Unit 2 Individual Assignment

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Introduction

While information and computer technologies (ICT) have become ubiquitous in modern society, educational institutions have been slow to integrate them effectively (Ibieta, Hinostroza, Labbé & Claro, 2017). A variety of intrinsic barriers to classroom ICT implementation have been identified, such as teachers' beliefs and potential lack of familiarity with ICT, as well as extrinsic ones such as school leadership, financial constraints and infrastructural issues (Ibieta et al.; Vatanartiran & Karadeniz, 2015). Research suggests that effective professional development can overcome these barriers, particularly approaches that emphasize collaboration, active learning, modelling and mentoring, and ongoing support within the teaching context (Brooks & Gibson, 2012; Jones & Dexter, 2014; Callahan, Saye & Brush, 2016)

Professional Learning Communities (PLCs) can directly meet educators' needs for ICT integration support, resulting in meaningful transformation in educator practices and improved student outcomes (Potter & Rockinson-Szapkiw, 2012; Hargreaves, 2003; Kitchenham, 2009). PLCs require members who share a vision of ICT use and defining standards is an essential element in developing that vision (Fullan, 2006).

Standards

Standards for educational ICT integration were first developed by the International Society for Technology in Education (ISTE) in 1998 (Stager, 2007). Initially, standards were focused on students and they blended elements of hands-on ICT skills with more abstract concepts, such as ethics (International, 1998). The standards have been refreshed several times since then, and now include guides for educators, administrators, coaches and computer science instructors seeking to integrate ICT in the classroom. The objectives of the standards have evolved since 1998, moving from learning how to use ICT to using ICT as a tool for learning (Johnson, 2015). With standards in place, administrators and educators can determine which tools are best suited to their educational context, build a school culture that empowers learners through ICT integration, and assess individual, institutional, and systemic professional development needs for meeting their goals all while improving student outcomes (Jones & Dexter, 2014).

The 2017 ISTE standards for educators include considerations regarding student needs and prerequisite skills, educator knowledge of existing technologies, and encourage the identification and/or creation of professional development opportunities. The standards also discuss the impact of administrators on the school's culture and learning context, a key issue at many institutions. The standards also encourage educators to not only collaborate with stakeholders at their institutions, but to assume leadership and support role in their learning environments.

2017 ISTE Standards for Educators (International, 2017)
Learner
Educators continually improve their practice by learning from and with others and exploring proven and promising practices that leverage technology to improve student learning. a. Set professional learning goals to explore and apply pedagogical approaches made possible by technology and reflect on their effectiveness. b. Pursue professional interests by creating and actively participating in local and global learning networks. c. Stay current with research that supports improved student learning outcomes, including findings from the learning sciences.
Leader
Educators seek out opportunities for leadership to support student empowerment and success and to improve teaching and learning. a. Shape, advance and accelerate a shared vision for empowered learning with technology by engaging with education stakeholders. b. Advocate for equitable access to educational technology, digital content and learning opportunities to meet the diverse needs of all students. c. Model for colleagues the identification, exploration, evaluation, curation and adoption of new digital resources and tools for learning.
Citizen
Educators inspire students to positively contribute to and responsibly participate in the digital world. a. Create experiences for learners to make positive, socially responsible contributions and exhibit empathetic behavior online that build relationships and community. b. Establish a learning culture that promotes curiosity and critical examination of online resources and fosters digital literacy and media fluency. c. Mentor students in the safe, legal and ethical practices with digital tools and the protection of intellectual rights and property. d. Model and promote management of personal data and digital identity and protect student data privacy.
Collaborator
Educators dedicate time to collaborate with both colleagues and students to improve practice, discover and share resources and ideas, and solve problems. a. Dedicate planning time to collaborate with colleagues to create authentic learning

experiences that leverage technology. b. Collaborate and co-learn with students to discover and use new digital resources and diagnose and troubleshoot technology issues. c. Use collaborative tools to expand students' authentic, real world learning experiences by engaging virtually with experts, teams and students, locally and globally. d. Demonstrate cultural competency when communicating with students, parents and colleagues and interact with them as co-collaborators in student learning.
Designer
Educators design authentic, learner-driven activities and environments that recognize and accommodate learner variability. a. Use technology to create, adapt and personalize learning experiences that foster independent learning and accommodate learner differences and needs. b. Design authentic learning activities that align with content area standards and use digital tools and resources to maximize active, deep learning. c. Explore and apply instructional design principles to create innovative digital learning environments that engage and support learning.
Facilitator
Educators facilitate learning with technology to support student achievement of the ISTE Standards for Students. a. Foster a culture where students take ownership of their learning goals and outcomes in both independent and group settings. b. Manage the use of technology and student learning strategies in digital platforms, virtual environments, hands-on makerspaces or in the field. c. Create learning opportunities that challenge students to use a design process and computational thinking to innovate and solve problems. d. Model and nurture creativity and creative expression to communicate ideas, knowledge or connections.
Analyst
Educators understand and use data to drive their instruction and support students in achieving their learning goals. a. Provide alternative ways for students to demonstrate competency and reflect on their learning using technology. b. Use technology to design and implement a variety of formative and summative assessments that accommodate learner needs, provide timely feedback to students and inform instruction. c. Use assessment data to guide progress and communicate with students, parents and education stakeholders to build student self-direction.

Individual Educator Assessment Rubric

The following self-assessment rubric is inspired by several documents. Indicators have been adapted from the reflective questions of the ISTE's *Guide for Teachers and Other Professionals* (Crompton, 2017) as well as from those of previous standards. The structure of the rubric, with areas for indicating preparedness and ideas for implementation, are inspired by the U.S. Office of Educational Technology's

Professional Learning Readiness Self-Assessment Tool (Office, 2014). Each standard subcategory features two indicators for assessment. Most of the indicators from the ISTE guide were rewritten to make their meaning clearer and more accessible. Indicators that repeated those in other, more appropriate categories were deleted in an attempt to keep the rubric manageable in length. Active language was used throughout to engage readers and to encourage reflection.

Assessment for Educational Technology Implementation Readiness Based on 2017 ISTE Standards for Educators					
Completed by:		Date:			
Instructions: As an individual, please rate your personal readiness for educational technology implementation using the following 3-point scale. If you find that you have conditions at Levels 1 or 2, use this tool to identify steps to move toward full implementation of professional learning. Circle the most appropriate number: 3 - The condition is in place. 2 - Approaching condition implementation. See comments for improving implementation. 1 - The condition is not in place. See comments for initiating implementation.					
LEARNER Educators continually improve their practice by learning from and with others and exploring proven and promising practices that leverage technology to improve student learning.					
Indicators		**3**	**2**	**1**	**Comments**
a.	I have identified sources of information on technological modes of teaching.				
	I experiment with technological modes of teaching and reflect on their effectiveness.				
b.	I have identified colleagues and mentors who share an interest in technology integration in the classroom.				
	I engage with colleagues and mentors by creating or by participating in professional learning networks discussing technology integration in the classroom.				
c.	I stay up to date on research into pedagogical approaches and best practices.				
	I reflect on recent research and consider pedagogical approaches and technology interventions that would best meet my students' needs.				
LEADER Educators seek out opportunities for leadership to support student empowerment and success					

and to improve teaching and learning.					
Indicators		**3**	**2**	**1**	**Comments**
a.	I have identified stakeholders, including students, colleagues and administrators, interested in developing a shared vision of learning through the use of technologies.				
	I collaborate with stakeholders, including students, colleagues and administrators, to identify issues inhibiting technology integration in the classroom and to find solutions together.				
b.	I consider my students' strengths and challenges when evaluating potential technologies for use in the classroom.				
	I ensure that students have equitable access to new technologies.				
c.	I have developed a process for evaluating and for choosing technologies that best empower student learning.				
	I share knowledge gained from experimenting with new technologies with my colleagues, including successes and productive failures.				
CITIZEN Educators inspire students to positively contribute to and responsibly participate in the digital world.					
Indicators		**3**	**2**	**1**	**Comments**
a.	I use technologies to strengthen relationships and to build safe communities for learners.				
	I encourage learners to contribute positively to online communities in a responsible manner.				
b.	I teach students to critically appraise the credibility and the validity of resources they find online.				
	I encourage students to analyze sources of information and to recognize bias in their own thinking and that of others.				
c.	I respect intellectual property rights by modeling the fair and legal use of online materials.				
	I ask students to identify the sources and the copyright status of materials found online.				
d.	I protect students' personal data and privacy while using online resources.				
	I demonstrate strategies for protecting personal data and privacy while using online				

	resources.				
COLLABORATOR Educators dedicate time to collaborate with both colleagues and students to improve practice, discover and share resources and ideas, and solve problems.					
Indicators		**3**	**2**	**1**	**Comments**
a.	I dedicate time for collaboration with colleagues on effective technologies and pedagogical strategies.				
	I work with colleagues to make technologies applicable and effective in a variety of student levels and learning contexts.				
b.	I model continuous learning by creating opportunities to co-learn technologies with my students and to troubleshoot together.				
	I seek student feedback and I provide students with opportunities for peer teaching and collaborative learning.				
c.	I have identified collaborative tools for engaging students in meaningful conversations around study topics.				
	I use technologies that connect students with outside content experts and communities locally and around the world.				
d.	I recognize how culture and background affect perceptions of learning experiences.				
	I value and seek out feedback from students, families and colleagues from all cultures and backgrounds.				
DESIGNER Educators design authentic, learner-driven activities and environments that recognize and accommodate learner variability.					
Indicators		**3**	**2**	**1**	**Comments**
a.	I use technologies to create, adapt and personalize learning experiences according to student interests.				
	I use technologies to foster student voice and to encourage student choice in my classroom.				
b.	I critically evaluate technologies, choosing those that meet curricular outcomes and that deepen learning in content areas.				
	I encourage students to use digital tools actively for creating content rather than simply consuming it.				

c.	I have identified blended or online learning approaches and technologies that could better support student learning in my classroom.				
	I am comfortable designing blended learning environments that optimize both face-to-face and online learning experiences.				
FACILITATOR Educators facilitate learning with technology to support student achievement of the 2016 ISTE Standards for Students.					
Indicators		**3**	**2**	**1**	**Comments**
a.	I empower students to collaborate with educators and with peers to define learning outcomes and goals.				
	I have identified methods for creating positive group learning experiences for students.				
b.	I understand the capabilities of different technologies for helping students achieve their goals.				
	I have identified a number of constructive digital learning tools as well as hands-on approaches (such as Makerspaces) for enhancing student learning.				
c.	I understand computational thinking and design processes and I have identified tools for improving upon that knowledge.				
	I encourage students to use computational thinking and design processes to innovate and to solve meaningful problems for a variety of applications.				
d.	I encourage students to use a variety of digital tools and approaches to express themselves creatively or to re-imagine their work.				
	I provide opportunities for students to publish their work for a larger audience and real-world impact.				
ANALYST Educators understand and use data to drive their instruction and support students in achieving their learning goals.					
Indicators		**3**	**2**	**1**	**Comments**
a.	I provide students with choices in selecting how to demonstrate their competencies using technologies.				

	I reserve time and space for meaningful reflection by students on their performance and opportunities for experimentation and adjustment based on that reflection.				
b.	I have identified and experimented with digital tools for streamlining the evaluation process and for meeting learner needs.				
	I provide students with a variety assessment modes, including summative, formative and ungraded evaluations, and I provide timely feedback.				
c.	I analyze and synthesize data to provide a more accurate view of student progress.				
	I collect and share assessment data with students and their guardians, empowering learners to improve their learning progress.				

Personal Self-Assessment Using Rubric

Assessment for Educational Technology Implementation Readiness Based on 2017 ISTE Standards for Educators					
Completed by: *Theressa François* Date: *March 11, 2018*					
Instructions: As an individual, please rate your personal readiness for educational technology implementation using the following 3-point scale. If you find that you have conditions at Levels 1 or 2, use this tool to identify steps to move toward full implementation of professional learning. Circle the most appropriate number: 3 - The condition is in place. 2 - Approaching condition implementation. See comments for improving implementation. 1 - The condition is not in place. See comments for initiating implementation.					
LEARNER Educators continually improve their practice by learning from and with others and exploring proven and promising practices that leverage technology to improve student learning.					
Indicators		**3**	**2**	**1**	**Comments**
a.	I have identified sources of information on technological modes of teaching.	✔			
	I experiment with technological modes of teaching and reflect on their effectiveness.	✔			
b.	I have identified colleagues and mentors who share an interest in technology integration in the classroom.		✔		*Our school's technology committee was disbanded by the principal, but could easily be re-formed as a PLC.*
	I engage with colleagues and mentors by creating or by participating in professional learning networks discussing technology			✔	*I will have to spearhead a new ICT literacy PLC in my school.*

	integration in the classroom.				
c.	I stay up to date on research into pedagogical approaches and best practices.	✔			
	I reflect on recent research and consider pedagogical approaches and technology interventions that would best meet my students' needs.	✔			
LEADER Educators seek out opportunities for leadership to support student empowerment and success and to improve teaching and learning.					
Indicators		**3**	**2**	**1**	**Comments**
a.	I have identified stakeholders, including students, colleagues and administrators, interested in developing a shared vision of learning through the use of technologies.		✔		*I will need to reach out to students – they will likely have excellent suggestions for ICT tools!*
	I collaborate with stakeholders, including students, colleagues and administrators, to identify issues inhibiting technology integration in the classroom and to find solutions together.			✔	*These issues will be the first order of business for my new ICT literacy PLC.*
b.	I consider my students' strengths and challenges when evaluating potential technologies for use in the classroom.	✔			
	I ensure that students have equitable access to new technologies.	✔			
c.	I have developed a process for evaluating and for choosing technologies that best empower student learning.	✔			
	I share knowledge gained from experimenting with new technologies with my colleagues, including successes and productive failures.			✔	*Sharing experiences with ICT will be an essential component of the new ICT literacy PLC.*
CITIZEN Educators inspire students to positively contribute to and responsibly participate in the digital world.					
Indicators		**3**	**2**	**1**	**Comments**
a.	I use technologies to strengthen relationships and to build safe communities for learners.		✔		*I am developing an online component for classroom discussions.*
	I encourage learners to contribute positively to online communities in a responsible manner.			✔	*I will address netiquette once my online classroom has been implemented.*
b.	I teach students to critically appraise the credibility and the validity of resources they find online.		✔		*I've only touched on this during ELA classes.*
	I encourage students to analyze sources of information and to recognize bias in their		✔		*Again, I will need to address this explicitly in class.*

	own thinking and that of others.				
c.	I respect intellectual property rights by modeling the fair and legal use of online materials.		✔		*I follow these rules personally, but I haven't explicitly explained the process to my students*
	I ask students to identify the sources and the copyright status of materials found online.			✔	*This will be an important element of my online course.*
d.	I protect students' personal data and privacy while using online resources.	✔			
	I demonstrate strategies for protecting personal data and privacy while using online resources.			✔	*This will be one of the first lessons during online orientation.*
COLLABORATOR Educators dedicate time to collaborate with both colleagues and students to improve practice, discover and share resources and ideas, and solve problems.					
Indicators		**3**	**2**	**1**	**Comments**
a.	I dedicate time for collaboration with colleagues on effective technologies and pedagogical strategies.			✔	*I will have to organize this as my administrator is hostile to ICT in general.*
	I work with colleagues to make technologies applicable and effective in a variety of student levels and learning contexts.			✔	*Again, an essential element of my new ICT literacy PLC.*
b.	I model continuous learning by creating opportunities to co-learn technologies with my students and to troubleshoot together.		✔		*I need to take risks and implement ICT even when I haven't fully mastered them.*
	I seek student feedback and I provide students with opportunities for peer teaching and collaborative learning.			✔	*I need to relinquish control in the classroom and let the students exercise their autonomy.*
c.	I have identified collaborative tools for engaging students in meaningful conversations around study topics.		✔		*I have begun experimenting with my province's LMS as well as online language discussion boards.*
	I use technologies that connect students with outside content experts and communities locally and around the world.			✔	*I need to reach out to other Francophone communities and experts to encourage meaningful interactions.*
d.	I recognize how culture and background affect perceptions of learning experiences.	✔			
	I value and seek out feedback from students, families and colleagues from all cultures and backgrounds.	✔			
DESIGNER Educators design authentic, learner-driven activities and environments that recognize and accommodate learner variability.					
Indicators		**3**	**2**	**1**	**Comments**
a.	~~I use technologies to create, adapt and~~	✔			

	personalize learning experiences according to student interests.				
	I use technologies to foster student voice and to encourage student choice in my classroom.			✔	*I have to abandon my "chalk and talk" approach and adopt more constructive approaches.*
b.	I critically evaluate technologies, choosing those that meet curricular outcomes and that deepen learning in content areas.	✔			
	I encourage students to use digital tools actively for creating content rather than simply consuming it.		✔		*I'm very eager to use technologies for creative purposes and to enhance French-language use.*
c.	I have identified blended or online learning approaches and technologies that could better support student learning in my classroom.	✔			
	I am comfortable designing blended learning environments that optimize both face-to-face and online learning experiences.	✔			
FACILITATOR Educators facilitate learning with technology to support student achievement of the 2016 ISTE Standards for Students.					
Indicators		**3**	**2**	**1**	**Comments**
a.	I empower students to collaborate with educators and with peers to define learning outcomes and goals.			✔	*I am constrained by curricular outcomes, but I do plan on engaging students in this sort of planning.*
	I have identified methods for creating positive group learning experiences for students.		✔		*I plan on increasing my use of group learning and experimenting with methods.*
b.	I understand the capabilities of different technologies for helping students achieve their goals.	✔			
	I have identified a number of constructive digital learning tools as well as hands-on approaches (such as Makerspaces) for enhancing student learning.	✔			
c.	I understand computational thinking and design processes and I have identified tools for improving upon that knowledge.	✔			
	I encourage students to use computational thinking and design processes to innovate and to solve meaningful problems for a variety of applications.			✔	*I need to develop student autonomy, initiate and problem-solving skills.*

d.	I encourage students to use a variety of digital tools and approaches to express themselves creatively or to re-imagine their work.		✔		*I've identified a number of tools for this purpose, but I have yet to test them.*
	I provide opportunities for students to publish their work for a larger audience and real-world impact.			✔	*I will need to create protected spaces online for safely sharing student work.*
ANALYST Educators understand and use data to drive their instruction and support students in achieving their learning goals.					
Indicators		**3**	**2**	**1**	**Comments**
a.	I provide students with choices in selecting how to demonstrate their competencies using technologies.			✔	*I plan on giving students maximum freedom in choosing how to meet goals.*
	I reserve time and space for meaningful reflection by students on their performance and opportunities for experimentation and adjustment based on that reflection.		✔		*I need to allocate more time for this.*
b.	I have identified and experimented with digital tools for streamlining the evaluation process and for meeting learner needs.		✔		*I need to test these methods next school year.*
	I provide students with a variety assessment modes, including summative, formative and ungraded evaluations, and I provide timely feedback.		✔		*I have only just begun to engage in formative and ungraded assessment. They are an important part of next year's plan.*
c.	I analyze and synthesize data to provide a more accurate view of student progress.	✔			
	I collect and share assessment data with students and their guardians, empowering learners to improve their learning progress.	✔			

Analysis and Plan of Action

Completing my self-assessment, it is clear that there are a number of areas in which I am deficient. First, I will need to seek out online resources for staying abreast of pedagogical research and best practices, as well as trends in ICT literacy, new techniques and tools. Prior to studying my master's degree, I did not seek out such information unless forced to do so during professional development events. I will have to be much more proactive in that regard by signing up for newsletters, by participating in online professional networks, and by seeking out professional development opportunities wherever possible. This type of informal, self-directed learning is increasingly recognized

as being an essential element of successful ongoing professional development (Jones & Dexter, 2014).

Second, it will be up to me to collaborate with my colleagues, administrators and students to enhance ICT integration in my school. My first step will be to establish and to lead a professional learning community for pooling shared knowledge. A previous technology committee was disbanded by our current principal, who is openly hostile to ICT. It will be up to me to identify stakeholders for membership within the group, to coordinate meeting times, and to facilitate communications. This kind of grassroots leadership and collaboration is recommended for its effectiveness as it is more likely to result in cultural change than traditional, top-down approaches (Fullan, 2001; Kitchenham, 2009). Ensuring that all stakeholder's voices are considered, including those of students, should result in meaningful, lasting change in my school's approach to ICT implementation and pedagogic approaches.

My final major area of improvement will be to personally adopt collaborative and constructivist teaching approaches. I need to accept that I can not control all aspects of the learning experience for my students – nor should I.

> "Using technology in the classroom requires a shift in thinking for teachers who believe they are the dispensers of all knowledge. The role of the teacher is one of facilitator as the students explore, inquire, and draw conclusions through technology. (Potter & Rockinson-Szapkiw, 2012, p. 25)

I now appreciate that I need to relinquish control over my students' education and empower them to become the independent and self-directed learners required in our times. Fullan (2006) suggests that this sort of individual change must occur simultaneously with systemic change. While this represents a huge shift in my pedagogical approach, I have been fortunate enough to spend the last year studying constructivist pedagogy, discovering constructivist ICT tools, and experiencing them first-hand as a masters student. I feel I am well-prepared to implement blended learning technologies and completely re-imagine my students' learning experience. I have already made steps in this direction by creating comprehensive blended learning unit plans and

by building an online unit in Manitoba's Blackboard LMS for implementation in my classroom next year.

Conclusion

Studying the ISTE's standards and creating an assessment tool for educators seeking to integrate technologies in their classrooms has been an invaluable learning experience. Having completed my assessment tool, it is clear that I need to focus my professional development efforts on improving my knowledge of recent research and developments in pedagogy and ICT literacy (Learner), creating opportunities for professional development in ICT literacy within my school community (Leader), developing my constructivist teaching skills using technologies (Facilitator), and seeking out opportunities for collaboration with stakeholders within my school community (Collaborator).

Thanks to the results of my self-assessment, I am confident that I can successfully navigate the transition from a teacher-centred classroom to a student-centred one. I also know where to focus my professional development efforts in the future. Moreover, I have a plan of action for transforming my school's culture through the creation of stakeholder-led collaborative professional learning communities. The ultimate goal of this PLC will be to help educators embrace collaborative and constructivist learning approaches enhanced and enabled by digital technologies.

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