

Inclusive Education and the Twenty-First Century Learner: What Do We Need To Do?

Sonya Burden
Science Department Head
Amalgamated Academy, Bay Roberts, NL
sonyaburden2@nlesd.ca

The world is rapidly changing and teaching in the twenty-first century is not immune. New knowledge in every discipline is increasing exponentially every moment. It is impossible to keep up with new discoveries. Educators today need to create inclusive learning environments that meet the needs of the twenty-first century learner. These objectives can be met by a shift in pedagogy, often referred to as pedagogy 2.0. Teachers need to create learning environments that focus on process, disposition, collaboration and values rather than facts alone. Students need to be metacognitively aware of themselves as learners, able to monitor their learning and set goals to push their learning forward (Archambault, Wetzel, Foulger, & Williams, 2010). Today's classrooms need to engage students in their learning through authentic, relevant inquiry. If schooling is to be relevant for today's students, the goal of education must be to help them acquire the knowledge and skills that will allow them to think, live and work productively in the constantly evolving digital age. In my opinion achieving this will require classroom practices to shift from teacher centered to learner centered. This shift can be facilitated through the integration of new internet technologies, Web 2.0.

The Teacher Can no Longer be the Center of Attention

When I reflect on what a typical classroom looks like, my representation includes the teacher at the front of the room, acting as the information source and providing direction for all students; a sage on the stage. As a teacher letting go of this role is a struggle, as I have not experienced anything else as a student. Learning-centered classrooms incorporate teaching strategies that focus on the needs, preferences, and interests of the learner. In learning-centered classrooms the teacher is the facilitator, students are given choice and learn skills rather than facts. Technology can play an important role in restructuring teaching and learning practices. Teachers, however, must take a leading role in designing appropriate learning environments that effectively incorporate technology, if they wish to help their students learn well with technology (Potter & Rockinson - Szapkiw, 2012).

Using Technology to Differentiate Instruction

Essential learning objectives and expectations provide the overall focus for instruction, assessment and evaluation. While being responsive to the readiness and learning preference of the student, the differentiation of instruction continually works towards the essential and overall objectives from the curriculum. Similarly, if technology is to support the differentiation of instruction, it must work towards these essential learning objectives.

Once we determine what we want our students to learn, it now becomes important to find out more about our students. Understanding our learners allows us to better support their learning. Getting to know student interests, readiness and learning preferences allows us to effectively differentiate instruction. Technology can provide a variety of ways to understand our learners.

Similarly, technology can go on to support intentional and responsive instruction, assessment and evaluation of students.

Assessment is a critical piece of differentiated instruction as it helps to identify the most effective strategies and activities that will encourage student learning. While traditionally thought of as occurring at the end of learning, assessment can take place throughout the course of learning, embedded in the instruction. Once we determine what we want our students to learn, we now need to determine how we will evaluate their learning at the end, as well as assess their progress as they make their way through the content. Assessment for, of and as learning asks us to consider how we intend on using the variety of tasks and assignments that are used in the classroom. Assessment for learning is more commonly known as formative diagnostic assessments. Assessment for learning is the use of a task or an activity for the purpose of determining student progress during a unit or block of instruction. Teachers are now afforded the chance to adjust classroom instruction based upon the needs of the students. Similarly, students are provided valuable feedback on their own learning. Assessment of learning is the use of a task or an activity to measure, record and report on a student's level of achievement in regards to specific learning expectations. These are often known as summative assessments. Assessment as learning is the use of a task or an activity to allow students the opportunity to use assessment to further their own learning. Self-and-peer assessments allow students to reflect on their own learning and identify areas of strength and need. These tasks offer students the chance to set their own personal goals and advocate for their own learning. As with any learning strategy, task or activity, technology can provide a variety of opportunities for assessment. What is important to consider is how the information gathered by these technology-supported tasks will be used.

Web 2.0, is it the Answer?

New internet applications were not designed specifically for educational purposes. In addition, the application of conventional tools (office applications, concept mapping and web tools) in educational settings is, in most cases, an isolated 'add-on' to regular teacher-centered classroom work. It is reasonable, therefore, that teachers are less receptive to the learning opportunities offered by new internet usage than their students (Jimoyiannis, Tsiotakis, Roussinos, & Siorenta, 2013).

I believe there are three arguments for using new internet usage in education. First, the forms of learning activities cultivated within web 2.0 are widely endorsed as important, based on current thinking regarding the nature of 21st century learning. Second, new internet usage offers enhanced learning opportunities by engaging students in a new world of information sharing and social learning. Lastly, students are generally ready to engage with new internet technologies.

I feel that Web 2.0 applications have tremendous potential to empower individual learners and to build and interconnect learning communities; however, teachers must have a plan for each tool utilized in order for the technology to achieve a positive effect. Students frequently use new web tools but the focus is on playing and leisure. Students tend to hold a more positive view on computer use outside of school than in school because they enjoy the freedom for exploration and experimentation it allows. School computer use tends to be marred with technical

limitations, inaccessibility, and constraints of school policy (Phirangee, 2013). Removing barriers such as these need to be given priority.

From dialogue with other teachers, it is evident that generally educators have high perceptions regarding the usefulness and applicability of Web 2.0 tools in teaching and learning, even if they do not know them by that name. From my experiences, however, there appears to be a gap between teachers' positive perceptions and their actual integration of Web 2.0 technologies in classrooms. Closing this gap is where we need to put our immediate focus as we move forward in our efforts to improve education in the twenty first century.

References

- Archambault, L., Wetzel, K., Foulger, T., & Williams, M. (2010). Professional Development 2.0: Transforming Teacher Education Pedagogy with 21st Century Tools. *Journal of Digital Learning In Teacher Education (International Society For Technology In Education)*, 27(1), 4-11.
- Jimoyiannis, A., Tsiotakis, P., Roussinos, D., & Siorenta, A. (2013). Preparing Teachers to Integrate Web 2.0 in School Practice: Toward a Framework for Pedagogy 2.0. *Australasian Journal of Educational Technology*, 29(2), 248-267.
- Phirangee, K. (2013). Beyond the Elementary Classroom Walls: Exploring the Ways Participation within Web 2.0 Spaces are Reshaping Pedagogy. *Journal of Educational Multimedia and Hypermedia*, 22(3), 299-316.
- Potter, S. L., & Rockinson-Szapkiw, A. J. (2012, 12). Technology integration for instructional improvement: The impact of professional development. *Performance Improvement*, 51(2), 22-27.