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INNOVATION ABSTRACTS

Pathway to a SMILE

In today's classroom, the standard *lecture-notes-quiz* model gets low grades in the face of new demands for student interactivity and engagement. Our latest challenge, Generation Z, has grown up with 4G, virtual reality, streaming, and the cloud. Consequently, they expect more from their learning experiences. Moreover, conventional systems overlook the demands of many learners facing geographical, financial, and physical barriers. These students need extra attention and resources beyond those offered in a traditional classroom.

Present and Record Lessons Anywhere, Anytime, and on Any Device

Now, imagine a classroom with no boards, no walls, and no boundaries. Imagine a classroom that responds to the needs of students regardless of physical or social barriers. **SMILE** is a **S**ynchronous **M**obile **I**nteractive **L**earning **E**nvironment that provides instructors with the ability to present and record lessons anywhere, anytime, and on any mobile device. Using Blackboard Collaborate or other web conferencing tool, students interact in virtual classrooms using whiteboards, audio, video, chat, polling, application sharing, closed captioning, and other options. Teaching strategies are built around student-centered principles of inclusive design and lessons can be played back through a Learning Management System. The result is a more inclusive and collaborative experience, which helps improve attitudes, attendance, and overall achievement.

What makes SMILE unique is that the learning experience is synchronous, mobile, and interactive. Depending upon students' needs and available resources, different versions of SMILE can be adapted. For example, one instructor may wish to create lesson plans around the synchronous capability of audio and video, whereas another instructor may prefer to use an interactive whiteboard. Other versions may focus on using mobile phones as the instructional medium and not care so much about interactive whiteboards. In any event, a fully functioning model attempts to use all of the synchronous, mobile, and interactive features of SMILE to their fullest potential in order to include as many learners as possible.

SMILE encourages students to learn off-campus and in the classroom with their teacher, with each other, or independently. Students often use their mobile devices to collaborate and interact outside of classroom hours. The method can be used online, in traditional classrooms, as a resource for flipped classes, and in hybrid-blended courses. SMILE also builds upon students' interests with tablets, mobile devices, and social media.

Improved Student Engagement and Accessibility

In 2014, the Mathematics Department at Humber College piloted its first hybrid SMILE class in response to a need for improved student engagement and accessibility to its learning resources. Using Blackboard Collaborate, half of the lessons were streamed online and half were taught on campus in a conventional classroom. The in-class lessons were also streamed live and all lessons were recorded in an MP4 format for future playback. In this model, synchronous and asynchronous options were offered to satisfy students who preferred a traditional classroom, as well as students who preferred the convenience of an online class. The model was designed to maximize accessibility for students who may have had barriers to learning due to geographic, economic, and/or physical constraints while accommodating students' needs and interests.

Consistently, SMILE delivers improved grades and above average satisfaction scores on student feedback questionnaires. Students often submit comments such as "amazing, flexible, convenient," "best experience ever," and "why don't other teachers SMILE?" One student, who had muscular dystrophy, told me how much he appreciated the fact that he could SMILE from home and feel like he was part of a live lesson. Accessibility was no longer an issue for this student since SMILE offered synchronous and asynchronous options.

Builds Upon a Philosophy of Inclusive Design and Mobility

Although the SMILE pilot was first offered to technical math students, the SMILE model can be adapted to almost any program and implemented at essentially any institution. Most students already own a laptop or mobile device and most colleges already have a Learning Management System. Setup is relatively easy and costs are low. Similar to using Skype, the learning curve is very quick.

Last year at Humber College, over 2,000 Blackboard Collaborate sessions were presented online using the Blackboard Learn 9.1 LMS. However, as noted above, what turns a simple web conference into an actual SMILE session is that the SMILE model builds upon a philosophy of inclusive design and mobility. SMILE incorporates existing teaching strategies, such as collaborative learning and active learning models, to make the learning experience interactive and accessible to all students.

Overall, the reliability of SMILE has been remarkable. For example, last year while attending conferences, lessons were successfully broadcast online from Texas and from California to a class in Toronto. However, as with many new technologies, Wi-Fi and equipment failures do occur. So, support staff need to be trained and available to handle these situations. Students and instructors also need training, especially those individuals who are unfamiliar with mobile devices and mobile apps.

Moreover, some devices work better on certain systems. For example, Blackboard Collaborate supports audio, video, and interactive whiteboards on Windows, but does not allow all of these features on iPads or Android. Depending upon the features that are preferred, the style of teaching may need to be modified to accommodate the device being used.

Secondly, virtual classes are a relatively new concept for instructors and students. As such, new rules need to be established for online behavior. Rules for raising hands, texting, submitting images, and using cell phones need to be established up front. However, establishing rules can become somewhat of a paradox. How does one encourage the freedom to explore uncharted boundaries in virtual worlds, while imposing in-class rules that were established generations ago?

Last of all, new technologies often force teachers to redefine their roles. Traditionalists who prefer to write on blackboards or students who prefer traditional lectures may feel uncomfortable with this new style of teaching.

Our Challenges Don't Define Us; Our Actions Do

Recent studies, such as those from the *NMC Horizon Reports: Higher Education Edition* and *Community College Futures Assembly,* have predicted that online face-to-face, hybrid, blended learning, and student engagement are trends that will be driving changes in higher education over the next few years. To address these challenges, SMILE integrates synchronous online face-to-face instruction with principles of inclusive design to make learning resources more accessible anytime, anywhere, and on any device.

SMILE also creates new pathways that identify and eliminate unnecessary barriers to teaching and learning. Sometimes in our haste to advance technology, students are left behind. SMILE attempts to address this concern by providing greater access to learning resources in and out of the classroom.

As educators, our challenges do not define us; our actions do. Our challenge now should be to make learning models more accessible so that no one is left behind. SMILE is one such pathway that comes close to realizing this goal and represents a leap forward in the intelligent integration of technology into the learning process.

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Watch a video about SMILE at https://www.youtube.com/watch?v=ttwvnY2-lec

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