Republic of the Union of Myanmar. (2019a).

3. Instruct students teachers in their pairs to:
   - review the UNESCO ESD competencies and their definitions and, using a coloured pen, highlight those competencies that they believe are also relevant to peace education; and
   - review the list of competencies targeted in peace education, which they learnt about in Year 2. Align each one with at least one ESD competency.
4. Inform student teacher that an example has been provided for them:
   - understanding of inclusion, diversity, and human rights: **ESD #8, #9**
5. Encourage student teachers to compare their responses with another pair and discuss the extent to which the UNESCO ESD competencies incorporate those that are targeted in peace education.

**Assessment**

Note that pair-to-pair sharing will provide opportunity for discussion.

You might bring the whole class together to discuss the extent to which the UNESCO ESD competencies incorporate competencies that are targeted in peace education.

It is expected that student teachers will conclude that the ESD competencies incorporate peace education competencies.

**Possible student teachers' responses**

*Task:* Review the UNESCO ESD competencies and their definitions in Table 6.4 and, using a coloured pen, highlight those competencies that they believe are also relevant to peace education.

*Possible responses:* There will be variation in responses – all ESD competencies could be perceived as important to peace education. Possible responses are presented in Table TG 6.5. Student teachers may rank ESD competencies in terms of strength of alignment with peace education agenda:

- Solving issues, problems, and conflicts at local, national, and global level (ESD #5)
- Negotiating with others and communicating constructively (ESD #6)
- Building partnerships and collaborating and participating in transformation processes (ESD #7)

- Cooperating with people regardless of gender, religion, ethnic, social origin (ESD #8)
- Showing solidarity and responsibility and an attitude of global citizenship (ESD #9)
- Reflecting on diverse perspective and developing alternative frames of reference (ESD #11)
- Critically reflecting on norms, values, practices (ESD #10, #2)
- Creating collective visions (ESD #4)
- Consider the social wellbeing of all communities (ESD #3).

**Table TG 6.5. UNESCO ESD competencies and their definitions – completed**

| ESD competency | Involves being able to: |
|---|---|
| 1. Constructing knowledge through research | Collect data/information from different sources and with different tools; assess quality; and construct knowledge |
| 2. Thinking critically | Question norms, practices, opinions, attitudes, claims and decisions |
| 3. Systems thinking | Consider the connections between elements of the economy and the environment and the social wellbeing of all communities |
| 4. Facing the future and futures thinking | Analyse risk; create individual and collective visions; and deal with uncertainty and change |
| 5. Solving issues, problems, and conflicts | Contribute to the solving of issues, problems, and conflicts at the local, national, and global level |
| 6. Communicating and negotiating with others | Communicate constructively in spoken and written language |
| 7. Building partnerships and collaborating | Participate in transformation processes with others |
| 8. Thinking and acting inclusively | Cooperate with people regardless of their gender, religion, ethnic and social origin |
| 9. Showing solidarity and responsibility | Develop an attitude of global citizenship and to share responsibility for ecological risks |
| 10. Reflecting on values | Reflect on own and others' norms and values |
| 11. Changing perspectives | Critically reflect upon diverse perspectives; and develop alternative frames of reference by changing one's own worldviews |

[See Table 6.4 in textbook.]

*Task:* Review the list of competencies targeted in peace education[65], which they learnt about in Year 2. Align each one with at least one ESD competency.

65 Sinclair et al. (2008, p. 30).

*Possible responses:* There will be variation in responses. Possible responses may be as follows:

- Understanding of inclusion, diversity, and human rights: **ESD #8, #9**
- Understanding that people perceive the world differently: **ESD #11, #10, #6**
- Understanding others' situations and feelings: **ESD #6, #9**
- Critically analyse media perspectives: **ESD #2**
- Active listening and enhanced communication: **ESD #6**
- Cooperation and handling emotions: **ESD #7, #6**
- Assertiveness and negotiation skills: **ESD #6**
- Problem-solving skills: **ESD #5, #1**
- Mediation and conflict resolution skills: **ESD #5, #6.**

*Task:* Discuss the extent to which the UNESCO ESD competencies incorporate those that are targeted in peace education.

*Possible responses:* There is strong alignment between the two sets of competencies (ESD and peace education) that student teachers explored in Year 2.

**Facilitator's notes**

Explain to student teachers that ESD competencies and EPSD competencies are the same. In Myanmar, EPSD was adopted as the overarching framing after a policy seminar in 2019.

## Learning activity 4. Brainstorm: EPSD links to the Basic Education Curriculum

| | |
|---|---|
| **Time** | 25 minutes<br>(15 minutes activity<br>10 minutes viewing the gallery of possibilities) |
| **Class organisation** | Groups (organised according to availability of curriculum documents) |

**Purpose**

The purpose of this learning activity is for student teachers to identify links between EPSD and the Basic Education Curriculum.

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Review EPSD competencies, values, and challenges to identify links across the Basic Education Curriculum.
2. Instruct student teachers to form groups.
3. Distribute curriculum documents and flip chart paper and marker pens, according to what is available at the EDC. You might:
   - focus on a targeted grade level (within the Year 3 focus); and
   - assign a different subject/learning development area to groups.
4. Instruct groups to brainstorm possible opportunities for engagement with EPSD by reviewing:
   - ES[P]D competencies outlined in Table 6.4
   - EPSD values and challenges outlined in Figure 6.6.
   - Grade 6 and 7 Teacher Guides or Student Textbooks.
5. Ask groups to write ideas on their flip chart paper. Once completed, instruct groups to create a gallery of possibilities (i.e., attach flip chart paper on walls).

**Assessment**

Allow student teachers the opportunity to walk around and discuss EPSD possibilities with their peers.

**Possible student teachers' responses**

There will be a range of responses, dependent on what curriculum documentation is available at the EDC. The following are examples:

**Grade 6**

Geography

Social Geography

- To understand the meaning of social geography and explain different major ethnicities.
- To be able to explain the regions where Myanmar ethnic people live.

Life Skills

Living in harmony with nature

- To identify the consequences of global warming and identify ways for living in harmony with those conditions.

Social skills

- To develop a set of ground rules that will allow for diverse opinions and ideas to be expressed freely in the classroom.

**Grade 7**

Geography

Environmental Geography

- To understand the causes of degradation and depletion of soil and forest resources.

Economics

Basic Economics

- To analyse unlimited human wants and limited resources.

Population of Myanmar

- To know the relationship between population and consumption patterns.

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to make an observation as to the ease with which they could relate an EPSD agenda to the Basic Education Curriculum.

*Possible response:* There are multiple opportunities across grade levels and subjects to link to an EPSD curriculum agenda.

**Facilitator's notes**

You may also highlight for student teachers that every subject in the Basic Education Curriculum is responsible for developing students' 21st century skills or the 5Cs (see Figure 1.11), one of which is Citizenship and Sustainable Development.

Direct student teachers to Homework activity. Illustration: EPSD values underpinning wellbeing.

**Homework activity. Illustration: EPSD values underpinning wellbeing**

Explain to student teachers that the purpose of this homework activity is for them to graphically represent values of EPSD.

At the centre of the representation in Figure 6.6 is **wellbeing**. A holistic definition of wellbeing is adopted that is underpinned by values or big picture concepts including:

- **Intergenerational equity** – *all generations:* A notion that views humanity as a partnership between all generations. It is a key principle of sustainability – meeting the needs of the present generation while leaving equal or better opportunities for future generations.
- **Interspecies equity** – *all species:* The consideration of the need for humans to treat all species with respect, and to protect them from cruelty and avoidable

suffering. It is based on an understanding that humans are one of the many species on the planet.

- **Social justice** – *all people:* The concept that all people should have equal access to services and goods produced in a global community.

Instruct student teachers to draw an illustration that best captures all three concepts.

**Facilitator's notes**

If flip chart paper and coloured marker pens are available, then student teachers could translate their illustration to poster size. You may identify a space where it is appropriate for student teachers to display their posters (e.g., assembly hall).

Alternatively, student teachers may take a photograph of their illustration and upload their photographs to an online forum for sharing (e.g., Educational Studies Facebook page).

# 6.2.2. Pedagogical principles and strategies

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Identify teaching and learning strategies and techniques for EPSD;
- Explain broad pedagogical principles of a service-learning pedagogy; and
- Scope a service-learning experience for the Lower Middle school.

**Competencies gained**

A2.1.1 Plan learning experiences that provide opportunities for student collaboration, inquiry, problem-solving, and creativity

B1.1.2 Select instructional material to link learning with students' prior knowledge, interests, daily life and local needs

C3.3.1 Integrate concepts of sustainability, equality, justice and the rights and responsibilities of students into class and school activities

**Time:** Two period of 50 minutes

**Learning strategies**

Learning activity 1. Hot potato: Teaching and learning for EPSD

Learning activity 2. Case study: Identifying relevant EPSD competencies

Learning activity 3. Project scoping: Service-learning

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

## Preparation needed

Read the Educational Studies Student Teacher Textbook Lesson 6.2.2.

## Resources needed

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: N/A (other than textbook, note paper, and pen)

Learning activity 3: N/A (other than textbook, note paper, and pen)

## Period 1

### Pedagogical principles and strategies

This period is structured as follows:

| | |
|---|---|
| Learning activity 1 | 10 minutes |
| Explicit teaching | 10 minutes |
| Learning activity 2 | 25 minutes |
| Check student teachers' understanding | 5 minutes |

### Learning activity 1. Hot potato: Teaching and learning for EPSD

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Groups of 6 |

### Purpose

The purpose of this learning activity is for student teachers to generate lists of teaching and learning strategies and techniques that they have learnt across Years 1 and 2, which can be used in EPSD.

1. Outline the relevant learning outcomes for the period.
   By the end of this period, student teachers will be able to:
   - Identify teaching and learning strategies and techniques for EPSD; and
   - Explain broad pedagogical principles of a service-learning pedagogy.
2. Instruct student teachers to form groups of 6.
3. Direct student teachers to Learning activity 1.
4. Provide 5 minutes for student teachers to first reflect on the characteristics of teaching and learning for EPSD that they learnt in Year 2 Educational Studies.
5. Then ask groups to select one member as the note-take and introduce the hot potato game, explaining that:
   - when a group member has the hot potato in their hands, they need to identify any strategy or technique that they think might be effective in facilitating EPSD; and
   - provide a one-sentence rationale to support that choice.
6. Inform the note-takers that it is their responsibility to list strategies and techniques in their notepads.
7. Explain to groups that:
   - if a group member cannot identify a new strategy and provide a rationale to support that choice, they exit the circle; and
   - when there is only one person left in the circle, they are to come together as a group and review the note-taker's notes.
8. Instruct groups to arrive at consensus regarding the most effective strategies and techniques for EPSD.
9. Encourage individual student teachers to then record agreed-upon list in Table 6.5.
10. Select note-takers to share agreed-upon lists with class.

**Assessment**

You might generate a table on the board (as per Table 6.5) to record student teacher responses.

**Possible student teachers' responses**

There will be variation in responses. Possible responses are presented in Table TG 6.6.

**Table TG 6.6. Teaching and learning approaches, strategies, and techniques for EPSD – completed**

| Teaching and learning approaches and strategies | Teaching and learning techniques |
|---|---|
| • Inquiry-based learning (e.g., utilising a Social Inquiry model or the 5Es)<br>• Problem-based learning<br>• Action learning (e.g., the school garden project, wherein we explored options for technology integration)<br>• Project-based learning (e.g., students' passion projects)<br>• Integrated curriculum approach (e.g., Endangered Species integrated project)<br>• Experiential learning | • Questioning scaffolds:<br>- Sustainable Development Compass Rose<br>- Six Families of Strategic Questions<br>• Brainstorming<br>• Class discussions<br>• Cooperative group learning activities<br>• Case studies<br>• Interviews with guest speakers<br>• Field trips and community visits<br>• Role play and simulations<br>• Creative expression<br>• Reflective activities |

[See Table 6.5 in textbook.]

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Direct student teachers to textbook section, 'Service-learning principles'.
2. Write on board: Service-learning (with a hyphen in between the words).
3. Explain to student teachers that the hyphen between service and learning is intentional. Ask why this might be the case. What is being communicated by the hyphen?
   Response: Service-learning combines service to the community with student learning and reflection.
4. Inform student teachers that service-learning is an experiential pedagogy that can effectively develop EPSD competencies.
5. Select students to read from textbook section, 'How can teachers facilitate service-learning?'

### Learning activity 2. Case study: Identifying relevant EPSD competencies

| | |
|---|---|
| **Time** | 25 minutes |
| **Class organisation** | Groups of 3 |

## Purpose

The purpose of this learning activity is for student teachers to reflect on a service-learning scenario and identify the relevant service learning phases, EPSD competencies, and Sustainable Development Dimension.

1. Instruct student teachers to form groups of 3.
2. Direct student teachers to Learning activity 2.
3. Explain to student teachers that Box 6.3 describes a real service-learning project involving US primary, middle, and high school students.
4. Instruct student teachers to:
   - read the scenario in Box 6.3;
   - identify the plan, implement and reflect phases of the project by simply annotating the table (i.e., write the words, 'Plan', 'Implement' and 'Reflect in the appropriate places in the table);
   - refer to the EPSD competencies in Table 6.6 and highlight those that they think the students in this scenario were likely to develop; and
   - refer to Figure 6.5 and identify the key Sustainable Development Dimension that the project is aligned with.
5. Ask student teachers to share their responses with another group.

### Assessment

You might walk around to different groups and ask some probing questions to encourage peer-to-peer discussion.

### Correct/Possible student teachers' responses

*Task:* Identify the plan, implement and reflect phases of the project by simply annotating the table (i.e., write the words, 'Plan', 'Implement' and 'Reflect in the appropriate places in the table).

Correct responses are highlighted in Box TG 6.1.

## Box TG 6.1. Annotated – service-learning scenario[66]

**Plan**

A team of primary, middle, and high school students met with a gerontologist to learn more about the needs of elderly people. A recognised need in the community was that elderly persons in aged care were unable to travel outside their living facilities and needed more regular contact with family. It was decided that the students would teach the elderly persons to use ICTs in order to communicate with their families.

**Implement**

They spent months teaching 18 elderly persons to use selected technologies. Over time, the seniors got more comfortable with the technologies and the students. The students encountered an unexpected problem when students' iPods and other devices were too small for the elderly persons to use. The students raised funds to buy tablets for the elderly persons to use instead.

**Reflect**

Students created a survey tool to measure the success of the project. The service-learning project was found to "enrich the elderly persons' lives by enabling them to communicate with loved ones, play games, and do other activities". Students presented project outcomes and reflections on their learning and shifts in attitude toward elderly people in an eBook.

[See Box 6.3. in textbook.]

66 Adapted from National Geographic Society. (2016a, pp. 24-25); Images created for project.

*Task:* Refer to the EPSD competencies in Table 6.6 and highlight those that you think the students in this scenario were likely to develop.

Possible responses are highlighted in Table TG 6.7 and are as follows:

- Communicate constructively in spoken and written language
- Participate in transformation processes with others
- Cooperate with people regardless of their gender, religion, ethnic and social origin
- Reflect on own and others' norms and values
- Critically reflect upon diverse perspectives; and develop alternative frames of reference by changing one's own worldviews.

**Table TG 6.7. UNESCO EPSD competencies and their definitions – completed**

| EPSD competency | Involves being able to: |
|---|---|
| Constructing knowledge through research | Collect data/information from different sources and with different tools; assess quality; and construct knowledge |
| Thinking critically | Question norms, practices, opinions, attitudes, claims and decisions |
| Systems thinking | Consider the connections between elements of the economy and the environment and the social wellbeing of all communities |
| Facing the future and futures thinking | Analyse risk; create individual and collective visions; and deal with uncertainty and change |
| Solving issues, problems, and conflicts | Contribute to the solving of issues, problems, and conflicts at the local, national, and global level |
| Communicating and negotiating with others | Communicate constructively in spoken and written language |
| Building partnerships and collaborating | Participate in transformation processes with others |
| Thinking and acting inclusively | Cooperate with people regardless of their gender, religion, ethnic and social origin |
| Showing solidarity and responsibility | Develop an attitude of global citizenship and to share responsibility for ecological risks |
| Reflecting on values | Reflect on own and others' norms and values |
| Changing perspectives | Critically reflect upon diverse perspectives; and develop alternative frames of reference by changing one's own worldviews |

[See Table 6.6 in textbook.]

*Task:* Refer to Figure 6.5 and identify the key Sustainable Development Dimension that the project is aligned with.

Correct response: *Cultural/social systems,* which provide ways for people to live together peacefully and equitably.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Refer student teachers to the textbook sub-heading, 'Changing perspectives through action and reflection'. Read together as a class:

> Service-learning projects can be designed to expose students to experiences that place them outside of their comfort zone or realm of lived experience. Through reflection on the experience, students can realise that their perceptions of the world may have been overly simplistic and stereotypical. 'Changing perspectives' is a recognised EPSD competency.

Ask student teachers how the service-learning scenario in Box 6.3 might have positioned students outside of their comfort zone?

Possible response: Students may not have had recent close contact and conversations with elderly persons. The project may have opened their eyes to shared common ground – the human need for connection.

## Period 2

## Pedagogical principles and strategies

This period is structured as follows:

| | |
|---|---|
| Learning activity 3 | 40 minutes |
| Check student teachers' understanding | 10 minutes |

### Learning activity 3. Project scoping: Service-learning

| | |
|---|---|
| **Time** | 40 minutes |
| **Class organisation** | Groups of 5 |

### Purpose

The purpose of this learning activity is for student teachers to scope a service-learning experience for the Lower Middle school.

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Scope a service-learning experience for the Lower Middle school.
2. Instruct student teachers to form groups of 5.
3. Direct student teachers to Learning activity 3.
4. Scope a service-learning experience for a selected grade in the Lower Middle school in Box 6.4.
5. Ask groups to present their service-learning project ideas to the whole class.

### Assessment

Walk around to different groups and ask questions or make suggestions if groups are having difficulty with the task. Review group work.

**Facilitator's notes**

You might also take this opportunity to invite a community organisation to the EDC Educational Studies classroom that partners with Basic Education schools in service-learning projects.

Students might then fill out Box 6.4 describing the nature of one of the service-learning projects discussed by the community organisation.

**Possible student teachers' responses**

There will be some variation in responses. An example is presented in Box TG 6.2.

**Box TG 6.2. Scoping a service-learning project – completed**

**What community organisation can a Lower Middle school class form a partnership with?**

A Lower Primary class could partner with Thant Myanmar (i.e., Beating Plastic Pollution). This organisation is almost entirely driven by volunteers, who have a personal interest in environmental protection. The organisation aims to reduce the use and dependency on single-use plastics by:

- raising awareness of environmental impact; and
- supporting the use of sustainable alternative materials.

**Who are the key stakeholders of the community organisation and, where applicable, the people who it serves?**

The organisation facilitates partnerships between:

- schools
- community members
- other non-government and civil society organisations,
- businesses, and
- government organisations, such as the Environmental Conservation Department.

**What are the needs of the organisation/the people who it serves?**

The organisation seeks to work with Myanmar youth in fighting plastic pollution and the use of single-use plastics.

**How can lower middle school students be of service to the organisation?**

By participating with the organisation in:

- collecting waste plastics on a school supervised collection campaign in the immediate school environment
- keeping their school environment clean and recycling and disposing of plastic waste according to the School Improvement Plan.

**What Sustainable Development Dimension/s is the project aligned with? You may highlight the relevant dimension/s:**

- *Natural/ environmental systems,* which provide life support systems (air, water, food)
- *Economic systems,* which provide a means of livelihood (employment and money)

- *Cultural/social systems,* which provide ways for people to live together peacefully and equitably
- *Political systems,* which shape policy and decision-making regarding the ways social and economic systems use the natural environment.

**What EPSD competencies are likely to be developed through the service-learning experience?**

- Constructing knowledge through research: collect data/information from different sources and with different tools; assess quality; and construct knowledge
- Thinking critically: question norms, practices, opinions, attitudes, claims and decisions
- Systems thinking: consider the connections between elements of the economy and the environment and the social wellbeing of all communities
- Facing the future and futures thinking: analyse risk; create individual and collective visions; and deal with uncertainty and change
- Solving issues, problems, and conflicts: contribute to the solving of issues, problems, and conflicts at the local, national, and global level
- Communicating and negotiating with others: communicate constructively in spoken and written language
- Building partnerships and collaborating: participate in transformation processes with others
- Thinking and acting inclusively: cooperate with people regardless of their gender, religion, ethnic and social origin
- Showing solidarity and responsibility: develop an attitude of global citizenship and to share responsibility for ecological risks
- Reflecting on values: reflect on own and others' norms and values
- Changing perspectives: critically reflect upon diverse perspectives; and develop alternative frames of reference by changing one's own worldviews.

**What assessment tasks might the students be required to submit?**

Lower primary school students can be scaffolded to:

- participate in planning aspects of the recycling programme;
- create awareness raising posters of the school's new recycling programme;
- undertake an audit of the type and volume of recycled materials; and
- create a Facebook page celebrating the school's recycling efforts.

[See Box 6.4 in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

Revisit TCSF competencies:

C3.3.1 Integrate concepts of sustainability, equality, justice and the rights and responsibilities of students into class and school activities

A2.1.1 Plan learning experiences that provide opportunities for student interaction, inquiry, problem-solving, and creativity

B1.1.2 Select instructional material to link learning with students' prior knowledge, interests, daily life, and local needs

Ask student teachers to reflect on how these competencies can be developed through facilitating EPSD service-learning.

## 6.2.3. Whole school approach

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Explain the value of learning spaces or 'learnscapes' for EPSD learning;
- Design a whole school environment depicting EPSD learning spaces and projects-in-action and other features of a sustainable school; and
- Develop an EDC policy outlining a vision statement, principles, and goals for EPSD.

**Competencies gained**

A5.2.2 Explain how lessons are contextualised to include localised information and examples related to the subject content, concepts, and themes

B3.1.1 Use space and classroom materials and resources to ensure involvement of all students in learning activities

C3.3.1 Integrate concepts of sustainability, equality, justice and the rights and responsibilities of students into class and school activities

**Time:** Three period of 50 minutes

**Learning strategies**

Learning activity 1. Reading: Learnscapes

Learning activity 2. Gallery: Sustainable school

Learning activity 3. Policy development: EPSD for the EDC

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

## Preparation needed

Read the Educational Studies Student Teacher Textbook Lesson 6.2.3.

## Resources needed

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: Can ask student teachers to bring cardboard and other objects and shapes if building a model (rather than drawing a map)

Learning activity 3: N/A (other than textbook, note paper, and pen)

## Period 1

### Whole school approach

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 15 minutes |
| Learning activity 1 | 20 minutes |
| Check student teachers' understanding | 15 minutes |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Explain the value of learning spaces or 'learnscapes' for EPSD learning.
2. Direct student teachers to textbook section, 'School improvement'.
3. Highlight for student teachers that according to Myanmar's new SQASF,

each year of the three-year School Quality Improvement Plan (SQIP) needs to address one standard from the:

- Learning and Teaching Dimension; and
- Infrastructure and Resources Dimension.

4. Select a student teacher to read out the two standards associated with the Infrastructure and Resources Dimension.
5. Ask student teachers to summarise these standards in one sentence:
   *Response:* School infrastructure, facilities, and environment need to be inclusive and safe, and ***support effective teaching and student learning.***
6. Direct student teachers to the textbook section, 'Learnscapes'.
7. Write the word on the board: Learnscapes.
8. Explain that learnscapes are environments that allow students to interact with and learn in diverse environments.
9. Ask students to review the list of learnscapes and identify any learnscapes in their EDC.

### Learning activity 1. Reading: Learnscapes

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Groups of 3 |

### Purpose

The purpose of this learning activity is for student teachers to understand the value of learnscapes for EPSD learning.

1. Instruct student teachers to form groups of 3.
2. Direct student teachers to Learning activity 1.
3. Instruct student teachers to read the excerpt in Box 6.5. on school learnscapes and respond to the following questions:
   a. In your schooling experience was the whole school environment used to support learning?
   b. What learning spaces or learnscapes were available at the schools that you attended?
   c. Why are learnscapes valuable for EPSD learning?
4. Select student teachers to share their experiences and responses with the class.

### Assessment

Record the learnscapes that students have been exposed to on the board.

### Possible student teachers' responses

*Question:* Why are learnscapes valuables for EPSD learning?

*Response:* There is opportunity for learning in the planning and building of the learnscapes, which can occur with the support of school and community stakeholders. Once completed, learnscapes support experiential learning, which can target both knowledge and skills outcomes (e.g., identify native species of plants, plant native species, document stages of growth, photograph when they are in flower).

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 15 minutes |
| **Class organisation** | Whole class |

Ask student teachers to review the related competencies for this lesson:

- A5.2.2 Explain how lessons are contextualised to include localised information and examples related to the subject content, concepts, and themes
- B3.1.1 Use space and classroom materials and resources to ensure involvement of all students in learning activities

Ask student teachers how their new learning on learnscapes relates to these competencies.

Redirect student teachers to the textbook section, 'Learnscapes'. Explain to student teachers that learnscapes are recognised in the international literature as "valuable pedagogical innovations".

Ask student teachers what is meant by a pedagogical innovation.

*Response:* A strategy that yields new possibilities.

## Period 2

### Whole school approach

This period is structured as follows:

| | |
|---|---|
| Learning activity 2 | 45 minutes |
| Check student teachers' understanding | 5 minutes |

### Learning activity 2. Gallery: Sustainable school

| | |
|---|---|
| **Time** | 45 minutes |
| **Class organisation** | Groups of 4 or can be whole class undertaking if building a model |

### Purpose

The purpose of this learning activity is for student teachers to collaboratively design a whole school environment depicting EPSD learning spaces and projects-in-action and other features of a sustainable school.

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Design a whole school environment depicting EPSD learning spaces and projects-in-action and other features of a sustainable school.
2. Instruct student teachers to form groups of 4.
3. Direct student teachers to Learning activity 2.
4. Instruct groups to develop a detailed map or model of a sustainable school in the Myanmar context.
5. Ask groups to ensure that their map or model incorporates:
   - the learning spaces or 'learnscapes' and other projects that are underway; and
   - other features of a sustainable school.
6. Highlight for student teachers that *attributes of a sustainable school* are presented in Box 6.6.

### Assessment

Allow for class viewing of group work.

### Possible student teachers' responses

This is a creative activity that should result in diverse representations of sustainable schools.

### Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to view maps and models and see if they reflect the features of a sustainable school as per Box 6.6.

## Period 3

## Whole school approach

This period is structured as follows:

| | |
|---|---|
| Learning activity 3 | 45 minutes |
| Check student teachers' understanding | 5 minutes |

### Learning activity 3. Policy development: EPSD for the EDC

| | |
|---|---|
| **Time** | 45 minutes |
| **Class organisation** | Groups of 5 |

**Purpose**

The purpose of this learning activity is for student teachers to develop an EDC policy outlining a vision statement, principles, and goals for a whole college approach to EPSD.

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Develop an EDC policy outlining a vision statement, principles, and goals for EPSD.
2. Ask student teachers to reflect on Year 2 learnings about a whole school approach to ESD. Ask student teachers if they can recall the elements.
   *Response:* Curriculum, learning and teaching, grounds, resource management, leadership, and collaboration with parents and community.
3. Instruct student teachers to form groups of 5.
4. Direct student teachers to Learning activity 3.
5. Explain to student teachers that a school that has adopted a whole school approach to EPSD is likely to have a dedicated EPSD school policy.
6. Write on board: An EPSD school policy outlines a school community's vision, values, principles, goals, and accountability measures for working towards a sustainable future.
7. Instruct student teachers to collectively reflect on their learnings over the sub-unit to develop a dedicated EPSD policy.
8. Highlight that instead of a school, the focus of this task is the EDC.
9. Instruct groups to utilise the template in Box 6.7. After group discussion and consensus, it might be that each group member is responsible for writing one element of the policy.
10. Ask groups to share their policies with another group.

**Assessment**

Walk around and work with different groups. Offer assistance to those groups experiencing difficulty.

**Facilitator's notes**

You may also conduct this learning activity as a whole class activity, wherein you draft the policy together on the board or the elements on flip chart paper.

In building this policy collectively, you will draw upon the input of as many student teachers as possible.

If you facilitate the activity in this way, it will give you a good opportunity to assess student teachers' understanding of EPSD.

**Possible student teachers' responses**

An example is presented in Box TG 6.3.

**Box TG 6.3. EPSD policy template – completed**

**Introduction: Purpose and background** (Draw on learnings from Lesson 6.2.1)

The purpose of this policy is to:

- outline commitment of the [insert name] EDC to a **whole of college approach** to Education for Peace and Sustainable Development (EPSD); and
- **support dialogue** amongst internal and external stakeholders regarding **appropriate courses of action** in the pursuit of more peaceful and sustainable communities.

The United Nations recognises the crucial **role that teachers play** in the shift towards EPSD. EPSD is a lifelong and transformative agenda. It is integral to a quality education, equipping students with the **competencies** to participate in actions and partnerships that address the complex challenges of the **21st century.**

**Vision statement** (Draw on learnings from Lesson 6.2.1)

At [insert name] EDC, we understand our student teachers to be **lifelong learners,** reflective and creative thinkers, responsible and active citizens, and resilient and adaptable problem solvers able to navigate through an uncertain and constantly changing future.[67]

We commit to a whole of college approach to EPSD, which involves aligning our **leadership, curriculum, teaching and learning approaches, partnerships with community stakeholders, and management of resources and our grounds** with EPSD values and principles.

**Values and principles** (Draw on learnings from Lesson 6.2.1)

This EPSD policy is futures-oriented, focused on protecting our local environments and creating a more ecologically and socially just community through informed decision-making and actions.

We acknowledge that working towards a more sustainable and peaceful community requires consideration of **environmental, social, cultural, and economic systems and their interdependence.**

In this way our college values and principles align with the **Myanmar Sustainable Development Plan,** which recognises the importance of peace, good governance, economic stability, human capacity building, and protection of the natural environment as mutually important agendas at local and national levels.

**Goals** (Link to elements in Figure 6.9)

Note: In this section, student teachers will **develop goals that are relevant to their EDC** in terms of:

- Leadership
- Curriculum
- Teaching and Learning

67 Adapted from Fitzroy High School. (2021).

- Grounds and
- Resource management
- Collaboration with parents and community.

**Accountability**

At [insert name] EDC, we believe that **EPSD is everyone's business.** College leaders and administrative staff, teacher educators, and student teachers will work with community partners to meet our goals.

We commit to:

- including planning for, implementing and evaluating EPSD actions as a standing item on our EDC Improvement Committee; and
- updating stakeholders on EPSD progress in our EDC Annual Report.

[See Box 6.7 in textbook.]

**Check student teachers' understanding**

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers:

a. Do you think there would be openness among stakeholders in the EDC to develop and implement a whole college approach to EPSD?
b. Is it important for EDCs and schools to have EPSD policies?

Response:

An EPSD school policy outlines a College or school community's vision, values, principles, goals, and accountability measures for learning and working towards a sustainable future.

A dedicated EPSD Policy:

- makes the agenda visible, communicating its importance;
- provides the platform for action planning, implementation, and monitoring; and
- validates investment of time and resources.

Direct student teachers to review questions for sub-unit.

**Expected student teachers' responses for the review questions in TB**

Question 1: To what extent is the importance of peace recognised in the:

- Sustainable Development Dimensions Framework
- Myanmar Sustainable Development Plan
- ESD competencies?

Answer: *Sustainable Development Dimensions framework: The Cultural/ Social Systems Dimension recognises the importance of people living together peacefully and equitably.*

*Myanmar Sustainable Development Plan: The Peace and Stability Pillar recognises the importance of promoting peace, national reconciliation, security, and good governance.*

*ESD competencies incorporate the competencies targeted in peace education such as: thinking critically; solving issues, problems, and conflicts; communicating and negotiating with others; building partnerships and collaborating; thinking and acting inclusively; showing solidarity and responsibility; reflecting on values; and changing perspectives.*

*In fact, ESD competencies and EPSD competencies are the same. In Myanmar, EPSD was adopted as the overarching framing after a policy seminar in 2019.*

Question 2: What is the relationship between a sustainable future and a peaceful and stable society in Myanmar?

Answer: *Myanmar needs to promote respect for diversity, tolerance, and non-discrimination. Conflicts, such as those in Rakhine, Shan, and Kachin states, are barriers to sustainable development. However, essential to establishing peace is a sustainable path for economic growth and development. In other words, the achievement of a sustainable future and a peaceful and stable society are mutually dependent goals.*

Question 3: What are some of the underlying principles of service-learning? Why is there a good fit between these principles and EPSD?

Answer: *Service-learning is an experiential pedagogy that combines student learning goals with actions that respond to the needs of the community. Teachers establish partnerships with community organisations to provide opportunity for their students to participate in whole class, group, or individual service-learning projects.*

*Service-learning typically unfolds over a simple plan–implement–reflect cycle. Service-learning projects can be intentionally designed to expose students to experiences that place them outside of their comfort zone or realm of lived experience. Through reflection on the experience, students have opportunity to arrive at more inclusive perspectives.*

Question 4: Why do learnscapes provide rich opportunity for EPSD learning?

Answer: *'Learnscapes' are safe and accessible places that have been designed to allow students to interact with and learn in diverse environments. There is opportunity for learning in the planning and building of the learnscapes, which can occur with the support of school and community stakeholders.*

*Once completed, learnscapes support experiential learning, which can target both knowledge and skills outcomes (e.g., identify native species of plants, plant native species, document stages of growth, photograph when they are in flower).*

Question 5: Is it important for EDCs and schools to have EPSD policies?

Answer: *A school that has adopted a whole school approach to EPSD is likely to have a dedicated EPSD school policy. An EPSD school policy outlines the school community's vision, values and principles, and goals for learning and working towards a sustainable future, and accountability measures.*

*A dedicated EPSD Policy:*

- *makes the agenda visible, communicating its importance;*
- *provides the platform for action planning, implementation; and monitoring*
- *validates investment of time and r*esources.

# 6.3. Human Rights Education

In this sub-unit, student teachers will consolidate understanding of approaches to engaging with education agendas by exploring attributes of a human rights friendly school and a whole school approach to human rights education. They will review key concepts and teaching and learning strategies drawn upon in human rights education and curriculum documents to scope a learning activity for a Lower Middle school classroom. They will examine the strengths of classroom dialogue over debate as a strategy for engaging with controversial human rights issues.

## 6.3.1. Whole school approach and teaching and learning strategies

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- List attributes of a human rights friendly school;
- Describe elements of a whole school approach to human rights education;
- Review key concepts and teaching and learning strategies drawn upon in human rights education and curriculum documents to scope a learning activity for a Lower Middle school classroom; and
- Reflect on strategies for engaging with controversial human rights issues in the curriculum.

**Competencies gained**

A2.1.1 Plan learning experiences that provide opportunities for student collaboration, inquiry, problem-solving and creativity

A3.2.2 Be aware of social, linguistic and cultural background of parents, community elders and leaders when interacting with them

A5.1.3 Link key concepts, principles and theories to real life applications to build discipline specific foundations and skills for different classes and grade levels taught

A5.2.2 Explain how lessons are contextualised to include localised information and examples related to the subject content, concepts and themes

C3.3.1 Integrate concepts of sustainability, equality, justice and the rights and responsibilities of students into class and school activities

**Time:** Three period of 50 minutes

**Learning strategies**

Learning activity 1. Attributes: Human rights friendly school

Homework activity. Review: Human rights friendly school action plan template

Learning activity 2. Planning task: Human rights education

Learning activity 3. Think-pair-share: Dialogue

Learning activity 4. Comparison: Dialogue and debate

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 6.3.1.

**Resources needed**

Learning activity 1: N/A (other than textbook, note paper, and pen)

Learning activity 2: Basic Education Curriculum documents (G6 and G7)

Learning activity 3: N/A (other than textbook, note paper, and pen)

Learning activity 4: N/A (other than textbook, note paper, and pen)

## Period 1

### Whole school approach and teaching and learning strategies

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 20 minutes |
| Explicit teaching | 10 minutes |
| Check student teachers' understanding | 10 minutes |
| Homework activity | own time |

### Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcomes for the period.
   By the end of this period, student teachers will be able to:
   - List attributes of a human rights friendly school; and
   - Describe elements of a whole school approach to human rights education.
2. Read out a list of rights and ask student teachers to identify the relevant category of rights: (1) Civil and political rights; (2) Economic, social, and cultural rights; or (3) Humanitarian rights.
   - right to free speech (1)
   - right to a clean environment (2)
   - right to a fair trial (1)
   - rights of the child (3)
   - right to vote (1)
   - right to health care (2)
   - right of those who are involved in, or affected by, armed conflict (3)
   - right to education (2).

3. Direct student teachers to textbook section, 'Human rights education: Definition and the field'.
4. Ask a student teacher to read the definition of human rights education from the UN (2011) Declaration of Human Rights Education and Training.
5. Highlight for student teachers that human rights education intersects with a number of educational agendas.

### Learning activity 1. Attributes: Human rights friendly school

| | |
|---|---|
| **Time** | 20 minutes |
| **Class organisation** | Groups of 4 |

**Purpose**

The purpose of this learning activity is for student teachers to identify attributes of a human rights friendly school.

1. Instruct student teachers to form groups of 4.
2. Direct student teachers to Learning activity 1.
3. Highlight for student teachers Amnesty International's definition of a whole school approach to human rights education:
   A whole school approach goes beyond teaching human rights as a separate lesson in the classroom. It means creating an environment where everyone understands, values, and protects human rights.
4. Instruct student teachers to work collaboratively to identify attributes of a human rights friendly school, recording their responses in Box 6.8.
5. Encourage student teachers to:
   - draw upon the attributes of a sustainable school (Box 6.6) as models for their responses; and
   - consider what elements may be relevant to both the EPSD and human rights education agendas.
6. Ask groups to share their responses with another group.

**Assessment**

Walk around to groups and listen to discussion and review student teachers' responses.

**Possible student teachers' responses**

There will be variation in responses. If student teachers have modelled responses on the attributes of a sustainable school (Box 6.6 in the textbook), then they may arrive at the following list:

- Welcoming and inclusive
- Whole-school planning takes place
- Learning and teaching environment is cooperative and supportive
- Staff, students, and parents engage respectfully and care for one another
- Staff, students, and parents contribute to ongoing improvements to programmes and buildings
- Leadership understands and enables inclusive practices
- Community partnerships are nurtured
- Integrated curriculum is encouraged
- Inquiry and participatory action and experiential learning occur
- Student leadership is developed
- Creativity and innovation are rewarded.

Box TG 6.4 presents global attributes of a human rights friendly school as outlined in the literature.[68]

68 Amnesty International. (2012, p. 25).

## Box TG 6.4. Attributes of a human rights friendly school – completd

A human rights friendly school:

1. promotes a learning environment where all human rights are respected, protected, and promoted
2. promotes an expectation that all students will reach their full potential, in particular those students who are marginalised
3. integrates human rights and inclusion into all aspects of teaching and curriculum
4. supports all students and families to have the resources and information they need to participate in school life
5. ensures that all members of the school community are safe and secure in the school environment
6. encourages all members of the school community to be involved in decisions that affect them
7. supports teachers, staff, and students to participate in developing and implementing school policies and practices
8. ensures that concern for equality, non-discrimination, inclusion, respect, dignity, and participation inform all aspects of school life
9. supports students and staff to become active members of a global community, which takes collaborative action to protect human rights.

[See Box 6.8 in textbook.]

## Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Direct student teachers to Figure 6.11.
2. Ask student teachers to read about the four dimensions with a peer.

## Check student teachers' understanding

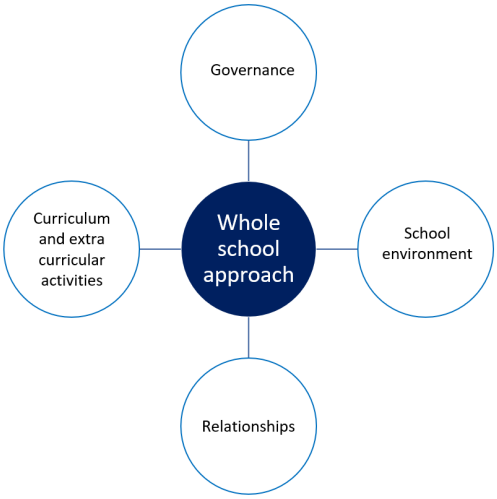
| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

Ask student teachers to compare the elements of the whole school approach to human rights (Figure 6.11) to that for EPSD (Figure 6.9).

### Facilitator's notes

You may wish to draw the two frameworks on the board alongside each other, as per Table TG 6.8.

**Table TG 6.8. Comparing whole school frameworks**[69]

| EPSD | Human rights education |
|---|---|
|  |  |





Response:

- *Governance:* Aligns with 'Leadership' and 'Resource management'.

69 Illustration by author, used with permission.

- *Curriculum and extra-curricular activities:* Aligns with 'Curriculum' and 'Teaching and learning'.
- *School environment:* Aligns with 'Grounds' but is a broader concept.
- *Relationships:* Aligns with 'Collaboration with parents and community' but is a broader concept.

Direct student teachers to 'Homework activity. Review: Human rights friendly school action plan template'.

**Homework activity. Review: Human rights friendly school action plan template**

Explain to student teachers that the purpose of this homework activity is for them to review a planning template that supports a whole school approach to human rights education.

Ask them to:

- review Human rights friendly school action plan template[70] in Annex 6A;
- note that it is organised according to the four elements of a whole school approach to human rights education (as depicted in Figure 6.11 in the textbook); and
- reflect on how a whole school approach may be best implemented within a school.

**Period 2**

**Whole school approach and teaching and learning strategies**

This period is structured as follows:

| | |
|---|---|
| Learning activity 2 | 45 minutes |
| Check student teachers' understanding | 5 minutes |

70 Amnesty International. (2012, p. 25).

## Learning activity 2. Planning task: Human rights education

| | |
|---|---|
| **Time** | 45 minutes |
| **Class Organisation** | Groups of 3 |

### Purpose

The purpose of the learning activity is for student teachers to review key concepts and teaching and learning strategies drawn upon in human rights education and curriculum documents to scope a relevant learning activity for a Lower Middle school classroom.

1. Instruct student teachers to form groups of 3.
2. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Review key concepts and teaching and learning strategies drawn upon in human rights education and curriculum documents to scope a learning activity for a Lower Middle school classroom.
3. Direct student teachers to Learning activity 2.
4. Highlight for student teachers that activity builds upon the foundation of Year 2, wherein they learnt about the subjects, concepts, and learning strategies, which are relevant to human rights education.
5. Instruct groups to scope a human rights education learning activity that is appropriate for the Lower Middle school classroom by completing the planning template in Table 6.8b.
6. Highlight for student teachers that an example has been provided for them in Table 6.8a.
7. Ask groups to share their responses with another group.

### Assessment

You might decide to select groups to share their responses with the whole class.

### Possible student teachers' responses

There will be variation in responses. An example is presented in Table TG 6.9.

**Table TG 6.9. Lower Middle school learning activity – completed**

| | |
|---|---|
| **Curriculum links**<br><br>*(access Lower Middle school curriculum documents)* | Grade: 6<br><br>Subject: Life Skills<br><br>Subject strand/domain: Living in harmony with nature<br><br>Learning outcomes:<br><br>Students will be able to assess the consequences of global warming. |
| **Relevant concepts**<br><br>*(see Table 6.7)* | Citizenship |
| **Relevant learning strategies**<br><br>*(see strategies in instructions)* | • Investigate a contemporary issue at a global scale (Strategy #1)<br>• Envisage desired futures (Strategy #3) |
| **Learning activity or sequence** | Students investigate the impact of climate change on Myanmar communities and in particular those sections of the population that are vulnerable. They:<br><br>• research impacts of climate change in Myanmar (i.e., more frequent and intense natural disasters, lack of water resources, impact on food production and availability, etc.)<br>• read excerpt from Myanmar's Climate Change Policy and identify those sections of the population that are vulnerable (i.e., women, children, people living in regions naturally exposed to severe climatic events)<br>• research case study of United Nations Development Program's water, soil, and land conservation projects, undertaken in the Central Dry Zone[71]<br>• interview NGO via email, which focusses on empowering communities through climate change projects to explore communities' aspirations for their futures. |
| **Links to whole of school approach** *(see Figure 6.11)* | • Curriculum<br>• Relationships |

[See Table 6.8a. in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to reflect on the extent to which the Basic Education Curriculum provides opportunities to link to human rights education.

71 United Nations Development Programme (UNDP). (2019). [Note: Myanmar version in College e-library]

## Period 3

## Whole school approach and teaching and learning strategies

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 3 | 10 minutes |
| Learning activity 4 | 25 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class and pairs |

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Reflect on strategies for engaging with controversial human rights issue in the curriculum.
2. Highlight that dialogue is an effective strategy when engaging students in human rights education.
3. Direct student teachers to textbook section, 'The importance of dialogue in human rights education'.
4. Read together the benefits of dialogue – that is, it allows students to:
   - communicate and broaden their perspectives about human rights issues
   - critically examine their underlying assumptions, and
   - look for common ground.
5. Ask student teachers to turn to their neighbour and reflect upon:
   - the last time that they had opportunity to participate in dialogue about an issue of importance in their course; and
   - how their perspectives may have changed as a result of participating in that dialogue.
6. Return to the textbook section and highlight the following points:
   - Human rights education is action-oriented and transformative learning;

- A participant's understanding of their own perceptions, values and concerns becomes the starting point for change; and
- Dialogue, negotiation, and collaboration are central to the process of deciding and implementing a public course of action.

7. Select different student teachers to read out questions to scaffold students' participation in dialogue (noting that the questions are written in first person – from the perspective of the student):
   - Here is my view and how I arrived at it? How does it sound to you?
   - What gaps do you see in my reasoning?
   - What evidence do you have that is different?
   - How is your conclusion different?
   - How did you arrive at your view?
   - What are you considering that is different from what I have considered?
8. Highlight that dialogue can be facilitated through strategies such as action-based, inquiry-based, project-based, and problem-based learning and techniques such as whole class and group discussion.

### Learning activity 3. Think-pair-share: Dialogue

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class and pairs |

**Purpose**

The purpose of this learning activity is to identify the human rights education competencies that are developed through dialogue.

1. Direct student teachers to Learning activity 3.
2. Instruct student teachers to form pairs and:
   - review the list of human rights education competencies in Table 6.9; and
   - highlight those competencies that are likely to be developed through participation in dialogue.
3. Select student teachers to share responses with class.

## Assessment

You might record responses on whiteboard.

## Possible student teachers' responses

There might be some variation in responses. Possible responses are highlighted in Table TG 6.10 and are as follows:

- Critical thinking: Finding relevant information, evaluating evidence, being aware of preconceptions and biases, and making decisions on the basis of reasoned judgement
- Active listening to different points of view
- Communication
- A commitment to personal development and social change
- Curiosity, an open mind, and an appreciation of equality and diversity, and
- Empathy and solidarity with others and a commitment to support those whose human rights are under threat.

**Table TG 6.10. Human rights education competencies – completed**

| | |
|---|---|
| **Skills and practices** | • Critical thinking: Finding relevant information, evaluating evidence, being aware of preconceptions and biases, and making decisions on the basis of reasoned judgement<br>• Active listening to different points of view<br>• Communication<br>• Working co-operatively and addressing conflict positively<br>• Participating in and organising social groups<br>• Advocating one's own rights and those of other people<br>• Acting to promote and safeguard human rights both locally and globally |
| **Values and dispositions** | • A commitment to personal development and social change<br>• A sense of responsibility for one's own actions<br>• Curiosity, an open mind, and an appreciation of equality and diversity<br>• Empathy and solidarity with others and a commitment to support those whose human rights are under threat<br>• A sense of human dignity irrespective of social, cultural, linguistic, or religious differences<br>• A sense of justice and the desire to work towards the ideals of freedom and equality |

[See Table 6.9 in textbook.]

## Learning activity 4. Comparison: Dialogue and debate

| | |
|---|---|
| **Time** | 25 minutes |
| **Class organisation** | Pairs |

### Purpose

The purpose of this learning activity is for student teachers to compare dialogue with debate as a strategy to engage students in controversial issues.

1. Direct student teachers to Learning activity 4.
2. Highlight for student teachers that dialogue is an effective learning strategy in terms of **controversial issues.**
3. Explain that while it is often proposed that debate is one way to engage students in learning about controversial issues, leading Australian Social Studies and Humanities scholars identify limitations of using debate as a strategy for student engagement in controversial issues.
4. Select a student teacher to read out the excerpt in Box 6.9.
5. Ask student teachers what is meant by a 'polarising strategy'.
   *Response:* A strategy that involves two opposing sides trying to prove each other wrong.
6. Instruct student teachers to remain in their pairs and:
   - read the features of debate in the left-hand column in Table 6.10; and
   - indicate in the right-hand column of Table 6.10 how dialogue differs with respect to each of the features of debate.
7. Select student teachers to share responses with class.

### Assessment

You might record responses on whiteboard.

### Possible student teachers' responses

There might be some variation in responses. Possible responses are provided in Table TG 6.11.

**Table TG 6.11. Completed – comparison of debate and dialogue**

| Debate | Dialogue |
|---|---|
| Two opposing sides trying to prove each other wrong | Remains open-ended |
| Each side searches for weaknesses in the other position | One search for strengths in all positions |
| Each side listens to identify faults, differences, and counter arguments | Participants listen to understand, make meaning, and find common ground |
| Each side defends assumptions as truth | Participants expand and possibly change their points of view |
| Creates a closed-minded attitude and a sense of being right | Creates an open-minded attitude and an openness to change |
| Assumes a single right answer from one side | Assumes that participants have parts of the answer and that co-operation can lead to a greater understanding for all |

[See Table 6.10 in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Ask student teachers to explain in their own words the importance of providing opportunities for students to participate in *critically reflective* dialogue about human rights and controversial issues.

Response:

- students expand and possibly change their points of view;
- creates an open-minded attitude and an openness to working together for change; and
- leads to a greater understanding for all.

You may highlight that debate as a strategy may lend itself more to Myanmar; that is – in contexts focusing on students developing persuasive writing skills. Debates call for student to frame clear, concise, and convincing arguments.

# 6.3.2. Planning for an integrated unit

**Expected learning outcomes**

**By the end of this lesson, student teachers will be able to:**

- Review different approaches to integrated curriculum for the Lower Middle school; and
- Scope aspects on an integrated unit based on a selected human rights education issue.

**Competencies gained**

B1.1.2 Select instructional material to link learning with students' prior knowledge, interests, daily life and local needs

B1.3.3 Prepare focused and sequential learning experiences that integrate learning areas and are responsive to students' interests and experience

**Time:** Two period of 50 minutes

**Learning strategies**

Learning activity 1. Collaborative research and planning task: Integrated learning sequence

Learning activity 2. Collaborative planning: Integrated learning sequence

Homework activity. Reflection: Approach to curriculum integration

**Assessment approaches:** Questioning, observation, peer and whole-class discussion, reviewing student work.

**Preparation needed**

Read the Educational Studies Student Teacher Textbook Lesson 6.3.2.

**Resources needed**

Learning activity 1: Student teachers will need access to internet via mobile phones/ computers OR hard copy source materials on human rights issues in Myanmar for the research component and Basic Education Curriculum documents (G6 and G7) for the planning component

Learning activity 2: Basic Education Curriculum documents (G6 and G7)

## Period 1

## Planning for an integrated unit

This period is structured as follows:

| | |
|---|---|
| Introduction/Explicit teaching | 10 minutes |
| Learning activity 1 | 35 minutes |
| Check student teachers' understanding | 5 minutes |

## Introduction/Explicit teaching

| | |
|---|---|
| **Time** | 10 minutes |
| **Class organisation** | Whole class |

1. Outline the relevant learning outcome for the period.
   By the end of this period, student teachers will be able to:
   - Review different approaches to integrated curriculum for the Lower Middle school; and
   - Scope aspects on an integrated unit based on a selected human rights education issue.
2. Direct student teachers to textbook section, 'Linking to prior learning'.
3. Highlight for student teachers that in Year 2 of Educational Studies they explored a simple continuum for understanding different ways of constructing an integrated curriculum, involving multidisciplinary, interdisciplinary, and transdisciplinary approaches.

4. Select different student teachers to read out each approach:
   - **Multidisciplinary approach** involves planning for learning experiences based on a common theme (e.g., child labour) or agenda (e.g., human rights education) in different subjects/learning areas
   - **Interdisciplinary approach** involves planning for learning based on interdisciplinary concepts (e.g., citizenship, diversity, equity) and skills (i.e., 21st century skills such as critical thinking, communication, collaboration) across different subjects
   - **Transdisciplinary approach** involves planning for learning based on a powerful inquiry question, pressing issue or problem, or a project of interest. Authentic learning experiences allow for focused development of 21st century skills
5. Highlight for student teachers that:
   - The literature presents diverse definitions of multidisciplinary, interdisciplinary, and transdisciplinary approaches to curriculum integration;
   - In other words, the boundaries are not distinct; and
   - The continuum in Table 6.11 simply serves as a useful starting point for planning.

**Learning activity 1. Collaborative research and planning: Integrated learning sequence**

| | |
|---|---|
| **Time** | 35 minutes |
| **Class organisation** | Groups of 4 |

## Purpose

The purpose of this learning activity is for student teachers to collaboratively research a human rights issue as it translates to the Myanmar context and make links to at least 2 learning areas of the Lower Middle school curriculum.

**Facilitator's notes**

Student teachers will need access to internet via mobile phones/computers OR hard copy source materials on human rights issues in Myanmar for this research component.

1. Instruct student teachers to form groups of 4.
2. Direct student teachers to Learning activity 1 in the textbook.
3. Inform student teachers that over this period and the next they are to:
   - select a human rights education focus;
   - research the issue as it translates to the Myanmar context;
   - make links to the Lower Middle school curriculum in at least 2 learning areas; and
   - scope a sequence of key learning activities.
4. Highlight for student teachers that:
   - In this learning activity, they are focused on the first three steps;
   - An example has been provided for them in Box 6.10a; and
   - They are to complete this task in Box 6.10b.

**Facilitator's notes**

For those groups which have not completed the learning activity in class, encourage them to do so for homework.

**Assessment**

Walk around to groups and review student work and encourage peer-to-peer planning conversations within and across groups.

**Possible student teachers' responses**

There will be variation in responses. An example is presented in Box TG 6.5.

**Box TG 6.5. Research and scoping for an integrated unit/ learning sequence – example**

***Grade level: 6***

***Human rights education focus:***

Myanmar's New Child Rights Law and data on Child labour in Myanmar

***Research notes on how issue translates in the Myanmar context:***

- Myanmar's New **Child Rights Law, 2019**[72] [see Myanmar version in College e-library), which:
  - defines a child as anyone under the age of 18
  - sets the minimum age of employment at 14 years, and
  - forbids children from doing dangerous forms of labor.
- Myanmar's ratification of Conventions:
  - 2020: ILO **Minimum Age Convention** (C138), which requires countries to set a minimum working age aligned with the end of compulsory education[73] [74]
  - - 2013: ILO **Worst Forms of Child Labour Convention** (C182)[75]
  - - 1991: UN Convention on the Rights of the Child
- **Myanmar Program on the Elimination of Child Labor** (My-PEC),[76] a US-funded program (2013–2021) aimed at: 1) building understanding of child labour in Myanmar through research, and 2) delivering interventions at national and community level.

72 Accessed at International Committee of the Red Cross. (2019).
73 UNICEF Myanmar. (2020).
74 International Labour Organization [ILB]. (2018b).
75 ILO. (2018a).
76 Bureau of International Labor Affairs. (2021).

***Links to curriculum:***

**Morality and Civics**

Strand: Rule and regulations

Learning outcome: Students will be able to explain the importance of rule of law.

**Mathematics**

Strand: Statistics

Learning outcome: Students will be able to construct bar graphs (and pie graphs) based on statistical data.

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 5 minutes |
| **Class organisation** | Whole class |

Convene groups as a class and review progress in terms of the outstanding tasks to be completed in their own time.

Provide groups with an opportunity to ask you any questions, in order to complete the task.

## Period 2

## Planning for an integrated unit

This period is structured as follows:

| | |
|---|---|
| Learning activity 2 | 35 minutes |
| Check student teachers' understanding | 15 minutes |
| Homework activity | own time |

### Learning activity 2. Collaborative planning: Integrated learning sequence

| | |
|---|---|
| **Time** | 35 minutes |
| **Class organisation** | Groups of 4 |

### Purpose

The purpose of this learning activity is for student teachers to collaboratively scope an integrated sequence of learning

1. Ask student teachers to reconvene in their groups of 4 from the previous period.
2. Direct student teachers to Learning activity 2 in the textbook.
3. Remind student teachers that in the previous period, they:
   - selected a human rights issue;
   - researched the issue as it translates to the Myanmar context; and
   - made links to the Lower Middle school curriculum in at least 2 learning areas.
4. Instruct groups to build upon the foundation of their completed Box 6.10b to outline aligned learning activities in Box 6.11b in their textbook.
5. Highlight for groups that, in the same way, Box 6.11a in their textbook presents an example of an integrated learning sequence, following on from the foundation of Box 6.10a.

### Assessment

Walk around to groups and review student work. Encourage peer-to-peer dialogue within groups.

### Possible student teachers' responses

There will be variation in responses, depending on the research and curriculum foundation that groups have built in the previous period. An example is presented in Box TG 6.6.

**Box TG 6.6. Learning activities for an integrated learning sequence – example**

***Key learning activities – Group work and whole class plenary***

- Work in groups to research Myanmar's:
  - Child Rights Law, 2019
  - signing of ILO Conventions (C138 and C182), and
  - signing of UN Convention on the Rights of the Child.
- Define key terms:
  - light work
  - non-hazardous, non-light work
  - hazardous work, and
  - worst forms of child labour.
- Identify examples of work categories for large wall chart (groups assigned one category each), based on Figure 6.15.

| **18 years** | | | | |
|---|---|---|---|---|
| Children between minimum age and 18 | | | | |
| **Minimum working age (14 years in Myanmar)** | | | | |
| Children between 12/13 and the minimum age | | | | |

| 12/13 years | | | | |
|---|---|---|---|---|
| Children below 12/13 years of age | | | | |
| | **Light work** | **Non-hazardous, non-light work** | **Hazardous work** | **Worst forms of child labour** |
| | ←C138→ | | | |
| | | | ←C182→ | |

Note: All shades = child labour to be abolished

**Figure 6.15. Child labour that needs to be abolished**[77]

- Present ILO Myanmar child labour data (supplied to students) via bar and pie graphs on posters for class display (see data and figures in ILO presentation, Child labour: Fundamental principles, national responses, and linkages with education. [in College e-library).
- Participate in plenary discussion on research findings, with wall charts as points of reference for reflection.

[See Box 6.11a in textbook.]

## Check student teachers' understanding

| | |
|---|---|
| **Time** | 15 minutes<br>[10 minutes (sharing of integrated learning sequences)<br>5 minutes (review question)] |
| **Class organisation** | Groups of 4 |

Instruct groups of 4 to join up with another group of 4 and share their integrated learning experiences. Each group has 5 minutes to present their work to their partner group, documented in their textbook in Boxes 6.10b and 6.11b.

[In the final 5 minutes], ask student teachers Question 5 of the Review questions: Why does human rights education lend itself to an integrated approach to curriculum design?

77 ILO. (2018a),

*Possible response:*

Human rights education can be pursued as part of an EPSD agenda or as a cross-cutting curriculum agenda, with strong links to subjects, such as Social Studies/ History /Geography, Morality and Civics, and Life Skills and Local Curriculum.

Teaching, learning and/or assessment experiences, targeting the development of human rights education competences, can be purposefully integrated across these learning areas via a multidisciplinary, interdisciplinary, or transdisciplinary approach to curriculum design.

Direct student teachers to the 'Homework activity. Reflection: Approach to curriculum integration'.

**Homework activity. Reflection: Approach to curriculum integration**

Explain to student teachers that the purpose of this homework activity is for them to reflect upon different approaches to curriculum integration.

Instruct them to reflect upon the initial planning that their group has scoped in Boxes 6.10b and 6.11b.

Ask them to individually:

- consider whether they think their planning lends itself to a multidisciplinary, interdisciplinary, or transdisciplinary approach to curriculum design, and
- provide the reasons for their response.

**Expected student teachers' responses for the review questions in TB**

Question 1: What is a broad definition of a whole school approach to human rights education?

Answer: *A whole school approach goes beyond teaching human rights as a separate lesson in the classroom. It means creating an environment where everyone understands, values, and protects human rights.*

Question 2: Human rights education provides opportunity for students to engage in a range of learning experiences. List those experiences.

Answer: *Human rights education provides opportunity for students to: 1) investigate contemporary issues at global, national, and local scales; 2) engage in discussions and dialogue about human rights issues, including controversial issues; 3) envisage desired futures; 4) participate in active learning, wherein students can contribute to making a difference and advocating for change; 5) collaborate with community partners, and 6) take a positive stand against and critically reflect on abuses to human rights.*

Question 3: Why is dialogue an effective learning strategy when engaging in human rights education?

Answer: *Dialogue allows students to communicate and broaden their perspectives about human rights issues, critically examine their underlying assumptions, and look for common ground. Questions that students may ask themselves are as follows:*

- Here is *my view and how I arrived at it? How does it sound to you?*
- *What gaps do you see in my reasoning?*
- *What evidence do you have that is different?*
- *How is your conclusion different?*
- *How did you arrive at your view?*
- *What are you considering that is different from what I have considered?*

Question 4: What are the limitations of debate as a learning strategy for human rights education?

Answer: *While an aspect of political systems, debating does not prepare students for the range of real political contexts and activities in the community. While debating can develop argumentative skills, it is not a satisfactory model for conflict resolution. Debates omit the crucial elements of negotiation and collaboration that are central to the process of deciding and implementing a public course of action.*

Question 5: Why does human rights education lend itself to an integrated approach to curriculum design?

Answer: *Human rights education can be pursued as part of an EPSD agenda or as a cross-cutting curriculum agenda, with strong links to subjects, such as Social Studies/ History /Geography, Morality and Civics, and Life Skills and Local Curriculum. Teaching, learning and/or assessment experiences, targeting the development of human rights education competences, can be purposefully integrated across these learning areas via a multidisciplinary, interdisciplinary, or transdisciplinary approach to curriculum design.*

# Unit Summary

**Key messages**

- *The National Education Strategic Plan (NESP), 2016-2021,* identified nine priority areas for transformation. These areas are articulated as high-level vision statements of a desired future. These transformational shifts lead to an end goal of:
  Improved teaching and learning…leading to measurable improvements in student achievement in all schools and educational institutions.
- Recent reforms in the Myanmar educational context, aligned with the NESP, have included:
  - introduction of a new school structure (KG plus 12)
  - implementation of new school curriculum
  - the 6th version of the Basic Education Curriculum Framework
  - new National Assessment Policy in Basic Education
  - new four-year Education Degree Programme for Primary and Middle school specialisations
  - publication of the TCSF and Competency Standards Framework for School Heads and Education Officers in Basic Education
  - publication of the SQASF.
- The Myanmar Sustainable Development Plan recognises that the achievement of a sustainable future and a peaceful and stable society are mutually dependent goals.
- EPSD competencies include thinking critically; solving issues, problems, and conflicts; communicating and negotiating with others; building partnerships and collaborating; thinking and acting inclusively; showing solidarity and responsibility; reflecting on values; and changing perspectives.
- Service-learning is an experiential pedagogy that combines student learning goals with actions that respond to the needs of the community.
- Service-learning projects can be intentionally designed to expose students to experiences that place them outside of their comfort zone or realm of lived experience. Through reflection on the experience, students have opportunity to arrive at more inclusive perspectives.
- 'Learnscapes' are safe and accessible places that have been designed to allow students to interact with and learn in diverse environments. There is

opportunity for learning in the planning and building of the learnscapes, which can occur with the support of school and community stakeholders.

- Along with curriculum and teaching and learning, a whole school approach to EPSD recognises the importance of school leadership, resource management, grounds, and collaboration with parents and the community, in pursuing an EPSD agenda.
- A school that has adopted a whole school approach to EPSD is likely to have a dedicated EPSD school policy, which outlines the school community's vision, values and principles, and goals for learning and working towards a sustainable future, and accountability measures.
- A whole school approach goes beyond teaching human rights as a separate lesson in the classroom. It means creating an environment where everyone understands, values, and protects human rights.
- Dialogue an effective learning strategy when engaging in human rights education. Through dialogue, students communicate and broaden their perspectives about human rights issues, critically examine their underlying assumptions, and look for common ground.
- While debating can develop argumentative skills, it is not an effective strategy for conflict resolution. Debates do not involve elements of negotiation and collaboration that are central to the process of deciding on and implementing a public course of action.
- Human rights education lends itself to an integrated approach to curriculum design. Teaching, learning and/or assessment experiences, targeting the development of human rights education competences, can be purposefully integrated across learning areas via a multidisciplinary, interdisciplinary, or transdisciplinary approach to curriculum design.

**Unit reflection**

**EPSD teaching and learning and opportunities for integration**

Revisit the EPSD competencies and their definitions in Lesson 6.2.1 (Table 6.4). For each competency, brainstorm a learning activity that would develop that competency in lower middle school students. Describe the learning activity in about 3-5 sentences and identify possible opportunities for integration across learning areas You can generate a table, which would make an excellent artefact for your TCSF developmental portfolio.

Example of table that can be generated for this task:

| EPSD competency | Learning and teaching context and activity |
|---|---|
| *[Identify the competency]* | *[Describe the learning activity in about 3-5 sentences and identify possible opportunities for integration across learning areas ]* |
| constructing knowledge through research | Students are learning about the increased frequency and intensity of natural disasters due to global warming. Their group is assigned one natural disaster. They research how this event occurred and impacted the community. This group research project is anchored in Geography, Life Skills, and Myanmar. |
| *[Continue the table]* | |

## EPSD policy

The EPSD policy that you developed in Lesson 6.2.3 can serve as an important artefact for your TCSF development portfolio. What TCSF indicators can you align with this artefact?

As you learnt in this unit, a dedicated EPSD Policy:

- makes the EPSD agenda visible, communicating its importance;
- provides the platform for action planning, implementation, and monitoring; and
- validates investment of time and resources.

Reflect on the actions that you or your learning community could take to find out the openness among stakeholders in the EDC to develop and implement a whole college approach to EPSD.

## Dialogue as a learning strategy

Reflect on the completed Table 6.10 to identify Lower Middle school teaching and learning scenarios in human rights education where participation in dialogue can be utilised as a successful learning strategy.

## Further reading

### 6.1. Myanmar's Educational Reforms

Department of Basic Education. (2019a). *Basic Education School Quality Assurance Standards Framework (BE-SQASF).* Myanmar Ministry of Education.

Department of Basic Education. (2019b). *Competency Standards Framework for School Heads and Education Officers in Basic Education.* Myanmar Ministry of Education.

Department of Myanmar Examinations. (2019). *National Assessment Policy for Basic Education.* Myanmar Ministry of Education.

Ministry of Education. (n.d.). *The Basic Education Curriculum Framework* (6th version). The Government of the Union of the Republic of Myanmar.

*Futures thinking:*

[Note: In Lesson 6.1.1, you explore futures thinking in relation to educational policy development. This article provides insight into application of futures thinking in teaching and learning]

Jones, A., Buntting, C., Hipkins, R., McKin, A., Conner, L., & Saunders, K. (2012). Developing students' futures thinking in science education. *Research in Science Education, 42,* 687-708. https://doi.org/10.1007/s11165-011-9214-9

### 6.2. Education for Peace and Sustainable Development

Department of Environment and Heritage. (2005). *Educating for a Sustainable Future. A National Environmental Education Statement for Australian Schools.* Australian Government. https://www.seedengr.com/sustainable-future.pdf

National Geographic Society. (2016a). Educator guide: Integrating service with learning. *Service Learning Toolkit.* https://media.nationalgeographic.org/assets/file/service-learning-educator-guide.pdf

National Geographic Society. (2016b). Student Workbook. *Service Learning Toolkit.* https://media.nationalgeographic.org/assets/file/service-learning-workbook.pdf

UNESCO. (2020). *EPSD Integration Framework for Curriculum Planning.* [Education Degree College e-library].

### 6.3. Human Rights Education

Amnesty International. (2012). *Becoming a human rights friendly school. A Guide for Schools around the World.* https://resourcecentre.savethechildren.net/node/6803/pdf/6803.pdf

Brett, P., Mompoint-Gaillard, P., & Salema, M., (2009). *How all teachers can support citizenship and human rights education: A framework for the development of competences.* Council of Europe. https://rm.coe.int/16802f726a

# Glossary

| Terms | Elaborations |
|---|---|
| **Accommodation** | Modification of cognitive schemas in response to new knowledge. |
| **Affect** | Emotions and feelings. |
| **Affordance** | The quality or property of an object that defines its possible uses or makes clear how it can or should be used. |
| **Assimilation** | Addition of new knowledge to cognitive schemas. |
| **Blended learning** | Mixing a range of elements to enhance teaching and learning. It often refers to using a combination of online and face to face methods. However, it can also refer to using a range of different technologies in the classroom or mixing different teaching approaches. |
| **Brainstorm** | A creative exercise used to produce ideas and ways of solving problems. |
| **Civil and political rights** | Rights that protect the freedom of individuals to participate in the civil and political life of society and the state, without discrimination or repression by governments, organisations, and/or other individuals. |
| **Cognitive development** | The development of thought and thinking processes as a person grows from birth to adulthood. |
| **Cognitive load theory** | A theory that hypothesises that the amount of cognitive load placed upon short-term memory is determined by the complexity of the task, instructional design, and their interaction with characteristics of the learner, such as prior knowledge. Too much cognitive load interferes with learning. |
| **Cognitive revolution** | An intellectual movement that examined the processes in the human mind, resulting in the field of cognitive science. |
| **Cognitive schemas** | A mental structure or framework in which knowledge is organised. Individuals use cognitive schemas to categorise and interpret new information. |
| **Collective efficacy** | A shared belief among a group of teachers that their collaborative actions to improve practice can make a positive difference to student learning. Teachers' collective efficacy will be strengthened when there is evidence of improvement to student learning. |
| **Community engagement** | The establishment of relationships or partnerships with the local community to improve students' learning and wellbeing and assist students to understand their role in the broader community. |
| **Constructive alignment** | An approach to curriculum design where: i) learning outcomes are clearly specified; ii) assessment is designed to enable clear judgements as to how well students have met the learning outcomes; and iii) teaching is designed to engage students in learning activities that maximise their chances of achieving the learning outcomes. |
| **Content** | [In the context of differentiation]: What is taught – that is, the knowledge, concepts, and skills that students need to learn based on the curriculum. |
| **Controversial issues** | Complex problems or questions which can involve personal, social, political, economic and/or environmental dimensions for students, families, and wider communities. They can be difficult to resolve given their complexity and the range of perspectives/values positions held by stakeholder groups. |
| **Convergent thinking** | Processing many sources of information and ideas to draw a justified, accurate and concise conclusion. |
| **Cooperative learning** | A strategy that involves students actively interacting and learning together. |

| Terms | Elaborations |
|---|---|
| **Creative thinking** | A complex form of higher order thinking that involves problem-solving through the combination of critical thinking, knowledge and imagination. |
| **Critical thinking** | A form of higher order thinking that involves a range of skills that leads to the objective, informed evaluation of ideas. |
| **Crystallised intelligence** | A person's ability to apply skills and knowledge within particular contexts. This intelligence increases as a result of education and experiences. |
| **Cultural safety** | An approach that emerged from a model of health service delivery developed by Indigenous health professionals and, when applied to education, describes a supportive and safe learning environment where there is no denial of students' identity or their learning needs. |
| **Culturally responsive pedagogy** | An approach that recognises the strengths of ethnically diverse students – including their cultural frames of reference, intellectual capabilities, and personal interests and achievements – to make learning relevant and effective for them. |
| **Debate** | A formal discussion about a topic or question wherein arguments are put forward for often opposing viewpoints. |
| **Desired future** | A preferred path that is often an alternative to a 'probable future', given the existing course of actions or events. |
| **Developmental systems theories** | Contextual theories of lifespan development that emphasise the dynamic interaction between an individual and different levels of organisation (systems) within a particular context. |
| **Diagnostic assessment** | Assessment that provides teachers with information about students' prior knowledge and misconceptions before the beginning of a learning experience. |
| **Dialectical relationship** | A relationship where each aspect continuously affects the other aspect(s). |
| **Dialogue** | Dialogue allows participants to communicate and broaden their perspectives about issues, topics, or questions, by critically examining their underlying assumptions and evidence. |
| **Differentiation** | Tailoring teaching, learning and assessment opportunities to meet individual student needs and points of readiness to learn. |
| **Diorama** | A three dimensional model representing a scene. |
| **Direct instruction model** | In this model, (also known as 'explicit instruction model'), the teacher outlines to students the intended learning outcomes and success criteria for the lesson, teaches new skills or content, and provides opportunities for guided and independent practice. |
| **Distributed leadership** | A form of school-based management where leadership functions are distributed across a number of roles and staff members, so that multiple groups of individuals are leading change. |
| **Divergent thinking** | Thinking that moves in many different directions from a central idea to develop new concepts and ways of doing things. |
| **Dual coding theory** | A theory that hypothesises that humans learn most effectively when information is presented via two processing channels; one for verbal (written, spoken) information and another for non-verbal (image) stimuli. |
| **Economic, social, and cultural rights** | Rights that ensure the freedoms and entitlements that are required to live a life of dignity, including rights to adequate food and water, health care, education, a clean environment, respect for cultural practices, and welfare assistance. |
| **Education for Peace and Sustainable Development (EPSD)** | Expands the notion of Education for Sustainable Development, in recognition that the achievement of a sustainable future and a peaceful society are mutually dependent goals. |
| **Education for Sustainable Development (ESD)** | A lifelong learning process that aims to shape informed and involved citizens, who have the commitment, problem-solving skills, and scientific, technological and social literacies to engage in sustainable development. |

| Terms | Elaborations |
|---|---|
| **Engagement** | To be actively involved, committed to and participating in learning. |
| **Enrichment tasks** | Activities that allow students to work on a topic in more depth or breadth than the scheduled classroom activities. |
| **Ethnic Language Based–Multilingual Education (ELB–MLE)** | An approach to education wherein there is use of students' home language as a medium of instruction for the first years of schooling and introduction of a second language as a subject in the curriculum, and later, as a medium of instruction. |
| **Expertise reversal effect** | The reversal of the effectiveness of instructional strategies for learners with different levels of prior knowledge. |
| **Extraneous cognitive load** | The cognitive load that is determined by the way in which instructional materials and educational experiences are designed. |
| **Feedback** | Information that is given by someone or something about a person's performance or their level of knowledge and understanding of a task. |
| **5Es inquiry model** | An internationally recognised inquiry model for Science, with wider uptake across learning areas. The 5Es model unfolds over five phases: Engage, Explore, Explain, Elaborate, and Evaluate. The model facilitates a shift from the textbook as the main source of information to an approach that emphasises hands-on experiences and investigations. |
| **Fluid intelligence** | Biological capacity to learn. |
| **Formal learning** | A system of education which designates learners' age, period of study, location, grade, a system of evaluation and a specific curriculum. In the Myanmar context, it includes Pre-school, Primary, Middle school, High school, Technical and Vocational Education and Higher Education (Myanmar's 2014 National Education Law). |
| **Formative assessment** | Low stakes assessment activities intended to monitor student progress and provide ongoing feedback that can be used by teachers to improve their teaching and by students to improve their learning. |
| **Funds of knowledge** | An anthropological concept that provided a new framework in education to recognise students' cultural knowledges and practices and, in turn, counter deficit theorising of groups of students and their families. |
| **Futures thinking** | Thinking that informs our understanding of what is possible and helps us to identify and avoid the futures that we consider 'undesirable'. Futures thinking promotes leadership, strategic dialogue and evidenced-informed decision-making and planning. Futures thinking highlights ways that policy, strategies, and actions can promote 'desired futures'. |
| **Habits of mind** | Pattern of intellectual behaviours that leads to productive actions. |
| **Humanism** | A perspective which emphasises the unique holistic nature of each individual human being, highlights the values of personal agency, and assumes that people are by nature good and motivated to realise their own potential. |
| **Humanitarian rights** | Rights that protect the life, health, and human dignity of civilians and combatants no longer involved in hostilities; and limit the choice of methods of warfare of the parties in conflict. |
| **ICT** | Information and communications technologies. |
| **Inclusive education** | Providing equal opportunity for all students, regardless of their diversity such as level of ability, disability, or educational need. |
| **Informal learning** | Purposeful, self-directed learning guided by a person's interests and needs over the lifetime. |
| **Information processing model** | A model that sees the human mind as similar to a computer. In this model, information is seen as input, which is processed in short-term memory and then stored in long-term memory, where it can be retrieved for later use. |

| Terms | Elaborations |
|---|---|
| **Inquiry-based learning** | A strategy where students identify problems, brainstorm solutions, formulate questions, investigate, analyse and interpret results, discuss, reflect, make conclusions and present results. |
| **Instructional leadership** | Educational leadership that promotes reflective practice and professional growth among educators, with a view to enhancing student learning and wellbeing. |
| **Intelligence** | A widely contested concept that is not easily defined. More recent theories identify intelligence as a mental quality that consists of a person's biological and learned capacity to learn, adapt to changing circumstances and effectively use knowledge. |
| **Interdisciplinary approach to curriculum integration** | Involves planning for learning based on interdisciplinary concepts (e.g., citizenship, diversity, equity) and skills (i.e., 21st century skills such as critical thinking, communication, collaboration) across learning areas. |
| **Interests** | Linked to students' strengths, cultural context, personal experiences, questions, or needs. When students are interested in a topic, their motivation to learn about it increases. |
| **Intergenerational equity** | A notion that views humanity as a partnership between all generations. Meeting the needs of the present generation while leaving equal or better opportunities for future generations is a key principle of sustainability. |
| **Interspecies equity** | The consideration of the need for humans to treat all species with respect, and to protect them from cruelty and avoidable suffering. It is based on an understanding that humans are one of the many species on the planet. |
| **Intrinsic cognitive load** | The cognitive load that is determined by the complexity of the task and interaction with a learner's level of expertise. |
| **Introduce–Teach–Practise–Review model** | A model wherein the teacher ***introduces*** the topic to students and links to prior learning; ***teaches*** the new concepts or skills; allows opportunity for students to ***practise***, and concludes the lesson with ***review*** of student achievement of learning outcomes and student reflection. |
| **Learning community** | A group of professionals, who are accountable and responsible for their efforts in working together to improve their practice, make evidence-based decisions, and implement and evaluate new strategies. |
| **Learning environment** | The setting, including physical, social, and emotional dimensions, within which learning takes place. |
| **Learning profile** | The ways in which the student learns most effectively. A student's learning profile may outline factors that include what makes them feel comfortable in the classroom, whether they prefer working in groups or on their own, and any other preferences that may relate to their age, gender, or culture. |
| **Learnscapes** | Safe and accessible places that have been designed to allow students to interact with and learn in diverse environments. There is opportunity for student participation and community partnership building in the planning and building of the learnscapes. |
| **Lifespan development** | Growth and development occur throughout the lifespan, from birth to death. |
| **Long-term memory** | A form of memory that is maintained indefinitely and has practically infinite capacity to store information. |
| **Lower Primary** | Grades 1 and 2, as defined by Myanmar's Basic Education Curriculum Framework (6th version). |
| **Mastery motivation** | The internal drive, desire and persistence to master a skill or task that is challenging. |
| **Medical model of disability** | A model of disability that focuses on the person's deficit and their need of fixing. |

| Terms | Elaborations |
|---|---|
| **Mental health** | A continuum ranging from mental illness to mental wellbeing. Good mental health is critical to an individual's fruitful realisation of their potential and to contribute to society. |
| **Mental illness** | A negative state of mental health, which negatively affects a person's ability to enjoy life and emotionally cope with a range of experiences. Mental illness may be more or less severe. The term mental illness captures a broad range of mental disorders as well as more temporary negative mental states. |
| **Mental state** | The temporal state of mental health, which is subject to change depending on circumstances. |
| **Mental wellbeing** | A positive state of mental health, which enables a person to enjoy life and emotionally cope with a range of experiences. |
| **Meta-analysis** | Meta-analysis translates results from different studies to a common metric and statistically explores relations between study characteristics and findings. |
| **Metacognition** | A person's knowledge about how they learn and their thinking processes, which enables a person to monitor and control their cognition. |
| **Mind map** | A visual diagram which is used to show connections between ideas. |
| **Motivation** | The driving force that enables a person to strive to reach their goals. |
| **Multidisciplinary approach to curriculum integration** | Involves planning for learning experiences based on a common theme (e.g. ,child labour) or agenda (e.g., human rights education) in different learning areas. |
| **Non-formal learning** | Education outside the formal system based on a curriculum for upgrading learners' education, which organises and instructs them through flexible methods (Myanmar's 2014 National Education Law). Non-formal learning includes continuing professional development. |
| **Open system** | As an open system**,** an education system interacts with a constantly changing societal environment, coordinates with other systems, and makes changes in response to feedback. As a result, there is transformation of teaching and learning processes over time. |
| **Paradigm wars** | The battle of different and contradictory views or belief systems. |
| **Parent engagement** | A genuine relationship between parents and teachers with the shared goal of maximising student learning and wellbeing, resulting in benefits for students throughout schooling. |
| **Pedagogical** | Relating to teaching. |
| **Pedagogical Content Knowledge (PCK)** | Knowledge of how to teach students through approaches, strategies, and methods that enhance learning, in context of a particular learning area. PCK includes knowledge of how students learn; how content can be organised, represented and adapted to students' diverse interests and needs; what makes specific content easy or challenging to learn; and the preconceptions or misconceptions that students of different ages and backgrounds bring with them when learning. |
| **Pedagogical innovations** | Intentional actions that aim to introduce something new or original in teaching and learning contexts, with the aim of substantially improving student learning outcomes. |
| **Pedagogy** | The method and practice of teaching. |
| **Performance assessment** | Assessment that measures students' ability to apply the skills and knowledge learnt from a unit or units of study. |
| **Personalised learning** | Learning whereby its pace and strategies are designed to respond to students' needs. |
| **Problem-based learning** | A cooperative learning strategy that requires critical and creative thinking to explore complex, real-world problems. |

| Terms | Elaborations |
|---|---|
| **Process** | [In the context of differentiation] How learning occurs – that is, the teaching and learning strategies, methods, and activities that are used to develop the knowledge and skills targeted in the learning outcomes. |
| **Product** | [In the context of differentiation] How learning is evidenced – that is, the culminating tasks (and artefacts that are generated through them), which students participate in to demonstrate their learning. |
| **Project-based learning** | Learning strategy in which learners work relatively autonomously over extended periods of time on projects involving design, decision-making, problem-solving or investigative activities, culminating in a product or performance. |
| **Protective factors** | Factors that help reduce the impact of negative events and/or risk factors. |
| **Readiness** | What the student already knows and can do (i.e. their "point of entry" or "starting point"), in relation to the knowledge and skills targeted in the intended learning outcomes. |
| **Resilience** | A person's capacity to recover and move on in the face of adverse situations or circumstances. |
| **Risk factors** | Factors that are associated with increased risk of negative outcomes. |
| **Scaffolding** | Facilitation strategy that helps learners to build knowledge and skills by making connections between their prior experience and the new knowledge and skills. |
| **School culture** | The assumptions, beliefs and practices that are shared by the members of a school community, which shape the ways in which people think, act and learn. |
| **School improvement** | Activities that enhance the quality of teaching and other aspects of the school to improve student learning and wellbeing. |
| **School-based management** | Decentralisation of management from a central education office to schools so that control and decision-making is made at the local level and can respond appropriately to the context. |
| **Self-efficacy** | A person's beliefs about their own ability to organise and put into action what needs to be done to achieve a goal. |
| **Self-esteem** | A person's beliefs about themself and their own worth. |
| **Self-improving education system** | A school or education system that uses evidence to improve practices, which lead to improved student learning and wellbeing. |
| **Self-regulated learning** | A person's ability to plan for their own learning, monitor their learning progress, adapt and change when needed and evaluate their learning outcomes. |
| **Sensory memory** | A form of memory which processes sensory input for a short period of time before it is processed in short-term memory. |
| **Short-term memory** | A form of memory which stores small amounts of information for a short time (also known as working memory). |
| **Social justice** | The concept that all people should have equal access to services and goods produced in a global community. |
| **Social model of disability** | A model that sees that environmental, social and cultural factors can be adjusted to reduce the extent of a person's disabilities. |
| **Social regulation** | When people work together towards group goals and they develop a common understanding of ideas and standards that are defined by the group. |
| **Spiral curriculum** | When students return to the units and sub-units of the curriculum, in each year of a study programme, to progressively build their competencies. |
| **Summative assessment** | Assessment strategies designed to evaluate what the student knows at the end of a stage of learning and whether they have met intended curriculum outcomes and/or individual learning goals. |

| Terms | Elaborations |
|---|---|
| **Sustainable Development Dimensions** | The dimensions of sustainable development include:<br><br>*Natural/ environmental systems,* which provide life support systems (i.e., air, water, food);<br><br>*Economic systems,* which provide a means of livelihood (i.e., employment and money);<br><br>*Social systems,* which provide ways for people to live together peacefully and equitably;<br><br>*Political systems,* which shape policy and decision-making regarding the ways social and economic systems use the natural environment. |
| **Systematic literature review** | A well planned review that answers specific research questions using systematic and explicit methods to identify, select, and critically evaluate results of studies included in the review. |
| **Systems thinking** | Involves being able to consider the connections between elements of the economy and the environment and the social well-being of all communities. |
| **Teacher leaders** | See meaning for Teachers as leaders as the two terms have the same meaning. |
| **Teachers as leaders** | Leadership roles for teachers may be formal, with designated responsibilities, or informal, emerging as teachers interact and work together. |
| **Technological Pedagogical Content Knowledge (TPACK)** | Knowledge of how to use particular technologies effectively to teach particular content to particular learners. The key insight of the TPACK model is that teachers must learn how to navigate the relationship between content, pedagogy, and technology in context, rather than learning about technology separately. |
| **Technology integration** | Use of technology to support teaching and learning, involving consideration of teaching and learning goals and affordances of available technologies (see affordances). |
| **Transdisciplinary approach to curriculum integration** | Involves planning for learning based on a powerful inquiry question, authentic issue or problem, or a project of interest. |
| **Transfer** | The application of knowledge and skills in new situations or different contexts. |
| **Twenty-first century learning** | Learning that is designed to be relevant and meaningful given an emphasis on students developing a highly valuable skill set for their future. Typically, the learning is active, interactive, collaborative and technology-enabled. |
| **Unconscious bias** | Stereotypes held by an individual about certain groups of people that form outside their own conscious awareness. A teacher's unconscious bias is a barrier to having high expectations for all students, particularly those from different backgrounds. |
| **Universal Design for Learning** | A flexible approach to teaching and learning that offers students choices in how they access material, engage with them and demonstrate their learning.<br><br>Terms within UDL:<br><br>Action and expression: Students should be offered choices in how they interact with the materials and how they wish to demonstrate their learning;<br><br>Engagement: Teachers should use multiple methods to motivate and engage students, so that students' interest is sustained; and<br><br>Representation: Offering information in multiple ways. These include text, audio, video and hands-on learning. Students are given a choice about how they will access information and can choose methods that suit their learning strengths. |
| **Upper Primary** | Grades 3 to 5 in Myanmar's Basic Education schooling structure, as defined relative to Lower Primary. |

| Terms | Elaborations |
|---|---|
| **Wellbeing** | In its broadest sense, human wellbeing describes a quality of human life that is underpinned by concerns of social justice and intergenerational equity. |
| **Whole school approach** | Involves collaborative actions, across key areas of school life (e.g., curriculum, teaching and learning, leadership and governance, partnerships, buildings and infrastructure, etc.) enacted by a school community working towards clearly identified goals and targets relating to an overarching agenda (e.g., whole school approach to sustainability, whole school approach to student wellbeing). |
| **Zone of Proximal Development** | The distance between what a student can do with and without help. |

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# Annexes

## Annex 1A: SQASF dimensions and standards[78]

***Learning and Teaching***

1.1 Students have learning opportunities and achieve learning outcomes
1.2 Students actively participate in learning
1.3 Students' learning outcomes are evaluated, used in teaching, and reported to parents
1.4 Teachers are competent and design plans
1.5 Principals, teachers, students and school staff demonstrate inclusive attitudes and behaviours

***Professional Development***

2.1 Principals, teachers and office staff have basic skills relating to their positions as identified in professional standards
2.2 Principals, teachers, and office staff participate regularly in professional development

***Leadership and Management of Principals***

3.1 People, including the principal, who are responsible for school leadership and management act responsibly and are accountable
3.2 People, including the principal, who are responsible for school leadership and management, support and delegate duties to teachers, school staff, parents and students
3.3 People, including the principal, who are responsible for school leadership and management, ensure that teacher, staff and students' performance data are monitored, and evaluated, and actions are planned to improve data collection and management
3.4 People, including the principal, who are responsible for school leadership and management, cooperate with parents, community groups, education officers and other schools

***Infrastructure and Resources***

4.1 School infrastructure, facilities, its environment, and the materials the school uses, are welcoming and keep students and staff safe and healthy
4.2 School infrastructure and resources support effective teaching and student learning

***Budget and Financial Management***

5.1 School expenditure is transparent and the budget is available for teachers, staff, finance teams and the PTA to view
5.2 School financial management supports student learning and school quality improvement

***Parents' and Community Participation***

6.1 Parent Teacher Association (PTA) members participate in school improvement planning and activities
6.2 Parents and family members actively support students' learning
6.3 The local community cooperates with the school in emergencies

78 DBE. (2019a).

# Annex 1B: Competency Standards for School Heads – teaching and learning

| Standard | Indicators |
|---|---|
| C.1. Manage effective implementation of the curriculum | C.1.1. Demonstrate an understanding of the Basic Education curriculum standards and ensure effective implementation of curriculum for each grade<br>C.1.2. Monitor curriculum implementation and adopt strategies to promote individual students' achievement<br>C.1.3. Manage regular implementation of extra-curricular activities<br>C.1.4. Provide guidance and support to teachers for enrichment and contextualisation of the curriculum to meet local needs<br>C.1.5. Organise to prepare lesson plans considering teaching learning, activities, and materials appropriate to the needs of the curriculum. |
| C2. Manage the development of teaching and learning | C.2.1. Demonstrate a thorough understanding of various instructional theories; and provide appropriate guidance to the teachers<br>C.2.2. Demonstrate a thorough understanding of teaching methodologies appropriate to individual students' needs; and provide necessary guidance to the teachers<br>C.2.3. Demonstrate a thorough understanding of various teaching learning strategies and resources; and provide guidance to the teacher.<br>C.2.4. Manage appropriate use of ICT in teaching and learning<br>C.2.5. Ensure the use of different assessment strategies and activities as well as providing effective and timely feedback to support student learning<br>C.2.6. Manage assessment processes and procedures systematically in regular monitoring of students' learning and achievement<br>C.2.7. Organise teams to work on instructional innovations to improve students' learning outcomes. |
| C3. Monitor and supervise performance of teachers | C.3.1. Develop and implement an instructional supervisory plan<br>C.3.2. Monitor instructional practices of teachers and provide actionable feedback<br>C.3.3. Provide technical and other necessary support including coaching and mentoring for teachers to improve their instructional practices<br>C.3.4. Nurture teacher-leaders to provide supportive instructional supervision in the school. |
| C4. Enhance continuous professional development of the staff as well as herself/ himself | C.4.1. Develop and maintain strategies and procedures for identifying needs of improvement for staff<br>C.4.2. Review and self-assess own practices for improving school performance<br>C.4.3. Develop and implement a school-wide strategy that focuses on staff capacity development activities. (e.g. sharing information from workshop, seminars, action research, lesson study etc.)<br>C.4.4. Provide equitable access to different opportunities among teachers and office staff for capacity building<br>C.4.5. Ensure improvement of ICT skills of teachers and office staff as well as one's self. |

# Annex 2A: Inquiry-based learning models

## Sciences: 5 Es Model

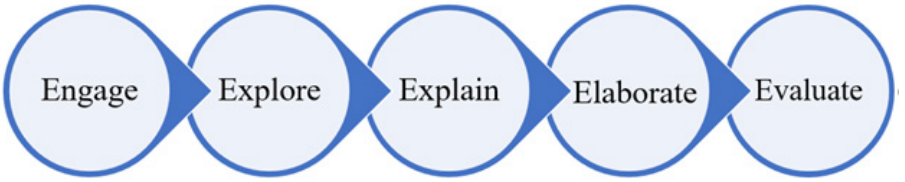


**Figure 2A.1. 5Es phases**

**Table 2A.1. 5Es model[79]**

| Model phase | Purpose of phase |
|---|---|
| Engage | • Capture students' interest<br>• Find out their existing understanding<br>• Raise questions for inquiry |
| Explore | • Facilitate shared learning through students engaging in investigations, hands-on experiences, and research |
| Explain | • Support students to communicate developing understandings, drawing on their experiences and observations<br>• Build conceptual understanding by introducing concepts and linking findings to existing scientific explanations |
| Elaborate | • Allow students opportunities to apply what they have learnt to new situations and investigations, thus extending and integrating their learning |
| Evaluate | • Allow student to review and reflect on new understandings and skills |

## Social Studies: Social Inquiry Model

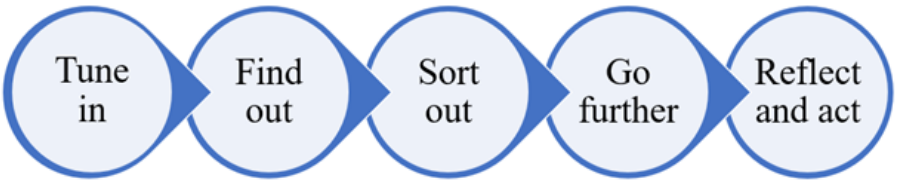


**Figure 2A.2. Social Inquiry phases**

79 Primary Connections. (2020).

**Table 2A.2. Social Inquiry model[80]**

| Model phase | Purpose of phase |
|---|---|
| Tune in | • Promote students' curiosity and establish relevance<br>• Document prior knowledge<br>• Formulate powerful questions<br>• Consider ways to find out |
| Find out | • Use a range of resources and methods to gather information (i.e., read, view, interview, survey, experiment, observe)<br>• Critically assess the value of the information<br>• Document information in a range of ways |
| Sort out | • Organise and analyse information (i.e., sort, compare, contrast etc.);<br>• Discuss and arrive at understandings, which may be new if primary data have been collected (e.g., grade 6 student perceptions of climate change, captured through survey)<br>• Revisit and refine questions |
| Go further | • Use new questions as the basis for extended inquiry<br>• Establish personal pathways of interest |
| Reflect and act | • Make connections to big ideas<br>• Consider ways to apply, use and share learning<br>• Reflect on the process |

80 Murdoch, K. (2019).

# Annex 2B: Progression of learning regarding inquiry- and problem-based learning

| Year level and lesson | Overview of inquiry-based and problem-based learning |
|---|---|
| **Year 2**<br><br>Lesson 2.2.1.<br><br>Student-centred learning: Constructivist approach | • Reviewed constructivist learning principles from Year 1<br>• Explored the role of the teacher and student in a student centred-classroom<br>• Engaged with literature on inquiry learning, especially the importance of teacher scaffolding<br>• Reviewed two inquiry learning models: 5Es and Social Inquiry models<br>• Developed skills in framing powerful questions for inquiry<br>• Planned for the tuning-in/engage phases of inquiry drawing on appropriate strategies |
| **Year 2**<br><br>Lesson 2.2.1.<br><br>Inquiry-based learning models and skills development | • Engaged with a literature-informed generic model of inquiry so as to understand what is common to inquiry models across learning areas<br>• Aligned the 5Es and Social Inquiry models with the generic model<br>• Explored the development of student skills over time:<br>- Reviewed progression of students' science inquiry skills<br>- Explored the role of the teacher and student across a continuum from a high level of teacher scaffolding to a high level of student direction<br>• Identified the strategies that the teacher uses to scaffold inquiry in a Middle school classroom scenario and the inquiry skills that the student uses in the learning |
| **Year 3**<br><br>Lesson 2.2.2<br><br>Problem-based learning in the Middle school | • Engaged with literature on the benefits of problem-based learning<br>• Reviewed planning process for problem-based learning<br>• Identified problem-based learning scenarios and questions that would be appropriate for the Myanmar Middle school<br>• Selected one of the problem-based learning scenarios and undertook preliminary planning for implementation in a Grade 6 or Grade 7 classroom. |

# Annex 3A: Class Profile

You are a Grade 6 teacher at a rural public middle school. There are 32 students in your class (15 male and 17 female students). There is access to a whiteboard and paper and pencils in the classroom. The school has a small library. You have an iPad that you sometimes allow students to use for learning activities. The families are mostly rice farmers or government employees and all students speak Myanmar at home. Many of the parents have very limited education. In your class, you also have a number of students with additional needs:

- Student 1 enjoys Mathematics but needs support to improve handwriting and spelling.
- Student 2 loves reading and writing, however, she does not interact well in social situations. She is quiet in nature and needs support with group work.
- Student 3 is colour blind and needs support to choose appropriate colours for diagrams. Red and green colours look the same to her.
- Student 4 is experiencing difficulty reading and writing. He becomes very tired quickly and complains that the letters seem to move on the page. He needs support to improve his handwriting.

# Annex 3B: Case Studies

**Case study 1**

Ma Twe Tar Win is in your Grade 6 class. She is usually positive about school regularly attends class. She loves to dance and performs in dancing events at school. You (her teacher) observe that while she has very good maths skills, she struggles with handwriting and essay writing. In particular, she becomes very frustrated and tired as she tries to write. She is often quick to give up. She also struggles with spelling and becomes anxious with writing activities. Her parents say that she tries to do her homework at home, but she cannot focus on it for long periods of time. She often has health issues and her family is very poor. Her parents have a low level of education and find it difficult to support her learning at home.

**Case study 2**

Ma Phyu Pyae Thaw is in your Grade 6 class. She has a vivid imagination and loves to create narratives and she enjoys Myanmar classes. She reads a lot of fiction books. However, she has a very quiet nature and finds social situations very challenging. You have introduced a number of group tasks lately, and she has not participated well. You observed that she would sit quietly and do her own thing rather than join the group activities. She lives with her parents, elder sister and two aunts. Her parents have limited education but try to support her learning as much as they can.

**Case study 3**

Ma Hnin Yu Lwin is in your Grade 6 class. She enjoys school and likes spending time with her friends. She particularly likes drawing and origami. She often makes small origami gifts for her teacher and friends. Even though Ma Hnin Yu Lwin loves to draw, she is colour blind (green and red colours look the same). She often mixes up the colours. Lately, you have observed that she has started to draw in black and white. You have also noticed that she becomes easily distracted during class, and she constantly draws small pictures on her paper instead of completing her work. She lives with her parents, elder sister, younger sister and grandparents. Her parents have very limited education.

## Case study 4

Mg La Min Ko Ko is in your Grade 6 class. He enjoys Science and knows a lot about local plants and animals. He is a good team player, he enjoys Physical Education and he plays football with other boys during lunch time. He has a positive attitude towards school. However, he finds handwriting very difficult. You have noticed that he tries to avoid writing tasks and becomes very agitated when you try to encourage him to write more during class. He lives with his parents, brother and sister. His parents have limited education and are unable to support his learning at home.

# Annex 4A: Year 3 lesson plan template

**Year 3 lesson plan template**

| **Class:** | **Date:** | **Time:** | **Teacher:** |
|---|---|---|---|
| **Lesson:** *(What is the topic/title of your lesson?)* | | | |
| **Know the students:**<br>a. Prior knowledge *(What do students know? What can students already do?)*<br>b. Student profile *(What do you need to consider regarding individual students' needs?)* | | | |
| **Lesson objective:** *(What is the purpose of the lesson? What do you intend to do?)* | | | |
| **Learning outcomes:**<br>*(Construct SMART learning outcomes. What will students know and be able to do by the end of the lesson?)*<br>By the end of this lesson, students will be able to: | | | |
| **Criteria for success:** *(How will you and your students know if they have achieved the learning outcomes of this lesson? e.g., They will be able to solve 7 out of 10 mathematics problems; They will be able to label all parts of a flower on a diagram.)* | | | |

**Formative assessment opportunities:** *(Teacher questioning, teacher observation, teacher review of student work, peer assessment with simple rubric, self-assessment)*

**Teaching and learning strategies:** *(Is the lesson Inquiry-based? Problem-based? Project-based? A direct instruction lesson? etc.)*

**Teaching and learning methods and techniques:** *(Will you use Brainstorming? Storytelling? Role play? Questioning? Discussion? Think-pair-share? Group work? etc.)*

**Teaching aids and resources** *(Visual aids, audio aids, integration of technologies): (Will you need paper? Drawing materials? Computers? etc.)*

| Stage | Timing | Teacher activity<br>*(What are you doing?)* | Student activity<br>*(What are the students doing?)* | Differentiation<br>*(How will you differentiate teaching and learning to respond to students' needs?)* |
|---|---|---|---|---|
| **Introduction**<br><br>*(How will you gain students' attention; connect to prior learning; communicate intended learning outcomes and success criteria?)* | | | | |
| **Body**<br><br>*(Will there be different stages in the body of the lesson e.g., explicit teaching, guided practice, independent practice?)* | | | | |
| **Review**<br><br>*(How will you assess student achievement of learning outcomes; support students reflecting on learning?)* | | | | |

**Teacher evaluation** *(Plan questions for evaluation; complete this section after delivery)*

Did all your students understand and meet the intended learning outcomes?

Were the learning outcomes suitable for students' level/s?

Were they realistic given the time allocation?

How effective were the teaching and learning strategies/methods? Teaching aids/ resources? Formative assessment and feedback opportunities?

What would you do differently next time to enhance student learning?

# Annex 4B: Grade 4 English rubrics

According to the Grade 4 English Teacher Educator Guide:

> *Performance assessment can be used when students are writing, staging role plays, participating in dialogue, making presentations, and doing project work.* ***Performance assessment*** *uses rubrics, which support teachers in evaluating students fairly and giving feedback.*

See rubrics for performance assessment in Table 4B.1–3.

**Table 4B.1. Written English rubric**

| Criteria for success | Advanced | Satisfactory | Emerging |
|---|---|---|---|
| Communication | Can successfully communicate the main information/ ideas of the writing task | Can communicate some of the main information/ ideas of the writing task. | Can communicate very few of the main information/ ideas of the writing task. |
| Language | Good control of grammar and spelling. Only a few errors. | Some control of grammar and spelling. Some errors and omissions. | Some control of grammar and spelling. Many errors and omissions. |
| Handwriting | Handwriting is clear, legible and words/ letters stay on the line. | Handwriting is mostly clear and legible, though sometimes hard to read. Most words/ letters stay on the line. | Handwriting is unclear, and difficult to read. Words/ letters are often written above/ below the line. |

**Table 4B.2. Role play or dialogue**

| Criteria for success | Advanced | Satisfactory | Emerging |
|---|---|---|---|
| Pronunciation | Is intelligible with good control of phonological features at word and sentence level. | Is intelligible with some control of phonological features at word and sentence level. | Often intelligible with limited control of phonological features at word and sentence level. |
| Communication | Can successfully communicate the main information/ ideas of the speaking task. A few errors which do not impede communication. | Can communicate some of the main information/ ideas of the speaking task. Some errors which occasionally impede communication. | Can communicate very few of the main information/ ideas of the speaking task. Many errors which impede communication. |

| Criteria for success | Advanced | Satisfactory | Emerging |
|---|---|---|---|
| Vocabulary and grammar | Good degree of control of grammar. Uses appropriate vocabulary throughout. Only a few errors. | Some control of grammar. Mainly uses appropriate vocabulary. Some errors. | Limited control of grammar and vocabulary. Many mistakes which makes understanding difficult. |

**Table 4B.3. Project presentation rubric**

| Criteria for success | Advanced | Satisfactory | Emerging |
|---|---|---|---|
| Content | All content is relevant to the project title. | Most of the content is relevant with some omissions. | Much of the content is irrelevant or missing. |
| Vocabulary and grammar | Good degree of control of grammar. Uses appropriate vocabulary throughout. Only a few errors. | Some control of grammar. Mainly uses appropriate vocabulary. Some errors. | Limited control of grammar and vocabulary. Many mistakes which makes understanding difficult. |
| Presentation techniques:<br>Faces the audience<br>Makes eye contact<br>Uses gestures | Correctly uses all three techniques. | Correctly uses two of the techniques. | Correctly uses only one of the techniques. |

# Annex 5A: Simplified lesson plan template

| **Class:** | | | | | |
|---|---|---|---|---|---|
| **Lesson topic:** | | | | | |
| **Learning outcomes:**<br><br>By the end of this lesson, students will be able to: | | | | | |
| **Stage** | **Timing** | **Teacher activity** *(What are you doing?)* | **Student activity** *(What are students doing?)* | **Learning theory applied** | **Justification** |
| **Introduction** | | | | | |
| **Body** | | | | | |
| **Review** | | | | | |

# Annex 5B: Educational psychology myths

This annex presents shortened excerpts of a criticism of five educational psychology myths.[81]

**Myth 1: The learning pyramid reflects the effectiveness of different forms of teaching, from highly effective to ineffective**

The learning pyramid reflects the effectiveness of different forms of teaching. According to the pyramid,[82] pupils only remember:

- 5% of what the teacher says
- 10% of what they read
- 20% of an audio-visual presentation
- 30% of a demonstration
- 50% of a discussion
- 75% of what they do themselves; and
- 80–90% of what they explain to others.

The percentages vary in different sources, but that is not important. What is important is that it is nonsense that you should not fall for.

First, there is no basis for such percentages. Even the institution that everyone quotes (National Training Laboratories in Bethel, Maine, USA) says they do not have data to support them.

Furthermore, the pyramid is simply a corruption of Edgar Dale's cone of experience (1954), in which he indicated how different media differ along a continuum from abstract (language, letters) to concrete (direct experience).

Finally, even if the percentages were correct, you cannot do anything with it. A teacher standing in front of the class and teaching about electricity (5%) can write the main points and principles on the whiteboard or show them in a PowerPoint® presentation (+10%), show a video clip about circuits (+20%), give a small demonstration of a

81 Shortened and slightly modified from Kirschner & Hendrick. (2020, pp. 269-300).
82 Note that there are many variations on the learning pyramid. None of these are based on scientific evidence.

battery or lamps in series and in parallel (+30%) and then discuss the results of the demonstration with the students (+50%), etc. No lesson is purely one or the other and just adding these percentages up teaches us that you could learn more than 100%!

**Myth 2: Students learn best when teachers cater for their learning styles**

While it sounds and even feels logical that there are children who are visual learners (learn best when information is presented as pictures, diagrams, and charts), while others are auditory (learn best in a lecture or group discussion) readers/writers (learn best through reading and writing) or kinesthetic (hands-on learners who learn best through physical experience), there is no evidence whatsoever for this. And this is just one of the 72 different learning styles (the so-called VARK).

This way of looking at how children learn, and therefore how the teacher should teach, has at least three problems.

First, in most studies learning styles are determined based on what people say they prefer. It is therefore about learning preferences and not learning styles.

Second, there is a big difference between these and what leads to better learning. I think we all can agree that if we ask people what they prefer to eat, many if not most will say fatty things and/or salty things and/or sugary things. I think that we can also all agree that these preferences are not part of a healthy diet. That you prefer it does not make it good for you, both in food and learning.

Finally, most so-called learning styles are based on specific types: people are classified into different groups. However, there is no evidence for the existence of these groups. And this discounts the fact that even if they all did exist, if the 72 types of learning styles were simply dichotomous (e.g., concrete versus abstract thinkers), there would be 272 different combinations of learning styles, or, 4,722,366,482,869,669,245,213, 696 different combinations. So good luck tailoring your teaching to them!

But possibly the most important problem is that if we put learners in different boxes and teach accordingly (i.e., pigeonhole them), we create situations that instead of promoting learning, hinder it.

## Myth 3: Students born in recent decennia are digital natives

Marc Prensky introduced the term 'digital natives' in 2001 to describe a generation that has never lived without digital technologies. They therefore have exceptional and unique characteristics. He concluded that we must design and introduce new forms of education that focus on the special gifts of these digital natives. Unfortunately, he based all of this on simple personal observations of young people and not on any research.

Others have since made various claims about digital natives. For example, Veen and Vrakking claim that digital natives learn independently. Without instruction, these students develop the metacognitive skills needed for discovery learning, experimentation, collaborative learning, active learning, self-directed learning, and problem-based learning.

Based on these claims (again acquired through personal observation and not research) a growing group of people, including politicians and administrators, believe that education should respond to this. We hear things like "Let's Googlify education", "Knowledge acquisition isn't necessary", and "We need to harness the cognitive and metacognitive skills of this technology-savvy generation!"

Don't! There is no evidence that young people today have any special skills (other than very fast-moving thumbs) that would allow them to learn differently. The proponents of these ideas based this purely on their own experiences and anecdotal evidence.

## Myth 4: Students are capable of multitasking

One of the competencies that people attribute to the non-existent digital native is that of multitasking. There is much confusion about this concept.

Multitasking is the ability to simultaneously perform two or more tasks that require thinking (or information processing) without a loss of speed or accuracy. To really multitask you need two or more separate processing units (think of a multicore computer with two, four, eight, or even more CPUs). The problem is that people only have one CPU, namely their brains.

When it comes to automated tasks that do not require thinking, we can easily do two or more things at the same time. What we actually do is switch between tasks (i.e., task switching). But when we switch between tasks, we lose time and we make mistakes.

If we switch tasks, we (unconsciously) make a "decision" to shift our attention from one task to another. Our brain then activates a rule to end the processing of one task whereby you leave the **cognitive schema** that you were using, and initiates another rule to enable the processing of the other task. Switching between tasks takes time. Distributing attention between these two tasks requires space in our working memory. The two tasks therefore interfere with each other.

In short, we simply cannot multitask. If we try to do two or more things at the same time that require thought, we do things worse and it takes more time in total than if we had done them one after the other (i.e., serially monotask).

**Myth 5: Knowledge is no longer important to 21st century learning**

We hear that just about all the "knowledge" we need can be found on the internet via Google or other search engines and, thus, that we no longer need to know as much as we used to, as long as we can look it up. But there are problems here.

First, there is no knowledge on the internet; only information. However, a great deal is non-information or outright nonsense from questionable sources. Without a solid knowledge base, we can do little with what we find on the internet.

Our prior knowledge and experiences determine how we see, understand, and interpret the world around us. It also determines how well we can look up, find, select, and **process** (or evaluate) the information available on the internet. Unfortunately, in the best case, students only have minimal prior knowledge of a subject (after all, they are students; if they already had the knowledge, they would be experts).

Related to this is the myth that knowledge has a limited expiration date (as perishable as fresh fish is sometimes said). This is nonsense too. The vast majority of what we have learnt is still correct. There is a huge increase in information. But as said, without knowledge we can do little with it.

# Annex 6A: Human rights friendly school action plan

Name of school:

School vision:

| KEY AREA OF SCHOOL LIFE | CURRENT LEVEL OF HUMAN RIGHTS FRIENDLINESS<br>• Where are we now? | THE CHANGE WE WANT TO SEE<br>• What are we trying to achieve?<br>• What are our short-term objectives?<br>• What are our long-term objectives? | PROJECT ACTIVITIES<br>• What activities can we undertake to achieve this? | KEY STAKEHOLDERS<br>• Who will lead this?<br>• Who will be involved? | MILESTONES AND MONITORING PROGRESS<br>• How will we know change has happened?<br>• How a do we capture evidence of progress? |
|---|---|---|---|---|---|
| Governance<br>• school values<br>• school policies<br>• leadership<br>• participation<br>• accountability transparency | | | | | |
| Relationships<br>• staff-student<br>• student-student<br>• staff-staff<br>• school, parents, and community<br>• building partnerships – local and global | | | | | |
| Curriculum and Extra-curricular activities<br>• curriculum policy and content<br>• teaching methodology<br>• extra-curricular activities | | | | | |

| KEY AREA OF SCHOOL LIFE | CURRENT LEVEL OF HUMAN RIGHTS FRIENDLINESS<br>• Where are we now? | THE CHANGE WE WANT TO SEE<br>• What are we trying to achieve?<br>• What are our short-term objectives?<br>• What are our long-term objectives? | PROJECT ACTIVITIES<br>• What activities can we undertake to achieve this? | KEY STAKEHOLDERS<br>• Who will lead this?<br>• Who will be involved? | MILESTONES AND MONITORING PROGRESS<br>• How will we know change has happened?<br>• How a do we capture evidence of progress? |
|---|---|---|---|---|---|
| School Environment<br>• human rights friendly classrooms<br>• physical school environment<br>• wider school environment | | | | | |

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