

Teaching in the Virtual Classroom: Strategies for Success

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The recent move to convert in-person classes to a virtual or online format has proved to be challenging for all educators. And, while most institutions have not been able to devote the development assets and expertise they would like to support a growing body of instructors who need to continue to teach in the “new normal”, as they re-design their classes, several simple strategies exist that can ensure successful teaching and learning experience for all involved. This article explores how virtual classrooms can be leveraged to effectively teach learners in post-secondary education levels. The success of a virtual classroom with this learner group can be enriched through the application of four strategies: digital storytelling, a clear and lean content structure, a community of learners, and the use of open educational resources.

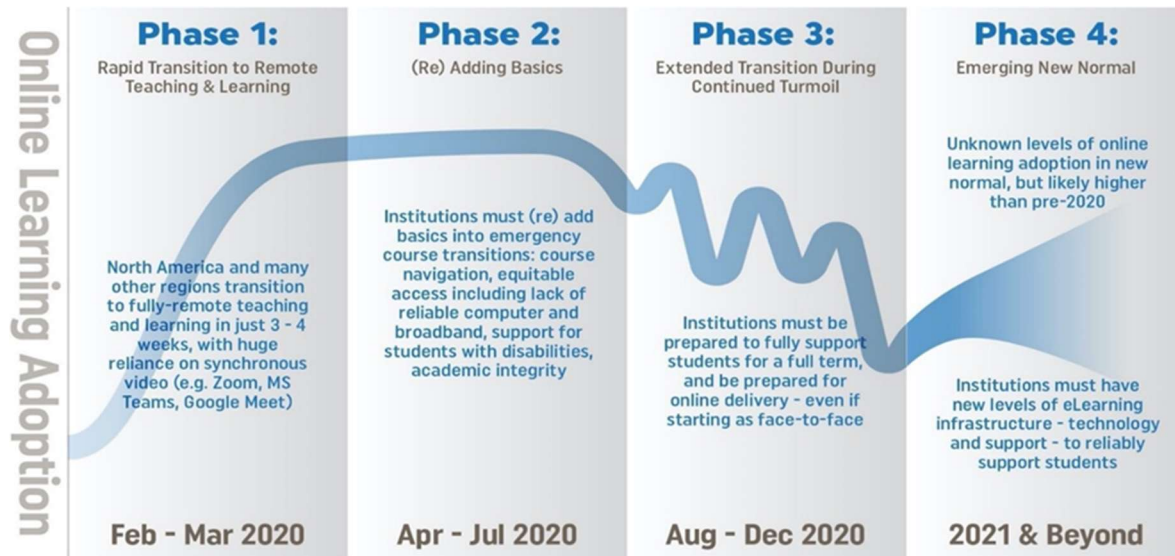
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INTRODUCTION

The recent pandemic of COVID-19 has closed schools across the continent and sent teachers and staff home to work remotely. By the beginning of April 2020, it was apparent that this disruption would not be short, and, instead, would threaten the end of the school year and likely affect the start of school in September. The sequence of events - present and forthcoming - has been summarized by Hill (2020) (see Figure 1).

The first phase (February – March 2020) involved a rapid transition to remote teaching and virtual learning supported by videoconferencing tools (i.e., Zoom, WebEx, Adobe Connect). At the time of writing this paper, the second phase (April – July 2020) is unfolding and involves adding basic elements of online education to websites and learning management systems (LMSs). Future phases (August – December 2020) will likely be characterized by a period of preparation for the possibility of supporting similar deliveries but for a full term and the beginning of an academic year which will differ greatly from all others. The final phase which takes us to 2021 and beyond will see the emergence of what will be the “new normal” of education. While schools will eventually return to traditional classroom instruction, the lessons learned during this historical time will prompt us to leverage e-learning like never before.

FIGURE 1
MULTIPLE PHASES OF HIGHER EDUCATION RESPONSE TO COVID-19



RATIONAL FOR VIRTUAL CLASSROOMS

COVID-19 has dramatically influenced the emergence of virtual classrooms. Racheva (2018) defines the virtual classroom as an online learning environment that enables live teaching and interaction between teachers and students. The most common tools in a virtual classroom include videoconferencing, online whiteboards, instant messaging tools, and breakout rooms. Rather than looking at the present-day situation as an obstacle to learning, instructors can utilize virtual classrooms as an opportunity to learn to teach in an alternate mode so that, when classrooms are re-opened, learners can experience the advantages of blended approaches (Bernard et al., 2014; Means et al., 2013).

A recent survey conducted in Ontario, indicated that almost 7 out of 10 post-secondary students feel the online instruction they received this Winter is worse than in-person instruction (Top Hat, 2020). Students generally found that the majority of online class experiences were unengaging. The same survey indicated that more than a quarter of students are questioning a return to their current institution for the Fall 2020 term, as they consider their recent emergency remote teaching experience.

The key to improving things for the Fall 2020 term will be to use learning management systems (LMSs) more effectively alongside virtual classrooms to provide diverse opportunities for learning including the capacity to provide and receive instant feedback, real-time interaction, and engaging activities that increase motivation and participation (Racheva, 2018). The pedagogical success of a virtual classroom with post-secondary students can be enhanced through the application of four strategies: digital storytelling, a clear and lean structure, development of a community of learners, and the use of open educational resources.

STRATEGIES TO ENHANCE VIRTUAL CLASSROOMS

Tell a Story

Activities that connect learners' interests with real-life experiences are the foundation of learning engagement (Kilpatrick, 1918). Digital storytelling is one pedagogical approach that can engage students in deep and meaningful learning (Smeda et al., 2014). The technique can be used to integrate instructional messages with learning activities to create more engaging and exciting learning environments (Saritepeci, 2020; Smeda et al., 2014). This teaching approach enhances emotional interest and cognitive attention, and reflects consistent and reliable transfer of knowledge in line with modern learning theories. Educational

technology enables learners to conduct research, write a script, and turn text, audio narration, and visuals into a short video story. Learners can use *Powtoon* or *Articulate Storyline* (see Appendix) to create web-based animation presentations by manipulating pre-created objects, imported images, music, and user-created voice-overs and tell their digital story of a particular topic.

Keep Your Approach Clear and Lean

A clear and lean structure in the virtual classroom improves interactions and learning experiences by reducing the learner's cognitive load (Saritepeci, 2020; Smeda et al., 2014). As with traditional classroom teaching, in virtual sessions, the learning path needs to be clearly communicated to assist learners in staying on task and managing time. A learning guide should be provided before each session and should include the name of the activity, a brief overview, requirements, the time needed to complete it, and the due date of any follow-up work. A sample of a *Virtual Classroom Session Plan* (developed by McMaster University's Continuing Education - Educational Development Team) is included in the appendix. When preparing teaching materials, it is important to focus on small chunks of information because concise and organized content invites students to revisit the material as well as find necessary information efficiently. Instructional content can also be made more engaging when supported by audio narration, relevant visuals, (Fenesi et al., 2014), and short videos of less than ten minutes (Slemmons et al., 2018).

Build a Community

True engagement in virtual classrooms happens when each learner becomes a part of a learning community. All students possess unique skills, experiences, and backgrounds that they can share to enrich the learning journey (Vygotsky, 1978). Project-based group work can be set up within a breakout room in most videoconferencing tools in real-time or within an LMS asynchronously. Learners can also participate in video discussions using *Flipgrid* (see Appendix), collaborate on the development of an interactive historical timeline using *Timeline JS* (see Appendix), create a wiki article using *WikiEdu* (see Appendix), or design a multimedia interactive poster by combining images, graphics, audio, video and text on one digital canvas using *Glogster* (see Appendix). Professors may need to demonstrate the use of these tools, but they are well within the learning curve of all post-secondary students. Additionally, they provide a platform for collaboration and community building, skills that are sought after by many employers (Deloitte Access Economics, 2017).

Add Open Educational Resources

Open Education Global (formerly known as Open Education Consortium) defines open educational resources (OERs) as “teaching, learning and research materials in any medium – digital or otherwise – that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions” (*What We Do – OE Global*, n.d., para. 3). One significant benefit of moving to OERs is increased access to free high-quality educational resources. Multiple ways of content representation increase engagement and can enhance the learning experience, particularly for students with special accommodation requests (Capp, 2017). The savings enabled by OERs are significant. In Ontario alone, since March 1, 2019, eCampusOntario has reported over \$10 million in student savings due to the reduction of mandatory textbooks fees by the adoption of OERs at all levels of education (*eCampusOntario Open Library Portal*, n.d.). Thousands of free instructional objects can be found for use with post-secondary students in some of the larger OER repositories: MERLOT, Project Gutenberg, ACT Academy, and OER Commons (see Appendix for details).

CONCLUSION

COVID-19 has disrupted education for all stakeholders. Classes once held in brick and mortar classrooms have now moved to virtual environments. When we return to physical classrooms, we should not simply return to the teaching and learning practices we used before the pandemic. Instead, in our post-pandemic world, post-secondary school instructors' tool kits should include new resources and strategies.

Professional development should be sustained so teachers will be better prepared for teaching in virtual classrooms in the case of future disruptions. While the four strategies described in this article can serve as a foundation for those unfamiliar with virtual classrooms, they are by no means indicative of all the possibilities. The piloting and the evaluation of the many virtual strategies post-secondary school professors can use are strongly recommended and can certainly lead to opportunities for further research.

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APPENDIX
ONLINE TOOLS AND RESOURCES FOR VIRTUAL CLASSROOM

Online resources	Type	URL
Powtoon	A tool to create video presentations	https://www.powtoon.com
Articulate Storyline	A tool to develop interactive videos	https://articulate.com
Flipgrid	Video discussion	https://info.flipgrid.com
Timeline JS	A tool that enables visually rich, interactive timelines to be designed.	http://timeline.knightlab.com
WikiEdu	A tool to create knowledge repositories collaboratively	https://dashboard.wikiedu.org
Glogster	A tool to create multimedia interactive posters	https://edu.glogster.com
MERLOT	OER repository	https://www.merlot.org/merlot/index.htm
Gutenberg	OER repository	https://www.gutenberg.org
ACT Academy	OER repository	https://actacademy.act.org/search
OER Commons	OER repository	https://www.oercommons.org
Virtual Classroom/Synchronous Session Guide	Template	http://libguides.mcmaster.ca/c.php?g=702005&p=4988772