EdTech review: Teaching through Zoom – what we've learned as new online educators

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The Covid-19 mass migration to online teaching and learning has caused a seismic shift in the field of education. No longer is online learning education's useful left arm – it was promoted to its beating heart overnight. Some institutions started from scratch, whilst others expanded existing eLearning models. I work for one of the latter, which was able to roll out an existing online program to the on-campus classes. As an Academic Learning Manager of a business school with over 3000 students, I was tasked with providing Zoom training sessions for 200 lecturers, many of whom were teaching online for the first time, a week before the start of a new trimester. This EdTech review will briefly discuss Zoom as a product and its features we've learned to use but we've learned much more than which buttons to press. Through more than 200 interactions with teachers over three months of training sessions, I witnessed us learning about ourselves as educators through the new zeitgeist of online delivery. Through my observations, I believe we've learned the pitfalls of assumption, the need for adaptability, and the importance of empathy.

By the time the pandemic struck, my school had already been using Zoom for both staff meetings and our online MBA classes. So, what is Zoom? It is a video-based communications platform from Zoom Video Communications, which offers user flexibility with its choice of video, voice, webinar, and chat functionality, across desktops, mobile devices, and conference room systems (Zoom, 2020). It was founded by Eric S. Yuan, in California, in 2011 and by 2019, it was included in the 5,000 fastest growing private companies in America (Zoom, 2020). With the Covid-19 pandemic forcing the world's classrooms online, it has grown even faster. In an interview with Techwire Asia, Magnus Falk, Zoom's CIO Advisor revealed the pressure the company felt to rise to the occasion and "make this whole nightmare, for everyone, just a little bit better...to...help save businesses...[and] people's education..." (TechwireAsia, 2020). Techwire learned that Zoom's freemium tool usage (one of its four package options), grew from 10 million daily users in December 2019 to a staggering 200 million users during the peak of the pandemic (TechwireAsia, 2020).

Whilst Zoom offers businesses many product solutions, in the education world, the main tool used for online lessons is 'Meetings'. My school uses the 'business' level package, which provides teachers with a handy single-sign-on, and the ability to share lesson slides, conduct polls, use breakout rooms for group work, record lessons to the cloud, and provide a video transcript with the recording. These features were the basis of my initial training sessions with my teachers and my observation is that they were easy to use for most teachers with existing, basic computer skills. Others found them difficult to learn and needed time and practice to use them well. By the end of the trimester, these buttons had been mastered – we had learned new skills. However, we had more important skills to learn around assumption, adaptability, and empathy.

As educators, we shouldn't assume that everyone learns in the same way and will behave the same way in a learning environment. Lesson planning for individual needs is important. The Universal Design for Learning framework is grounded in the belief that all students are individuals with unique, situational learning needs, whose three basic questions of 'what am I learning?', 'why am I learning it?', and 'how am I learning it?' must be addressed within flexible curriculum design (Dean et al., 2017). 'How am I learning?' may be even more important to address during a forced migration to online learning. To assume that we know the answer to that question for every student can be problematic. At the start of the pandemic, the new online teacher understood that there would be changes, such as having to tweak lesson content and activities to suit the online classroom. However, I witnessed many teachers incorrectly assuming that the behaviour of students would remain the same, despite the situational differences. They assumed a student would stay in the virtual room for the whole lesson, making constant eye contact, or would interrupt and ask a clarifying question whenever they needed to, or would connect and communicate with a small group of peers with ease. None of these behaviours can remain the same under new and often challenging circumstances. Indeed, evidence shows that students have found it difficult to balance their studies with the pressures of home and work commitments during this time (Jankowski, 2020). Anecdotal evidence

Figure 1. Zoom's suite of features. Image courtesy of Zoom: https://zoom.us/docs/en-us/media-kit.htm

Figure 2. Zoom's 'Meeting' tool, on 'speaker view', with all participants' cameras on. Image courtesy of Zoom: https://zoom.us/docs/en-us/media-kit.htm
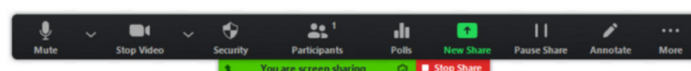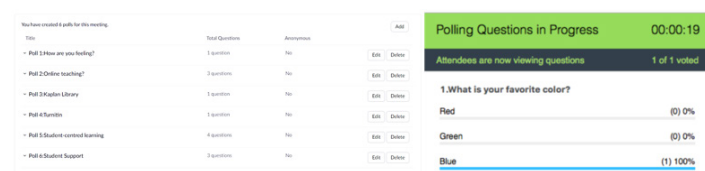

Figure 3. Zoom's 'Meeting' toolbar. Many students choose to turn their video off during the lesson. Image courtesy of Zoom: https://support.zoom.us

reveals that our own students represent the parent who is distracted by caring for children and is passively listening, or the worker driving home, who at the very least has managed to partly turn up to the lesson, or the focused and dedicated student who shares a bedroom with a flatmate and doesn't want to reveal such personal detail in a recorded workshop. These new student behaviours were at odds with the teachers' assumptions and, as reported during my training sessions, it led to unmet expectations and frustration for the teachers. What was needed by our teachers was an understanding of the new, unique, situational needs of the learner, whose behaviours were now unpredictable and uncontrollable, in a classroom that was no longer the teacher's domain to control but a more egalitarian, shared space. 'How' they were learning was now in students' own hands.

I deliberately use the term 'control', rather than manage, to talk about 'how' students learn because Covid-19 took away our control over many aspects of our lives and perhaps it is natural to want to regain that control again in little ways to keep afloat. One key example is when teachers assumed that all students would turn their Zoom cameras on to replicate the literal face to face classroom. Not being able to control the students' use of their own cameras was a common reported frustration. Two assumed reasons for a black screen were that the student was being disrespectful, or that they were rorting the system by attending but not participating. One teacher complaint, demonstrating the former, was that "a student wouldn't hide their face in the physical classroom so why would they do it online?". These assumptions ignore the complexities of online study in general, and specifically during this pandemic, as students' individual, situational needs expand, and they make autonomous choices to try to meet them. Perhaps using Universal Design for Learning principles could help us to shed those old assumptions on student behaviour and how we manage it. Perhaps we should relinquish some control over 'how' students learn and allow them to be more autonomous agents.

Despite the negatives of our assumptions, we did learn the positive skill of adaptability. Granziera et al. (2019) explored the need for adaptability training for trainee teachers, stressing that there are benefits to both teachers and learners when teachers possess the adaptability to effectively deal with unplanned and dynamic classroom situations – something the pandemic forced us to experience. Current UNESCO Global Education Coalition (2020) data on global education reveals that 67.6% of enrolled students (from primary to tertiary) have been forced into online study – that's over 1.1 billion learners across 143 countries. The Coalition supports countries in their response to Covid-19 by supplying information and skills on distance learning practices. This macro-level support to help countries adapt their education models complements the micro-level support of the teacher-trainer helping a teacher deliver an online class.

In the first few weeks of teacher training, I needed my teachers to adapt – quickly. I focused on achieving the most basic transition from the actions done in a face-to-face classroom to their online counterparts. We learned that a room number was now a Zoom link and walking into a classroom with purpose and personality was replaced by a click of a button (a far less satisfying experience). We adapted the process of sharing slides on the projector to sharing them through the Zoom toolbar. And we also learned that saying "shh" was ineffective and hitting 'mute all' was the new norm. As the weeks passed, we focused on adapting our familiar and easy to facilitate communicative activities into their online versions. We used polls for active learning, breakout rooms for group work, the chat function to do 'think, pair, share', and live shared docs to replace butchers' paper and pens. Adapting these ingrained teaching practices wasn't easy but we did it.

However, we didn't adapt alone. Our students were adapting, too. When re-enrolments began for the following trimester and on-campus classes were offered again, 85% of students opted to keep studying online (J. Adonopoulos, personal communication, July 8, 2020). They had adapted over the twelve-week trimester and were comfortable to continue with this new way of studying. Our student satisfaction survey results also showed that they appreciated our efforts, giving us our highest ever Net Promotor Score and equalling our teachers' highest ever satisfaction score (Adonopoulos, personal communication, June 11, 2020). One memorable student response was "my teacher is trying his best, even though he's not comfortable with technology". In my view, this showed that students were also adapting their expectations of what a teacher was able to do during those tumultuous first weeks. Perhaps we might have all fared better with adaptability training, but I witnessed us doing well, regardless.

Figures 4 and 5. Screenshots of created polls and of a live poll during a lesson.

Adaptability is important but, in my view, the greatest skill a teacher can possess is empathy for their individual learners' needs. Maslow and Rogers, leaders in the Humanistic approach for learning, believed that each learner has a need to be self-fulfilled in the learning environment in order to be motivated to learn (Duchesne & McMaugh, 2019; Churchill, 2019). I would argue that understanding what each student needs in order to find that self-fulfilment requires empathy. I believe that when you have empathy for your learner, you can place them in the centre of your lesson plan, creating motivation to learn by cultivating a more relatable learning experience. Rogers advocated for these relatable learning experiences by designing a student-centred approach to pedagogy that focuses on what the student needs, rather than the needs of the teacher and curriculum (Duchesne & McMaugh, 2019; Churchill, 2019).

For inspiration on empathetic teaching, look no further than the late, great, Rita Peirson (2013). Rita brought empathy and humanity into her classroom, putting her students' needs first. However, when I began my online training sessions, I didn't think about putting the learner first. I confess that the sessions were content-focused. I focused only on the Zoom tools and how to show my teachers how to use them. Luckily, despite this failing, my teachers learned more than I had lesson planned for. In an indirect sense, when I fumbled my breakout room management or kept talking whilst on mute, my teachers experienced these tools first as a learner, waiting for me, their teacher to get it right. When someone in their house interrupted them, they experienced the challenge of mental distraction when everyone is stuck at home. And when the internet lagged and their colleagues were hard to understand, they experienced the frustration of online communication. All these experiences were indirectly teaching them empathy for the learner experience.

There were more direct lessons in empathy, too. They felt the awkwardness of unmuting and speaking at the same time as someone else, and experienced retreating into silence to avoid such a situation again. When they couldn't find the button to be zoomed away into a breakout room, they felt the embarrassment of inadequacy in not being as tech savvy as 'everyone else'. Moreover, when they were expecting to be a passive participant with their camera off, yet had to join a collaborative Jigsaw activity or team brainstorming session, they felt what it was like to want to be a passive learner, forced into being an active one. These initial training sessions were indeed curriculum-centred but luckily, these teachers ended up learning more than just which buttons to press. They were learning how their students were going to feel when it was their turn at the wheel. They were learning how it felt to be the human in the centre of the learning experience. It created a level of empathy for their students that I could not have lesson planned for and it brought us one step closer to practicing Rita Pierson's empathetic, student-centred approach to teaching. Further observations during this second trimester of online delivery may demonstrate a more deliberate student-centred approach to my teachers' pedagogies, thanks to their own experiences last trimester.
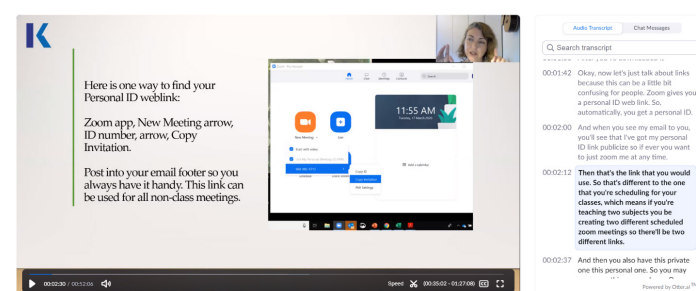

Figure 6. Screenshot of a recorded PD session: the author is presenting a Zoom PD training session using the 'share' feature to show slides. Auto transcript also shown.

The Covid-19 pandemic has forced both teachers and students to practice teaching and learning in the online space. The first three months of delivering training sessions on how to teach through Zoom, allowed me to witness a cohort of teachers who rose to the challenge of adapting to an online mode of delivery and who, despite struggling with some assumptions, finished the trimester with more empathy for their learners. I think it's fair to say that the world of online education won't be viewed as a subset of education any longer. It may just have achieved a newfound respect from teachers across the globe as an effective alternative to on-campus teaching. Further research on whether, post-pandemic, teachers wish to return to on-campus teaching or embark on a permanent online teaching career would be interesting, and if the latter is proven, would be a win for those of us who have always advocated for online teaching and learning.

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