Techniques for creating effective bridges between curriculum goals and students’ experiences: such as modeling, guided practice, independent practice, transitions, activating students’ prior knowledge, anticipating preconceptions, encouraging student explorations and problem solving, building new skills upon those previously acquired, and predicting. Candidate should be able to identify criteria for deciding when to use the above techniques, explain why it is effective instruction, explain how to accomplish each one and explain how to monitor student understanding when each is used.

**Modeling**: this technique is the demonstration of the correct way to perform some skill or process. It should be used when the skill or process has several observable steps that can be clearly identified and illustrated. The teacher must gain the students’ attention and explain the process as well as explain what the students should be watching and learning. The teacher should check for understanding along the demonstration sequence as well as afterwards. The learners should show they understand by answering questions about the skill or process. Other students as well as the teacher can and do perform modeling for learners.

**Guided practice**: This technique is the part of a lesson when students are practicing the skill or process while the teacher is there to verify that they are replicating the technique accurately. This is the time when the teacher should correct students’ errors and determine if the learner can add additional skills to his/her knowledge. Correction of student errors during guided practice is very effective and learners are less likely to develop misunderstandings and incorrect habits.

**Independent practice**: This is when the learners practice what they are learning, particularly a skill or process. The purpose here is to move the student toward deeper understanding and automaticity, which is the ability of an individual to do a cognitive task quickly without much mental effort. Homework is often considered independent practice. It is appropriate if it is used to help the learner be able to do the tasks independently. However, it should be both meaningful and relevant. The learner needs to know how to do the work and he/she needs to realize that the work is for learning of essential skills. Homework, such as reading ahead in a textbook or completing a worksheet related to a textbook, is not usually...
considered independent practice using the content students are expected to know.

**Transitions:** Teachers should carefully use transitions at the beginning of lessons and during lessons to guide the learner to use his/her prior knowledge of a subject as a basis for what they are learning. Connections and links between various bits of knowledge are very important and teachers need to help students see the relationships among what they are learning. Teachers ask questions and talk about how the new information is similar to, more advanced, or more detailed than what the learner may have learned previously. The transition is the connection. Connections must be made in the learners’ head so that the learner can use prior knowledge as part of the basis for the learning task.

**Activating students’ prior knowledge:** this technique is a critical part of a lesson because all learners base what they are learning on what they already know. Teachers ask questions, tell stories with which students can identify, show pictures, and remind students of previous lessons or experiences students have had. These activities help students use what they know as a basis for new information, skills or processes they are learning. Not only do they need to use this prior knowledge, they also feel that the new lesson is not an unreasonable learning task. Teachers can tell if students have activated their prior knowledge if they use skills they have learned, ask appropriate questions, consider the new information with thoughtfulness, and demonstrate productive anticipation for the upcoming lesson.

**Anticipating preconceptions:** This is work the teacher must to effectively design any learning experience. All learners know a great deal and they very likely have accurate, naïve, inaccurate, and culturally clouded ideas about most things. They also have preconceived ideas about their own ability to learn and be successful. The ideas learners have will influence how they perceive the information, skill or process being taught and their ability to be successful. When the teacher takes these ideas into account and adjusts the lesson to set the stage for learner involvement and success, using the perspectives of the students as a backdrop for the lesson, the students will engage more enthusiastically and successfully. The teacher can tell if he/she has done this effectively by how well each learner is engaged and working well with the ideas the teacher has as content goals for the lesson.

**Encouraging student explorations and problem solving:** This is a technique that allows the teacher to share control of the lesson and learning with the learners. This is very important because to promote and encourage life-long learning, teachers must realize that they will not always be present to give assignments
and tell students to find information in textbooks. Teachers must let go of some control and guide students to find answers by going beyond the words of a textbook, although a student can explore a textbook, too, and learn a great deal by digging around in the textbook, or in other books. When students solve problems they are using several variables as the basis for intellectual work. They are using various problem-solving strategies such as means-ends analysis, working backwards, making analogies and trial and error. When students learn the processes for exploration and problem-solving they are able to transfer these techniques to situations outside class.

**Building new skills on those previously acquired:** This is directly related to the activation of prior knowledge. This, however, is what the learner does when he/she remembers what he/she has learned and uses that skill or knowledge as a basis for adding, refining or restructuring what he/she knows and is able to do.

**Predicting:** This is a technique that teachers use to find out what learners know. It does many things for the teacher and the learners if used at the beginning of a lesson. The teacher asks questions and gets information from students about their prior knowledge. It is also helpful because students are able to become more aware of their own prior knowledge and expectations. Students who share their predictions often help remind each other of what they have learned and shared experiences they have had inside or outside of school. Teachers are activating prior knowledge when they ask students to predict. Teachers are also building some ownership and buy-in with the students, which influences the students’ motivation to engage, commit and persist in the learning task.