

21st Century Teaching and Learning

Winter 2014 Quick Facts

WHAT IS THE 21ST CENTURY TEACHING AND LEARNING INITIATIVE?

Jurisdictions around the world are exploring how to prepare their students to lead fulfilling lives, be productive contributors, and thrive in a rapidly changing, information- and technology-intensive, globalized world. Ontario is engaged in “next generation learning” in a focused and intentional way while maintaining a strong focus on the province’s core priorities of high levels of student achievement, reduced gaps in student achievement, and increased confidence in publicly funded education.

The 21st Century Teaching and Learning Initiative supports a number of activities within government and with education partners that:

- 1) define and broaden our view of student achievement and well-being to include even greater emphasis on higher-order skills necessary for developing global citizens who bring the competencies and qualities that enable them to thrive now and in the future; and
- 2) promote and accelerate uptake of evidence-informed, effective technology-enabled pedagogical practices that focus on key higher-order skills; increase student engagement, achievement, and well-being; and foster life-wide and life-long learning.

“We are on the cusp of a new era of learning and teaching. We will make that shift...momentum is building...and people are understanding that schools are changing dramatically for the better.”

- Principal, 2013

ACCOMPLISHMENTS TO-DATE

- **Research:** International and local research focused on innovative, next generation teaching and learning practices is underway to learn our way forward and ensure decisions are evidence- and research-informed in a dynamic and rapidly changing field.
- **Innovation in District School Boards:** Over 100 K-12 innovation projects to-date (2012, 2013) have focused on changes to teaching and learning using technology-enabled practices to impact student engagement, achievement, well-being, and the development of ‘21st Century’ competencies. Diverse projects addressed local priorities. A common research framework documented provincial impact trends and lessons learned are informing next steps. www.edugains.ca

- **21st Century Teaching and Learning Round Tables:** Since 2010 the Ministry of Education has met with over 900 representatives from district school boards and education partners; including annual Round Table events (2012, 2013) to share and mobilize key findings from innovation work and learn more about 21st Century teaching and learning practices from international, provincial, and local perspectives.
- **Digital Learning in the Virtual Learning Environment (vLE):** The ministry provides a vLE (learning management system) that can be personalized at a board, school and classroom level to address specific needs of organizations and related learners. It ensures ease of access to digital resources and tools, including: the Ontario Educational Resource Bank with 31,000 products, integrated ministry licensed software and web service products, 125 online credit courses, 22 elementary blended learning packages and 6 carousels of interactive learning resources, Homework Help for grades 7 to 10 mathematics and ePortfolio to provide students with the opportunity to develop as self-directed learners.
- **Additional Digital Learning Resources:** The ministry funds a designated eLearning Contact in each district to support educators in the use of the vLE and to facilitate eLearning and blended learning (a combination of face-to-face and online learning). Collaboration between the ministry and educators has resulted in school board contracts with Google and Microsoft to provide cloud-based productivity tools. www.EduGAINS.ca houses ministry developed resources for educators to support policies and programs related to improving learning and teaching (K-12) in Ontario schools. eCommunity Ontario is a professional online learning environment that offers educators the opportunity to access resources, network and share ideas with colleagues across the province.

“Using these technologies I think students find that school’s more relevant. It has more of a real world application, in that they are using these tools outside of the classroom too...Education is going through a huge paradigm shift right now... students are engaged in more authentic self-directed learning.”

- Teacher, 2013

IMPACT

- **Momentum is on the rise:** There has been significant engagement and commitment by Ontario educators to study the impact of technology-enabled 21st Century pedagogy. In 2012-13, all 72 district school boards, over 1600 schools and provincial schools, more than 4500 teachers, and more than 100,000 students were involved in a wide variety of innovation pilots examining the impact of technology-enabled teaching and learning practices.
- **Pedagogy is driving technology decision-making:** Attention is being paid to the learning task and how technology-enabled instruction can improve student achievement. There is thoughtful planning in system next steps to ensure decisions are evidence-based and focused on the instructional core, rather than a technology “bandwagon” effect.

“...All the school boards across Ontario are now actively engaged to varying degrees in a shift toward connecting with what Fullan (2012, 2013) has described as essential forces coming together to create the ground for 21st Century learning: pedagogy, technology, and change.”

- Innovation Projects, Round 2 Final Report, 2013

- **Educators are embracing change and implementing teaching and learning practices aligned with internationally recognized effective practice:**
 - ✓ The teacher’s role is shifting to that of facilitator and co-learner.
 - ✓ Teachers believe they have the tools and strategies to better reach and engage every student. They are using technology to create authentic, real-world learning tasks, personalize instruction, and give students more voice and choice in determining learning direction and demonstrating their learning.
 - ✓ Technology is used to promote de-privatization of teacher practice and student collaboration.
 - ✓ Technology is providing opportunities for cross-curricular learning in manageable and efficient ways.
- **There is an emerging pattern of evolving new technologies in schools that is classroom-focused, wireless and ‘cloud-based,’ and uses more personal mobile devices:** 67% of innovation pilots in 2012-13 used mobile technologies. Districts are examining policies and procedures that promote safe, effective and responsible use of technology, storage of student work, and “digital citizenship and literacies”. A pilot project on cloud-based technology for learning across three Ontario district school boards showed increasing use of advanced teaching strategies, such as inquiry learning and student-centred learning.

“Almost universally, cloud use fostered greater student engagement and work persistence and it often led to more frequent application of key 21st Century cognitive and metacognitive learning skills.”

- Bringing the Cloud into the Classroom:
A Formative Evaluation of Cloud Computing Pilots in
Three School Districts (2012-13)

WHAT ARE ONTARIO EDUCATORS SAYING?

“We’ve learned so much about how effective teaching and learning happens in the province of Ontario and we need to hold onto that learning and figure out how technology makes it richer.” - Director of Education

“Great teaching produces great results for students, and then great teaching, using 21st century modalities can push what we thought were limits for student learning even further over time.” - Director of Education

“It’s not that it’s futuristic. It’s just incorporating all those things that exist in our lives and incorporating them into education....making it relevant.” - Teacher

WHAT’S NEXT?

- Round 3 (2014) of the 21st Century Innovation Research – building on district school boards’ innovation projects in 2012 and 2013.
- Launch of new ‘21st Century Learning’ addition to www.EduGAINS.ca offers educators an opportunity to see innovation in action, access local resources, learn more about the experiences of Ontario educators, and connect with international and local research.
- Financial literacy app and game-based resources coming soon!
- The Ministry of Education continues to share lessons learned from Ontario’s innovation projects and the 21st Century Teaching and Learning Initiative with the international community through delegations to Ontario and conferences (e.g., 2014 American Educational Research Association).
- Students in initial teacher education programs in Ontario will be provided with pedagogical and instructional strategies knowledge about technology as a teaching tool – as part of their faculty of education program’s mandatory core content. This is a requirement in the recently amended Ontario Regulation 347/02 *Accreditation of Teacher Education Programs*, under the *Ontario College of Teachers’ Act*; the inclusion of the mandatory core content will come into effect September 2015.