

MODULE 1
BUILDING BLOCKS OF PRIMARY EDUCATION

1.1 TWENTY-FIRST CENTURY TEACHING AND LEARNING

Building Blocks of Primary Education. Twenty-First Century Teaching and Learning.

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Introduction

What is the CONTESSA course?

The CONTESSA course is one of the results of the “Contemporary Teaching Skills for South Asia” project co-funded by the Erasmus+ Program of the European Union. Its aim is to be a contribution to establishing successful teacher education programs for primary teachers, particularly in Cambodia and Sri Lanka, which will create a long-lasting positive impact on the overall educational systems.

It is increasingly important for successful educators to stay up-to-date with contemporary skills and methods to use inside and outside of the classroom. The CONTESSA course therefore offers five carefully selected modules, each of which contain three focuses aimed at the development of contemporary teaching skills. The modules and their focuses are as follows:

Module 1. Building Blocks of Primary Education

1. Twenty-First Century Teaching and Learning
2. Lesson Planning and Methodological Skills: Concepts, Tools and Application
3. Designing Learning Environments

Module 2. Excellence in Teaching: Profession-Specific Competences of Primary School Teachers

1. Teaching Comprehension: Roles, Tasks and Functions
2. Assessing Learning Results
3. Pedagogical Professionalization

Module 3: Learner-Centered Primary Education: Enhancing Co-Created Learning Processes

1. Individual Development and Problem-Solving Skills
2. Lifeworld-References and Future Prospect
3. Self-Determination, Empowerment and Self-Efficacy

Module 4: Embracing the Differences: Pedagogic Approaches to Diversity, Heterogeneity, Special Needs

1. Inclusive Pedagogy: Approaches and Strategies
2. Teaching and Learning in Diversity: Preparation, Realization, Assessment
3. Diversity-Sensitive Classroom Management

Module 5: Digital Teaching and Learning

1. E-Pedagogy and Digitally Enhanced Learning Environments
2. Digital Media and Technology: Tools and Formats for Educational Purposes
3. Online-Based Lesson Preparation and Conduction

Upon completion of this course, participants will be able to implement newly acquired contemporary teaching skills, engage all students in classroom activities and learn new ways to help students reach their full potential.

Who is the CONTESSA course for?

The “Contemporary Teaching Skills for South Asia” project aims at promoting contemporary teaching skills for pre-service and in-service teachers working in primary schools. The following document is specifically adapted for pre-service teachers.

Furthermore, the CONTESSA course is available for anyone interested in staying up-to-date with contemporary teaching skills.

This is the English version of the CONTESSA course. Material is also available in Khmer, Sinhala and Tamil.

What is the structure of the CONTESSA course?

As mentioned before, the CONTESSA course consists of five modules, each worth the equivalent of 3 ECTS. Ideally, the modules are all used together since individual modules refer to other modules, but they are also designed in a way that each one can be used on its own.

Each module contains three thematic focuses and documents are available for each focus. This makes a total of 15 documents available in the CONTESSA course. Each document contains a theoretical introduction to the focus, followed by practice exercises based on the theory. **STEP 1 – THEORY** – is meant as a revision of what has been read in the theoretical introduction. Practice exercises check the comprehension of the text to make sure that the underlying theory has been understood. **STEP 2 – EXPERIENCE** – offers examples of real teachers and how they practically implement the theory explained in the theoretical introduction. These examples are again connected to practice exercises which are meant to allow for the application of the previously learned theoretical knowledge. **STEP 3 – (SELF-) REFLECTION** – includes reflection questions based on each focus. **STEP 4 – PRACTICE** – is the final STEP where a teaching project is created based on what has been seen before in STEPs 1 and 2.

The practice exercises in STEPs 1 and 2 can be directly completed in this document. STEPs 3 and 4 are part of a separate portfolio document which has to be created by each individual. A template for this portfolio is available as a separate document.

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1 TWENTY-FIRST CENTURY PRINCIPLES OF TEACHING

Historically, the teaching/learning process has focused mainly on the teacher and their output to the students. Students are merely passive receivers of information, sitting quietly at their desks and listening to a lecture given by the teacher. In this traditional **teacher-centered approach**, students who are not as quick to grasp concepts are likely to miss information and/or misunderstand it, and therefore have an increased difficulty comprehending future topics and studying successfully. Not all students learn at the same pace and not all students are good at the same subjects. Some may be slower when it comes to understanding mathematics, but quite talented when it comes to more hands-on work. This aspect is especially important as the teacher's perception of a child can strongly influence the child's self-image. If they feel like they are not as skilled as others, they might end up losing interest in studying and this may result in a decreased academic performance or even failure (UNESCO, 2015). Consequently, these students do not have the option to unearth their talents because they would need more time and support to do so. 21st century teaching, on the other hand, is meant to prepare every student for their future (working) lives, which means considering the pace of the individual learner to exploit their potential and demanding the teaching of more active skills (e.g., expressing opinions or collaborating) (Tuomarla, 2019). It is therefore necessary to shift from teacher-centered to **learner-centered education**.

This shift can be achieved through a change in the learning strategies and methods from mainly memorizing to a more competence-oriented approach. According to the International Association of Education (IAE), which focuses on the scientific aspects of education and their practical application, there are twelve interdependent principles of teaching (and learning), which will support this center-shift and thereby support a more personalized learning process. The following principles are connected, but also play an individual role in the teaching process:

Teacher-centered refers to learning situations in which the teacher asserts control over the material that students study and the ways in which they study it. (The Glossary of Education Reform, 2014, online)

Learner-centered refers to forms of instruction that [...] give students opportunities to lead learning activities [...] and generally contribute to the design of their own course of study. (The Glossary of Education Reform, 2014, online)

- Active Involvement
- Social Participation
- Meaningful Activities
- Relating New Information to Prior Knowledge
- Being Strategic
- Engaging in Self-Regulation and Being Reflective
- Restructuring Prior Knowledge
- Aiming Towards Understanding Rather Than Memorizing
- Helping Students Learn to Transfer
- Taking Time to Practice
- Developmental and Individual Differences
- Creating Motivated Learners

(Vosniadou, 2001)



Figure 1: 21st Century Principles of Teaching

1.1 Active Involvement

Successful learning demands a set of cognitive skills and activities such as focusing, observing, and paying attention. However, in order to do so, it is crucial to be actively involved in the learning process as this will help the student to internalize what they learn. The teacher's role in this context is to

support the learners in becoming active and thereby facilitating and improving their learning process. Active involvement can be encouraged by creating an interesting learning environment that motivates students to engage and by making the subject matter more appealing to them.

This can be challenging for the teacher, but the following ideas might be helpful (Vosniadou, 2001):

- Include exercises and activities that cannot be done by just passively listening. They should require active participation, or make sure that exercises that only require passive listening take up less class time.
- Incorporate hands-on exercises in class such as experiments or different kinds of projects.
- Plan excursions as part of class, visit sights or museums.
- Promote students' active involvement through discussion and group work.
- Give the students the opportunity to influence their learning process to some extent by giving them control over how they learn new contents.
- Understand the students' skills and interests and support them in setting appropriate learning goals. (Elmore, Peterson, & McCarthy, 1996)

When considering active involvement in the teaching process, it is important to note the significance of the teacher's involvement as well. Herein lies a crucial shift in the general concept of teaching (Sileo et. al, 1998). Studying or learning used to be considered exclusively the responsibility of the student, however further research has shown that:

“Learning requires the active, constructive, involvement of the learner.”

(Vosniadou, 2001, p. 8) ➡

1.2 Social Participation

Given that learning is – to a major extent – a social activity, it is crucial for the student to get involved in social life at school. Studies have shown that groupwork, social interaction in the learning environment as well as collaborative work related to studying and learning have a significant

➡ See also
Module 3,
Focus 2
“Lifeworld-
References and
Future
Prospect”

positive impact on students' academic performance. Another way to incorporate collaboration in the classroom is by letting the students share their work. Students tend to put more effort into their work if they know that it will be presented and/or shared with their classmates. However, not only does social participation influence the learner's academic learning process, but also their learning processes that are unrelated to school. For example, when children interact with their parents, and thereby learn something new such as saying a word, they are able to do so because of social participation. Children absorb habits, activities, and behaviors they observe or participate in, in their community or family, as part of their **socialization** process. This means a school environment that promotes collaboration and co-operation is important for their academic success and personal growth. A teacher can contribute to the students' social participation by providing a classroom where learning materials are shared, discussions take place, and group work is part of class. Social participation is an important aspect to promote the students' active involvement (Vosniadou, 2001). Studies suggest that social participation is the key to successful learning. The teaching and learning process do not only go from the teacher towards the students, but are bidirectional and rely heavily on interactive communication; between the teacher and the students, on the one hand, and among the students, on the other, e.g., group work, discussions etc. (Sileo et al., 1998). ➡

The following activities can be useful to teachers when attempting to promote social participation in class:

- Make sure to create a space that allows and supports collaboration, discussions, and group work.
- Make the link between the content that is being taught and the real-life community comprehensible to students.
- Provide the students with opportunities to give/receive feedback and express their opinions.

Socialization is known to be a process through which an individual forms a relationship to other individuals, commonly of the same species. The process of socialization is characteristic of different mammal communities including human society. (Thomas & Anderson, 2013, p. vii)

➡ See also
Module 1,
Focus 3
“Designing
Learning
Environments”

- When working in groups, have the students assign one student the role of coordinator, which will help acquire guiding abilities and generally improve social skills. (Sileo et al., 1998)

As mentioned before, the 12 principles are interdependent. So far only the first and second have been discussed, however, there are clear connections between the two. Successful learning requires active involvement and active involvement requires social participation. The main goal of both principles is to actively contribute and collaborate in order to benefit as much as possible from the learning process. To sum up the second principle:

“Learning is primarily a social activity and participation in the social life of the school is central for learning to occur.” (Vosniadou, 2001, p. 9)

1.3 Meaningful Activities

An activity is considered meaningful in this context when the learner views it as useful or beneficial to their learning process. The teacher can create meaningful activities by keeping in mind the cultural background of the learner as well as the possible personal real-life benefit of school to them. The reason why the teacher needs to keep cultural differences in mind is that they may influence the students’ view of meaningfulness in regards to certain activities. Cultural backgrounds can differ. Additionally, it is crucial for an educator to be aware of students who are not familiar with the school system and its culture. These students need to be carefully introduced to the new system. Culture can also have an impact on the students’ idea of social roles. ➡ This aspect connects back to the second principle social participation because it can influence the way students interact with each other as well as how they interact with an educator, and thereby their motivation to get involved in class altogether. This means that some activities or exercises are suitable for some learners and not suitable for others. In order to make activities meaningful, it is important to adapt them to real life situations and circumstances. This will help the learner to see the importance of what they are learning and thereby make studying more

➡ See also
Module 4,
Focus 1
“Inclusive
Pedagogy”

meaningful to them (Vosniadou, 2001). These activities will also contribute to the students' understanding of what is being taught and it will foster their analytical thinking (Sileo et al., 1998).

The following ideas might be helpful when planning meaningful activities:

- Pair a skill with an exercise that is meaningful to the learner e.g., have the students present a speech or participate in a debate to improve their speaking skills or introduce a newspaper for the class and encourage the students to write articles to improve their writing. (Sileo et al. 1998)
- Invite scientists or experts to give lectures about real (work) life experiences to further promote the students' understanding of the connection between school and work (Collins, Brown, & Newman, 1989).
- Encourage role playing and simulations to infuse the learning process with authenticity and promote analytical thinking. (Sileo et al., 1998)

The importance of creating a connection between school and real-life situations is not only emphasized in the 3rd principle, but also in the 8th ('aiming towards understanding rather than memorizing') and 9th ('helping students learn to transfer') principles. It is a recurring aspect of the 12 teaching principles; simply because it is one of the main goals of today's education systems to prepare the learners for their future lives.

"People learn best when they participate in activities that are perceived to be useful in real life and are culturally relevant." (Vosniadou, 2001, p. 11)

1.4 Relating New Information to Prior Knowledge

Research shows that learning is only possible when connecting the new information to previously acquired knowledge and by activating said knowledge. Students are not always able to see the connection between the two. Therefore the teacher needs to be aware of their students' prior knowledge in order to be able to assist them in understanding the link between what they have learned in the past and what they are currently learning. This means in order to activate the students' prior knowledge, the

teacher needs to help them connect it to the new information. To start, it can be useful to refer back to the previously acquired information when introducing a new chapter. This could be done by introducing a new topic with a discussion and thereby gaining an understanding of the students' prior learning experience. The teacher should also make sure that the information the students have is correct and complete and fill in the gaps if there is any vital information missing and correct any misinformation. By asking questions, the teacher can support the students in identifying the connection between new and old information (Vosniadou, 2001). When it comes to the teaching style of new content, it is important to have authentic exercises as part of the lessons and to put it into the context of previously learned information. A crucial part is the incorporation of group exercises, this in return will promote social participation. The aforementioned authenticity should also help foster the initiation of the learning process by the students themselves. One last important aspect to introducing new information is that the teacher has to be aware that students are not "empty vessels waiting to be filled" (Sileo et al., 1998, p. 187f.), but they are intelligent learners and capable of understanding what they learn according to their perception of the world.

In order to gain a better understanding of students' prior knowledge and help them link it to the new information, the teacher could do the following:

- Ask students to prepare presentations about the new topic before fully diving into it in class; this way students will be using prior knowledge as they have not acquired the new knowledge yet.
- Encourage a discussion in class before introducing a new topic.
- Ask questions during a reading session so that the connection between what is being read and known becomes noticeable to the students.

Again, social interaction and communication is significant to the learning process. In this case, however, the focus of the social interaction lies more on the teacher-student communication rather than the collaboration and

group discussions which have the student-student communication at their center (Vosniadou, 2001).

“New knowledge is constructed on the basis of what is already understood and believed.” (Vosniadou, 2001, 12) ➡

1.5 Being Strategic

People tend to find strategies in order to memorize information or learn skills. Even young children repeat information they want to remember even though they were not taught to apply this strategy. However, they realize that this strategy works when they are trying to remember something, such as a shopping list. At school, these strategies need to be adapted and students need to be taught more specific learning strategies. The teacher can help them find appropriate strategies to e.g., solve a mathematical problem. Having appropriate learning and solving strategies helps to speed up the learning process. The teacher’s role in developing this is to make sure their students acquire a broad set of strategies and learn to use them according to the task at hand. These strategies can be enhanced directly or indirectly. An indirect way to introduce a strategy would be giving the students a new task and asking relevant questions, and whenever possible, combine them with problem-based assignments allowing individualized learning processes, as opposed to the direct way of demonstrating the strategy.

The following exercises can be helpful in assisting students to acquire and learn strategies that are specifically suited for the tasks they are presented with:

- Having students summarize texts after reading them to help them improve their reading comprehension.
- Giving students tasks to do as a group; e.g., discussions or conducting experiments; this can help promote the development of learning strategies.
- Assisting students in finding strategies, but also helping them to learn how to use already developed strategies. (Vosniadou, 2001)

➡ See also
Module 3,
Focus 2
“Lifeworld-
References and
Future
Prospect”

Here we can see a direct link to the previous principle, namely the interaction between the teacher and the students. Learning the appropriate strategies is vital to the learning process and more importantly to a successful learning outcome because

“[p]eople learn by employing effective and flexible strategies that help them to understand, reason, memorize and solve problems.” (Vosniadou, 2001, p. 14)

1.6 Engaging in Self-Regulation and Being Reflective

Self-Regulation in the teaching and learning context means to be able to comprehend one's abilities, understand one's own errors and to correct them. The idea is to learn self-evaluation and strategies to improve the learning outcome. In order to do so, it is crucial to learn to reflect. The ability to reflect can be improved through discussion and collaboration with other students. A teacher could help by supporting the students in the process of problem solving. Another strategy to foster self-regulation and being reflective is to assist students with setting their own learning goals (Boekaerts, Pintrich, & Zeidner, 2000).

The teacher can promote self-regulation and being reflective in their students by:

- Providing students with the option to plan and structure an exercise or giving them a say in the design of an experiment.
- Giving students the opportunity to evaluate their own work as well as their classmates' work.
- Making students assess strategies they have used before.
- Encouraging them to question their strategies as well as the strategies that they are provided with.
- Offering space that allows self-reflection e.g., ‘Why am I doing an exercise the way I am doing it?’ ‘Is the solving strategy that I am using effective?’ etc.

- Encouraging students to find out which strategies work best given their skill set and task at hand.
- Giving students opportunities to assess, view their schoolwork realistically and thereby learn to set their own (realistic) goals.

The 6th principle requires the 4th principle (‘relating new information to prior knowledge’) to be applied because understanding your prior knowledge is crucial when assessing one’s own work and reflecting on it. This way, students as well as teachers will be able to identify the appropriate strategies suitable for the individual learner and their learning process can become strategic as the 5th principle (‘being strategic’) suggests.

“Learners must know how to plan and monitor their learning, how to set their own learning goals and how to correct errors.” (Vosniadou, 2001, p. 16)

1.7 Restructuring Prior Knowledge

It is important to adapt prior information to new learning content as sometimes prior knowledge can hinder new learning processes. In some cases, the knowledge obtained is not updated because students have not yet learned it. An example for restructuring prior knowledge in school would be when students start learning about fractions in mathematics, yet they only know the rules for natural numbers. In this case, they need to restructure the rules they have learned and adapt them to the new aspect they have learned. In order to be able to restructure and adapt prior knowledge, the teacher needs to be aware of their students’ prior knowledge and also give the opportunity to express said knowledge. Additionally, it would be useful to provide the students with opportunities to understand why or how their prior knowledge was lacking information or was incorrect. Students might need time to be able to process the new information and to restructure prior information. This time and space should be provided in class (Vosniadou, 2001).

The following strategies can be useful in order to restructure prior knowledge:

- Being aware that students do have prior knowledge and beliefs that might contradict the concepts that are currently being taught in class.
- Creating an environment that tolerates different beliefs and allows learners to express them, even if there might be misinformation.
- Easing into restructuring old beliefs by offering explanations and building on prior knowledge that is correct and comprehensive.
- Using examples e.g., historical events or experiments to illustrate the new aspects students have learned in class.
- Supporting the new/restructured knowledge with scientific proof.
- Giving the students enough time to grasp the concept of the restructured knowledge; to do so include fewer topics, yet work on them in depth.

The closest connection of the 7th principle is to the 4th ('relating new information to prior knowledge') as it implies the significance of the connection between old and new knowledge. The foundation here lies in making sure that the previously acquired knowledge provides an appropriate base for new knowledge to be obtained. To do so, the prior knowledge needs to be (re-)structured accordingly (Vosniadou, 2001).

"Sometimes prior knowledge can stand in the way of learning something new. Students must learn how to solve internal inconsistencies and restructure existing conceptions when necessary." (Vosniadou, 2001, p.

18)

1.8 Aiming Towards Understanding Rather Than Memorizing

Students are more likely to memorize information they understand, rather than facts they have superficially learned by heart. Understanding a concept makes it harder to forget and easier to apply to another topic. This means the teacher should encourage students to explain what they learned in their own words or to discuss it with other students. This way the teacher can make sure the students understand the new information because explaining a

concept themselves provides the students with an opportunity to think about what they are learning. Not only does explaining an idea in one's own words help them understand it better, it also provides the teacher with an opportunity to crystalize aspects that might have been misunderstood. Furthermore, students should not be presented with mere facts, however they should be offered explanations and examples based on which they can study and compare different learning materials (Vosniadou, 2001).

In order to assist the students in understanding the information and not just memorizing it, the teacher could try the following suggestions:

- Have students explain processes or phenomena without using their textbooks (or any other source).
- Use examples which illustrate how a phenomenon or a principle applies to real-life situations.
- Make sure that the students are able to solve problems connected to the topic; their solutions should be based on the teacher's previous explanations.
- Encourage your students to grasp a concept instead of having them memorize facts.
- Teach them to compare various topics, comprehend differences, and filter principles.

Between the 7th ('restructuring prior knowledge') and 8th principle there are various similarities. The most important one might be that in both cases there is a concept/idea/topic to understand. In both principles the idea is to introduce a new topic to the students. The main difference lies in the focus. The 7th principle focuses – as the name implies – on the previously acquired knowledge and how to restore it in a way that adapts to the new information, whereas the 8th principle focuses on how to memorize previously, as well as recently acquired knowledge. In both cases, the teacher uses examples to either explain or illustrate a phenomenon. Two other principles that are closely linked to this principle are the 3rd ('meaningful activities') and the following principle ('relating new information to prior knowledge') as they

focus heavily on the relationship between what is being taught and real-life situations. Throughout all 12 principles it is a common goal to prepare students for their future lives and to be able to apply what they have learned in school outside of school.

“Learning is better when material is organized around general principles and explanations, rather than when it is based on the memorization of isolated facts and procedures.” (Vosniadou, 2001, p. 20)

1.9 Helping Students Learn to Transfer

Learning makes more sense to the learner if they are able to connect what they learn to their real-life situations. This means it is important to help students learn to transfer their knowledge from theory to practice. Teachers can provide assistance by making sure the students understand and know the information well, as this is the foundation to applying the knowledge in real life situations. Studies have shown that most students are not able to use the theoretical knowledge they acquired at school and are not able to transfer it to real life situations, even though this should be one of the main goals in education. The ability to apply what one has learned in school to solve real life problems should also be one of the strongest motivators to go to school in the first place (Vosniadou, 2001). It can also be useful to provide exercises in which the students have to apply the knowledge in different subjects. Furthermore, examples can be useful that show how the learned theory is applied in real life. ➡

The following ideas can be helpful to teachers in the process of teaching the transfer of information:

- Make sure your students understand the subject matter; this is the base to any transfer of information.
- Present the students with examples where the previously explained concept has been transferred to a real-life situation.

➡ See also
Module 3,
Focus 2
“Lifeworld-
References and
Future
Prospect”

- Use the theory that is being discussed and show how it is applied to real life, e.g., present a mathematical formula and proceed to use said formula to solve a math problem one encounters daily.
- Illustrate connections between different (yet related) subject matters.
- Demonstrate the abstraction of main principles from actual ideas (see also principle 8 – ‘aiming towards understanding rather than memorizing’).
- Explain how to ask for and use received feedback in their learning.
- Focus more on making the students understand rather than making them memorize (see also principle 8).

In order to achieve this transfer, it is crucial that the teaching focuses on understanding rather than memorizing, which links the 9th principle to the 8th. Another connection between these two principles would be the suggestion to use real life examples to help students understand and, in another step, apply the information. The suggestion to ask for feedback, as it helps the students better understand their learning process and self-reflect, would be a further connection to other principles as it refers back to the 6th principle, engaging in self-regulation and being reflective.

“Learning becomes more meaningful when the lessons are applied to real life situations.” (Vosinadou, 2001, p. 22)

1.10 Taking Time to Practice

“Learning is fundamentally an act of vulnerability. It is an acknowledgement that what one knows is not sufficient, and that new information and new thinking about that information is needed.” (Mehta, 2015, online) The acknowledgement of one’s lack of competences as well as the consequent acquiring of said competences require time and effort. In order for students to have enough time to fully engage in developing competences necessary to them, teachers should provide a learning experience which covers only one topic per exercise or lesson. This offers room to make competences more understandable without overwhelming the students. Additionally, the teacher can support the students’ learning process by being in contact with

their parents and updating them on what is currently being taught. Thereby the teacher supports the parents in providing their child with a fruitful learning experience (Vosniadou, 2001).

The following ideas might be helpful:

- Increase the time students are exposed to the subject matter in the classroom.
- Ensure that the assignments are appropriate to what the students have learned and (should) know.
- Only cover one or a few topics in a session to provide the students with enough time to comprehend new information.
- Encourage them to actively reflect on the new information and in a next step voluntarily occupy themselves with the new knowledge.
- Provide material such as books or websites and make sure the students know about them and have access.
- Communicate with parents.

Again, this principle is linked to other principles such as the first principle, active involvement. This is the first step in motivating the students to study and engage of their own accord. Here we see the connection to the 8th principle (‘aiming towards understanding rather than memorizing’) that puts the focus on understanding as opposed to learning by heart.

“Learning is a complex cognitive [, affective and psychomotor] activity that cannot be rushed. It requires considerable time and periods of practice to start building expertise in an area.” (Vosniadou, 2001, p. 23)

1.11 Developmental and Individual Differences

Every classroom is filled with different children who have different abilities and come from various family and cultural backgrounds. With every piece of new information they learn in the course of their development, children change their world view and the strategies they use in order to deal with new knowledge (Vosniadou, 2001). Not only are children differently gifted, but they also develop at different paces. The school needs to offer an

environment that allows every student to develop at their own pace and have their abilities put into consideration. This can be done by offering a variety of learning materials and different kinds of exercises. Furthermore, it can be helpful for the teacher to identify their students' strengths and to ask questions that help them understand the learning material in more depth. Another useful exercise to do is to have students interact with other knowledgeable people to further deepen their own knowledge and to promote the learning process (Vosniadou, 2001).

In order to cater to all of the students' individual differences and to promote healthy development in the school context, teachers can use the following ideas:

- Understand and learn what the most suitable way is to assess your students' performance, consider each student's abilities when doing so.
- Provide your students with a broad range of different learning materials such as books, websites, museum visits, etc.
- Find out where the students' strengths lay and focus on them; specifically put an emphasis on them when the student is demonstrating them.
- Use your students' strengths to assist them in further improving their learning process altogether.
- Demonstrate connections between what is being learned and real-life situations.
- Encourage them to reflect on what they have learned by asking questions that stimulate their thinking.
- Draw their attention to their ability to use their strengths in order to find solutions for real-life problems.
- Offer a learning environment that gives students the opportunity to communicate and discuss topics with adults who have vast knowledge that is both connected to the information they received in class and similar to their own interests.
- Create learning opportunities where students can try out and apply newly acquired competences.

This principle is basically a merging of several other principles. The strategies suggested are similar to the 3rd principle, which is meaningful activities. By applying the 8th principle ('aiming towards understanding rather than memorizing'), you shift the focus from memorization to understanding and thereby foster the students' interest, which will make them put more effort and time (see also principle 10 – 'taking time to practice') into a successful learning process. Another principle that is partially found in the 11th principle is the 9th ('helping students learn to transfer') as it focuses on the transfer of theoretical knowledge obtained in class to real-life situations.

"Children learn best when their individual differences are taken into consideration." (Vosniadou, 2001, p. 25) ➔

1.12 Motivated Learners

A successful learning process is strongly impacted by the learner's motivation. This motivation can be influenced by the teacher. There are two different kinds of motivation: extrinsic and intrinsic motivation. **Extrinsic motivation** could be (in the learner's case) a higher grade or any other kind of reward such as praise. **Intrinsic motivation**, on the other hand, means that the learner's motivation comes from within themselves because they enjoy a subject or are simply interested in the topic. The teacher can create a motivating environment by praising the students for accomplishments. Another helpful tool would be providing feedback to the students so they understand what they are doing well and what still requires some improvement. Finally, a teacher can promote motivation in their students by creating an atmosphere of collaboration rather than competition. ➔

In order to motivate your students, make sure your statements are:

- acknowledging your students' accomplishments;
- associating their accomplishments with themselves and not the circumstances; e.g., "Your way of solving the problem was creative" or "Your ideas are very good" instead of "This was a good idea";

➔ See also
Module 4,
Focus 1
"Inclusive
Pedagogy"

Extrinsic motivation is a construct that pertains whenever an activity is done in order to attain some separable outcome. Extrinsic motivation thus contrasts with **intrinsic motivation**, which refers to doing an activity simply for the enjoyment of the activity itself, rather than its instrumental value. (Ryan & Deci, 2000, p. 60)

➔ See also
Module 3,
Focus 3 "Self-
Determination,
Empowerment
and Self-
Efficacy"

- building the student's self-confidence e.g., "You are doing well, keep going" or "I can tell you are putting a lot of work into your schoolwork and your grades are getting better.";
- helping the student set realistic goals;
- providing specific and useful feedback.

Some further suggestions would be to avoid putting students into groups based on their skills as it sends the message that skills are more valuable than effort. Put an emphasis on collaboration rather than competition. It is significant to make sure to keep the students' curiosity alive. This can be done by regularly introducing new kinds of exercises and tasks. Keep in mind to ensure an appropriate level of difficulty with all exercises.

"Learning is critically influenced by learner motivation. Teachers can help students become more motivated learners by their behavior and the statements they make". (Vosnidaou, 2001, p. 27)

2 CONCLUSION

In conclusion, the idea behind the 12 principles is to foster teaching that considers the abilities, skills, and backgrounds of all students, as well as adapting the learning process to real life and thereby making it more appealing to the students, who will be more motivated to learn and study. This will ultimately lead to a more successful learning outcome inside and outside the classroom. It is important to acquire a set of skills in school that allows the student to comprehend other people's ideas just as much as being able express their own ideas in an understandable manner as well as to be socially, emotionally, and practically able to actively, effectively, and constructively participate in various lifeworld situations. This means that the final goal is a paradigm shift from a teacher-centered teaching style to a learner-centered one.



*Figure 2: The Four Pillars of Learning*¹

3 KEY POINTS

- ✓ In order to adapt education more effectively to the learners' future lives, it is necessary to shift from teacher-centered to learner-centered education.
- ✓ Active Involvement: The learning process demands an active and constructive involvement on the part of the student to internalize concepts seen in the classroom.
- ✓ Social Participation: Social interaction and collaboration in the classroom influence the students' academic performance as well as their personal growth.
- ✓ Meaningful Activities: In order for the individual learning process to be successful, learners have to consider learning activities as useful and beneficial to their personal learning experience.
- ✓ Relating New Information to Prior Knowledge: Successful learning is only possible when new information can be connected to previously acquired knowledge and by activating said knowledge.

¹ Taken from UNESCO (2014, p. 2). CC BY-SA.

- ✓ Being Strategic: The teacher's role is to support students in developing a broad set of learning strategies and to use them according to the task at hand.
- ✓ Engaging in Self-Regulation and Being Reflective: The teacher's role is to support students in developing a comprehension of their individual abilities and needs, and strategies to correct them in order to actively influence the learning outcome.
- ✓ Restructuring Prior Knowledge: The teacher has to ensure that previously acquired knowledge provides an appropriate base for new knowledge to be obtained.
- ✓ Aiming Towards Understanding Rather Than Memorizing: Students are more likely to memorize information they understand than facts they have superficially learned by heart.
- ✓ Helping Students Learn to Transfer: Learning makes more sense to the learner if they are able to connect what they learn to their real-life situations.
- ✓ Taking Time to Practice: Learning is a complex cognitive, affective and psychomotor experience, which needs considerable time and practice to be successful.
- ✓ Developmental and Individual Differences: Children are diverse in their abilities and needs. It is the school's and teacher's task to offer a learning environment which supports these abilities and needs and allows every student to develop at their own individual pace.
- ✓ Creating Motivated Learners: Teachers can impact the learning process by creating motivated learners.

4 REFERENCES

- Boekaerts, M., Pintrich, P., & Zeidner, M. (2000). *Handbook of Self-Regulation*. New York: Academic Press.
- Collins, A., Brown, J.S., & Newman, S.F. (1989). Cognitive Apprenticeship: Teaching the Craft of Reading, Writing and Mathematics. In: L.B. Resnick, ed. *Knowing, Learning and Instruction: Essays in Honor of Robert Glaser* (pp. 453–84). Hillsdale, NJ.
- Elmore, R.F., Peterson, P.L., & McCarthy, S.J. (1996). *Restructuring in the Classroom: Teaching, Learning and School Organization*. San Francisco, CA: Jossey-Bass.
- Mehta, J. (2015). *Unlearning Is Critical for Deep Learning*. Retrieved from: <https://www.edweek.org/teaching-learning/opinion-unlearning-is-critical-for-deep-learning> [2021, Apr. 16].
- Sileo, T. W., Prater, M. A., Luckner, J. L., Rhine, B., & Rude, H. A. (1998). Strategies to Facilitate Preservice Teachers' Active Involvement in Learning. *Teacher Education and Special Education*, 21(3), 187–204.
- Ryan, R.M. & Deci, E.L. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology*, 25, 54-67.
- The Glossary of Education Reform. (2014, May 7). *Student-Centered Learning*. Retrieved from: <https://www.edglossary.org/student-centered-learning/> [2020, Apr. 27].
- Thomas, S. & Anderson, E.L. (2013). *Socialization: Theories, Processes and Impact*. New York: Nova Science Publisher's.
- Tuomarla, K. (2019). *Activating Methods in Classroom*. Retrieved from: <https://learningscoop.fi/activating-methods-in-classroom/> [2021, Jan. 4].
- UNESCO. (2014). *Learning to Live Together: Education Policies and Realities in the Asia-Pacific*. Retrieved from: <https://unesdoc.unesco.org/ark:/48223/pf0000227208>. ISBN 978-92-9223-473-7 (Electronic version). This publication is available in Open Access under the Attribution-ShareAlike 3.0 IGO (CC BY-SA 3.0 IGO) license (<http://creativecommons.org/licenses/by-sa/3.0/igo/>).
- UNESCO. (2015). *Embracing Diversity: Toolkit for Creating Inclusive Learning Friendly Environments*. Retrieved from: <https://unesdoc.unesco.org/ark:/48223/pf0000137522>. ISBN 92-9223-032-8 (Electronic version).
- Vosniadou, S. (2001). *How Children Learn*. Chicago, Illinois: IAE.

4.1 Additional Literature

UNESCO. (2017). *Rethinking Schooling for the 21st Century: The State of Education for Peace, Sustainable Development and Global Citizenship in Asia*. Mahatma Gandhi Institute of Education for Peace and Sustainable Development. This publication is available in Open Access under the Attribution-ShareAlike 3.0 IGO (CC BY-SA 3.0 IGO)
<https://creativecommons.org/licenses/by-sa/3.0/igo/>

STEP 1 PRACTICE EXERCISES



A Indicate if the following statements are true or false:

1. Student engagement demands active and constructive involvement on the part of the student to internalize concepts seen in the classroom. T/F
2. Social interaction and collaboration in the classroom have no influence on the students' academic performance or personal growth. T/F
3. In order for the individual learning process to be successful, learners have to consider learning activities as useful and beneficial to their personal learning experience. T/F
4. Successful learning is only possible when new information can be connected to previously acquired knowledge and by activating said knowledge. T/F
5. One of the teacher's roles is to support students in developing a broad set of learning strategies and to use them according to the task at hand. T/F
6. The teacher has no influence on the students' development of the comprehension of their own individual abilities and needs. T/F
7. The teacher can automatically assume that previously acquired knowledge by the students is correct and does not have to be reconsidered. T/F
8. Students are more likely to memorize facts they have superficially learned by heart than information they understand. T/F
9. Learning makes more sense to the learner if they are able to connect what they learn to their real-life situations. T/F
10. Learning is a simple experience, which is always easy and does not need considerable time or practice. T/F
11. Children are all the same and thus do not need individual support. T/F
12. Teachers can impact the learning process by creating motivated learners. T/F



B Drag and drop the following examples into the appropriate category in the chart below. Characteristics can be assigned to MULTIPLE categories:

Asking questions that stimulate reflection¹ – Incorporate hands-on exercises² – Provide students with opportunities to give/receive feedback³ – Make link between taught content and real-life community⁴ – Role Playing⁵ – Students prepare presentations about new topic⁶ – Giving students opportunity to evaluate their own work⁷ – Plan excursions⁸ – Offering space that allows self-reflection⁹ – Use students' strengths¹⁰ – Creating an environment that tolerates different beliefs¹¹ – Using examples¹² – Give students opportunity to influence their learning process¹³ – Giving the students enough time¹⁴ – Students explain processes or phenomena without using their text books¹⁵ – Pair a skill with an exercise¹⁶ – Create space that allows and supports collaboration, discussions and group work¹⁷ – Assignments appropriate to previously learned competences¹⁸ – Invite scientists or experts¹⁹ – One or a few topics per session²⁰ – Discussion before introducing new topic²¹ – Acknowledge students' accomplishments²² – Building student's self-confidence²³ – Having students summarize texts after reading²⁴ – Providing students with option to plan and structure an exercise²⁵ – Assisting students in finding strategies²⁶

Active Involvement	Social Participation	Meaningful Activities	Relating New Information to Prior Knowledge
Being Strategic	Engaging in Self-Regulation and Being Reflective	Restructuring Prior Knowledge	Aiming Towards Understanding Rather Than Memorizing
Helping Students Learn to Transfer	Taking Time to Practice	Developmental and Individual Differences	Creating Motivated Learners



C Drag and drop the following principles into the appropriate category in the chart below. MULTIPLE principles can be assigned to the same category:

Active Involvement¹ – Social Participation² – Meaningful Activities³ – Relating New Information to Prior Knowledge⁴ – Being Strategic⁵ – Engaging in Self-Regulation and Being Reflective⁶ – Restructuring Prior Knowledge⁷ – Aiming Towards Understanding Rather Than Memorizing⁸ – Helping Students Learn to Transfer⁹ – Taking Time to Practice¹⁰ – Developmental and Individual Differences¹¹ – Creating Motivated Learners¹²

Active contribution and collaboration				
Connection between school and real-life situations				
Social interaction				
Assessing one's own work				
Connection between old and new knowledge				
Understanding rather than memorizing				

STEP 1 PRACTICE EXERCISES – SOLUTIONS



A Indicate if the following statements are true or false:

1. Student engagement demands an active and constructive involvement on the part of the student to internalize concepts seen in the classroom. **T/F**
2. Social interaction and collaboration in the classroom have no influence on the students' academic performance or personal growth. **T/F** (Correct Answer: Studies have shown that social interaction in the learning environment as well as collaborative work related to studying and learning have a significant positive impact on the students' academic performance.)
3. In order for the individual learning process to be successful, learners have to consider learning activities as useful and beneficial to their personal learning experience. **T/F**
4. Successful learning is only possible when new information can be connected to previously acquired knowledge and by activating said knowledge. **T/F**
5. One of the teacher's role is to support students in developing a broad set of learning strategies and to use them according to the task at hand. **T/F**
6. The teacher has no influence on the students' development of a comprehension of their own individual abilities and needs. **T/F** (Correct Answer: The teacher's role is to support students in developing a comprehension of their individual abilities and needs, and strategies to correct them and thus actively influence the learning outcome.)
7. The teacher can automatically assume that previously acquired knowledge by the students is correct and does not have to be reconsidered. **T/F** (Correct Answer: It is important to make sure that the previously acquired knowledge provides an appropriate base for new knowledge to be obtained. To do so the prior knowledge needs to be (re-)structured accordingly.)
8. Students are more likely to memorize facts they have superficially learned by heart than information they understand. **T/F** (Correct Answer: Students are more likely to memorize information they understand than facts they have superficially learned by heart.)
9. Learning makes more sense to the learner if they are able to connect what they learn to their real-life situations. **T/F**
10. Learning is a simple experience, which is always easy and does not need considerable time or practice. **T/F** (Correct Answer: Learning is a complex cognitive, affective and psychomotor experience, which needs considerable time and practice to be successful.)

11. Children are all the same and thus do not need individual support. T/F (Correct Answer: Children are diverse in their abilities and needs. It is the school's and teacher's task to offer a learning environment which supports these abilities and needs, and allows every student to develop at their own individual pace.)

12. Teachers can impact the learning process by creating motivated learners. T/F



B Drag and drop the following characteristics into the appropriate category in the chart below. Characteristics can be assigned to MULTIPLE categories:

Asking questions that stimulate reflection¹ – Incorporate hands-on exercises² – Provide students with opportunities to give/receive feedback³ – Make link between taught content and real-life community⁴ – Role Playing⁵ – Students prepare presentations about new topic⁶ – Giving students opportunity to evaluate their own work⁷ – Plan excursions⁸ – Offering space that allows self-reflection⁹ – Use students' strengths¹⁰ – Creating an environment that tolerates different beliefs¹¹ – Using examples¹² – Give students opportunity to influence their learning process¹³ – Giving the students enough time¹⁴ – Students explain processes or phenomena without using their text books¹⁵ – Pair a skill with an exercise¹⁶ – Create space that allows and supports collaboration, discussions and group work¹⁷ – Assignments appropriate to previously learned competences¹⁸ – Invite scientists or experts¹⁹ – One or a few topics per session²⁰ – Discussion before introducing new topic²¹ – Acknowledge students' accomplishments²² – Building student's self-confidence²³ – Having students summarize texts after reading²⁴ – Providing students with option to plan and structure an exercise²⁵ – Assisting students in finding strategies²⁶

Active Involvement	Social Participation	Meaningful Activities	Relating New Information to Prior Knowledge
2	3	5	1
8	4	16	6
13	17	19	21
Being Strategic	Engaging in Self-Regulation and Being Reflective	Restructuring Prior Knowledge	Aiming Towards Understanding Rather Than Memorizing
17	7	11	12
24	9	12	15
26	25	14	18
Helping Students Learn to Transfer	Taking Time to Practice	Developmental and Individual Differences	Creating Motivated Learners
3	14	1	3
4	18	4	22
12	20	10	23



C Drag and drop the following principles into the appropriate category in the chart below. MULTIPLE principles can be assigned to the same category:

Active Involvement¹ – Social Participation² – Meaningful Activities³ – Relating New Information to Prior Knowledge⁴ – Being Strategic⁵ – Engaging in Self-Regulation and Being Reflective⁶ – Restructuring Prior Knowledge⁷ – Aiming Towards Understanding Rather Than Memorizing⁸ – Helping Students Learn to Transfer⁹ – Taking Time to Practice¹⁰ – Developmental and Individual Differences¹¹ – Creating Motivated Learners¹²

Active contribution and collaboration	1	2	12	
Connection between school and real-life situations	3	8	9	11
Social interaction	2	4		
Assessing one's own work	4	5	6	
Connection between old and new knowledge	3	4	7	8
Understanding rather than memorizing	3	8	9	10

STEP 2 PRACTICE EXERCISES



A Read the following case studies. Decide which one is an example of a learner-centered classroom and which one is an example of a teacher-centered classroom. Drag and drop the suitable teaching principles into the matching table:

Case Study 1

Forty children are sitting on wooden benches behind desks with their exercise books open and their pens in their hands. The teacher is copying a story on the chalkboard from the Grade 3 textbook, making sure that she writes it exactly as it is written in the textbook. The boys, who are sitting on the right side of the room, copy what the teacher has written into their exercise books. The girls, who are sitting on the left side of the room, wait for the teacher to move so that they can see what she has written and copy it into their exercise books. As she writes, the teacher asks, “Are you copying the story that I am writing?” Everyone answers, “Yes, teacher.”

Case Study 2

Two groups of children are sitting on the floor in two circles. Both groups contain girls and boys. The Grade 3 teacher is teaching shapes to the children. In one group, the children are talking about circles. The teacher has shown them some common round objects that she had asked the children to bring from home. The children handle the objects and then work together to make a list of other objects that are circular in shape. In the other group, some of the children are holding rolled up newspapers that look like long sticks. The teacher calls a number, and the child with that number places her stick on the floor in the centre to begin forming a square. One child with hearing difficulties adds her stick to form a triangle and smiles at the teacher. The teacher smiles back at her and says “very good,” making sure that the child can see her lips as she speaks. A parent, who has volunteered to be a classroom helper for a week, pats her on the arm, and then turns to assist a student who is confused about where to place his stick in order to form a new shape.²

² Taken from UNESCO/Booklet 1 (2015, p. 5). CC BY-SA.

Active Involvement¹ – Social Participation² – Meaningful Activities³ – Relating New Information to Prior Knowledge⁴ – Aiming Towards Understanding Rather Than Memorizing⁵ – Helping Students Learn to Transfer⁶ – Taking Time to Practice⁷ – Developmental and Individual Differences⁸

Example of learner-centered classroom	Teaching Principles of learner-centered classroom	Examples
		The children engage with familiar objects they have brought from home.
		The children work together to make a list of other circular objects.
		The students use the introduced forms to make a list of other circular objects.
		The children handle the objects.
		The children engage with the objects and thus understand the form of these objects.
		A child with hearing difficulties is supported according to his/her needs.
		The students are given time to engage in different forms of activities.
		The children engage with objects they have brought from home.

The activity is not very meaningful.¹ – There is no differentiating between students. Everyone has to copy the same text in the same way.² – There is no relation between what they learn and their prior knowledge.³ – Children do not collaborate or communicate with each other.⁴ – Children are not actively involved.⁵

Example of teacher-centered classroom	Problem	Alternative Solutions
		The teacher brings objects for the students to engage with in the classroom.
		Group works are assigned to students.
		The teacher shows the students why they learn/do what they are learning/doing.
		The teacher brainstorms what the students know before starting the lesson.
		The teacher leaves the students the option to engage with the topic in different ways, e.g., draw it, explain it, write it down.



B Look at the pictures below and drag and drop the examples of 21st century teaching skills to the matching picture. Examples can be assigned to MULTIPLE pictures:

Incorporate hands-on exercises¹ – Make link between taught content and real-life community² – Role playing³ – Students prepare presentations about new topic⁴ – Plan excursions⁵ – Create space that allows and supports collaboration, discussions, and group work⁶ – Invite scientists or experts⁷

 <p>3</p>	
 <p>4</p>	
 <p>3</p>	

³ Picture Source: Open Source from pixabay.com

⁴ Picture Source: Own Pictures



3



4



4



4



4



4



4



C Listen to these two teachers talk about how they deal with 21st century principles of teaching (Audio Files 1.1.1 – Teacher A + 1.1.2 – Teacher B; audio transcriptions can be found in the appendix of this document). Answer the following multiple-choice questions. There can be MULTIPLE correct answers:

1. How does teacher A inform the parents on their child's progress?
 - a) WhatsApp
 - b) Communication book
 - c) Teacher-parent meetings
 - d) Notice board
2. How does teacher B inform the parents on their child's progress?
 - a) WhatsApp
 - b) Communication book
 - c) Teacher-parent meetings
 - d) Notice board
3. Which teacher gives individual feedback to the students?
 - a) Only teacher A gives individual feedback to her students.
 - b) Only teacher B gives individual feedback to her students.
 - c) Both teachers give individual feedback to their students.
4. Teacher B mentions several challenges when planning a lesson. What are these challenges?
 - a) Different abilities of students
 - b) Parents' expectations
 - c) Keeping individual progress records for each child
 - d) Preparing teaching aids
5. What are teacher B's approaches to these challenges?
 - a) She plans everything in advance
 - b) She does not deal with these challenges
 - c) She discusses the students' progress with their parents
 - d) She gives individual feedback to children



D Watch this student talk about how her teacher communicates with her parents. (Video File 1.1.1; audio transcriptions can be found in the appendix of this document). Answer the following multiple-choice questions. There can be MULTIPLE correct answers:

1. What does the teacher communicate to the parents?
 - a) She communicates the student's strengths.
 - b) She communicates the student's learning needs.
 - c) She provides the parents with feedback and strategies on how to help the student at home.

References

UNESCO. (2015). Booklet 1: Becoming an Inclusive, Learning-Friendly environment (ILFE). In: *Embracing Diversity: Toolkit for Creating Inclusive, Learning-Friendly Environments*. Retrieved from: <https://unesdoc.unesco.org/ark:/48223/pf0000137522>. ISBN 92-9223-032-8 (Electronic version). This publication is available in Open Access under the Attribution-ShareAlike 3.0 IGO (CC-BY-SA 3.0 IGO) license (<http://creativecommons.org/licenses/by-sa/3.0/igo/>).

STEP 2 PRACTICE EXERCISES - SOLUTIONS



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Case Study 1

Forty children are sitting on wooden benches behind desks with their exercise books open and their pens in their hands. The teacher is copying a story on the chalkboard from the Grade 3 textbook, making sure that she writes it exactly as it is written in the textbook. The boys, who are sitting on the right side of the room, copy what the teacher has written into their exercise books. The girls, who are sitting on the left side of the room, wait for the teacher to move so that they can see what she has written and copy it into their exercise books. As she writes, the teacher asks, “Are you copying the story that I am writing?” Everyone answers, “Yes, teacher.”

Case Study 2

Two groups of children are sitting on the floor in two circles. Both groups contain girls and boys. The Grade 3 teacher is teaching shapes to the children. In one group, the children are talking about circles. The teacher has shown them some common round objects that she had asked the children to bring from home. The children handle the objects and then work together to make a list of other objects that are circular in shape. In the other group, some of the children are holding rolled up newspapers that look like long sticks. The teacher calls a number, and the child with that number places her stick on the floor in the centre to begin forming a square. One child with hearing difficulties adds her stick to form a triangle and smiles at the teacher. The teacher smiles back at her and says “very good,” making sure that the child can see her lips as she speaks. A parent, who has volunteered to be a classroom helper for a week, pats her on the arm, and then turns to assist a student who is confused about where to place his stick in order to form a new shape. ²

Active Involvement¹ – Social Participation² – Meaningful Activities³ – Relating New Information to Prior Knowledge⁴ – Aiming Towards Understanding Rather Than Memorizing⁵ – Helping Students Learn to Transfer⁶ – Taking Time to Practice⁷ – Developmental and Individual Differences⁸

Example of learner-centered classroom	Teaching Principles of learner-centered classroom	Examples
Case Study 2	4	The children engage with familiar objects they have brought from home.
	2	The children work together to make a list of other circular objects.
	6	The students use the introduced forms to make a list of other circular objects.
	1	The children handle the objects.
	5	The children engage with the objects and thus understand the form of these objects.
	8	A child with hearing difficulties is supported according to his/her needs.
	7	The students are given time to engage in different forms of activities.
	3	The children engage with objects they have brought from home.




The activity is not very meaningful.¹ – There is no differentiating between students. Everyone has to copy the same text in the same way.² – There is no relation between what they learn and their prior knowledge.³ – Children do not collaborate or communicate with each other.⁴ – Children are not actively involved.⁵

Example of teacher-centered classroom	Problem	Alternative Solutions
Case Study 1	5	The teacher brings objects for the students to engage with in the classroom.
	4	Group works are assigned to students.
	1	The teacher shows the students why they learn/do what they are learning/doing.
	3	The teacher brainstorms what the students know before starting the lesson.
	2	The teacher leaves the students the option to engage with the topic in different ways, e.g., draw it, explain it, write it down.



B Look at the pictures below and drag and drop the examples of 21st century teaching skills to the matching picture. Examples can be assigned to MULTIPLE pictures:

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	<p>1</p>
	<p>4, 6</p>
	<p>5</p>

 <p>3</p>	<p>2</p>
 <p>4</p>	<p>7</p>
 <p>4</p>	<p>3</p>
 <p>4</p>	<p>5</p>

MODULE 1
BUILDING BLOCKS OF PRIMARY EDUCATION
1.1 TWENTY-FIRST CENTURY TEACHING AND LEARNING

	<p>7</p>
	<p>5</p>
	<p>4, 6</p>



C Listen to these two teachers talk about how they deal with 21st century principles of teaching (Audio Files 1.1.1 – Teacher A + 1.1.2 – Teacher B; audio transcriptions can be found in the appendix of this document). Answer the following multiple-choice questions. There can be MULTIPLE correct answers:

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5. What are teacher B's approaches to these challenges?
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 - c) She discusses the students' progress with their parents
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D Watch this student talk about how her teacher communicates with her parents. (Video File 1.1.1; audio transcriptions can be found in the appendix of this document). Answer the following multiple-choice questions. There can be MULTIPLE correct answers:

1. What does the teacher communicate to the parents?
 - a) She communicates the student's strengths.
 - b) She communicates the student's learning needs.
 - c) She provides the parents with feedback and strategies on how to help the student at home.

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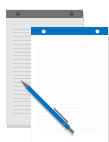
STEP 3 PORTFOLIO TASK – SELF-REFLECTION QUESTIONS



Write essay answers to each of the following self-reflection questions. Each essay answer should be approximately 300-500 words long and answered in a coherent text with full sentences. THESE ESSAY ANSWERS GO INTO YOUR PERSONAL PORTFOLIO!

1. What is your experience with teacher-centered and learner-centered education? What have you experienced during your years as a student? Was it helpful, or what else would you have needed to have felt maximally supported in your learning process?
2. Think about how you were taught in school and how you are being taught to teach. Write down how you felt/feel about these methods.

STEP 4 PORTFOLIO TASK – TEACHING PROJECT



Create your own personal teaching project. Choose a topic and a hypothetical class in which you want to teach your lesson. You are going to use this class and topic for all following portfolio STEP 4 tasks. This portfolio task should be approximately 800-1000 words long. THE TEACHING PROJECT GOES INTO YOUR PERSONAL PORTFOLIO!

Describe the topic: In which school subject is it being taught? In which grade is it being taught? What is the topic's relation to the curriculum? What is it about? What prior knowledge do students need?

Describe your students: How many students are in your class, how old are they, what grade are they in?

APPENDIX

Transcript: Audio File 1.1.1 – Teacher A

Interviewer: Do you also give individual feedback to your students?

Teacher A: Yes madame. I go to every child and give them individual feedback.

Interviewer: What is the communication with the parents like?

Teacher A: They can always communicate with us because we have their mobile numbers; if they have any problems, they can talk with us and we can solve everything. There are some parents meeting where they can also talk with us if there are any problems. Otherwise, they can directly communicate with us with the mobile phone.

Interviewer: Normally they come to the classroom and discuss with you?

Teacher A: Yes.

Interviewer: And also you can put some messages on the notice board?

Teacher A: Yes, we have a notice board.

Interviewer: At this moment you use a WhatsApp group?

Teacher A: Yes. Earlier we also used it.

Transcript: Audio File 1.1.2 – Teacher B

Teacher B: Planning lessons is very challenging because they have different abilities and when we are implementing, we have to think about that. Other challenges are the parents. They have higher expectations, so they always worry about their children. Another challenge is keeping individual progress records and sometimes preparing teaching aids also.

Interviewer: What is your way of overcoming such problems?

Teacher B: Actually, I plan everything and sometimes I discuss with parents about their children's progress.

Interviewer: Do you also give individual feedback to your students?

Teacher B: Yes definitely. I discuss with their parents also. Sometimes we have to.

Interviewer: What is the communication with the parents like?

Teacher B: We have two ways. The first one we use a book called communication book. When we have to give a message to the parents, we write messages in their books. And the other one these days we are using WhatsApp. We have created WhatsApp groups so when we need to send a message, we use that and that is currently very effective.

Transcript: Video File 1.1.1

Interviewer: Does your teacher have good communication with your parents? Why?

Student: My teacher has a good communication with my parents. She always communicates my strengths and my learning needs. Moreover, she provides my parents with feedback and strategies to help me at home.

Successful educators understand how to incorporate the key elements of high-quality teaching into their classroom. This module serves as a foundation for effective teaching practice to ensure that the core components of primary school teaching are considered when planning, conducting and evaluating learning and teaching processes. Through various cornerstone topics including 21st century teaching and learning, lesson planning, and learning environments, you will be asked to reflect on the interdependent process of teaching and learning to successfully achieve the targeted outcomes.

Enjoy!

