Using 21st Century Literacy Skills to Strengthen the Curriculum Core

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Literacy in the 21st Century

Literacy in the 21st century has surpassed its focus on just reading and writing. Literacy has extended to other areas that are beneficial for students to utilize such as numeracy, digital, health, financial, media, cultural, and emotional/physical (Gaspelit Literacy Council, n.d.). Literacy gives the students the opportunity to develop a creative, interactive, and engaging mindset which can increase their chances of success in the future. It builds on the fundamentals to support all learners in exploring and making sense of a "multimodal, multimedia world" through a wide variety of texts and technology (Ontario Ministry of Education, 2013). Students will gain the ability to engage in creative, and critical thinking, thus will be responsible for becoming communicators, consumers, and creators of text. In addition, it will enable students to critically analyze and challenge text with respect to issues of equity, power, and social justice to inform a critical stance, response, or action (Ontario Ministry of Education, 2013). Literacy should be a natural part of learning as it connects and enriches a student's understanding of content through different subject areas. Within these subjects, literacy involves the capacity of a student to grow by: accessing, managing, creating and evaluating information; thinking imaginatively and analytically; communicating thoughts and ideas effectively; applying metacognitive knowledge and skills; and developing a sense of self-efficacy and an interest in life-long learning (Ontario Ministry of Education, 2013).

The National Council of Teachers of English (NCTE) explain that with literacy changing continuously in the digital age, literate people must acquire and apply various skills effectively and critically (NCTE, 2019). Additionally, literacy learning and teaching is evolving with innovations that engage and respond to learners who live in a world of anytime, anywhere access of information, social media and online networks that belong to a range of global communities

(Ontario Ministry of Education, 2013). As educators, we don't teach exclusively to the 21st century. We are universal in that we are developing critical thinking skills in students by creating an engaging program, and bringing text to self, text to text, and text to the world.

21st Century Skills

To enhance 21st century skills, educators need to integrate technology into their pedagogy and as a result, it will support their learning (Mirra, 2019). The Ontario Ministry of Education (2013) provides a framework that explores six foundational principles as a "basic dialogue and collaboration of literacy learning in classrooms, schools, and boards" (p. 2). These foundational principles that enhance competencies for a digital age are creativity, imagination, critical thinking, metacognition, collaboration, and innovation (Ontario Ministry of Education, 2013).

Stauffer (2022) expands on this concept and explains that 21st century skills are composed of 12 skills, all of which are essential within the age of the internet. While individually unique in their ability to help students, the common underlying theme amongst these skills is that it augments the ability of the student to adapt to changes in their surrounding environment (Stauffer, 2022). More recently, there has been an emphasis to develop specific skills that pertain to the 21st century through changes in the curriculum and pedagogical practice (Ontario Ministry of Education, 2016). In doing so, students will be better prepared to solve a variety of complex problems that are commonly associated with a highly connected, competitive and technologically integrated society now and moving forward into the future (Ontario Ministry of Education, 2016). The 12 skills referenced below are further categorized as either learning skills, literacy skills or life skills.

Learning skills consist of critical thinking, creativity, collaboration and communication and help to teach students about the specific processes required to adapt within their surrounding

environment or certain situations (Stauffer, 2022). Critical thinking challenges students to "acquire, process, interpret, rationalize and critically analyze large volumes of often conflicting information to the point of making an informed decision and taking action in a timely fashion" (C21, 2012, p. 10). Therefore, development of critical thinking skills has the potential to help students develop the ability to find alternative solutions to a problem, especially when an educator is not immediately present. Creativity and innovation are intimately linked to each other and are defined as the development of new ideas and realization that these ideas fulfill specific needs in our society (Ontario Ministry of Education, 2016). Fullan (2013) describes collaboration as the ability of a student to "work in teams, learn from and contribute to the learning of others, social networking skills and empathy in working with diverse others" (p. 9). Therefore, collaboration not only improves a students' willingness to work with others, but also understanding the importance of being able to consider the perspectives and solutions of others (Stauffer, 2022). Finally, communication is the ability to talk with others and effectively convey ideas amongst different types of personalities (Stauffer, 2022). Communication also goes beyond typical interactions that are commonly associated with it, as many frameworks have been updated to include digital literacy as well (Ontario Ministry of Education, 2016).

Literacy skills consist of information literacy, media literacy and technology literacy and help students to improve their digital comprehension while providing them with the ability to more efficiently determine trustworthy sources of information (Stauffer, 2022). Information literacy will help students to better understand various facts, figures, statistics and data points that they may encounter online while being able to assess and discern their credibility (Stauffer, 2022). Similarly, media literacy enhances students' ability to understand the methods in which

information is published online and can assist them with better identifying reliable and trustworthy sources of information (Stauffer, 2022).

Life skills focus on the intangible aspects of each student and consist of flexibility, leadership, initiative, productivity and social skills (Stauffer, 2022). Flexibility describes the ability of a student to adapt to ever changing situations around them and potentially deviating from plans as needed (Stauffer, 2022). This skill can be quite challenging for students as it requires them to potentially admit that they are wrong and there may be a better alternative. Leadership is the ability of a student to motivate a group to accomplish a goal in a collaborative manner, while initiative is a skill indicative of a student's character in terms of work ethic and ability to seek progress (Stauffer, 2022). Productivity describes the ability of a student to complete work in the required amount of time, especially while maintaining efficiency in an age of constant distractions (Stauffer, 2022). Finally, social skills (i.e., etiquette, manners, politeness, small talk, etc.) can assist students in meeting and networking with others for mutual benefit to forge long-lasting relationships (Stauffer, 2022).

Using these 21st century skills, I will investigate how students consume, curate, and create. This process occurs on a continuum in which students move through being consumers to producers of digital content. Additionally, students learn how to move through becoming content consumers to content curators to content creators (NTCE, 2019).

Consume

In early literacy development, students begin to consume literacy through stages of decoding in reading. Long and colleagues (2011) explain that children will begin to form associations between "language, meaning and the written form of words", and these associations appear to relate to children's "sensitivity to the sounds in words, and their ability to match these

to the alphabetic system" (p. 242). As students are guided through those early stages, they begin to develop decoding and comprehension skills in reading. Reading is about decoding text, which is the ability to comprehend meaning (Tummer 1986, as cited in Long et al, 2011). Students need to be able to decode and comprehend what they are reading to become consumers in the 21st century. One of the most primary sources of information comes from the internet, thus students require the ability to understand how to participate and navigate through the networked world (NCTE, 2019). Most media text use words, graphics, sounds, and/or images in print, oral, visual or electronic form to communicate information and ideas to their audiences (Ontario Ministry of Education, 2006). Students needs to be able to consume text in various forms because in the 21st century media text is presented through multiple outlets, such as advertising, websites, and television shows. In addition, "building and utilizing connections between people, ideas, and information provides opportunities for them to be critical consumers of information, builds agency in their own work, and prepares them for the global world beyond the classroom" (NCTE, 2019). Students can thrive as literacy consumers in environments that are stimulated through critical and creative thinking, accessibility to a range of technologies, and provide variety ways of communicating, and reflecting.

Curate

In the 21st century, technology has allowed our society to access vast amounts of information on the web and beyond. Therefore, fluency in the 21st century goes beyond traditional reading and writing and includes literacy as an engaging mindset to both consume and produce content (Nicol, 2014). While incredibly beneficial, it is of the utmost importance to be able to narrow down that information in a more efficient manner. Educators have an opportunity to help students recognize that consuming and filtering information, while focusing on which

information sources are both credible and reliable, will effectively help them achieve their learning goals.

Educators can teach students on what constitutes a credible source as it can be argued that the more credible a source is, the more reliable it is to use. Identifying credible sources highlights the difference between opinions that are supported by factual information, as opposed to personal thoughts and beliefs. "Students must be able to differentiate between fact and opinion; evaluate the credibility of sources; recognize bias; be attuned to discriminatory portrayals of individuals and groups, including women and minorities; and question depictions of violence and crime" (Ontario Ministry of Education, 2006). Educators can further assist students using technology (i.e., social media platforms) to introduce the concept of actively interacting with content that is produced by others. In doing so, students may demonstrate fluency in their abilities to view content, engage by asking questions, making connections, generating inferences and using this for their own utility (Nicol, 2014). Educators must emphasize to students on how to approach content (i.e., Where did this come from?), interact with content (i.e., What is this saying?), and evaluate content (i.e., How do I feel about this?) with the use of appropriate questions. (Nicol, 2014). Becoming more fluent will empower students to question what they hear, think for themselves, form their own opinions and hopefully discover better truths.

Create

The increase of technological tools and sources has offered a new way of visualizing student involvement in the classroom. Educators are leaders in creating structure, providing guidance, and monitoring progress. However, multimedia devices and platforms can help students in creating material that articulates their thoughts, as well as in-classroom learned material. It assists students as they curate information, design projects, and publish it in an

accessible manner. Mobile computing devices and the use of social media has created opportunities for interaction, provided opportunities for collaboration, as well as allowing students to engage in content creation and communication through the internet and social media's constant connectivity (Gikas & Grant, 2013). Students create using a variety of platforms through their phones and computers such as Canva, Adobe, Instagram, TikTok, YouTube, and PowerPoint. Students can be taught about making informed decisions when creating multimedia projects through guided in-classroom platforms. In doing so, they could gain valuable insights and understand the importance of having both creative design and pertinent information. In addition, educators can show the contrasting element of what content is not appropriate within and outside of the classroom. Librarians, collaboratively with educators, showed effective results in developing a platform to support student-led content creation that was grounded in meta-literacy concepts (Mortimore & Baker, 2018). The platform supported student profiles, blogs, videos, website creation and scripting projects while also having access controls and privacy. Faculty and students were invited onto the platform as content creators while librarians provided instruction and technical support (Mortimore & Baker, 2018). Content created through platforms could also be shared either publicly, directly with educators, or within classroom portals. A well-developed platform that not only educates, but also gives students the autonomy can be beneficial in taking academics further and fostering collaboration and content creation. While there is an increase in the number of multimedia tools, barriers may still exist around accessibility and some students may not be able to create content as readily as others. Creative content activity is related to the socioeconomic status of each student, as well as parental involvement and engagement (Hargittai & Walejko, 2008). To combat this, educators can provide more opportunities to engage in content creation and distribution by opening

afterschool programs where additional time with various multimedia tools are offered. Educators can be guides in ensuring that students create content that is meaningful and impactful, while guiding and encouraging them to have an in-depth thought process. Participatory action is increased when students' interests are used to drive the identification and creation of educational content (Hills, 2015). Students' ability to learn how to create content in a responsible manner as well as in a variety of forms can take these skills and translate them into further aspects of their daily lives and future careers.

Role of Technology, Educators, and Students

Technology

The role of technology in learning and promoting 21st century competency can be achieved through "increasing student engagement", "assisting in the assessment of student performance", and "facilitating communication and collaboration" (Ontario Ministry of Education, 2016, p. 34). Integrating information and communication technology (ICT) into teaching shows a greater impact on students' learning performances when students are learning with digital technologies than without digital technologies (Voogt et al., 2018). It is essential to use technology not only for delivery of teaching curricula to students, but to engage students with technology to develop multiple skills. "Technology can provide access to real-time data, simulations to situate learning in the real world and opportunities for students to link learning to their personal interests (Ontario Ministry of Education, 2016, p. 34). It is beneficial to introduce different types of technology to students that may include Chromebooks/laptops, iPads/tablets, interactive whiteboards, and projectors. To begin integrating ICT, it is important to make appropriate decisions about technology that will coincide with the lesson that will be introduced and taught to the students (Voogt et al., 2018). In addition, implementing technology in assisting

in the student performance through assessment. Technology can support educators when assessing for, as, and of learning which creates "real-time assessment information" that can deepen the understanding of student challenges and gains (Ontario Ministry of Education, 2016, p. 35). This will help educators understand the relationship between the skills that students are learning and how technology can facilitate and increase those skills. Technology can also promote and facilitate communication and collaboration skills. Communicating through technology provides a gateway for connections with students, parents, and educations, and an exchange of ideas and effective practices (Ontario Ministry of Education, 2016). Introducing technology into the classroom gives students the ability to be tactile learners by being interactive in their learning process rather than just using the standard paper and pencil method. Using ICT in the classroom provides inclusivity to students who don't have access to technology at home. ICT can also provide minority students tools to improve skills like automatic speech recognition, and the availability of authentic audio-visual materials (Unesco IIEP Learning Portal, n.d.). ICT in teaching can also give students with special needs a voice in their communication and collaboration skills. Assistive technology (e.g., iPad) can increase a child's self-reliance, sense of independence, and make them feel successful in the classroom. In addition, assistive technology can help students who struggle with listening, math, organizational skills, memory, reading, and writing to better learning outcomes.

Educators

The role of an educator in the 21st century is to provide effective and meaningful programing for students. When an effective program is integrated, it guides students understanding on how to access, evaluate, synthesize, and contribute to information (NTCE, 2019). In addition, educators need to be facilitators by being able to guide their students to know

how and where to find the accurate information and be able to synthesize and recognize the information that they are acquiring (Edutopia, 2019). Technology must be observed as a very valuable component in teaching students in the 21st century and for that to occur educators need to be well versed with incorporating technology in the classroom.

For an effective program to transpire, educators must give students the tools and opportunities to be critical thinkers about the information around them. NCTE (2019) argues that "Literacy demands have implications for how teachers plan, model, support, and assess student learning". In comparison, Tompkins et al., (2014) explains that the three abilities that educators must have in developing literacy is: the ability to plan teaching and learning experiences in an effective and productive manner; must organize a creative and exciting learning environment; and must evaluate learning with various evaluation tools, so students do not feel bored (as cited in Maulani et al., 2021, p. 161).

In addition, when educators create a collaborative environment, it allows students to explore new ideas and opposing perspectives, which gives them the tools to be utilized at higher levels of their education. Thus, educators need to create literacy classrooms that meet the needs of linguistically and culturally diverse learners (Boyd et al., 2006). As literacy educators, the fundamental purpose must become one of making sure that no student is excluded from full participation in classrooms, and within the learning activities contained therein, regardless of ethnic, cultural, or linguistic differences. In the 21st century, Boyd and colleagues (2006) believe that educators "need to be advocates for and models of social justice and equity" (p. 332). As educators, we need to acknowledge that students bring "funds of knowledge" to their learning, and it is important to incorporate the experiences and knowledge of students into classroom practice (Boyd et al., 2006. p.332). When educators successfully incorporate texts and

pedagogical strategies that are culturally and linguistically responsive, they have been able to increase student efficacy, motivation, and academic achievement (Ladson-Billings, 2004; as cited in Boyd et al., 2006).

Students

Students need to feel empowered and be active participants in their learning process. Students need to develop early literacy skills so they can consume, curate, and create through their critical thinking skills. For students, literacy is creating a mindset that considers reading and writing but can expand and diversify their knowledge and deepen their understanding of the world around them (Nicol, 2014). The autonomy of learning has shifted from the educator to the student where educators guide students' prior knowledge within their learning. The role of the student is to acquire knowledge and understanding through literacy and literacy awareness (Education of Alberta, 2015). Students use their critical thinking skills, communication skills, collaboration skills, and creative and innovating skills to become a 21st century learner. By using their critical skills, students are using language to acquire, construct and communicate meaning (Education of Albert, 2015). When students practice collaboration skills, they are learning how to work cohesively and communicate with their group members and be respectful of their ideas and contributions to their learning experience. Through creating and innovating students can become the "focal point of the classroom, acting as explorer (e.g., mathematician, scientist, sociologist) and designer (e.g., author, artist, composer)" (Blair, 2012). Encouraging students to be creators in the classroom by demonstrating their skills and knowledge will allow students to become more confident in their abilities and their own voice.

Conclusion

An effective literacy program is continuously adapting and involves multiple processes. Literacy learning must be embedded in every subject area across the day to deepen students'

ability to think, express, reflect and act (Ontario Ministry of Education, 2013). In the 21st

century, effective literacy programming provides learners with opportunities for sustained

interactions with others and the dynamic world around them. Educators play a crucial role in this

process and must position themselves at the leading edge of novel technological advancement

and understand the value it holds for 21st century learners. Integration and acceptance of such

will only serve to increase the likelihood of yielding better learning outcomes. "If we teach

today's students, as we taught yesterday's, we rob them of tomorrow" – John Dewey

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Classroom News

My Literacy Program in the 21st Century

"If we teach today's students, as we taught yesterday's, we rob them of tomorrow" – John Dewey

Consume

As students are guided through those early stages, they begin to develop decoding and comprehension skills in reading. Students need to be able to decode and comprehend what they are reading to become consumers in the 21st century.

21st Century Literacy Skills

Critical Thinking

Collaboration

Communication

Creativity and Innovation

"I'm a decoder! I can decode when I read!"

Curate

Educators have an opportunity to help students recognize that consuming and filtering information, while focusing on which information sources are both credible and reliable, will effectively help them achieve their learning goals. I will further assist my students using technology (i.e., social media platforms) to introduce the concept of actively interacting with content that is produced by others. In doing so, students may demonstrate fluency in their abilities to view content, engage by asking questions, making connections, generating inferences and using this for their own utility.
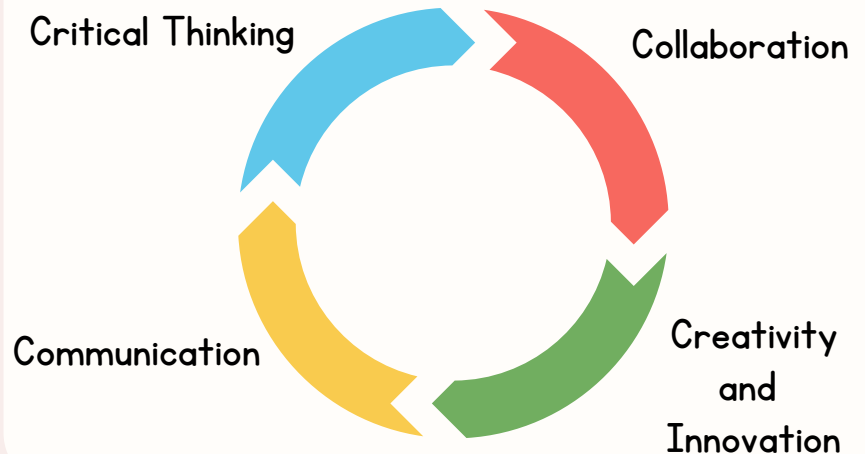
Create

Students will receive opportunities where they can interactive and engage with learning in new fun ways! Multimedia devices and platforms can help students in creating material that articulates their thoughts, as well as in-classroom learned material. It assists students as they curate information, design projects, and publish it in an accessible manner. Students can create by using a variety of platforms through their phones and computers such as Canva, Adobe, Instagram, TikTok, YouTube, and PowerPoint. Students can be taught about making informed decisions when creating multimedia projects through guided in-classroom platforms.

Collaborative Environment

Students work in pairs and groups to help expose them to various perspectives. By creating a safe environment it helps students students to build upon their critical thinking skills that will eventually be needed in the future.

My Role in the Classroom

- Allowing students to ask questions and discover their own ideas through critical thinking.

- Providing opportunities for students to interact and engage with materials through hands-on learning.

- My goal is to be a facilitator in the classroom; I will provide students will tools that will scaffold their learning and provide positive encouragement and support in their learning.

Classroom Assessment

I know when to assess my students so that there is authentic learning occurring within my literacy program.

Integrating 21st century skills with student learning will expand technology and allow an increase in student engagement, assisting in assessment of student performance and facilitating communication and collaboration" (Ontario Ministry of Education, 2016).

Technology can support educators when assessing for, as, and of learning which creates real-time assessment information that can deepen the understanding of student challenges and gains.

Culturally Diverse Learning

In my collaborative classroom, students will be using their problem solving skills to evaluate and explore new ideas and opposing perspectives.

I will facilliate my students learning by having them advocate for and models of social justice and equity. This will have students use their critical thinking skills to investigate problems that are occuring around them.
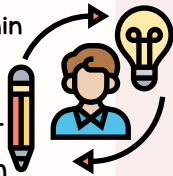
Technology Integration

Using technology to assist and guide students learning in the classroom through various platforms.

Raz-Kids

Twitter

Google Classrooms

Epic

Lexia