

Synchronous Teaching and Learning: On-Ground versus Zoom

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Introduction

In the Spring of 2020, scores of university professors, public and private school teachers, and other educators in the United States and across the world were required to move their synchronous on-ground instruction to Zoom due to the outbreak of Covid-19. To be sure, the existence of online synchronous instruction is not a new phenomenon, notwithstanding the Spring 2020 experience of so many educators, and by now has a history that spans about two decades (Salbego & Tumolo, 2015). Asynchronous online instruction enjoys even a longer history than its synchronous counterpart and it has been effectively used since the latter decades of the 20th century in educational intuitions and in businesses alike. The increase of online instruction, both synchronous and asynchronous, can be attributed in part to the emergence of instructional technologies such as learning management systems like Blackboard, Moodle and Google Classroom as well as a host of other software and hardware (e.g. discussion boards, blogs, video cameras, and voice recorders) that can enhance the educational experience of both teachers and students. In addition to the rapid development of new technologies over the past decades, many researchers have pointed out that the growth of virtual learning can be accounted for by the accessibility and flexibility that online instruction provides. For instance, Kebritchi, Lipschuetz, and Santiago (2017) rightly note that “the accessibility of the internet and flexibility of online courses have made online education an integral part of higher education” (p. 4).

In this paper, I do not wish to investigate the quality of online courses in specific disciplines by comparing the learning outcomes of students in these courses to their on-ground or hybrid counterparts as so many studies have already done (Nortvig, Petersen and Balle, 2018; Dumford & Miller, 2018). Nor do I attempt to explore the advantages and disadvantages of operating entire academic programs online (e.g. MBA or Instructional Design) versus ones in more traditional on-ground formats. In fact, my working assumption in this study is that both on-ground and online programs offer genuine educational opportunities and can be effective or ineffective depending on a host of variables like course design, the presence of educators, and the quality of interactions among teacher, students and content. My goal here is much more modest—to compare the synchronous component of online instruction to the teaching and learning that happens in face-to-face, on-ground environments. In particular, I wish to investigate phenomenologically, based on my own experience and that of other educators, the extent to which the *relationship aspect* of learning that plays such a key role in face-to-face encounters can be replicated in synchronous online formats.

In what follows, I first review some of the existing studies that have already compared the synchronous experience of both instructors and students in online courses to face-to-face teaching and learning. My review of the literature highlights both the benefits that synchronous online instruction can provide and some of the challenges that often arise with this mode of delivery. After outlining a phenomenological approach to research, I analyze four aspects associated with establishing relationships that suggest a qualitative difference between face-to-face and synchronous online teaching and learning: the impact of a shared physical space versus multiple personal locations; non-verbal communication and body language; interactive activities and group work; and humor, laughter and spontaneous comments. I conclude this paper by reflecting on what this exploratory-phenomenological study implies about the relationship aspect of education.

Literature Review

Before examining some studies that compared face-to-face instruction to synchronous online teaching and learning, it is worth considering whether or not mandatory class attendance is significant in situations when all essential course material have been made available to students in advance and learners have a choice to merely study the material on their own. In one study that researched this question, He, Gajski, Farkas and Warschauer (2015) gave students a great deal of autonomy by intentionally releasing all course material online one week before the synchronous lesson and by making class attendance optional. The researchers write that in this format students could freely decide how they wanted to approach this course. Depending on their learning behavior in and outside the classroom, students could take this class as a typical lecture course, a pure online course, a hybrid course with both online and in-class components, or a flipped class where pre-lecture studying was enabled and strongly encouraged. (He, Gajski, Farkas & Warschauer, 2015, p. 60)

The results of this study indicate that regardless of the fact that all of the course content was available online, class attendance was still helpful in boosting exam performance (those students who attended class performed better on the tests). He, Gajski, Farkas and Warschauer theorized that this outcome is due to the fact that in class the professor would revisit some key concepts and emphasize their importance, and that the in-class activities featured constructive and interactive engagement with others. As such, the students who attended class were required to be active learners by asking good questions, coming up with their own solutions to problems, or critiquing the solutions of others. He, Gajski, Farkas and Warschauer also concluded that the in-class component can be increasingly helpful when the course content is getting more challenging and when online videos are not clear enough. Like these researchers, my own experience suggests that the synchronous part of online instruction can play a significant role in facilitating student learning and understanding of complex course concepts.

Given that researchers have concluded that the synchronous aspect of online instruction can be very significant, we can now turn to some studies that compared this aspect to face-to-face teaching and learning. In an article titled “Design and implementation factors in blended synchronous learning environments: Outcomes from a cross-case analysis,” Matt Bower et al. (2015) reviewed both the benefits and challenges of blended synchronous learning. Blended synchronous learning refers to educational contexts in which remote students participate in face-to-face classes through the use of rich-media synchronous technologies such as video or web conferencing. Thus, blended synchronous environments consist of a hybrid of face-to-face learning together with virtual instruction for those students who cannot attend the on-ground class. Bower et al. (2015) contend that the benefits of blended synchronous learning are that “it can let remote participants experience an instructor’s lesson, ask and answer questions, add their own comments to the class dialogue, and generally allow engagement” in a similar manner to on-ground students. The researchers go on to note that “as a consequence it can provide opportunities for social interaction, peer/teacher support, and knowledge sharing not easily accomplished through asynchronous means.” (Bower et al., 2015, p. 2).

Although the study of Bower et al. was conducted in the context of a blended synchronous model, I believe that the benefits mentioned above are germane for any virtual synchronous learning, including the kind that so many educators experienced in the Spring of 2020 when they were required to move their classes from on-ground to Zoom. In other words, many of the educators that I talked to who moved the synchronous part of their classes to Zoom because of Covid-19 were able to achieve a measure of social interaction and student engagement in this new platform. Using Zoom, students were able to participate in class discussions, pose good questions to the instructors, work in groups on an assignment, post their comments on blogs and discussion boards, and get individual assistance from their teachers. In short, Zoom and other web-based conferencing programs can provide educators with a synchronous alternative to the more traditional face-to-face classroom teaching and learning. This synchronous option is particularly beneficial for students that may be remote from the university, are working full-time or need to mind children, and ones that need to stay at home because they are ill or watching over sick loved ones.

Along with the benefits of synchronous online teaching and learning, my review of the literature suggests that there are also some challenges associated with this mode of instruction. To begin with, there are challenges connected to the use of technology, which many educators have experienced when employing new and unfamiliar programs and software in their courses.

In their study on “Teachers and Students’ Perceptions on Synchronous Online Classes in Relation to Face-to-face Teaching and Learning” that focused on using Skype™ for foreign language instruction, Salbego and Tumolo (2015) show that both teachers and students who were surveyed reported that there were technical issues with this software that made it difficult to create quality educational interactions. For example, one of the teachers surveyed noted that “I find that you need to be more resourceful and organized as a teacher in planning your classes to make the most of the Skype tools (instant messages, share screen, files exchange) to ensure that your student gets a full learning experience” (Salbego & Tumolo, 2015, p. 41). With Zoom, much like Skype™, there are some limitations, such as the fact that when instructors share a document, video, or other content during a lessons, they can only see a few students on their screen rather than the entire class.

Aside from technical issues that can impact the quality of synchronous online teaching and learning, researchers have found that student engagement can also be a challenge for instructors who are using this mode of delivery. For instance, Anthony Francescucci and Laila Rohani (2019) compared both the *learning outcomes* and *student engagement* in the VIRI classroom (virtual, interactive, real-time, instructor-led classroom) to face-to-face instruction across several sections of the same introductory marketing course. Francescucci and Rohani (2019) describe the VIRI classroom in the following way:

The VIRI classroom attempts to simulate a similar teaching and learning experience as the F2F classroom might. Just like the F2F classroom experience, all students who participate in a course that uses the VIRI classroom technology participate in the experience in real time using their webcam and audio-enabled computers, which allows them to see and communicate with their peers and the instructor. The VIRI technology also allows the instructor to mimic a number of pedagogical approaches that they might use in the F2F classroom, such as break-out groups for small group discussion, white boarding, polling, and student-led presentations. (pp. 62-63)

The interesting result of this study is that while there was no statistically significant difference between the VIRI and the F2F classrooms in terms of student outcomes, as measured by their performance on the midterm and the final exams, the students learning in the traditional face-to-face classrooms were more engaged than their VIRI counterparts. In order to assess the levels of engagement in the two learning platforms, Francescucci and Rohani surveyed the students at the beginning and end of the semester on a number of variables including: attending class, participation, interest in the course, paying attention in class, staying up to date on academic workload in the course, and instructor interactions outside the class. The results of these surveys clearly indicated that the face to face students had *more interest in the course, better attendance and participation, and displayed more focus* than their VIRI colleagues. Summarizing the results of their surveys, Francescucci and Rohani (2019) noted that “all of the statistically significant findings suggest that it is always the control (F2F) group that appears to be more engaged on a number of factors, which conversely also suggest that the treatment (VIRI) group appears to be less engaged” (p. 66).

Other researchers that have investigated the ways in which taking online courses can impact student engagement reached similar conclusions to those of Francescucci and Rohani. For instance, Dumford and Miller (2018) noted that “those students taking greater numbers of online courses were more likely to engage in quantitative reasoning” (p. 452). However, these researchers also reported the same students “were less likely to engage in collaborative learning, student-faculty interactions, and discussions with diverse others compared to their more traditional classroom counterparts” (p. 452). Dumford and Miller theorized that it is possible that the potential isolation that comes with online, self-directed learning might contribute to fewer opportunities for collaborative learning. Summarizing the results of their study, Dumford and Miller assert that although there appear to be some cognitive benefits associated with online learning, there may also some important educational objectives and practices (e.g. social collaboration and engagement) that cannot simply be adapted to an online environment. The results of a new survey conducted by *The Chronicle of Higher Education* that analyzed the views of 712 faculty who transitioned their classes online in the Spring of 2020 confirms that student engagement was on the top of their list of challenges.¹

This brief review of some of the existing literature on synchronous online teaching and learning has generated some important insights that I wish to build on. First, researchers have found that the synchronous aspect of instruction can enhance the educational experience that students receive in online courses by providing them with active and deep educational opportunities, ones designed to recreate the constructivist learning that happens in face-to-face classrooms. Second, the literature review revealed that synchronous online teaching and learning has both benefits and limitations. On the one hand, the benefit of synchronous online instruction using software like Zoom is that it offers a platform for the delivery of course content as well as a space for learners to interact and engage with the teacher and each other. On the other, several studies have found that synchronous online teaching and learning does not typically produce the same level of student engagement when compared to face-to-face instruction. In what follows, I wish to extend the research that compared synchronous online to face-to-face teaching and learning. Yet, I approach this comparison from a phenomenological perspective in order to explicate in detail the differences in how we experience each mode of instruction.

Phenomenological Method

Phenomenology is commonly defined as the study of how we experience various human phenomena. As such, phenomenology is distinguished from both ontology (the study of being) and epistemology (the study of knowledge and how we come to know the world). According to the *Stanford Encyclopedia of Philosophy*, “phenomenology studies the structure of various types of experience ranging from perception, thought, memory, imagination, emotion, desire, and volition to bodily awareness, embodied action, and social activity, including linguistic activity.” (Smith, 2013, p. 1). Phenomenologists such as Edmund Husserl (1962 & 1970) and Maurice Merleau-Ponty (1962) were concerned with developing detailed, rich and contextualized descriptions of how we experience some of the most fundamental human phenomena like thought and perception, which we normally take for granted. Merleau-Ponty (1962) captured the essence of phenomenology when he wrote that “it tries to give a direct description of our experience as it is, without taking account of its psychological origin and the causal explanations which the scientist, the historian or the sociologist may be able to provide” (p. vii).

One guiding theme of phenomenology, emphasized by Husserl, is to go “back to the ‘thing themselves’” (Husserl, 1970, 252). For Amadeo Giorgi, this means that psychologists and other researchers need to go “to the everyday world where people are living through various phenomena in actual situations” (Giorgi, 1985, p. 8). However, the investigation of phenomena like human emotions is not aimed at discovering the underlying drives, impulses or instincts, which presumably shape these emotions. Instead, phenomenology attempts to *describe* as vividly and concretely as possible how we actually experience emotions and other phenomena in our everyday environments and interactions with other people. Phenomenology challenges the assumption held by Freud that there is some hidden or unconscious reality operating on our conscious beings and determining our ordinary experiences. As Gary Madison (1981) explains, if “phenomenology rejects the idea of eternal truths [like the unconscious], it is because we have no experience of them” (p. 162).

Utilizing a phenomenological lens, the research approach adopted in this study involves an attempt to describe, as concretely and vividly as possible, how we experience some the differences between face-to-face and synchronous online teaching and learning. In particular, I focus on the human connection or relationship aspect of teaching and learning in order to explore how this aspect is conducted in the two teaching modalities under investigation. My phenomenological study addresses four features of relationship building that play a central role in education: the impact of a shared physical space versus multiple personal locations; non-verbal communication and body language; interactive activities and group work; and humor, laughter and spontaneous comments. These four features are not designed to be a comprehensive list of all the aspects that relationship building comprises; they are merely intended to provide a framework by which to compare face-to-face to synchronous online teaching and learning. The examples presented below are mostly derived from my own context of higher education, but I believe that they equally apply to the broader context of schooling and education.

Analysis of Features

Shared versus Personal Spaces

In order to begin to make sense of how we experience the differences between face-to-face, on-ground and synchronous online teaching and learning, it is important to examine a distinction between what I refer to as “a shared physical space versus multiple personal locations.”

This distinction is designed to highlight the fact that whereas an on-ground classroom is clearly a shared physical space, a Zoom meeting, while it does provide a common virtual place to interact, is comprised of a multiplicity of personal locations that the teacher and students occupy. The former consists of a specific physical location in which teacher and students are all present at the same time whereas the latter is comprised of a collection of individual locations that converge at a given time and day in one virtual setting. As it turns out, inhabiting a shared physical space versus joining a common virtual location from one's personal place has some significant implications for the relationship aspect of education.

To begin with, as one of my colleagues in the School of Education observed, having a shared physical space enables instructors to get a feel for the general 'mood of the students' when they first enter the classroom by looking at their faces and paying attention to their side conversations or to what they are doing. In physical classrooms, this type of quick assessment of students' mental and emotional state happens regularly and often leads to a conversation between the teacher and students about the things that are on their minds. Such conversations can help to set a productive and compassionate tone for the lesson and, in general, enhance the relationships between teachers and the students. Getting a feel for the mood of the room is much more difficult to do when teaching synchronously with Zoom in large part since there is no shared physical space for students to gather before the lesson begins and just chat with each other about anything, from leisure and sports to how their days are going.

Moreover, in face-to-face classrooms, it is common for individual students to spontaneously stay in the room after the formal lesson has ended in order to ask the teacher something, get clarification on an assignment, or share something personal about their lives that they do not wish the other students to hear. Likewise, students might stay in the classroom with some of their peers to chat after a lesson has ended when they have some free time or do not need to rush back to another place. My experience and that of other instructors is that this practice is much less common or non-existent with synchronous Zoom classes. Indeed, when an instructor announces the end of a Zoom lesson and says goodbye to the students, they typically utter a quick thanks or wave, and immediately exit the meeting. As such, unlike face-to-face courses, in a synchronous Zoom class there is much less opportunity for unexpected conversations and relationship-building to occur either before or after the lesson.

Ultimately, my experience as well as that of other professors and teachers who recently had to move our classes online indicate that it is much more difficult to create the kind of classroom climate that we wish to have with our students in a synchronous Zoom environment than it is when we teach on-ground. The experiences of several instructors that I spoke with suggest that it is more challenging for teachers to build meaningful connections with their students when the only synchronous interaction they have with each other is virtual. Put differently, those common locations (classrooms) that we took for granted and enjoyed with our students before the outbreak of Covid-19 were much more than shared *physical spaces*. They were opportunities for learning together, for building strong connections between teachers and students, for engaging in intentional and spontaneous conversations, and for encountering each other as learners who know they do not have all of the answers. The point is not that these goals are impossible to achieve in a synchronous Zoom lesson; it is rather that they are significantly less likely to happen in that platform than when teaching students face-to-face.

Non-verbal Communication and Body Language

Many professors and teachers regularly employ hand and facial gestures and other non-verbal communication signals in different situations during a face-to-face lesson for a variety of purposes. Some instructors utilize non-verbal communication and body language in order to get students' attention when they are off task or disrupting their peers. Other teachers use these for the purpose of emphasizing particular concepts or information that they wish their students to attend to and comprehend. A friend who teaches high-school Spanish language and literature reported that using hand and bodily gestures is an integral part of who she is as a teacher since she loves to share cultural stories and personal anecdotes with her students. In short, teaching students on-ground includes a performative or theatrical element, one that is needed to capture students' attention and interest in becoming active participants in the lesson.

In their book *The Moral Life of Schools*, Philip Jackson, Robert Boostrom, and David Hansen (1993) acknowledge the performative aspect of teaching when discussing teachers' facial expressions. Analyzing teachers' facial expressions from a moral perspective, the authors note that they are ubiquitous and serve multiple functions like content delivery and disciplining students:

Looks of kindness, impatience, good humor, sternness, incredulity, indignation, pity, discouragement, disapproval, delight, admiration, suspicion, disbelief---are all part of a teacher's normal repertoire of expressions that routinely come into play in the course of teaching a lesson or managing a class activity. (Jackson, Boostrom and Hansen, 1993, p. 30)

Much like in the case of teachers, students' non-verbal communication and body language are key features that on-ground instructors commonly use in order to assess their understanding of the lesson, energy level and motivation as well as their general mood. Clearly, the most common gesture that students use in a lesson is to raise their hand when they wish to ask something or when responding to teachers' questions. Other than this obvious gesture, there is a great deal of information that teachers can glean from students' body language and non-verbal communication. For example, students that are slouching in their seats or whose eyes are closing during a lesson could very well be conveying that they are tired. Students who are preoccupied and distracted in class will often look at their smart phones or other personal belongings and have a hard time paying attention to the teacher's presentation. Other students who are bored in class might gaze outside the windows, move their head around or draw with their pen on a piece of paper.

Thus, non-verbal communication and body language play a significant role in the interaction between teachers and students during many face-to-face, on-ground classes. However, these same characteristics feature much less prominently when teachers conduct a synchronous lesson using Zoom. The reason that non-verbal communication and body language play a relatively minor role in synchronous Zoom lessons is that teachers and students can typically see only each other's faces and the images that they see are often blurry or lack focus. As such, in Zoom meetings it is not easy to detect when someone is employing their hands or using facial gestures to make a point or convey another message. In synchronous Zoom lessons, it seems like *verbal* communication, whether auditory or visual, is the primary mode to access and convey information and messages. Conversely, aside from some minor examples (like when teachers and students wave goodbye or display other hand signals during a lesson) the non-verbal aspect of the teacher-student relationship plays a relatively minor role in this instructional medium. The point is that without the non-verbal aspect, the relationship component of teaching and learning may be compromised.

Interactive activities and Group Work

In the past few decades, a constructivist worldview has emerged as a very powerful model for explaining how knowledge is produced in the world and how students learn. Informed by the insights of theorists like John Dewey, Jean Piaget, Lev Vygotsky, and Paolo Freire, a constructivist approach to education is one in which learners actively create, interpret, and reorganize knowledge in individual ways. According to Mark Windschitl (1999), "these fluid intellectual transformations occur when students reconcile formal instructional experiences with their existing knowledge, with the cultural and social contexts in which ideas occur, and with a host of other influences that serve to mediate understanding" (p. 752). In this view, teaching should promote experiences that require students to become active, scholarly participators in the learning process. Windschitl (1999) goes on to note that "such experiences include problem-based learning, inquiry activities, dialogues with peers and teachers that encourage making sense of the subject matter, exposure to multiple sources of information, and opportunities for students to demonstrate their understanding in diverse ways" (p. 752).

Educators who subscribe to a constructivist approach to teaching and learning typically do not lecture much to their students or spend the majority of the lesson presenting lots of information to a passive group of students. Instead, they design lessons that are based on discussions, debates, group-work and other interactive activities in which students have a chance to be active learners and display their comprehension of the subject matter in multiple ways. Conducting such inquiry-based, constructivist lessons when teaching face-to-face is usually not that complicated as long as instructors are comfortable with giving students autonomy and time to explore ideas on their own, debate with each other, and arrive at their own conclusions based on the evidence that they find. From a social constructivist standpoint, sharing control of the production of knowledge and the management of classroom routines with one's students is essential in order to help them develop into critical and active citizens.

Applying a constructivist model of teaching and learning in a synchronous Zoom lesson is somewhat more complicated to do effectively than in a face-to-face, on-ground class. Of course, instructors can engage in whole class discussions in this medium and get students to take turns sharing their views orally or type their responses in the chat feature of Zoom.

Yet, as mentioned above, if the discussion takes place when a document is being shared with the students, it is impossible for all of the participants to see each other's faces at the same time. Moreover, some of my colleagues who used Zoom to engage in discussions reported that their students tended to ask less questions than they did before when they were on-ground. Instructors can also utilize the *breakout rooms* feature that Zoom offers in order to get students to work in groups on an assignment. Yet, using breakout rooms comes with its own problems like the lag time that it takes to move from one room to the next and the fact that the instructor cannot visually monitor all of the rooms at the same time as one does in an on-ground course in order to make sure that the students are working on the assigned task. In short, my experience as well as that of other instructors who recently moved their courses online suggests that conducting interactive, constructivist lessons in a synchronous Zoom lesson comes with some challenges and cannot be easily overcome.

Humor, Laughter and Spontaneous Comments

In an article titled "Learning to Laugh at Ourselves: Humor, Self-Transcendence, and the Cultivation of Moral Virtues," Gordon (2010) defines humor as:

that capacity that enables us to identify ironical, cynical, sarcastic, witty, ludicrous and generally funny expressions, comments or actions. Humor is used here in the broad sense of the term to signify a variety of activities from self-deprecating and wry remarks to absurd and hilarious deeds. It can manifest in many different ways including jokes, puns, funny facial expressions, imitating others, spontaneous comments that amuse people, and so forth. (p. 737)

Following this definition, I will consider humor in the broad sense of the term and include laughter and spontaneous remarks in this section while acknowledging that many unprompted comments that occur in a lesson are not humorous.

Studies that have examined the connection between humor and learning have shown that humor and laughter can reduce anxiety, create a positive learning environment, and increase student motivation and enjoyment of the topic. For instance, R. L. Garner (2006) found that "the use of appropriate humor can facilitate a more relaxed atmosphere and provide a cognitive break that allows the student to assimilate the information" (p. 179). The literature on humor also indicates that teachers who are comfortable with laughter and humor have a greater chance of helping their students to think in more critical and creative ways (Ziv, 1983 & 1988). In his book, *On Humor*, Michael Mulkay (1988) explains that "unlike serious discourse, humor actively creates and fosters ambiguity, and uses it to generate incongruity and interpretative contrast" (p. 28). The benefit of the ambiguity created by humor is that it can get us to think about issues from multiple perspectives and question things that we normally take for granted.

Given the finding of several researchers that humor and laughter can enhance the quality of educational encounters, the question is: what happens to these human responses in synchronous Zoom meetings? To be sure, humor, laughter and spontaneous comments do not disappear entirely in this instructional platform, but my experience and that of other educators suggests that they tend to diminish. The reasons for the decrease in the magnitude of humor, laughter and spontaneous comments in the synchronous online environment range from technical issues to the fact that humor and laughter are fundamentally social activities. By technical issues I mean things like problems with the quality of the sound when the internet connection is weak or even the fact that in most Zoom classes we ask students who are not speaking to mute their microphone, thereby inhibiting their ability to provide spontaneous reactions to something comical that was said. To claim that humor and laughter are fundamentally social experiences, as John Morreall (2009) does, implies that we laugh much more when we are physically surrounded by other people than when we are alone. Morreall points out that laughter tends to be contagious when people are in a common physical space; a shared virtual location does not have nearly the same impact of proliferating the humor.

On a deeper level, there seems to be an inherent tension between the scripted and constrained nature of online synchronous learning and the spontaneity of much of the humor and laughter that takes place in educational encounters. For a synchronous Zoom lesson to run smoothly, instructors have to follow a carefully thought-out plan and the students need to speak individually, when called upon, and not all at once; otherwise the participants in the lesson will not be able to hear each other. Although one might claim that this type of planning and order is important in face-to-face classes too, the difference is that in a synchronous Zoom lesson it is much more difficult for instructors to abandon the script and just "go with the humorous flow."

I suspect that this fundamental tension between being restrained and orderly on the one hand and spontaneous and uninhibited on the other will not be easily resolved through the development of better online synchronous learning tools.

Conclusion

This exploratory phenomenological investigation of four features of relationship building illustrates why the synchronous Zoom instruction that many educators were recently required to employ cannot be simply equated with face-to-face, on-ground teaching and learning. Specifically, examining the impact of—a shared physical space versus multiple personal locations, non-verbal communication and body language, interactive activities and group work, and humor, laughter and spontaneous comments—indicates that there is a qualitative difference between the teaching and learning that happens on-ground versus the kind that takes place with synchronous Zoom. The term ‘qualitative difference’ is not used here in the sense of a discrepancy in the amount of information that students can absorb or in how well they perform on assessments. At stake here, rather, is the difference in the quality of interactions and conversations between teachers and students and among students.

The qualitative advantages described above that face-to-face teaching and learning enjoy in comparison to the instruction that happens via synchronous Zoom are far from trivial as they point to a critical component of education: the relational aspect. A number of prominent philosophers and educators like Martin Buber, Nel Noddings and Madeline Grumet have made a strong case that forging and maintaining dialogue and caring relationships is the essence of education. Buber (1969) wrote that in a genuine conversation or a real classroom lesson “what is essential does not take place in each of the participants or in a neutral world which includes the two and all other things; but it takes place between them in the most precise sense, as it were in a dimension which is accessible only to them both” (pp. 203-204). His point is that we must stop localizing the relation between human beings within the individual souls or in some collective group that binds them, and must instead insist that this relation is something that happens literally between persons. Likewise, Grumet noted that what is basic in education

is not a certain set of texts, or principles or algorithms, but the conversation that makes sense of these things. Curriculum is that conversation. It is the process of making sense with a group of people of the systems that shape and organize the world that we can think about together. (Grumet, 1995, p. 19)

Ultimately, it is this in-between, conversational or relational aspect of education that cannot be easily replicated when educators move their synchronous on-ground classes to Zoom. In synchronous Zoom lessons, instructors can easily share with their students lots of different kinds of visual and audio content including documents, charts, graphs, drawings, photos, videos, and podcasts. Instructors can get students to work on assignments in groups or individually and then present their results to the class. They can use an entire or part of a synchronous Zoom lesson to assess student understanding of course concepts both orally and in writing. At the same time, as this study has demonstrated, it is much more difficult for educators to establish those deep and sustaining relationships with their students using Zoom or other synchronous web-based platforms. Perhaps knowing that a software program cannot replace those strong and nourishing bonds between humans is something that both teachers and students should celebrate.

Notes

¹ See article in the Chronicle that discusses the results of the survey: <https://www.chronicle.com/article/In-Their-Own-Words-Here-s/248989>

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