New Ways of Learning and Teaching in the 21st Century

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What is learning? According to the *Merriam-Webster Online Dictionary,* learning is “the act or process of acquiring knowledge or skill,” (Learning, 2010). Although this definition may seem simplistic and easy enough, it is important to truly understand the implications of the words *knowledge* and *skill,* which I will further discuss below*.*

What is teaching? According to the *Merriam-Webster Online Dictionary,* teaching means to, “impart knowledge or skill to; give instruction to,” (Teaching, 2010). This definition, although relevant in comparison to the definition of learning, doesn’t capture the true connotation of a 21st Century teacher.

New roles for teachers, students and community: Idealistically, then, how does one go about acquiring *knowledge* or *skill* in the 21st Century?

According to Maloy, Verock-O'Loughlin, Edwards, & Woolf in a recent publication entitled, *Transforming Learning with New Technologies,* “Problem-solving [skill] and inquiry learning [knowledge] begin with real world situations and issues [that will] actively engage students,” (2010). A publication entitled, *New Visions for Teaching, Learning & Assessment in the 21st Century* states*,* “Business today wants independent problem solvers with good interpersonal skills who can function well in a team. They want people who view issues holistically and who can apply theory to real time, real life situations, and who demand excellence from themselves and their team,” (Jukes & McCaine, 2007).

In order to create life-long learning that incorporates *knowledge* and *skill* in the 21st Century, I believe it is important for the teacher to create and effectively evaluate authentic learning experiences. Although it may seem this is merely the task of a teacher utilizing the tools necessary to create student-centered learning, this isn’t always the case. According to David Nagel in a journal article entitled, *21st Century Learning: 'We're Not Even Close'*, “There are two major conceptual obstacles preventing schools from taking full advantage of technology as a catalyst for improvements in teaching and learning: a narrow approach to the use of technology and an unfounded assumption that technology is already being used widely in schools in a comprehensive and effective manner,” (2007).

Not only do teachers need to supply students with authentic learning experiences by giving students a chance to work within their communities to solve important everyday problems, students also need to be able to utilize critical thinking processes in order to create the knowledge and skills necessary to benefit them in their future endeavors.

So, how should we address new learning content, skills and context?

Schools aren’t fully equipped with the technologies they need and sometimes teachers aren’t willing to make the change from the ways they were taught. In order to create the balance between teaching and learning in the 21st Century, Jukes and McCain state, “Content is learned within the context of a specific problem to be solved [authentic learning], which allows for a greater probability of long term recall. Context is the key here because things are learned and taught. The learning is driven by the context of the problem. Students become the owners of their own learning as they deal with real world problems [which is what Jukes and McCain state businesses today are looking for],” (*New Visions*, 2007).

So how can we utilize technology within the realm of content, skills and context learning?

David Nagel in his journal article entitled, *21st Century Learning: 'We're Not Even Close'* recommends:

1) **Use technology comprehensively to develop proficiency in 21st century skills.** Use knowledge to communicate, collaborate, analyze, create, innovate, and solve problems.

2) **Use technology comprehensively to support innovative teaching and learning.** To keep pace with a changing world, schools need to offer more rigorous, relevant and engaging opportunities for students to learn--and to apply their knowledge and skills in meaningful ways.

3) **Use technology comprehensively to create robust education support systems.** Used comprehensively, technology transforms standards and assessments, curriculum and instruction, professional development, learning environments, and administration.

How can we as teachers help enable this new K12 model?

In order to help foster 21st Century learning, David Nagal believes teachers need to aid in nine key areas of education:

* “Building conceptual understanding of core content;
* Addressing misconceptions;
* Fostering inquiry and investigation;
* Applying knowledge and skills to interdisciplinary challenges;
* Creating and transforming knowledge for meaningful purposes;
* Collaborating with others;
* Apprenticing with experts;
* Engaging and motivating students; and
* Differentiating instruction to meet individual needs,” (*21st Century Learning*, 2007).

Coincidently, Jukes and McCain state that, “Transcendental teachers use a structured approach; they teach the 4Ds of problem solving (Define, Design, Develop, and Debrief):

1. Define - Students must be taught to define a task so the problem is fully understood before the work begins.
2. Design - Have you ever started a project without carefully thinking through the process? Creating a plan provides you with a guide as you work.
3. Do (Develop) - Once a problem has been defined and a plan for its solution has been designed, students must then put the plan into action.
4. Debrief - This is a step that is often overlooked in education. However, determining whether or not you have actually accomplished what you set out to do is an essential part of learning. It provides useful feedback that helps students to do better next time,” (*New Visions*, 2007).

Jukes and McCain go on to state that, “Transcendalists teachers also include the 5As of information fluency: (Asking the right questions, Accessing the data, Analyzing and authenticating the information, Applying what has been learned, and Assessing both the process and the product, and transcendental teachers make connections to the 7 layers of learning as well. The 7 layers are:

* + to content,
  + to process skills,
  + to tool (technological) competencies,
  + to real life/world/career/workplace situations,
  + to communities and community resources,
  + to parents,
  + and to qualitative and quantitative assessment,” (*New Visions*, 2007).

What is my interpretation?

In high school English, the new 21st Century model would require me to use many instructional technologies including composing software such as Microsoft Word for digital writing, visual thinking and concept mapping software so students are able to organize and outline their ideas visually, and communication tools such as discussion boards, promethean boards, course specific chat rooms, and email. All of the above would enable new ways of thinking and learning for both teachers and students because they would influence the knowledge and skills of both teaching and learning. I believe the most important aspect I can take from this information, is to try and be a transcendental teacher setting up authentic, community-related problems that allow the students to become the masters of their own learning. I believe this will take more work up front, but the outcomes will be well worth the time and effort!

Works Cited

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