

Characteristics of a 21st Century Classroom

As we move further into the new millennium, it becomes clear that the 21st Century classroom needs are very different from the 20th Century classroom needs. In the 21st Century classroom, **teachers are facilitators of student learning** and creators of productive classroom environments in which students can develop the skills they will need in the workplace. The focus of the 21st Century classroom is on students experiencing the environment they will enter as 21st Century workers. The collaborative project-based curriculum used in this classroom develops the higher order thinking skills, effective communication skills, and knowledge of technology that students will need in the 21st Century workplace. The interdisciplinary nature of the 21st Century classroom sets it apart from the 20th Century classroom. Lectures on a single subject at a time were the norm in the past and today **collaboration is the thread for all student learning.**

20th Century teaching strategies are no longer effective. Teachers must embrace new teaching strategies that are radically different from those employed in the 20th Century classroom. The curriculum must become more relevant to what students will experience in the 21st Century workplace.

Changes in the Classroom

The 21st Century classroom is student centered,  teacher centered. Teachers no longer function as lecturers but as facilitators of learning. **The students are learning by doing,** and the teacher acts as a coach, helping students as they work on projects. Students learn to use the inquiry method, and to collaborate with others--a microcosm of the real world they will experience once they leave the classroom.

Students no longer study each subject in isolation. Instead, they work on interdisciplinary projects that use information and skills from a variety of subjects and address a number of essential academic standards. For example, books assigned in reading or English, may be set in a country that is also being explored in social studies. The final reading of an English book report may require that specific social studies standards be met as well.

Textbooks are no longer the major source of information. Students use multiple sources, including technology, to find and gather the information they need. They might keep journals, interview experts, explore the Internet, or use computer software programs to apply what they have learned or to find information. Instead of being reserved only for special projects, technology is seamlessly integrated into daily instruction.

In this new classroom, flexible student groupings, based on individual needs, are the norm. The

teacher still uses whole group instruction, but it is no longer the primary instructional method used. Teachers assess student instructional needs and learning styles and then draw on a variety of instructional and learning methods to meet the needs of all the students in the classroom.

The focus of student learning in this classroom is different. The focus is no longer on learning by memorizing and recalling information but on learning how to learn. Now, students use the information they have learned and demonstrate their mastery of the content in the projects they work on. Students learn how to ask the right questions, how to conduct an appropriate investigation, how to find answers, and how to use information. The emphasis in this classroom is on creating lifelong learners. With this goal in mind, students move beyond the student role to learn through real world experiences.

We do this all the time in our science classes

Just as student learning has changed so has assessment of that learning. Teachers use a variety of performance-based assessments to evaluate student learning. Tests that measure a student's ability to memorize and to recall facts are no longer the sole means of assessing student learning. Instead, teachers use student projects, presentations, and other performance-based assessments to determine students' achievement and their individual needs.

The goal of the 21st Century classroom is to prepare students to become productive members of the workplace.

Changes in Teacher Behavior

Just as the classroom is changing, so must the teacher adapt their roles and responsibilities. Teachers are no longer teaching in isolation. They now co-teach, team teach, and collaborate with other department members. Teachers are not the only ones responsible for student learning. Other stakeholders including administrators, board members, parents, and students all share responsibility with the teacher for educating the student.

Teachers know that they must engage their students in learning and provide effective instruction using a variety of instructional methods as well as technology. To do this, teachers keep abreast of what is happening in the field. As lifelong learners, they are active participants in their own learning. They seek out professional development that helps them to improve both student learning and their own performance.

The new role of the teacher in the 21st Century classroom requires changes in teachers' knowledge and classroom behaviors. The teacher must know how to:

- act as a classroom facilitator. They use appropriate resources and opportunities to create a learning environment that allows each child to construct his or her own knowledge. The teacher is in tune with her students and knows how to pace lessons and provide

- meaningful work that actively engages students in their learning.
- establish a safe, supportive, and positive learning environment for all students. This requires planning on the part of the teacher to avoid safety risks, to create room arrangements that support learning, and to provide accessibility to students with special needs. The teacher is skilled in managing multiple learning experiences to create a positive and productive learning environment for all the students in the classroom. Classroom procedures and policies are an important part of creating a positive learning environment. The teacher evaluates and implements effective classroom management techniques in a consistent manner. She uses routines and procedures that maximize instructional time. Students know what is expected of them, and the teacher knows how to effectively handle disruptions so there is no adverse impact on students' instructional time.
 - plan for the long-term and short-term.
 - foster cooperation among students within the classroom. The teacher models and promotes democratic values and processes that are essential in the real world.
 - encourage students' curiosity and intrinsic motivation to learn. The teacher helps students become independent, creative, and critical thinkers by providing experiences that develop his/her students' independent, critical and creative thinking and problem solving skills. The teacher provides enough time for students to complete tasks, and is clear about her expectations. Students are actively involved in their own learning within a climate that respects their unique developmental needs and fosters positive expectations and mutual respect.
 - make students feel valued. The teacher emphasizes cooperative group effort rather than individual competitive effort through collaborative projects and a team spirit.
 - communicate effectively with students, parents, colleagues, and other stakeholders. The teacher uses written, oral, and technological communication to establish a positive learning experience and to involve other stakeholders in student learning.
 - use language to foster self-expression, identity development, and learning in her students.
 - listen thoughtfully and responsively.
 - foster cultural awareness and cultural sensitivity in her students. The teacher encourages students to learn about other cultures and instills in her students a respect for others and their differences.

(Commitment to the Role of Teacher as a Facilitator of Learning, 2007)

Conclusion

If students are to be productive members of the 21st Century workplace, they must move beyond the skills of the 20th Century and master those of the 21st Century. Teachers are entrusted with mastering these skills as well and with modeling these skills in the classroom. The characteristics of the 21st Century classroom will be very different from those of in the classrooms of the past because the focus is on producing students who are highly productive, effective communicators, inventive thinkers, and masters of technology.

References

Commitment to the role of the teacher as a facilitator of learning. (2007). Retrieved January 30, 2007 from <http://www.onu.edu/a+s/cte/knowledge/facilitator.shtml>

Change From	Description	Change To	Description
Teacher-centered	Teachers spend time disseminating information to students through direct instruction	Student-centered	Teachers act as facilitators, coaching students as they work on authentic projects
Content Coverage	Teachers cover content through direct instruction and move at a pace to ensure that all material is presented, whether it is learned or not.	Learning and Doing	Teachers design projects to address essential academic standards. Student performance on projects demonstrates proficiency or deficiency with respect to standards. Intervention is done for students not meeting standards.
Memorizing information	Teachers spend most time involved in direct instruction, with assessment occurring as a test at the end where recall of information is tested.	Using information	Teachers have students use information to develop authentic projects where mastery of information is demonstrated in the way information is used in the project.
Lecturer	Teachers spend most of their time involved in "stand and deliver". Knowledge comes from the teacher.	Facilitator	The teacher provides projects that involve students doing research and assimilating the knowledge themselves. Teachers act as coaches and provide support as needed by students. They take on the role of project manager.
Whole Group Configuration	All students receive the same instruction. One size fits all.	Flexible Grouping Configuration Based on Individual Student Needs	Teachers group students based on needs. Instruction seldom is to the whole group. Rather, instruction occurs with individuals, pairs, or small groups as needed.
Single Instructional and Learning Modality		Multiple Instructional and Learning Modalities to Include All Students	
Memorization and Recall	Tests are the primary means of assessment and focus on recall and lower level thinking.	Higher Order Thinking Skills	Teachers assign projects to the class that requires higher order thinking (synthesis, analysis, application, and evaluation).

Single Discipline	The class is conducted in an isolated manner without connections to other classes or subjects.	Interdisciplinary	Teachers have students complete projects that are designed to use information and skills that cut across other subject areas. Some projects and assignments may be done collaboratively between two or more classes (e.g., history, science, and language arts – a study of what really might have happened at the Little Big Horn)
Isolated	Students are encouraged to work individually	Collaborative	Teachers allow students to work collaboratively on projects and network with others in the class, as well as experts outside of school.
Quiz and Test Assessments	Students are assessed through tests only.	Performance-based Assessments	Teachers utilize projects as well as other products and performances as assessments to determine student achievement and needs. Assessments are tailored to the talents/needs of the students.
Textbook Dependent	The teacher may follow the textbook chapter by chapter, page by page. The text book is the major source of information.	Multiple Sources of Information Including Technology	Teachers use the textbook as just another resource, which is used in conjunction with the internet, journals, interviews of experts, etc.
Technology as a luxury	The teacher is the main user of technology, primarily as a means of presenting information.	Technology fully integrated into the classroom	Teachers have students regularly use technology to find information, network/communicate with each other and experts, and to produce and present their projects, assignments, and performances.

Teachers teaching to the one learning style	Teachers teach to one learning style (nearly) all the time (e.g., always talking only, or always giving notes on the board only). Teachers also expect student submissions to always be the same most or all of the time (e.g., all work is submitted in written form).	Teachers addressing the learning styles of all learners	Teachers use different means of presenting information. Methods are based on the preferences of individual students or groups. Students are able to convey information to the teacher via their projects/ performances/ assignments in a variety of modalities, based on their preferences (written, spoken, music, acted out, etc.).
Learning content	The focus is on covering content	Learner-directed Learning	Through projects, teachers have students learn how to ask the right questions, do an appropriate investigation, get answers, and use the information so they can continue to learn all their lives.
Learning isolated skills and factoids	Facts and skills are learned out of context and for their own sakes.	Using a variety of types of information to complete authentic projects	Teachers devise projects that help students learn information and skills through using them in situations similar to the way they would in real life.
Acting purely as a student	Students are involved in strictly academic endeavors (e.g., note taking, listening to lectures).	Students acting as a worker in the discipline	Teachers set up student assignments, projects, and performances to allow students to operate the way a person would working in the field in the real world (as a scientist, writer, mathematician, etc).
Teaching in isolation	Closing the door and working alone with no contact or help from outside the classroom	Teaching in collaboration	Teachers take part in co- and team teaching, as well as working collaboratively with department members to improve learning for students
Teaching in such a way as to disengage students	Students become bored because school is not engaging and they feel they have to power down.	Engaging the 21st Century student	Teachers consider how to utilize the unique characteristics of the 21st century brain and the habits of the 21st century digital native to provide engaging and effective instruction.

Teaching content	Teachers focus on subject matter alone.	Teaching to prepare students for the 21st Century workplace.	Teachers incorporate elements of the 21st Century workplace into the classroom to prepare the student with 21st century workplace experiences and skills.
Teachers alone educate the student	Teachers have the primary responsibility for educating the student and focus most if not all of the load.	Shared responsibility for educating the student	Teachers communicate with all stakeholders (administrators, school board members, parents, students) and enlist the help and inputs of all to effectively educate students.
"Sit and get" professional development	Teachers take part and accept passive and ineffective professional development	21st Century professional development and learning communities	Teachers take an active part in planning and participating in professional development that regularly utilize learning communities to improve student learning and achievement.
Teacher looks for one answer for students	Teachers pose low-level questions that require recall answers. Emphasis placed on correct answer.	Teacher looks for multiple answers from students.	Teachers pose questions that require high level thinking with multiple solutions. Emphasis placed on the types of questions.
Teachers reflect on student results	Teachers analyze assessment scores for the sake of progress reporting progress.	Students reflect on student results with teachers.	Teachers with students analyze assessment scores for the purpose of identifying strengths and weakness to prescribe instruction and academic supports.