Exercise 2: Comparing Classrooms of Today with Classrooms of Tomorrow

Step 1

Participants will share the reflections of their partners. The facilitator will ask two or three pairs to share their experiences with the large group. The facilitator will end the discussion by summarizing recurring themes.

How were you taught when you attended school? What did you like about how you were taught? What were your frustrations about how you were taught? Write your responses in the table that follows.

How You Were Taught	What You Liked	What Your Frustrations Were

Step 2

Share your reflections with a peer and others as directed.

Traditional, Teacher-Centered Instruction

Traditional, teacher-centered instruction and lecture is the most common teaching behavior found in schools worldwide. Teacher-centered instruction can be very effective, particularly for:

▪ Sharing information that is not easily found elsewhere

▪ Presenting information in a quick manner

▪ Generating interest in the information

▪ Teaching students who learn best by listening

However, teacher-centered instruction also presents several challenges, including:

▪   Not all students learn best by listening

▪   Keeping students' interest is often difficult

▪   The approach tends to require little or no critical thinking

▪   The approach assumes that all students learn in the same impersonal way

21st Century, Student-Centered Instruction

How is 21st century, student-centered learning different from traditional, teacher-centered learning? The two methods have different approaches to content, instruction, classroom environment, assessment, and technology, as summarized in the following table. Each approach is appropriate in different situations.

This table is not intended to show a comparison of two opposing approaches where one is more appropriate than the other. On the contrary, this table shows that both approaches can be appropriate depending on a particular situation.

The facilitator will briefly explain the organization of the information in the table. Then, participants will read silently and identify approaches that they have used in their classrooms. Participants will share their experiences when they are called on. You may notice that after most have shared, many of the approaches are discussed.

Teacher-Centered Approaches	Student-Centered Approaches
Content	
The content is established by a curriculum, and all students study the same topics at the same time.	Students study topics based on curriculum and standards but are allowed numerous choices in a topic of study.
Students have access to limited information, selected by the teacher or the school library.	Students have infinite access to unlimited information of varying degrees of quality.
Topics of study are typically isolated and disconnected from each other.	Students study content in a way that shows connections between subjects.
Students memorize facts and occasionally analyze information critically. There is little focus on applying facts or concepts to a variety of real world situations.	Students learn concepts as well as facts, and frequently engage in high-level analysis, evaluation, and synthesis of a variety of kinds of material. There is an emphasis on showing how concepts apply to a variety of real world situations.
Students work to find correct answers.	Students work to construct any one of a number of possible correct answers.
Teachers choose activities and provide materials at the appropriate level.	Students select from a variety of teacher-provided activities and often determine their own level of challenge at which to work.

Developing 21st Century Skills

Teacher-Centered Approaches	Student-Centered Approaches
Instruction	
The teacher is the information giver—the sage on the stage—helping students acquire skills and knowledge.	The teacher is the facilitator—the guide on the side—providing opportunities for students to apply skills and construct their own knowledge.
Learning starts with what students do not know.	Learning starts with students' previous knowledge.
Teaching is an instructive process.	Teaching is a constructive process.
Students complete short, isolated activities and lessons around specific content pieces and skills.	Students work on activities and projects connected to long-term goals aimed at building deep conceptual understanding and proficient strategy use.
Classroom Environment	
Students learn passively in an often silent classroom.	Classroom environment resembles an active workplace with various activities and levels of sound depending on the kind of work being done.
Students usually work individually.	Students often collaborate with peers, experts, community members, and teachers.
Assessment	
Students take paper-and-pencil exams, silently and alone. The questions are kept secret until test time, so students have to learn all the material even though only part of it will be tested.	Students know ahead of time how they will be assessed, have input into the criteria by which they will be assessed, receive feedback from the teacher and their peers throughout a unit, and have multiple opportunities to assess their own learning.
Teachers are primarily accountable for student learning.	Teachers and students share accountability for learning and achievement.
Students are extrinsically motivated by the desire to get good grades, to please teachers, and to gain rewards.	Students' interests and involvement promotes intrinsic motivation and effort.
Technology	
Teachers use various kinds of technology to explain, demonstrate, and illustrate various topics.	Students use various kinds of technology to conduct research, communicate, and create knowledge.

Developing 21st Century Skills

Good teachers recognize that there is more than one way to teach, and that different situations often require different teaching practices. Accordingly, the Intel® Teach Getting Started Course incorporates elements of traditional, teacher-centered instruction, along with elements of 21st century, student-centered instruction. Although differences exist between the two approaches, research indicates that 21st century, student-centered approaches can enhance traditional, teacher-centered instruction by providing a purposeful and meaningful context for which students can master their emerging skills.

Rather than using a traditional, teacher-centered approach to introduce the information, notice how the facilitator uses a 21st century, student-centered approach.

Step 3

Why might students like 21st century, student-centered approaches? List your ideas and those of others as directed on the lines that follow.

Share your ideas when prompted.

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