



CULTURAL CHANGES IN INSTRUCTIONAL PRACTICES DUE TO COVID-19

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CULTURAL CHANGES IN INSTRUCTIONAL PRACTICES DUE TO COVID-19

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Editorial: Cultural Changes in Instructional Practices due to Covid-19

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Keywords: COVID-19 pandemic, classroom culture, social presence, anxiety, instruction, communication

Editorial on the Research Topic

Cultural Changes in Instructional Practices Due to Covid-19

Each classroom co-constructs its own culture through instructor classroom management, the skill with which that instructor delivers their content, and with respect to each individual's background (Shlossberg and Cunningham, 2016). Classroom cultures are sustained through communication (Titsworth, 2017). In March 2020, many classroom cultures were disrupted in the “great pivot,” namely the enforced shift from face-to-face to virtual learning, when many students and instructors were forced to use communication channels and instructional tools they had never encountered. This special topic of Culture and Communication features articles that broadly touch on the intersection of classroom culture and Covid-19.

The first theme that arose from the articles was burnout and anxiety. Students entered the virtual pivot with different amounts of familiarity with online learning tools as well as different levels of self-discipline necessary for virtual learning (Feekey and Condon). Even after the spring 2020 pivot, when students returned to the virtual classroom with prior online learning experience, many still felt that online learning would not be a good fit to their learning styles (Goke et al.), which in turn negatively affected their experiences. In addition to anxiety over the virtual learning tools, many students dealt with anxieties over communicating in new platforms (Prentiss) and learning in new physical spaces after they were forced to move away from campus (Garland and Violanti).

The second theme that arose from many of the articles in this collection is the potential of online instruction. Face-to-face communication is often thought of as the proverbial “gold standard” of communication, the channel of communication most natural to humans from birth (Hollan and Stornetta, 1992), and certainly the channel that educators tout as the most effective (Westerman et al., 2016). Yet, well implemented online instruction can be at least as effective as face-to-face instruction if the tools are utilized well and communication is effective (Kelly and Westerman, 2016; Bates, 2019). Virtual learning allows instructors to access a different variety of instructional tools than the face-to-face classroom that may be more effective for teaching particular concepts (Denton) or fostering student engagement (Brown) as long as instructors effectively utilizes those tools while conscientiously communicating to develop social presence with their students (Greenan).

Perhaps the most salient takeaway from these articles collectively is the need for educators and educational institutions to not simply go back to “normal.” Although the Covid-19 education pivot brought many challenges to the classroom, it also provided many opportunities to learn how to better

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utilize digital tools, teach online, and learn online. In many cases, the students themselves have been the greatest sources of this new instructional knowledge (Frey). Instead of rapidly returning to “normal,” let educators and educational institutions consider carefully what has been learned from the great virtual pivot brought forth by Covid-19; paying particular attention to what aspects could be retained for delivering better education in the future (Chen; Felix). Perhaps it is time to quit thinking of the face-to-face as the gold

standard for teaching and rather think of the gold standard as teaching that has been skillfully adjusted to be effective within its channel.

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All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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Overcoming Technological Barriers to Instruction: Situating Gen Z Students as Reverse Mentors

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In response to a changing higher education landscape, this essay presents an argument for utilizing reverse mentoring to solve technological problems in the academy. Specifically, the essay argues that 1) Gen Z students are uniquely positioned to capitalize on reverse mentoring programs and 2) instructional communication is an important framework for future reverse mentoring research.

Keywords: gen Z, reverse mentoring, instructional communication, technology training, pedagogy

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INTRODUCTION

The culture of the higher education classroom is changing, and perhaps there is no more influential source of such change than the 2020 outbreak of the SARS-CoV-2 virus (COVID-19). The shifts in policy and practice that have been implemented as a result – including an abrupt movement to online learning and hastened applications of digital technologies (Carey, 2020; Dhawan, 2020) – influence how pedagogy is enacted and learning occurs. These shifts have also made readily apparent the differences between today's students, who grew up surrounded by technology and adapt to it quickly (i.e., digital natives), and instructors, who may be moving to distance learning modalities or using digital technologies on short notice and without proper training. Many find themselves ill-equipped for the demands of the new educational landscape, which can have an adverse effect on students' learning experiences. Thus, to better prepare instructors to teach with digital technologies and within digital spaces, as well as to combat the possibility of technological ineffectiveness, this essay draws on the concept of *reverse mentoring* (e.g., Chaudhuri and Ghosh, 2012; Murphy, 2012) to present a framework for leveraging the technology-rich culture of the dominant student cohort (i.e., Gen Z; Seemiller and Grace, 2016) as a source of knowledge and training for instructors.

DEFINING REVERSE MENTORING

Contrary to traditional mentoring, reverse mentoring is “an inverted type of inter-generational mentoring relationship where the seasoned more experienced executive gets into the shoes of mentee and the younger, less experienced employee becomes the mentor by providing required skills, knowledge, and support to experienced adults” (Chaudhuri, 2019, p. 66). The public sector has put this idea into practice for over two decades, tracing the origins of the concept to former CEO of General Electric, Jack Welch (Greengard, 2002). As a result, iterations of reverse mentoring have been implemented across various organizations (e.g., Proctor and Gamble; Chaudhuri and Ghosh, 2012) and expanded as conceptually similar constructs (e.g., bidirectional learning; Chen, 2018). At its core, reverse mentoring features a cross-generational relationship and produces reciprocal outcomes for both individuals. Mentors (i.e., less experienced employees) receive leadership skills, organizational knowledge, and social capital, while mentees (i.e., more seasoned

employees) gain content knowledge, technical skills, and exposure to generational worldviews (e.g., perspectives on diversity and inclusion), among other things (Murphy, 2012).

Scholars interested in teacher training have embraced this idea, with several studies framing skill development through reverse mentoring as a formalized, instructional process. For example, Leh (2005) implemented and assessed a reverse mentoring program between graduate students and university professors on the premise that it is easier for younger generations to adapt to technology and its various forms. Similar technology mentoring programs have been conducted at universities without the formal labelling of reverse mentoring, including at Iowa State University, New Mexico State University, and the University of Texas at Austin (Chuang et al., 2003). In any case, reverse mentoring presents a model whereby students focus on the opportunities afforded by their strengths rather than their deficiencies (Morris, 2017; Zauschner-Studnicka, 2017). The extant literature also suggests that these strengths can be characterized through generational divides that exist as a result of increases in access to and comfort with new technologies (e.g., Cotugna and Vickery, 1998).

THE NEW DOMAIN OF REVERSE MENTORING: GEN Z

Initially, reverse mentoring referred to differences between millennials just entering the workforce and Baby Boomers struggling to stay engaged in their respective work roles. However, a new and more technologically competent group of workers is preparing to enter the job market: Generation Z (Seemiller and Grace, 2016). Gen Z, or those born after 1995, has a unique attachment to technology. They have been profoundly shaped by it, and they are highly accustomed to interacting in digital spaces. Reverse mentoring can help students learn to disseminate their technological expertise while simultaneously aiding instructors who may be unfamiliar or out-of-touch with technologies that appeal to today's students.

Moreover, reverse mentoring should benefit Gen Z students independent of their technical skills. Seemiller and Grace (2017) argued that their "digitally infused social DNA plays a role in what makes Generation Z unique, but do not be mistaken in thinking that being digitally savvy is all that defines them" (p. 22). This group of students craves opportunities to practically apply concepts in a way that can make a difference in the lives of others (Chicca and Shellenbarger, 2018); reverse mentoring should highlight their capability to influence others with even their most basic technological skills (Breck et al., 2018). Collectively, reverse mentoring presents educators with an opportunity to adapt and create programs that align with the characteristics, needs, and values of this generation.

It is also important to recognize that having technological expertise is necessary but not sufficient for reverse mentoring; effective *communication* is the means through which the goals of the relationship are fulfilled (Chaudhuri and Ghosh, 2012). Reverse mentoring differs from traditional mentoring in that it is designed to solve a problem (Harvey et al., 2009). In education,

the COVID-19 pandemic has manifested this problem as a lack of instructor technological competence and preparedness to use digital technologies. Gen Z students must be able to not only demonstrate the value of various technologies, but they must also use instructional communication to effectively *train* mentees to use them. As such, instructional communication – communication centered on the investigation of the interaction that occurs in pursuit of learning goals across settings – may elucidate the behaviors and conditions most conducive to the development of specific competencies in the reverse mentoring process (e.g., using applications effectively, learning social media; Clarke et al., 2019).

INSTRUCTIONAL COMMUNICATION AND REVERSE MENTORING

Reverse mentoring flips the traditional instructional hierarchy by allowing mentors (i.e., Gen Z students) to assume the role of *teacher* while mentees (i.e., faculty) assume the role of *learner*. Despite this reversal, mentors and mentees still rely on instructional communication to create meaning and facilitate successful interactions. Consider Mottet et al.'s (2006) Rhetorical and Relational Goals Theory (RRGT). RRG T proposes that the reverse mentoring relationship represents an instructional space where interaction is based on the needs and goals of mentors and mentees. Both individuals have *relational* goals related to positive working relationships and concerns for the other's well-being. They also have *rhetorical* goals related to the effective dissemination of knowledge, clear instruction, and information retention. Instructors make behavioral choices in an effort to meet these goals, and when they are fulfilled, more learning can occur (Mottet et al., 2006).

An RRG T perspective may provide important insight into the communicative behaviors most important to the development of the target competencies in context. For example, several studies have investigated the prioritization of instructor behaviors that students feel put them in the best position to learn (e.g., Goldman et al., 2017). Knoster et al. (2020) found that medical students preferred instructor behaviors that met their rhetorical goals (e.g., clarity) during the beginning stages of their education, but their relational needs became more important as they progressed to more clinical contexts. Given the nature of the reverse mentoring relationship, it seems reasonable that relational behaviors that help mentors and mentees overcome barriers related to age, status, or experience may play as much, if not more, of a role than rhetorical goals related to the completion of specific tasks.

In addition, RRG T seems especially relevant given the need for mentors to be trained to communicate their knowledge effectively. Applying RRG T to the reverse mentoring context could reveal mentees' behavioral preferences, which could subsequently be taught to student mentors to better prepare them for successful experiences. Scholars have suggested that such training would be beneficial to mentors, who must utilize relational communication behaviors to establish high quality relationships which will keep instructors engaged in the program (Chaudhuri and Ghosh, 2012). Applying RRG T to a

reverse mentoring interaction in education would ultimately help researchers and practitioners better understand the communicative messages and contextual conditions necessary for learning through this type of program.

CONCLUSION

As the cultural landscape of higher education continues to change, educators should be ready to adapt in practical and feasible ways. The COVID-19 pandemic has only expedited the need for instructors to develop their technological competence, and reverse mentoring as an academic and

theoretical concept presents an exciting opportunity to do so while paying attention to students' individual (and culturally defined) needs. Perhaps more than any other generation, Gen Z students are prepared to succeed in a reverse mentoring program. Pedagogy may have been turned on its head, but maybe a solution to the resulting problems lies in doing the same thing to traditional mentoring roles.

AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and has approved it for publication.

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Rock My World: Rewind to a Better Transition to Remote Learning

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Students and faculty alike found themselves in tumultuous times as they made the transition from face-to-face to remote learning. As faculty and administrators worked hard to overcommunicate with students in the hopes of keeping them engaged and focused on their academic pursuits, students found their attentions split among school, the Covid-19 health pandemic, and paying bills as many lost their employment. In some cases, the overcommunication led to students ignoring messages as they were completely overwhelmed; at the same time, some students found themselves reverting back to looking for the days of someone telling them what to do every minute of the day. Because faculty, and administrators, were not well prepared to handle the situation, an unevenness in how faculty communicated with students occurred. That is, some faculty withdrew in the same way that students did, and the term essentially ended with students turning in remaining assignments even though no further instruction occurred. Other faculty tried to move their face-to-face class online without taking into consideration the differences between these two channels. Still others tried to create an online course as they went from week to week. The inconsistencies across classes combined with the additional stress students were already experiencing became a recipe for exactly what the administration was trying to avoid—unsuccessful completion of courses and/or students unprepared for the courses that would come after the ones in which they were enrolled that term. The purpose of this study is to examine the experiences and perceptions of students when their classes pivoted from face-to-face to mediated, usually through video conferencing for synchronous or learning management systems for asynchronous. More specifically, we have collected qualitative data that addresses the communication students received from their instructors, what they believed instructors did successfully, what instructors could have done better, and the advice they would offer to instructors who found themselves in a similar crisis situation in the future.

Keywords: COVID-19, remote learning, instructional communication, uncertainty management, expectancy violations

Uncertainty. Few, if any words, better describe the universal feeling associated with education during the COVID-19 pandemic. The pivot term of 2020 resulted in a cataclysm for institutions of higher education as faculty and students in a classroom instructional setting were forced to shift to a remote environment almost overnight. Students and faculty alike found themselves in tumultuous times as they transitioned from face-to-face to remote learning.¹ For some higher education institutions, spring break was extended for a week or two to allow faculty to adjust their courses to the new environment. For others, the term timeline did not change, and the adjustment was more rushed. Regardless, the shift was unexpected, abrupt, and allowed for little adjustment period. Faculty, regardless of training or experience, were forced to create course content, assignments, and other learning experiences to fit the new format. As such, faculty were often adapting as the term progressed. According to a May *The Chronicle* survey 2020, “about 60% of faculty members, and a similar share of academic administrators, said that the spring’s courses were worse than their face-to-face counterparts.”

Because faculty, and administrators, were not well prepared to handle the situation, an unevenness in how faculty communicated with students occurred. That is, some faculty withdrew in the same way that students did, and the term essentially ended with students turning in remaining assignments even though no further instruction occurred. Other faculty tried to move their face-to-face class online without taking into consideration the differences between these two channels. Still others tried to create a remote course as they went from week to week. These inconsistencies across classes combined with the additional stress students were already experiencing became a recipe for exactly what the administration was trying to avoid—unsuccessful completion of courses and/or students unprepared for the courses that would come after the ones in which they were enrolled that term. Furthermore, due to COVID-19, one study found that 13% of students delayed graduation and 40% of students lost a job, internship, or other offer (Aucejo, et al., 2020).

Despite what institution administrators were doing to support faculty and students during this transition, the COVID-19 pandemic caused an unparalleled upheaval with regard to the educational experience. The destruction from this cataclysmic event will be felt for some time, and long-lasting effects can be expected. Students, in particular, were heavily impacted by the pandemic personally, professionally, and academically. “Uncertainty, instability, and self-doubt have been common themes in the lives of college students during 2020 as their education and career plans shift due to the coronavirus pandemic” (*Inside Higher Education*, 2020; par. 2). Moreover,

- 80% of college students report that COVID-19 has negatively impacted their mental health;

- 91% of the 80% report stress and anxiety;
- 81% of the 80% report disappointment and sadness;
- 80% of the 80% report loneliness or isolation;
- 48% of the 80% report financial setback;
- 56% of the 80% report relocation;
- 76% of the 80% report having trouble keeping a routine;
- 63% of the 80% report finding it challenging to stay connected with others;
- 85% of the 80% report focusing on school and work despite the distractions have been the most difficult thing about stay-at-home order (Active Minds, 2020).

As faculty and administrators worked hard to overcommunicate with students in the hopes of keeping them engaged and focused on their academic pursuits, students found their attentions split among school, the COVID-19 health pandemic, and paying bills as many lost their employment. In some cases, the overcommunication led to students ignoring messages as they were completely overwhelmed; at the same time, some students found themselves reverting back to looking for the days of someone telling them what to do every minute of the day.

While it is unlikely a worldwide event like the 2020 pandemic will happen again in the near future, there is much that can be learned about how students and faculty react to an abrupt educational shift, specifically with respect to communication behaviors, which include the various ways people exchange meaningful verbal and nonverbal messages. The purpose of this study is to examine the experiences and perceptions of students when their classes pivoted from face-to-face to mediated, usually through video conferencing for synchronous or learning management systems for asynchronous. More specifically, we have collected qualitative data that address the communication students received from their instructors, what they believed instructors did successfully, what instructors could have done better, and the advice they would offer to instructors who find themselves in a similar crisis situation in the future.

UNCERTAINTY MANAGEMENT

Uncertainty has been a key word for 2020 in all aspects of life and was heightened in the transition of the learning environment during the pivot term as face-to-face courses were moved online abruptly, with little or no preparation. “Uncertainty exists when details of situations are ambiguous, complex, unpredictable, or probabilistic; when information is unavailable or inconsistent and when people feel insecure in their own state of knowledge,” (Brashers, 2001, p. 478). Based on past research, student uncertainty is known to decrease over the course of the term, (e.g. Prisbell, 1990). However, the pivot term of 2020 disrupted the expected progression of uncertainty reduction. Uncertainty reduction is important in instruction in “normal” times (Goodboy & Myers, 2007), so it can be assumed that uncertainty reduction is even more critical in times such as the COVID-19 pandemic.

¹Note that the term online learning has not been used here because there is a distinct difference between using an online platform to deliver what would have been face-to-face content and developing a course where the online platform and student characteristics are an integral part of the design process.

Uncertainty Reduction Theory, while in its conception (Berger & Calabrese, 1975), explored processes associated with thoughts and behaviors as people initiate new relationships, the concept of uncertainty reduction has been applied in a broader context, though limitedly in instructional contexts (Goodboy & Myers, 2007; Hanson, et al., 2014; Prisbell, 1990). At its core, uncertainty reduction theory is based on eight key concepts, from which axioms were developed: verbal communication, nonverbal warmth, information seeking, self-disclosure, reciprocity, similarity, liking, and shared networks. While intimacy, reciprocity, similarity, and liking are not anticipated to be central to the student experience during the transition to remote learning, verbal communication, nonverbal warmth, information seeking, and shared networks are expected to be prevalent in student experiences. Moreover, while nonverbal warmth may not be exemplified in the traditional sense, nonverbal warmth as expressed through computer-mediated contexts, are anticipated. Such expressions might include the use of emoticons, memes, or GIFs or providing a cell phone number so students can text questions. These expressions are more informal and personal in nature, suggesting nonverbal warmth.

Anyone involved in education during the 2020 pivot term is well aware of the challenges faced by stakeholders, regardless of position, experience, etc. Arguably, faculty and students felt the impact of this sudden shift more strongly than anyone else. Faculty and students were asking, “what now?” “Reducing uncertainty to an acceptable level is necessary for smooth, coordinated, and understandable interactions to occur and for individuals to have a sense of control over their environment and outcomes” (Goldsmith, 2001, p. 515). With this in mind, it seems teacher effectiveness during the transition to remote learning would require enhanced communication in terms of higher quality messages, a greater quantity of messages, and use of multiple channels to convey messages. Such communication would be expected to lead to students feeling comfortable and confident with the course and the teacher during the transition. Communication satisfaction has been identified as another outcome of uncertainty reduction, which resulted in a ninth axiom (Neuliep & Grohskopf, 2000). While uncertainty plays a large role in adjusting to new and unique situations, closely aligned to such processes is the role of expectations.

EXPECTANCY VIOLATIONS

Expectations are a typical framework for making sense of new and unique situations. In the instructional context, both teacher and student expectations are taken into account. However, for the purpose of this study, the focus is on student expectations. When students enter a class for the first time, they bring with them expectations based on previous classroom experiences (Houser, 2005; Violanti, 2020). As the course progresses, student frameworks change and expectations are shifted. Those expectations are placed on course processes and procedures as well as teacher communication.

What happens, though, when no previous experiences can provide a framework for what to expect in this new situation? Arguably, we have to return to scripts that are most closely related. For the transition to remote learning during the COVID-19 pandemic, the scripts most likely used were those of student expectations for typical teacher-student communication; to what extent are such expectations realistic or even relevant in such a unique situation?

While much of expectancy violations research is centered on nonverbal communication (Burgoon & Hale, 1988), expectancy violations frameworks have been expanded to include verbal communication in instructional contexts, (e.g. Mottet, et al., 2006). At its core, the theory suggests that when expectations are violated, negative perceptions and outcomes result. In the context relevant to this study, expectancy violations could be anticipated to negatively impact student satisfaction and feelings of support, among other outcomes.

INSTRUCTIONAL COMMUNICATION

A plethora of variables are central to research in instructional communication. Regarding the teaching experiences of the authors during the transition to remote learning as well as based on the research above and instructional communication research, concepts of particular interest to this study are teacher communication and student satisfaction.

TEACHER COMMUNICATION

One area of importance in regard to teacher communication is teacher support. When teachers express interest in students' well-being, both academically and personally, a number of positive outcomes result. For example, Goldman and Goodboy (2014) found that teacher interest and an interactive teaching style result in emotional interest and support as well as a more positive classroom experience. Moreover, teacher messages, both verbal and nonverbal, that show support have both content and relational dimensions (Burleson, 2009). Regardless of whether content or relational dimensions are the message's focus, faculty confirming messages lead to more positive student outcomes than disconfirming messages, particularly in regard to learner empowerment, student motivation, student motives to communicate, and relational distance between student and teacher (Garland and Violanti, 2020). Confirming messages indicate to the student that the teacher believes in and values the student (Ellis, 2000; Johnson & LaBelle, 2020). With the pandemic in mind, teacher confirming messages would indicate the teacher and students are in it together, the teacher is available to assist the student academically and personally, the teacher understands the many challenges that the students are facing, and the teacher is willing to be flexible and adaptable to students' needs. Moreover, teachers serve as an integral source for aiding students in making sense of educational and life experiences (Titsworth, et al., 2010). In times of the COVID-19 pandemic, such guidance might include navigating a new course format, adjusting to altered content delivery methods,

and communicating altered course expectations. While supportive messages and guidance are important to a typical educational experience, they are arguably even more critical in times of crisis, such as a pandemic.

Another area of importance in regard to teacher communication is teacher clarity. Teacher clarity refers to structural, verbal, and nonverbal teaching behaviors that lead to shared meaning about course-related content and processes (Chesebro & McCroskey, 2001; Myers and Goodboy, 2014; Violanti, et al., 2018). Clarity of assignments, expectations, teaching format and delivery, teacher-student communication, and much more is necessary for an effective and desirable educational experience. Clarity at the start of the term leads to reduced student uncertainty and more realistic student expectations.

A third area of importance in regard to teacher communication is teacher consistency (Nelson, 2019). To date, consistency has centered on consistency on teacher communication and behaviors in a single instructional format. The 2020 pivot term, however, provided a unique opportunity to explore the importance of teacher consistency with a change in instructional modality. While students have individual preferences for the channel of teacher-student communication, communication through any channel is preferred to no or limited teacher-student communication, especially in times of uncertainty.

Teacher support, clarity, and consistency are integral to any instructional context, but it is anticipated that such concepts are central to the experiences of students during the COVID-19 pivot term. While such concepts are correlated with a number of student outcomes, one of particular interest during the pandemic is student satisfaction. Student satisfaction is a predictor for student retention (Murray & Kennedy-Lightsey, 2013), critical to the success of educational institutions, and such predictors must be a focus of research.

STUDENT SATISFACTION

As students enter a class for the first time, they have expectations about their teachers, the course, and peer interaction. The expectations are based on past experiences in higher education, such as experiences with the instructor of record or with the anticipated format and delivery method, as well as information-seeking behaviors, like word-of-mouth or Rate My Professor. With this project in mind, student satisfaction is tied to instructor communication behaviors that assist students in meeting their goals and fulfilling their expectations. The behaviors include teacher support, clarity, and consistency, which have been positively correlated with student satisfaction (Goodboy & Myers, 2007; Sidelinger, 2014; Sidelinger et al., 2015). Students are more satisfied when teachers are consistent in their communication behaviors and are in consistent communication with their students (Goodboy & Myers, 2007), as well as when teachers are clear and engaged in their instruction (Johnson, 2013).

When the course format and delivery are abruptly shifted, as it was during the 2020 pivot term, students' expectations of the instructor, course format, content delivery are most likely violated. Such violations would lead to students judging instructor behaviors and course changes negatively (McPherson et al., 2003). Teacher communication that is context driven and follows the situational and relational rules should result in violation avoidance, as perceived by the student (Sidelinger, 2014). This would suggest that teacher clarity, consistency, and support would minimize the violations, or negative valence, that such an abrupt change in instruction produces because students' affect for a course and the teacher is correlated with student satisfaction (Goodboy, et al., 2009).

Taken together, the following research questions are posted.

RQ1: How do students describe their remote-learning experiences?

RQ2: How can we create smoother transitions when future instructional disruptions occur?

METHODS

Participants

Upon receiving human subjects review approval, students enrolled at two United States higher education institutions completed an online survey². A total of 543 students participated in the study. Of those, 345 were female (63.5%), 172 were male (31.7%), two (0.4%) were non-binary, and 24 (4.4%) did not respond. While the majority were in their second year of college ($N = 298$, 54.9%), 75 (13.8%) were first-year students, 99 (18.2%) were third-year students, 41 (7.6%) were fourth-year students, 10 (1.8%) were fifth-year or beyond students, and 20 (3.7%) did not respond. The mean age was 19.93 ($sd = 2.58$) with a range from 18 to 52.

Procedures and Data

For the purposes of this study, participants responded to four open-ended questions as part of the online survey completed between April and September 2020, which marked the pivot to remote learning at the end of one semester and continuation of remote learning at the beginning of the next semester. These questions addressed what they wished their instructor had done and had not done during the pivot to remote learning as well as advice they would offer to instructors and students if an instructional disruption should occur in the future. The responses resulted in 80 pages (17,301 words) of data used to address the two research questions. These data, using the phrase as the unit of analysis, were coded using thematic analysis (Owen, 1984). The first response was read and coded using phrases as the

²In the interest of transparency, the data reported here are part of a larger study on the pivot from face-to-face to remote teaching and learning. In addition to the open-ended data reported here, students also completed scales measuring the confirming and disconfirming messages used by their instructors, their current anxiety levels, and their perceived learning in the course on which they reported.

TABLE 1 | Content analysis categories.

Category	N	%	Exemplars
Assignments	117	13.31	Didn't have random deadlines in the middle of the day [outside of regular class time], provided better notetaking guides
Clarity	80	9.10	Explained how this specific course would transition into virtual learning, be more specific about what he expects, spoken more clearly
Communication	62	7.05	Email me hundreds of emails during the night, been out of touch, answered [various] forms of communication
Format	486	55.29	Kept the discussion portion of class going, provided a more concrete online structure, understood that grading could have been more lenient
Interaction	115	13.08	Spent so much time telling personal stories and not relating to the class, disregarded her students, figured we knew a lot of things that are going down
Other	19	2.16	[The teacher] getting sick, [instructor] more familiar with technology, hold other people more accountable

unit of analysis; each subsequent response either fit into an existing category, required an alteration to an existing category to better reflect the responses, or resulted in creating a new category to reflect the student's thought processes. A total of 879 phrases were placed into six categories. These themes, the categorical definitions, and the percentage of responses that address them are included in **Table 1**. After developing and categorizing the responses into the themes, those themes were connected back to the original research questions.

RESULTS

Generally speaking, students had a range of experiences during their pivot to remote learning. While these data focused specifically on the educational experiences, we would be remiss if we did not remind readers about the environmental changes so many of them also faced. Returning to their parents' homes from apartments and residence halls was difficult for many because the independence many had garnered at college was diminished in their parents' homes where they had no control over the space and other people who were living there. Additionally, some were returning to households where there were abusive parents or step-parents or had no homes to which to return at all. To continue paying rent on their apartments at school, many had to work at whatever jobs and whatever hours they could find; some also thought that online classes meant they could determine what they did and when, which was not the case in courses that chose to meet synchronously. Finally, being removed from campus meant that many lost their social connections—as they often say, texting is not the same as being there. The isolation, in conjunction with local stay-at-home ordinances, had a definite impact on students' mental health. Using this as the backdrop for their comments, we first address their classroom experiences.

While a small number of students (less than 10% of those participating) reported that their transition to remote learning was smooth and there was nothing they wished the instructor had done or had not done, the vast majority of participants reported on frustrations with remote learning. From their composite responses, we present the story of Alex, a second-year college student returning home to finish the first 2020 pandemic term remotely.

Alex wakes up in the morning prepared to spend the day in the bedroom going to class, doing homework, and trying to connect with group members to finish a project. A neighbor is having a tree cut down and the noise makes it difficult to concentrate. Logging on to the campus learning management system (LMS), Alex believes a new assignment has been posted for one of the classes and the teacher has decided to have a spontaneous Zoom session today during what would have been class time. Alex thinks, "Good thing I did not pick up that extra shift at work." Before logging on to the synchronous class system, Alex checks email and finds over a page of emails, all of which have been generated in the LMS and go along with the five courses Alex is enrolled in. Because of the tags added to the subject line, it is impossible to easily determine which ones go with which classes and read them all together or determine which ones are most important, so Alex closes email and decides to wait for more time to go through all of that. Time to check Facebook, Twitter, and Slack because two instructors have decided they want to use those channels for communicating with students. The instructions for an assignment have been posted, but they seem vague and unclear as to how it will be graded. Alex makes a note to ask about this in class, especially since there is no due date on the assignment sheet. The phone starts dinging with notifications from the various GroupMees that the students have set up for each class. People are complaining about how confusing all of these assignments are and wondering why some teachers have given up completely—no communication, just a bunch of assignments on the LMS—and others are so overwhelmed that they are inundating students with a new email for every little thing. Time for class. Alex logs onto the platform and finds out that the instructor is having difficulty getting the screen share to work so they are going to have to take notes without benefit of the slide deck. Rather than having a class discussion, they end up in breakout rooms to work through the course content themselves. Alex is thinking, "If I knew the answer to these questions, there would be no reason to come to class and I could go back to bed or go to work and earn money." A second synchronous class is no better and the instructor left no time to ask the questions Alex had planned to find out more about the vague assignment. The day ends with a series of excuses for why others cannot work on their group assignments. Off to bed so that Alex can jump back on the hamster wheel to run for another day without feeling any sense of accomplishment.

Alex's story is not unique and resembles stories heard from many students. The elements align with the categories found in

the students' responses and also address a component not heard specifically in the responses—the issues associated with leaving the campus environment and living in someone else's home where the student controls neither the environment nor the time zone in which it is located.

Assignments

Assignments were defined as ways in which course materials, learning activities, and assessments are designed, or redesigned during remote learning. In this category, students talked about making aids available to help them with the learning process such as providing “better notetaking guides” and reinforcing “the main points so we know what we are to get out of each lesson.” Others focused on the time associated with each class wondering why faculty “would make what was supposed to be a 50-min exam take 3 h” because “It interfered with the classes I had after.” In terms of learning materials, students recognized that they were missing out on the oral nature of being in a physical classroom as the student sought “more videos for kids who struggle to learn by reading.” One student enrolled in a public speaking course talked about the irony of how the speech assignments changed when the delivery mode changed.

I also feel that completing what is essentially a course designed to teach you how to communicate in a “prepared” but extemporaneous way is made increasingly difficult by the addition of video recording requirements—live presentations on zoom would seem to be a comparable experience vs. in person presenting; however given the circumstances, one feels that the standards should be adjusted to reflect the additional difficulties imposed on students by the video recording requirement.

Other comments were similar to what is seen in any semester: fewer assignments, lighter workload, more extra credit opportunities, and more time to complete assignments.

Clarity

Regardless of instructional modality, providing students with understandable and meaningful messages is a hallmark of effective teaching. Responses fitting into the clarity category emphasized the extent to which the messages used to communicate about the course, assignments, technology, and expectations are understandable, direct, and uncomplicated. Many of the comments in this category focused on organization, both of the instructor and the course site. For example, students wanted the instructor “to make it more clear where assignments were” and “be more explicit on due dates.” Students also indicated a need for clearer instructions about how to use the LMS as well as any technologies that the instructor was going to use: “given more guidance with the types of technology we would be using” and “given more instruction with tech.” Even though some of these students had been using the same LMS prior to coming to college, they still sought explicit instructions about how each individual instructor would be using it. Finally, the students highlighted the need for better organization and clearer assignment instructions because the instructor “sent out so many assignments with little explanation on how to get credit for them.” As one student

lamented, “been more detailed. I learned less when we went online;” clarity was a key component in the remote learning environment.

Communication

As administrators encouraged faculty to overcommunicate on these two campuses, students gave the strategy mixed reviews. For example, some indicated faculty “sent a billion emails a day, when they could keep it concise—I know it was a hard time for everyone, but come on” and “communicated more.” There was general agreement that email was the best communication tool, but less agreement about whether it should be every time something new is posted, daily, or weekly. While instructors were more apt to send out the messages they wanted students to have, they also seemed to be having a difficult time keeping up with the additional email being generated by students and their concerns. For example, many indicated the faculty member “responded to emails so slowly regarding questions about classes” or should give “more comments to my work.” This student summed up the communication category and its connection to other areas well:

sent out more announcements to keep us in the loop. For us students, we found out about classes going online during spring break, but my class did not even get notified about what was expected of us until the second full week of online classes. We never had set zoom meetings, we were just expected to work on our Google Drives with our groups and that was our attendance. We were also able to participate in the live chat, but I wish we would have had at least one meeting to go over everything and what was expected so we were less confused and better informed.

While organizational research has indicated employees seem to continually seek more information and more communication because they have positive effects on satisfaction (Popescu & Crenicean, 2016; Ghorbanzadeh et al., 2020), the same was not true in this case for students.

Format

The largest category of comments had to do with course format, the ways in which the course is structured or restructured, including the use of technology and grading. There was a repetition to these comments that addressed a few very specific areas. The first had to do with grading. Many students indicated a need to be more lenient with grading, especially regarding group assignments. While few provided reasons for their grading leniency requests, one student indicated “been more lenient with grades considering we didn't know how to work many of the websites used.”

The second set of comments had to do with the way the course content was delivered. As is often the case, there was disagreement about whether there should be more synchronous learning or more asynchronous learning. Some students wanted the freedom that goes along with asynchronous learning (drop “zoom calls altogether. I had to pick up a job and it was hard keeping a schedule around strict

class times” and “understood that some of us lived in different time zones and meeting synchronously was difficult”) and others sought the structure that goes along with synchronous learning (“made more requirements of the class in order to force me to stay grounded” and “give us synchronous meeting times”). Students also wanted instructors to start “the class [at] a slower pace so student [s] could adjust to the new learning style and then speed things up.” In addition to the transition, students talked about how the course design changed, and it was not always for the better, “The class was a discussion class so more assignments were assigned to make up for the lack of discussion that was not present.” Lastly, students were concerned about learning and timing. One student indicated that the instructor should post “videos more gradually as opposed to days without anything then all of a sudden we had like five at one time.” Some of these comments also connected back to issues of clarity and consistency.

The last set of comments had to do with technology. When classes met synchronously, students appreciated it when instructors “taught slower over Zoom.” The lag time and fatigue associated with long periods of time online was evident as students indicated that they needed more time to process the course content when it was online. Other students talked about specific aspects of the technology, such as having “better equipment to show the math problems she was working out, something other than just pen and paper” or “had the ability to write on a white board or an application to write with and share with the class.” In a quick pivot to remote teaching and learning, these additional tools may not have been readily available or quickly learned. It was clear that students had negative impressions of working in groups in the technology-mediated environment. Some sought more time together in smaller groups (“done more interactive learning in breakout rooms rather than just go through powerpoints and notes”) and others found the time to be wasted due to lack of structure and preparedness (“included more time to learn rather than just large zoom lectures” and “don’t put kids into breakout rooms for too long or they will end up silent eventually”). Group work was summed up as “it made it more difficult to learn because nobody ever wanted to work together.” With respect to technology, the most controversial aspect of meeting synchronously revolved around whether people should be required to have their cameras on and be visible. Students who specifically addressed this topic worried that “having the camera on. It felt like it was an invasion of privacy”; yet, other students saw these synchronous meetings as an opportunity to reconnect with the friends they had made and felt both audio and visual was necessary to make those connections (should “require zoom cameras to be on”).

Interaction

Interaction was defined as messages that address the relational and identity communication goals (Clark & Delia, 1979); involves students’ perceptions of themselves, their instructors, and the ways they connect with, or disconnect from, their instructor and classmates. Some specific strategies for creating interaction opportunities included “had more Zoom meetings so we could still engage with each other” and “connect fellow students to each

other more [in groups or the class as a whole].” Additionally, there was a consistent call for less of the negativity associated with the situation ([should not have] “focused on all the negatives” and “been so negative about the transition”) and more encouragement and positivity (“encouraged students to keep going”). In a time when mental health and physical health were both deteriorating, students wanted instructors to “check on us more.” While instructors are not health professionals, they would be able to help students access the resources they needed. Another type of disconnection students felt was that they were going this alone instead of being in it with their instructor (“left us in the dirt,” “assumed the transition would be easy for everyone,” and “assumed we know what we were doing”). On campuses where the administrative message and in a society focused on “we’re all in this together,” feeling disconnected from an instructor seemed to be heightened.

DISCUSSION

Uncertainty Management

Over the course of a term, the need for uncertainty management diminishes as students develop trusting relationships with other students and the instructor; they also reduce their uncertainty levels as they find themselves being successful or learning from their mistakes. The first assignment or exam in a course tends to have the lowest average score as students learn the instructors’ assessment strategy and how to best adapt their studying to succeed on the assessment. When classes moved from traditional face-to-face environments to the remote learning environment, students found themselves starting the uncertainty management process from the beginning; it was as if they had been picked up out of their current course and transported to a completely new term halfway through. They did not have the time or energy for the socialization processes that would help them learn how to navigate the situation and increase their efficacy to the point that it should have been halfway or more through the term. Additionally, they did not have scripts from past courses on which to draw to help them traverse the unexpected path to the end-of-term finish line.

As their uncertainty about what was happening in their classes as well as in their families and lives outside of school increased, their need to reduce uncertainty in at least one of those areas became critical to developing a sense of balance. Nothing seemed certain regarding the pandemic, so students looked to instructors and peers to help quell their anxiety. The best way to alleviate their fears was to seek out familiarity in their courses.

As we can see from Alex’s story and the themes contained in **Table 1**, uncertainty and the need to reduce uncertainty remains prevalent among the students who found themselves in the unfamiliar realm of remote learning. Clarity, communication, consistent format, and interaction all contribute to feelings of enhanced or reduced uncertainty. When instructors were able to continue providing concrete directions for assignments, schedules with specific due dates that allow students to plan out the remainder of the term, and explicit, and clear instructions about how to use the new technologies (LMS, video conferencing

app or software, and electronic submission of assignments), students' uncertainty levels were lessened. Communication and interaction were additional ways to help students manage their heightened uncertainty. For example, staying in contact with students, remembering to take time to ask how they were doing, and maintaining the relationships built earlier in the term are all effective ways to help students manage their uncertainty. Additionally, providing consistent messages about the course, reminders about their responsibilities, and encouragement that instructors believe in their students are also effective management strategies. Instructors who walked away from their students amid their own uncertainties found themselves with a class full of students who were dissatisfied and experiencing increased uncertainty. When students are unable to reduce uncertainty using their familiarity with the course, they turn to alternatives to help them fill in the gaps. Some students may turn to networking apps, such as GroupMe, to have other students help them fill in the gaps; others may turn to friends who are also battling uncertainty. Either way, the outcome tends to be heightened anxiety because it acts as a contagious virus in the same way that the number of Covid-19 cases increased exponentially each day.

Expectations

While expectations were not as prevalent in Alex's story, they are still an underlying component of students' experiences. When people's positive expectations are met or exceeded, they attribute a more positive valence to the situation and relationship. Students expected instructors to go outside of their instructional roles and help them with all aspects of the remote learning environment. In many ways, students expected instructors to behave in ways the students found almost impossible. For example, students expected instructors to have already thought about the possibility that this would happen and have planned for it, knowing how they would make adjustments to the course and how to teach students to operate the technology. In reality, those expectations were idealistic rather than realistic as some instructors were learning the LMS and communication technology alongside their students.

Based upon the student responses, it appears that instructors also had unrealistic expectations regarding students' behaviors. For example, instructors expected students to be able to devote the same level of time and attention to each course as they had been when they were coming to a physical class on campus without a health pandemic. In reality, students found themselves having to split their attention among their family (and potential caregiving responsibilities for younger siblings or older family members), their personal health, their classes, and potentially a job or internship. When students did not respond or behave as expected, they formed a negative judgment about students as uncaring or uncommitted and altered their own communication accordingly. When faculty withdrew from, or altered, the relationships with their students, that strengthened students' negative valences and they cycle continued until the relationship developed in the face-to-face classroom was only a small remnant of what had existed only a few weeks earlier.

LIMITATIONS AND FUTURE RESEARCH

The data for this study came from two United States Universities, one of which is considered a high research institution and one of which is considered a comprehensive teaching institution. The data generated from the two types of institutions was remarkably similar—students crave the same types of instructional settings as well as interactions with their peers and instructors. While it mirrors studies from across the United States, parallel data from around the world are needed to determine whether there are potentially geographical and/or cultural differences regarding remote learning.

These data also reflect the very early stages of remote learning. As many institutions enter their third term and beyond, these same questions should be asked to see how students' perceptions have changed as well as the sensemaking processes they are using to attach meaning to what is a new learning environment for most instructors and students. Other considerations would include how instructors and students have enhanced their preparation for remote learning. To what extent do these remote learning environments now more closely align with the synchronous and asynchronous online learning environments that were purposefully created prior to the health pandemic? Are students developing the self-determination, time management, and other skills prevalent in those who choose online learning? Are faculty moving beyond taking the face-to-face format and placing it in a mediated context, (i.e. moving away from full class period recorded lectures in favor of shorter videos that are chunked according to topics)? What are institutions doing to onboard their students and faculty for the remote learning environment?

A final limitation is that we did not collect specific demographic data, which may impact how students responded in this pivot to remote learning. Demographics that would be helpful to connect with students' experiences include where they attended their remote classes, (e.g. space where they were the only one living, space they shared with other students, space they shared with their family, emergency residence hall exception, their cars where they could use unlimited cellular data or log into a retail establishment's free Wi-Fi), what other responsibilities they had, (e.g. work, family, caregiver), and their health (both mental and physical). Being able to connect students' situations with their experiences would help faculty and administrators better plan for the future of education.

Implications

Taken together, several lessons can be learned from the experiences of students based on the themes presented. When it comes to preparing assignments for remote learning, teachers should be careful of assumptions. For example, not all students are familiar and experienced with submitting assignments through the learning management systems. Detailed instructions for submission should be provided in addition to the due date, grading rubric, technology troubleshooting tips, and additional resources, such as tutoring or writing centers. Students would also likely appreciate a sample submission demonstrating

the elements of a successful submission, which would likely help teachers avoid the “how many pages” and formatting questions.

When it comes to clarity and communication, teachers should post, or otherwise provide, an updated syllabus to clarify new processes, procedures, and expectations. The updated syllabus should clarify important logistical information, such as how and when remote office hours will be held, a timeframe for when students can expect to hear back from the instructor—we recommend a 24 to 48 h turnaround; and when students should check for emails and other course announcements. In addition to clarity, teachers should be intentional in their consistency. For example, teachers should aim to send emails and/or post announcements at consistent times and keep deadlines consistent. Students become very frustrated when faculty create an assignment deadline of 5:00 pm on Friday one week and midnight Sunday the next week, especially for a class that meets on Tuesday and Thursday. Consistency also minimizes the number of student emails regarding deadlines.

Lastly, teachers need to focus on the human element of teaching. Touch base with students individually when possible to better understand their unique needs and challenges. This allows instructors to make more informed decisions about course requirements, such as whether to require audio or video student participation. It also provides faculty with an opportunity to adapt students’ experiences into creative, relevant course, or concept, examples. Instructors should also let students know that they empathize with them and support them as they work to overcome the challenges they are facing by providing resources for mental health, food and housing insecurity, and the like when possible.

As is often the case in instructional settings, trying to address the needs of all students creates dialectical tensions as there are students, usually in the same class, who want completely different approaches. For example, some students wanted all of the assignments at once so they could work at their own pace and others wanted them spaced out as they had been on the original syllabus; some wanted to meet synchronously and others wanted everything to be asynchronous; some wanted the instructor to maintain the rigorous standards that had been in place and others

wanted significantly more leniency/fewer assignments/more extra credit; some sought connections with others through the use of audio and video and others saw this as an invasion of privacy. In situations like this, the instructor is left to determine whether meeting the needs of the middle (those within one to two standard deviations of the norm) is the best approach or whether meeting the needs of all students from high to low performers is the best approach. Ideally, we would meet the needs of all learners; in a time-crunched pivot to remote learning, the design and preparation work necessary to accomplish those goals was impossible. Many faculty and students alike did the best they could, especially given the personal and professional uncertainty as well as the various stakeholders’ expectations. Moving forward, we each have a responsibility to improve the teaching and learning environment in ways that promote inclusion and equity for all.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusion of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the University of Tennessee Knoxville IRB. Written informed consent for participation was not required for this study in accordance with the national legislation and the institutional requirements.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication. Authorship order is alphabetical. Both authors contributed equally.

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Higher Education in Times of Instability and Disruption: Rethinking Notions of Values, Value Creation and Instructional Practices in Vietnam and Beyond

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The disruptive nature of the COVID-19 pandemic has created a massive shift in instructional practices in higher education across the globe. The impact of this pandemic on education globally has led to a surge in online teaching and the use of various digital technologies and platforms to support instructional practices. However, this world-changing event has foregrounded the limitations of technology in addition to other important indications, particularly as it relates to the notion of value and by extension value creation. Within the context of the Vietnamese higher education ecosystem, what is evident is that a re-evaluation of values is worth considering, in terms of the value of local higher education institutions, in addition to the value creation produced by the same. This article will engage with pertinent implications for the post-COVID realities which offer untold challenges and opportunities in Vietnam and elsewhere. Moreover, the post-COVID realities of late modernity only serve to accentuate the importance of values and value creation in this context as higher education institutions would re-evaluate, rethink, and retool approaches to instructional practices. A focus on questions of value aids in considering the broader conditions and contexts which support some of the fruitful and situated outcomes of higher education which includes human capital development, employment, social mobility and the production of modern social identities.

Keywords: higher education, teaching and learning, values, value creation, COVID-19, Vietnam, modernity and education, modernisation

INTRODUCTION

Undoubtably, the COVID-19 pandemic has done more than disrupt the course of contemporary life, but in effect has opened generated a new epoch within late modernity known as the post-COVID world (MacMullin et al., 2020; Tumlinson et al., 2020; Wagner, 2020; Zahra, 2020). In such a world, novelty, fear, unpredictability also exist alongside opportunity, evolution and soberness, in unusual measures of intensity (Wagner, 2020; Zahra, 2020). Experts have noted the greater importance given to digital technologies in this new post-COVID reality (MacMullin et al., 2020), in addition to the greater measure of creativity, problem-solving, and rethinking of social systems which existed before

the advent of the pandemic (Tumlinson et al., 2020). Higher education, like all other levels of education, is also in need of rethinking, problem-solving, and creativity as observed by several academics in the field (Korkmaz and Toraman, 2020; Peters et al., 2020). This is important given that instructional practices are in large part the essential work of colleges and universities worldwide.

While the COVID-19 pandemic has led to a massive increase in online teaching through the use of various digital technologies and platforms, this world-changing event has foregrounded the limitations of technology in addition to other important implications. These limitations have to do with the ways in which technology use in education, have been heralded by pre-pandemic futurists as having a near salvific role in universally elevating education standards (Feenberg, 2015; Wheelan, 2016; Aldama, 2018; Herman, 2020). However, technology in this context can only do so much for us.

The experience of COVID-19 has taught the world that technology brings maximum benefit once issues of suitability, access, and disciplinarity among other factors are taken into account (Feenberg, 2003; Feenberg, 2005). As educators the world over rethink instructional practices and disciplinarity, the use of technology during the pandemic and the post-COVID world has been more out of necessity and desperation rather than a calculated ideal (Korkmaz and Toraman, 2020; Pham and Ho, 2020). Amidst the unpredictability, desperation, and confusion of this post-COVID reality, I argue that one of the key implications which came to the fore as a result of the global pandemic is the question of values. In what follows, I would like to divert attention away from educational technology in higher education to a discussion on values and implications for classroom instruction.

Values here refers to priorities and principles which function as a means of navigating the share social worlds that people inhabit in both their material and immaterial realities (Bergan and Damian, 2010). These negotiated priorities serve as a foundation for the self-regulating behaviours of individuals and shared paradigms which enable collective action and sustained activity (Shaker and Plater, 2016). As such, *values* may be identified as systemic, rule-based perceptions which may accord with personal convictions or affirmative interests, which in turn mobilises and legitimises discourses and practice (Han, 2019).

As an extension of this definition of values, the notion of *value creation* involves more contingent and tangible outcomes that rely to capacity building and innovation (Kettunen et al., 2013; Aldama, 2018). Within the context of higher education instructional practices, authentic assessment and independent learning, for example, are both core values and discourses which in large part relate to questions of value and value creation given the social function of higher education within modern societies (Giloi and Du Toit, 2013; Ajjawi et al., 2020). However, instructional practices cannot be divorced from questions of value and value creation, in addition to conditions and contexts which allow for such practices to provide fruitful

gains to the wider scope of societies beyond the walls of the academy.

Higher Education Within the Vietnamese Context

Values and value creation are almost always a highly contextual matter, with value systems varying based on factors of locality and cultural difference. This is true all over the world, and with Vietnam as a particular example, as the embrace of deeply stratified value systems, such as Confucianism, Socialism, and Neoliberalism penetrate all aspects of local society, with education being no different (Nguyen, 2016; Tran et al., 2017; Phan and Doan, 2020). I advance that the value of higher education institutions lies in the value such institutions provide students and society at large, but also how students are socialised as agents of value creation within or through the academy, in an effort to be able to produce value outside of it.

Higher education institutions in Vietnam are tasked with addressing issues of efficiency with their operations as well as how their work maintains pertinency within varying spheres of national life. Some of these challenges have been highlighted in previous studies related to the value of human capital in the form of returning graduates from foreign institutions (Molla and Pham, 2019; Pham, 2019, 2020), the educational reforms both nationally and regionally (Hirotsato and Kitamura, 2009), the impact of globalisation and local social conditions on the education sector in general (London, 2011; Chalapati et al., 2015; Tran and Marginson, 2018), and role of student identity in being a dominant force in the development of the higher education sector (Tran, 2013a; Tran, 2015; Phan, 2017).

Institutions of higher education function as important social organisations within societies across the globe, operating as a space for advanced teaching, learning, and the production of modern scholarship. These entities have been historically known to serve a diverse functions which include national workforce training, intellectual capital development, indigenous knowledge advancement, and the socialisation of citizenry (Holland, 2005; Hallinger and Lu, 2013; Hazelkorn and Gibson, 2017; Mintz, 2019).

However, the Vietnamese academy, like other higher education institutions in varying global contexts, has to function in the realities post-COVID world—with the novelties, fears, and unpredictability as noted earlier. Online and mobile learning have been implemented within Vietnam in response to the pandemic to varying degrees of success and failure based on a range of factors (Bui et al., 2020; Ho et al., 2020; Pham and Ho, 2020). Meeting the challenges of this new epoch, may require a reconsideration of the values which underpin higher education institutions, in addition to the value creation which occurs within and through these spaces all the same. Instructional practices are only part of the value creation process and an expression of particular values in a broader sense.

The university classroom environment in Vietnam has been characterised by local experts as one which rewards and reinforces problematics such as teacher-centric instruction and limited learner autonomy and motivation (Tran, 2013b; Dang and Glewwe, 2018; Tran and Marginson, 2018). However, local academics have been calling for more research which gives greater

priority to student perspectives, rather than a top-down approach to addressing these issues (Tran, 2020). While the insights of Vietnamese higher education scholars published before the pandemic were valuable in their own right, the issues and implications of their work are more pertinent in light of the post-COVID realities which offer untold challenges and opportunities. However, key ideas raised by these scholars explicitly and/or implicitly raise questions of value for the higher education ecosystem at large in Vietnam and its corresponding impact on local society.

Higher Education in Vietnam in the Post-COVID World

While the nation has made significant strides in the advancement of all levels of education, including tertiary level study in particular (Le and Hayden, 2017; Tran and Marginson, 2018), there yet remains the worldwide issue of colleges and universities adapting to meet the shifts of the post-COVID world, while reconciling ongoing stagnancies from the previous century up until this present time (Tran, 2013a; Peters, 2017; Fischetti, 2019; Zaphir, 2019). For example, the neoliberalisation of the academy globally threatens its continued relevance and cogency as a sustainable institution fundamental to any working modern society (Kettunen et al., 2013; Hoffman, 2016; Lederman, 2019; Roderick, 2019).

Issues of relevance and cogency are ultimately matters of value in so far as it relates to how meaning is generated, negotiated, sustained, and operationalised in practical or tangible terms. The neoliberalisation and internationalisation of higher education in Vietnam has presented its own issues in terms of the quality of education provided to students, issues of social inequality, and the overall cost-benefit of higher education as it should function to advance national interests and directives (Obaidul et al., 2016; Phan and Doan, 2020).

In another example, given Vietnam's attempt to modernise and internationalise its education system to make it a much more competitive, collaborative, and innovative environment, English language learning has proven to be a major barrier to this effort as students appear to have very little incentive to engage second language acquisition and the corresponding disciplinary benefits to be derived from having access to alternative streams of knowledge (Ashwill, 2020; Minh, 2020). Furthermore, this is part of a much broader pattern of decreasing language proficiency among the nation's students (Phan, 2019; Nguyen, 2020; Nguyen and Duong, 2020), which is also connected to the outputs of local higher education institutions in terms of limited human capital development and capacity building (Tran, 2013b; Dang et al., 2013; Pham, 2013; Duong, 2019; Kataoka et al., 2020).

Local colleges and universities in this space are faced with the challenge of producing the necessary intellectual manpower to address longstanding and emerging challenges within Vietnamese society (Fitzgerald et al., 2016; McMillan et al., 2016), since local issues are not adequately addressed by

foreign educational models, particularly Western ones. While local scholars have noted that Vietnamese people have a history of adaptability on one hand (Le, 2014; Nguyen, 2016), on the other hand, the import of foreign solutions and models to treat with the unique character of the education-based social issues has done little mitigate the far-reaching effects of such challenges (Nguyen and Vu, 2015; Tran et al., 2017; Le et al., 2020).

DISCUSSION

The creation of value by higher education institutions under the shifting demands of the socio-historic condition of Modernity provides both tensions and opportunities for addressing local and regional issues considering the sociological function of higher education. Moreover, the post-COVID realities of late modernity only serve to accentuate the importance of values and value creation in this context. Instructional practices are but one part of a larger system of connections and convergences, however practices of teaching and learning can never be separated from notions of value. Issues related to the Vietnamese higher education ecosystem and other situated contexts will perhaps be forever altered by the reality and impact of the COVID-19 pandemic. However, what also becomes evident, I argue, is that a reassessment of the value of the academy, its processes, and outcomes are useful in navigating a way forward.

Moreover, by means of addressing social issues related to higher education by first engaging with notions of value, Vietnam and other nations increase the likelihood of building greater workforce capacity by better educating local graduates, better utilising the skills of foreign graduates, opening avenues for more robust forms of socially responsible citizenship and hopefully, reduce human capital limitations. So, while appropriate instructional practices are worth considering, even more so are notions related to value and value creation which underpin such practices.

Further questions raised in reflecting upon Vietnam's place in the post-COVID world include: How might local practices of teaching and learning be affected with the return of so many foreign-educated expatriates? In addition to this, how might Vietnamese higher education institutions equip current and future students with a sense of resilience and relevance for the post-COVID world? These questions and more will only be answered in time to come as this new epoch reinforces the certainty of uncertainty. While these questions have been raised in relation to Vietnam, they are also relevant to other national environments and higher education ecosystems, with answers to be found in these situated contexts.

AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and has approved it for publication.

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Interpersonal Communication Instruction During COVID-19: Challenges and Opportunities

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Keywords: interpersonal communication, instructional practice, COVID-19, emergency remote teaching, pandemic pedagogy

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INTRODUCTION

The outbreak and spread of COVID-19 have disrupted higher education worldwide. On March 11, 2020, the WHO declared COVID-19 as a global pandemic. In Canada, the declaration expedited the introduction of preventive measures by governments at different levels to curb the spread of the virus, including the closure of universities. Consequently, in-person courses were frantically switched to “emergency remote teaching” (ERT). At the time of writing (January 2021), countries across the northern hemisphere are undergoing the second wave of climbing COVID-19 cases. Accordingly, ERT is expected to continue at many postsecondary institutions over the next few months.

With ERT becoming the new norm of higher education, there are growing concerns among educators about its impacts on instructors and students. On Facebook, for instance, relevant conversations have taken place in groups like “pandemic pedagogy.” As summarized by Schwartzman (2020), the “pandemic pedagogy” group’s founder and lead moderator, such conversations shed light on several challenges novice online instructors have encountered, notably the erosion of autonomous time and space, the relative merits of synchronous and asynchronous content, and the balance between rigor and accommodation. Echoing the educator concerns expressed on Facebook, recently published case studies on education during COVID-19 have explicated the limits of ERT. For example, Barton (2020) survey of 117 U.S. postsecondary instructors whose courses including field activities found that the abrupt shift to ERT has presented unique challenges for achieving learning outcomes typically associated with face-to-face field activities. For disciplines such as ecology, environmental studies, and geography, instructors were forced to either substantially reduce field-related learning outcomes or substitute them with instructor-centered remote activities.

Although communication education differs from the above disciplines in not requiring field settings, it is equally to reflect on the challenges ERT brings to communication classrooms. For this purpose, this opinion piece reflects on how the frantic switch to emergency remote teaching amid COVID-19 in late March 2020 disrupted the instructional practice of one upper-division interpersonal communication (hereafter as “IPC”) course taught at Ryerson, a Canadian metropolitan university. I make the case that a particular challenge brought by ERT to interaction-driven courses is the erosion of a sense of community among students. To overcome this challenge, an inclusive virtual classroom needs to be built via both supportive instructional communication and combating preexisting educational and social inequities.

PREVIOUS SCHOLARLY CONVERSATIONS ON INTERPERSONAL COMMUNICATION PEDAGOGY

Before discussing how the COVID-19 pandemic altered the classroom culture of my IPC course, let us briefly review previous scholarly conversations on IPC pedagogy. IPC is a popular course offered by communication programs, especially those in the United States. In Bertelsen and Goodboy (2009) survey of communication curricula at a random sample of 148 U.S. four-year colleges and universities, IPC turned out to be the most popular course subject, appearing in 143 (96.6%) of the sample curricula. In parallel with the rising popularity of IPC courses, academic publishers have released a plethora of relevant textbooks targeting students at both junior and senior levels. On Vital Source (a major provider of e-textbooks), for instance, a search of “interpersonal communication” would find more than 100 titles.

With so many available textbooks, the issue of potential theoretical bias in them becomes a subject of debate among IPC instructors. In response to this pedagogical concern, Webb and Thompson-Hayes (2002) conducted a content analysis of five popular IPC textbooks. Their analysis revealed a notable dilution of theories: although the sample textbooks well represented foundational IPC theories, none of them were theoretically-centred since their presentations of theories—perhaps in consideration of readability—were simplistic and even occasionally inaccurate. This finding raises an intriguing cause-effect question: Does some IPC courses’ insufficient theoretical emphasis derives from textbooks’ underemphasis of them, or vice versa? Regardless of the answer, prioritizing the development of students’ interpersonal competence when setting IPC course objectives has been a common practice among communication curricular.

Accordingly, designing skills-focused assignments has been the primary focus of IPC pedagogy research. For example, Hatfield (2018) reported on the benefits of utilizing weekly podcasts to engage students in narrative learning. Specifically, her IPC course assigned weekly readings along with episodes from “This American Life”, thereby explicating key concepts such as attribution theory and relational dialectics for students via real-life examples. Other innovative IPC assignments include asking students to complete random acts of kindness and then present their critical reflections (Tolman, 2009), engaging students in library research for learning and improving interpersonal skills (Graham and Mazer, 2011), among others.

The above innovations in IPC pedagogy, however, are born out of face-to-face seminar or workshop settings. Their effectiveness depends largely on classroom connectedness, assimilation, and peer relationships. Even before the shift to ERT, large class sizes have already presented a notable obstacle impeding the implementation of innovative IPC assignments. Ideally, students’ mastery of IPC should be assessed during peer and student-instructor interactions. For courses with enrolments above 50, however, it would be time consuming to assess students in this way. Then, how to effectively teach IPC in a large lecture setting? This was the first question came to my mind in Fall 2019

when I learnt that the total enrollment of my IPC course in the coming semester would increase to 90 students. Little did I know that the challenge would soon be dwarfed by the COVID-19 pandemic.

PROBING EMERGENCY REMOTE TEACHING

In response to the class size increase, I made several revisions to my IPC syllabus, putting more emphasis on teaching IPC theories and assessing students via written assignments and peer learning activities. Although I encountered several minor challenges, such as students’ unfamiliarity with the interactive presentation software I used and the difficulty of retaining a large class’ attention for at least 2 hours, the overall classroom atmosphere during the first few weeks of 2020 was positive, engaging, and theory-centred. Yet, a sense of uncertainty began to emerge in mid-February. As someone originally came from Mainland China, I followed the early news regarding COVID-19 and was fully aware of how its spread had essentially put the daily lives of my friends and family members on halt. Nonetheless, I held an erroneous belief that the pandemic’ impacts outside China would be limited. When the news broke out on March 12 that most teaching activities at my home institution would be imminently moved online in response to climbing COVID-19 cases in Toronto, I felt relieved that Canada finally took the pandemic seriously. Yet the sense of relief was quickly overtaken by anxiety: how to effectively deliver the remaining content of my IPC course? My initial response was to adapt my expectations of my students and make amendments to assignments. I knew intuitively that the semester would not be completed as planned.

Under the pressure of making a seamless transition to ERT, the first week following campus closure was occupied by increased stress, depression, and fatigue felt by both instructors and students. In particular, I noted that the relatively engaging classroom culture that established via weeks of peer learning activities began to crumble slowly. Several students were absent due to caregiving, childcare, or other life-related challenges, which not only hurt their own learning motivations but also their partners during group assignments. Likewise, the sudden change of everyday life made some students too stressed to study. A few international students emailed me with regret of not being able to study because they were either traveling their home countries or worry about not being able to do so. Digital inequality also became notable. There were a dozen students dropped out during the course’s first zoom session due to poor Internet conditions.

While many other courses may have experienced similar challenges in declining attendance, this problem is especially acute for IPC instruction since this course subject’s theoretical ideas are often illustrated via student interactions. Following the challenging first zoom session, I attempted to make a lecture recording following tips offered by my institution’s teaching and learning center. Yet, after several attempts, I found that without class-activities functioning as necessary breaks, the hour-long content I created ended up being a boring theoretical monologue,

which was rather ironic since I had repeatedly talked about the importance of dyadic communications in personal relationship management. Similar to Huber and McRae (2020), my initial experience with ERT was fluctuating, frenetic, and fragmented, feeling myself as an involuntary participant trapped in a crisis-driven social experiment.

Over the remaining weeks of the semester, I experimented with different strategies to deliver the course content while accommodating the various difficulties my students reported. Three notable changes in classroom culture have emerged during this trial-and-error process. To begin with, the disappearance of physical classrooms entails revisions in group activities so that inevitable disruptions could be managed. On Zoom, activities aiming at improving students' interpersonal skills are mainly conducted via breakout rooms. Compared with face-to-face group discussions, the semi-occluded nature of these virtual rooms means that students allocated to them are experiencing non-supervised learning for most of the time. Such a situation, in combination with the emotional burdens (e.g., anxiety and uncertainty) brought by the pandemic, makes classroom disruptions more frequent than before. In a physical classroom setting, an instructor can manage distraction by gently reminding absent-minded groups via non-verbal means. By contrast, Zoom's ineffectiveness of communicating social cues requires more deliberate interventions. In numerous occasions during the final weeks of my IPC course, I felt a sense of teaching failure when I had to interrupt some students' engaging conversations on course irrelevant subjects.

In addition, ERT transformed the home into a contested space for education (Huber and McRae, 2020). Although it has been common for many of us to get work done at home during off-campus hours, ETR further blurs the boundaries separating personal and professional spaces. As Schwartzman (2020) argues, "if one no longer goes to work or class conducted in distinct, temporally bounded locales, then [...] the work-life balance recalibrates as a unity: worklife, with working at home blending into living at work" (p. 506). For students in my course, the erosion of private sphere led to a drastic drop in virtual presence. In fear of being pecked by unfamiliar classmates, many of them felt uncomfortable to turn on webcams during Zoom sessions. Whilst such concerns for privacy were understandable, they noticeably affected classroom dynamics, with the voice-only mode being unable to deliver facial expressions and other vital nonverbal cues embedded in dyadic and small-group communications. From the instructor perspective, the lack of students' nonverbal feedback added difficulty to reflective teaching practice.

Lastly but most importantly, teaching IPC during the pandemic highlights the inconvenient truth that existing IPC pedagogy for cultivating collaborative classroom culture is ill-prepared for unforeseen crises. In retrospect, most of the theoretical ideas taught during my course implicitly hinges upon a smoothly functioning society. As Boylorn (2020) points out, however, many of our societal members have been living within a constant state of emergency even without the pandemic. The ongoing COVID-19 pandemic exposes and feeds

on other structural problems of contemporary society (Kenny, 2020), many of which current instructional practices are unable to address. When students approached me to ask about how gender, racial, and class inequalities impact interpersonal relationships, I found myself struggling to draw on IPC theories to facilitate meaningful and educational conversations on these issues. As Shin and Hickey (2020) suggest, these issues "highlight the importance of addressing and combating the inequities, creating and maintaining a sense of community, and most significantly providing socio-emotional support" (p. 1) — this is the most important lesson I have learnt from my students' concerns about their surroundings.

KEY TAKEAWAYS

As the COVID-19 pandemic remains an unsolved crisis, it is difficult for the current piece to offer firm conclusions on the long-term impacts of ongoing ERT. Without doubt, my experience of teaching IPC virtually has left many questions unanswered: Should the learning outcomes of IPC courses be revised given the continuation of ERT? What virtual activities are suitable for substituting traditional face-to-face group discussions? What teaching strategies implemented now can be built upon to enhance educational institutions' resilience in the future? ... The list can go on and on. Regardless of the answers, it is important for us to keep in mind that the primary goal of pandemic pedagogy is to support the development of our students in accordance with their wellbeing and flourishing (Adedoyin and Soykan, 2020; Shin and Hickey, 2020).

I therefore conclude this opinion piece with two tentative thoughts currently occupying my mind as I am planning for teaching IPC again in the upcoming Winter 2021 semester. First, after months of lock-down, students' learning motivation and ability to maintain sustained attention have probably ebbed away. This situation puts higher demands on creative asynchronous solutions that allow students to study at their own pace. Second, our lived experiences during the pandemic have highlighted the critical roles friendship and community in shielding us from negative emotions. Moving forward, the teaching of IPC need to prioritizing connecting students with like-minded peers and building a strong sense of community.

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The author confirms being the sole contributor of this work and has approved it for publication.

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The Influence of Virtual Education on Classroom Culture

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Keywords: culture, virtual, education, synchronous, COVID-19, CMC, social presence, self-disclosure

INTRODUCTION

Social distancing has caused educators to rely on all types of media to connect and extend social interactions, in turn, transforming cultural norms and social behaviors (Matei and Ball-Rokeach, 2001). During the Fall 2020 Semester, the author taught two undergraduate courses in communication, fully online and synchronous. The classes met 3 days a week for 14 weeks, and each meeting lasted 50 min. While the course included substantive course content, the author quickly realized during the first week of classes that encouraging and developing a virtual classroom culture was as important since students had significantly fewer opportunities to create and build relationships with each other before, during, and after class meetings. According to Nesson and Nesson (2008), “Simple interactions such as conversations in the minutes before class begins and after it wraps up, walks from one class to the next, and chance meetings in the library and student center are frequently the basis for forming new relationships and sustaining existing ones” (p. 278). Moreover, changes in norms and behaviors were evident the first week when a student asked about a dress code for class meetings, a requirement in other classes. Fewer cliques existed among students perhaps due to an absence of desks, seating arrangements, and chatter that naturally occurs in a physical space.

Whereas a traditional class environment relies on verbal and nonverbal communication to create and foster cultural norms, behaviors, practices, and beliefs, virtual learning disrupts the process since technology changes an individual’s communication behaviors. It is important to develop social presence in virtual education courses through: 1) synchronous teaching and learning, and 2) self-disclosure for fostering student engagement, creating relationships, and building supportive class communities. This article presents literature about virtual education prior to Covid-19, as well as the author’s reflections based on observations and personal experiences teaching 35 undergraduate students in two communication courses at the University of Indianapolis during the Fall 2020 Semester.

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BODY

Social Presence

Virtual education or computer-mediated communication (CMC) changes the way professors and students interact and develop relationships, are influenced by others, and manage reduced social cues (Sherblom, 2010). According to Song et al. (2019), the classroom setting is a social environment in which individuals communicate with each other; however, “...relationship building could be somewhat difficult in online classes because social cues and nonverbal information are limited (p. 452).” Building relationships requires social presence or, “...the sense of “being together with another,” (Biocca et al., 2003, p. 459). Short et al. (1976) introduced the concept of social presence in 1976, rooted in social psychology of interpersonal communication, and described social presence as, “...the degree to which the communication medium facilitates social-emotional communication and

allows one to experience and understand the other person and interpersonal relationship” (as seen in Sherblom, 2010, p. 500). Since its conception, scholars have broadened the definition of social presence to include mediated environments and interactions between people and things. Researchers have debated about the degree of influence media have played on social presence, as well as how best to explain and distinguish between social presence theories and methods and degrees of measurements (e.g., state of mind vs. behavior).

Garrison et al. (2000), defined social presence as, socio-emotional support and interaction and “the ability of participants in a community of inquiry to project themselves socially and emotionally, as “real” people (i.e., their full personality), through the medium of communication being used,” (p. 94). The scholars stated that a successful and productive educational experience is rooted in a Community of Inquiry Model that consists of: cognitive presence (exploration), social presence (group cohesion, open communication), and teaching presence (instruction, building understanding). Specifically, social presence can positively impact learning satisfaction and enable a sense of community (Rovai, 2002; Sung and Mayer, 2012). Thus, a supportive CMC culture demonstrates social usefulness in which students can learn from professors and peers (Flanagin, 2005 as seen in; Sherblom, 2010).

Social presence is an integral part of developing a positive online culture, which is influenced by conversations, activities, collaboration, familiarity and motivation among participants. Moreover, social presence can increase student participation and interaction, which would likely enhance student motivation (Edwards et al., 2007). Still, data suggest that CMC may lessen opportunities for social exchanges and student connection with peers and faculty and increases alienation and isolation, thus, impacting social presence. (Bejerano, 2008; Ho and McLeod, 2008). During synchronous meetings in the author’s courses, students experienced fewer social exchanges and increased anonymity that hindered the development of relationships and building a dynamic class community. As a cohort, they confronted challenges such as exchanging information to form social norms, behaviors, common beliefs, ideas, and values. Creating a cohesive class community was more difficult due to increased distractions that drew student attention away from class discussions. For example, during a class meeting on Zoom, one student shared his screen to show the class a first draft of an upcoming assignment. Instead of displaying the paper, however, the class observed him playing a video game in which several characters were battling armed enemies with weapons and speed. After several seconds, and seemingly embarrassed, the student realized his faux pas and apologized repeatedly. It is unlikely the student would have played the video game in earnest in a traditional classroom setting. This example illustrates how developing social presence and, thereby, building a unified class culture may be more difficult and affect interactions between people and relational development.

A study by Kaufmann et al. (2016) suggests the onus is on educators to create a supportive online environment by being available, positive, and sympathetic. And a compassionate CMC

culture—one that values kindness and respect—is vital to attain an inclusive class community (Vess, 2005; Waldvogel, 2007). There are a number of ways teachers can develop and build social presence that include holding face-to-face class meetings and understanding the communication medium that is used (Garrison et al., 2000). First, virtual education that is synchronous is vital to improve social presence and develop an inclusive class culture. Although relationship development in asynchronous CMC is valuable, it is more challenging to attain compared to face-to-face experiences because asynchronous learning is primarily text-based (Akcaoglu and Lee, 2018). A traditional classroom setting provides a structured space that encourages socialization and communication; social cues and nonverbal information are open. Culture is expressed in the meanings co-constructed by its participants (Dutta, 2009). Next, it is important to understand CMC—synchronous and asynchronous. Scholars have described a positive virtual classroom environment as “...perceived connection to, rapport for, or affinity with teacher and students...” (Kaufmann et al., 2016, p. 318). Research suggests that virtual education presents a time–place shift that decreases communication and socialization (Caplan 2003; Caplan and High, 2006; Sherblom, 2010). Students have more control over their communication styles through strategically-constructed CMC messages. “...people are likely to select positive information about themselves to reveal to other people benefiting the limited cues available online...” (Song et al., 2019, p. 449). Moreover, asynchronous CMC greatly reduces opportunities for students to communicate and socialize with peers, whereas synchronous CMC offers space to develop social presence. Hence, developing a virtual class culture is less effortful when teaching synchronously.

Self-Disclosure

Social presence influences self-disclosure, which effects relational development. Self-disclosure may reduce uncertainty and ambiguity in communication and increase the likelihood of building positive relationships. As illustrated by the Social Penetration Theory, self-disclosure and intimacy are primary factors in relationship development. Song et al. (2019) stated, “Research has consistently supported the strong link, demonstrating that disclosure of personally relevant information promotes intimacy” (p. 453). For example, the author designated one class meeting to engage students in a political and social discussion about racial justice and the black lives matter (BLM) movement. The professor acknowledged the sensitivity of topics and explained to students that participating included active listening as much as sharing thoughts, experiences, and opinions with others. A student moderator led peers in a conversation that consisted of an equal number of black and white students. While many individuals spoke before the group, others felt more comfortable sending messages and questions to the moderator via a private chat box. Students shared personal anecdotes about their lives. For example, a black student shared advice from his mother that included never wearing a hoody when driving or walking into a store, and always raising both hands if pulled over by a police officer to protect himself.

Other students shared personal experiences about colorism, racial profiling, and stereotypes on campus. White students disclosed sympathies and acknowledged biases of peers' experiences. Facilitating a discussion about the BLM movement opened the door to larger conversations about racial issues in America, the Tokenistic Fallacy (Desmond and Emirbayer, 2009), and similarities among all students. Additionally, students had space to disclose personally relevant information to promote intimacy and relationship development.

Next, there is a positive correlation between self-disclosure and increased relationship satisfaction, which may lead students to feel more connected to teachers (Song et al., 2019). Research suggests that educators who disclose information about themselves are more likely to enhance students' feeling of social presence, thereby, cultivating supportive relationships with students:

"...students in online classes have limited information about their teacher. ...even basic information about their teacher such as sex, ethnicity, and physical appearance is rarely shared with students. ...students have a desire to want to know about their teacher. ...Given that learning about people's basic information is one of the first steps in relationship building, lack of knowledge about their teacher in online classes will be likely to negatively affect teacher-student relationship...findings demonstrate that teacher self-disclosure affects social presence of a teacher, which in turn influences teacher-student relationship satisfaction. ...self-disclosure is an important factor that enhances social presence in an online learning environment. ..."—(Song, et al., 2019, p. 453).

In the absence of basic information, students may use mediated forms of communication such as Google, LinkedIn, Facebook, and/or Twitter to gain knowledge about teachers. "In an online learning environment, where limited information about a teacher is available, teacher self-disclosure becomes an important immediacy behavior" (Song et al., 2019, p. 449). Immediacy behavior, or closeness, builds supportive relationships through verbal and nonverbal communication behaviors. Behaviors may include teachers calling students by

name, giving and receiving feedback, and eye contact. Due to the physical distance in CMC, immediacy behavior can reduce the mental distance between individuals and, in turn, increase student motivation and attendance, promote interpersonal communication, and increase trust between teachers and students (Roca, 2007).

CONCLUSION

Key Takeaways

College is a place where culture is created, both intentionally and unintentionally. A campus makes students aware they are part of a larger community and working with peers toward similar goals (Nesson and Nesson, 2008). Traditional face-to-face classrooms can foster positive and inclusive learning cultures, observe open communication, and provide opportunities for students to connect with peers before, during, and after class meetings. In-class activities, projects, and discussions require students to actively engage, and participation is a great predictor of academic and social success. Over the course of a semester, conversations make up a great deal of one's personal knowledge base, and students build relationships that outlive the duration of the course. Similar to traditional face-to-face education, virtual education can create and build classroom culture—one in which a more relaxed dress code becomes normal and lack of physical space reduces cliquish behaviors. More importantly, virtual education that is synchronous can provide space to develop social presence and promote self-disclosure to enhance positive, supportive classroom cultures.

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KG wrote and conducted all research for the article, as well as interviewed participants. She is the sole author.

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Successful Strategies to Engage Students in a COVID-19 Environment

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Keywords: COVID-19, communication, student engagement, classroom culture, online education strategies

INTRODUCTION

On March 11th, 2020, the World Health Organization (WHO) declared COVID-19 as a global pandemic and sent the global economy spiraling into a state of chaos (Adnan, 2020). Higher education like many other industries has had to evolve from the traditional methods which worked in the pre-pandemic world. For most higher education institutions, this meant shifting most if not all classes which were offered face to face to an online environment. This move was not gradual but had to be done essentially overnight to help curve the severity of the virus and keep campuses safe (Dhawan, 2020). Therefore, classes that have never been offered online before were being transitioned to be taught online. This also means that students who may have never taken an online class are now being asked to take an entire load of online classes. Everyone is dealing with different situations, so students, professors, and others involved in higher education have had to try to find the best solutions. This pandemic creates an educational environment that has never been seen before. Therefore, we must embrace previous research and new communication technologies pertaining to online instruction to balance the fears and tensions amidst such crises (Dhawan, 2020).

Due to COVID-19, the classroom culture has changed to a culture of high distraction. Students are now learning from home, surrounded by all their entertainment devices. Yet, despite their distracting environment, they are expected to either log in to class and communicate with their teachers and peers through an entertainment device for which classwork can be one small part of the screen or set their own schedule to regularly engage with an asynchronous learning environment. With all these distractions, educators must engage in strategies to keep their students engaged in order to be effective in the COVID-19 teaching landscape. This paper aims to review research on the strategies that have been found to foster student engagement with online classes. Research was reviewed from both information systems/technology as well as communication to make collective conclusions for helping faculty transition into this new culture.

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STUDENT ENGAGEMENT

Bolliger and Martin (2018) distinguished between three different levels of student engagement.

1. **Learner-learner engagement:** This includes activities such as discussion boards and other various ways of sharing experiences and resources between students. Notably, a feeling of community and belonging in a class can help students to disclose their experiences allowing students to learn experientially.
2. **Learner-instructor engagement:** This focuses on communication between the instructor and student, which is an important predictor of student success and achievement. Through modeling positive behaviors and establishing presence, the instructor can foster the learners' sense of community.
3. **Learner-content engagement:** This consists of the organization of instructional materials and planned activities, which is another component of engagement crucial to student success. In

other words, it refers to the time students are involved in reviewing instructional content such as textbook, video, audio, and interactive games.

Findings suggest that students and faculty both agreed on the importance of each of these three methods of engagement and that some combination of the three should be used for online learning (Bolliger and Martin, 2018). While all three levels of student engagement are found to be important, it is sometime necessary to prioritize and focus on one or two of these types of engagement depending on the class goals and subject. Students feel that the most valuable elements for engagement in an online class were ensuring instructor presence or personal contact, including relevant course content, and providing frequent communication with the student.

STRATEGIES FOR FOSTERING ENGAGEMENT IN ONLINE COURSES

Learner-learner engagement can include items such as class introductions or icebreaker activities and collaborative activities. If students are not motivated to engage with one another at the beginning of the semester, the classroom culture will be one of independent study rather than interactivity, so the first 3 weeks are most critical (Kelly and Claus, 2015). Professors must strive to develop a positive rapport between students and engagement in this orientation activity. This means that whatever interactive assignments the students are expected to engage in, so too should the professor to set the example and develop relationships. Being active and encouraging to students as a professor will set an example for how the students should interact with one another. Assignments that foster interactivity should be extended throughout the semester so that students learn from their peers and gain different perspectives on subjects of interest. Grading rubrics should allow students flexibility to expand ideas and should also help to ensure that students are actively interacting with one another in the discussion boards. An alternative to the traditional discussion board model, is hosting discussion boards through Twitter, where students are more likely to engage due to their familiarity with and time naturally spent on the platform (Denker et al., 2018).

Learner-instructor engagement includes regular announcements (email reminders), informal question and answer forums, personalized emails, and discussion board postings, posting grading rubrics for assignments, and creating course orientations (Bolliger and Martin, 2018). Communication between instructor and learner is essential to the success of an online class. Personalized communication (where plausible) is preferred and should continue throughout the entire semester to enhance social presence. Above all, it is critical that students receive messages from the instructor that addresses them by name; this both directly increases students' motivation to engage with subject material and indirectly decreases their classroom anxieties through perceived immediacy (Kelly and Fall, 2011; Kelly and Westerman, 2016). Instructors should consider all communication with students through the lens of that message's potential impact on perceived immediacy and rapport (Culpeper and Kan, 2020). For example, when giving assignment feedback,

start with what students did well before explaining everything that was incorrect.

Lastly, learner-content engagement includes items such as working on realistic scenarios, providing structured discussions, and interacting with content in more than one media format. One of the most critical pieces of developing a successful online class is developing a course with high social presence (Kelly and Westerman, 2016). Social presence is the sense of non-mediation, so the more social presence in an online course, the more it feels like a face-to-face course. Developing assignments that have realistic scenarios is essential to engage students in course concepts because it brings a stronger sense of reality to the class so that these concepts feel part of their world, rather than concepts constrained to their learning environment. For example, using real data from local businesses will help show your students that these are not just numbers on a spreadsheet, but that they are data which can be transformed into information that will help this business be successful. It is also important to use richer channels of communication when appropriate to develop social presence between the learner and class content (Kelly and Westerman, 2016). For example, allowing students to read about a concept in their textbook then watch a video about the same concept from an expert in the field will help validate its importance while engaging students with the material across multiple sensory platforms.

DISCUSSION

Teaching an online class is very different from teaching in a face-to-face environment and when professors try to replicate what they do using technology, it often falls short. The lack of face-to-face interaction with the instructor and increased response time for answering questions can be challenges for online learners (Adnan, 2020). So, educators must move forward in the online environment not attempting to replicate the delivery of their face-to-face courses, but rather adapting them to the online environment, leveraging the strengths of the online classroom vs. the traditional brick and mortar classroom (Kelly and Westerman, 2016).

COVID-19 may have changed the world and higher education forever. It is my hope that we get to return to the classroom for face-to-face instruction soon, but in the meantime, providing a balanced student engagement strategy will help students be more engaged and lead to better learning outcomes. Online education is evolving, and we must strive to continue to develop more efficient ways of creating classroom cultures in online classes that we achieve in face-to-face classes. By putting forth the effort to use classroom technology skillfully and communicating effectively through the online learning platforms, we can provide virtual learning experiences for our students that are as effective as their traditional face-to-face classroom experiences (Kelly and Westerman, 2020).

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The author confirms being the sole contributor of this work and has approved it for publication.

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A Response to Covid-19: Recognizing Subcultures in the Unexpected Online Student Cohort

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Keywords: COVID-19, first-year students experience, student engagement, interpersonal empathetic response, online learning, learner-focused pedagogy, international students, student subcultures

INTRODUCTION

In March 2020, the Aotearoa New Zealand (NZ) Government responded to Covid-19 by enacting a strict 4-week national lockdown, followed by a fortnight of partial restrictions (New Zealand Government, 2020). The pandemic dramatically impacted the education sector, moving all face-to-face teaching online. As one of the largest online education providers in NZ, our practices for engaging learners in disparate locations and meeting the varied cultural expectations of our diverse student population was put to the test.

Most courses at Massey University already had an established online programme; therefore, moving content online for internal students was not a major disruption. A common assumption was that internal students should easily transition to an online learning environment given we already deliver quality online education. However, on a course level, we recognized the domestic students new to tertiary education and offshore internal students could not be simply engaged in the same manner as experienced distance learners; due to student learning expectations, course design, and pedagogy style, merely shifting all learning online does not make capable online learners.

The objective of this paper is to share our insights gained from supporting three distinct student cohorts during lockdown, by focusing on their interpersonal needs as distinct subcultures within the broader student body. In our experience, a shift to online learning for students more comfortable in face-to-face teaching spaces requires decisions based more on pastoral than pedagogical concerns (particularly in a crisis situation) where robust blended learning spaces already exist.

OUR UNIVERSITY CHANGES

Our institution is branded as “New Zealand’s leading university for distance learning” (Massey University, 2021). As the COVID-19 lockdown forced all learning online midway through the semester, university directives applied changes to all courses. Many of the interventions fitted within an emergency remote teaching approach, Hodges et al. (2020) explained as:

a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances. It involves the use of fully remote teaching solutions for instruction or education that would otherwise be delivered face-to-face or as blended or hybrid courses and that will return to that format once the crisis or emergency has abated (para. 14).

Given the uncertainty and stress caused by the pandemic, teaching staff were aware of the increased cognitive load (maintaining attention on critically important public health messages, both intrinsic and extraneous work/life stressors, etc.) our students were experiencing. As such, university-mandated changes included: replacing exams with alternative assessments, removing compulsory coursework and sub-minima thresholds, granting extensions, and deferring study

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without financial penalty. Additionally, the mid-semester break was extended allowing teachers to prepare for online delivery and giving students time to adjust to lockdown without study pressures. We were instructed not to expect any students to complete assessments during this break nor to post any new material until the semester officially resumed.

COURSE CHANGES

The authors deliver a large, compulsory first-year business communication course to internal and distance students. For many of our students, this is their first experience in tertiary education and learning to cope with balancing the demands of work, life, and study.

The course uses a critical socio-constructive blended learning approach (Picciano, 2017) for all cohorts as they interact in course activities, and individual and collaborative assessments. A Learning Management System (LMS) is used to present weekly topics and materials for lectures and workshops, share information, submit assessments, and engage in general communication. Internal students have face-to-face lectures and workshops, while distance learners have pre-recorded lectures, synchronous online workshops, and fortnightly online office hours for direct communication with the course coordinator.

SUBCULTURES IN OUR COHORT

Semester 1, 2020, saw 660 students (380 distance and 280 internal) across two campuses representing three student subcultures the authors identified as having differing demographics, work situations, and learning experiences and expectations. Each subculture also has differing interpersonal and social needs relating to self-efficacy, emotions, belonging, and well-being (Kahu et al., 2020) that we considered when responding to the University's decision to shift all teaching online:

- *Domestic distance students*: Typically, mature students living in NZ or overseas studying online, mostly asynchronously, while working and/or raising families. For those attending synchronous workshops (~30%), sharing ideas through text chat was the preferred communication method. They frequently asked questions in forums, with peers responding and supporting each other outside staff office hours, creating a community of learning within the LMS and their peer-created social media spaces;
- *Domestic internal students*: Typically, university-age, transitioning to full-time study with synchronous face-to-face classes where interpersonal relationships are developed with staff and peers. They had limited experience of blended learning, but quickly learned to navigate the LMS. They rarely asked questions in forums, preferring to speak with tutors directly. In 2020, this cohort also included some early-arriving international students who found themselves somewhat isolated in student accommodation during lockdown;
- *Offshore internal students*: This is a new subculture of students that emerged in 2020. They were non-English

speaking background (NESB) international students that usually study alongside domestic students on campus but were unable to come to NZ due to travel restrictions. Prior to 2020, visa regulations disallowed international students from participating in online courses. Special governmental dispensations (NZQA, 2020) allowed international students to continue studying remotely. The offshore, predominantly Chinese cohort comprised two distinct groups. The first had previously studied at our University and were familiar with the LMS and ways of learning in NZ (however, they likely had limited prior experience studying wholly online). The second were newly enrolled in 2020 and 2021, with no experience of studying in NZ. These students engaged solely online and formed interpersonal relationships with teachers and peers in synchronous online workshops and through the course WeChat (a Chinese multi-purpose messaging, social media, and mobile payment app) forum.

With all three subcultures, effective communication to understand and meet student expectations is important especially in an online learning context. Research (Sander et al., 2000; Dell et al., 2010; Kahu et al., 2020) suggests that internal students have different expectations for learning than distance students. Dell et al. (2010) found students in modern learning contexts that utilize technology-supported blended learning had achievement and satisfaction rates similar to face-to-face and online learning experiences. Yet internal students tended to prefer engaging in face-to-face contact with teachers and peers, attending interactive lectures and tutorials, having synchronous discussions, receiving immediate feedback, and engaging in peer-supported learning (Sander et al., 2000; Kemp, 2020). Furthermore, NESB internal students want to experience cultural immersion and enhance their English language skills but may struggle with Western teaching and learning conventions (Li et al., 2002). Elgort et al. (2003) found NESB students report positive engagement with LMSs and online learning when teachers engage with them in this space. Choy et al. (2002) found “communication between teachers/facilitators and students is seen as the most critical factor in the success of a course; completion is partly attributable to students ‘belonging’ to the online community brought about through good communication” (p. 7). In summary, the different expectations of these subcultures informed the approaches adopted as we pivoted to a wholly online course delivery, as outlined in the next section.

CHANGES IN COURSE DELIVERY

We recognized student-teacher relationships in internal and distance learning spaces are formed and maintained quite differently. Therefore, rather than immersing internal subcultures into the existing distance learning spaces, we used LMS groupings to cater specifically to the needs of our domestic and offshore students, taking into account their technological, pedagogical, and social challenges, following Ferri et al. (2020) recommendations.

Recognizing the different subcultures, course staff implemented an interpersonal empathetic response (Lawson

et al., 2019), which prompted us to consider, understand and validate students' feelings and concerns, listen to their needs, and provide flexibility for them to succeed. This approach enabled us to focus on maintaining student engagement throughout the lockdown and the remainder of the academic year as COVID-related uncertainty became the norm. The varied needs of each subculture were met through adopting different technologies and establishing a system of individualized support. While many students returned when the semester resumed, we found it necessary to reengage some with additional communication. The volume of assessment-related questions also increased as students were missing key information by not attending or watching workshop recordings where key information was shared and explored. This was the biggest workload challenge for course staff, alongside the increased administrative workload.

In the next three sections, we provide a brief overview of the key changes implemented to meet the academic and pastoral (advice and practices focused on student well-being) needs of each distinct subculture.

DOMESTIC DISTANCE STUDENTS

The domestic distance cohort remained largely unchanged in terms of course delivery. However, for many, their work and personal lives drastically changed. Many had job insecurity or increased workload (essential workers) and/or found themselves with children at home, trying to balance work, study, and home-schooling. Stress was particularly high among this group. Therefore, our primary interventions centered on their well-being as they navigated change, namely:

1. monitoring engagement in the LMS and assignment submission;
2. proactively reaching out when we observed limited course engagement or non-submission of assessments and offering flexible extensions.

This approach aligns with advice regarding capturing students in the "zone of discontent" (Jeffrey et al., 2012); that is, when students exhibit behaviors such as non-engagement, teachers implement interventions to encourage and support them to reengage before they take the irreversible step of withdrawing. Students in this category identified through LMS analytics were emailed to ask what support would enable them to complete the course. Regular notifications were also posted in the forum encouraging those struggling to seek advice and support.

DOMESTIC INTERNAL STUDENTS

For the domestic internal cohort, the method of engagement needed to pivot quickly to an all-digital offering. We could not simply transition these students, accustomed to face-to-face pedagogy, to distance learning methods. These students had already established interpersonal relationships with their tutors and peers prior to the lockdown. In the initial days of lockdown, the primary focus of course staff was maintaining these relationships. We provided targeted support

for students transitioning to become wholly online learners, though using the LMS for finding information, accessing learning materials and submitting assessments was already familiar. We transitioned these students into the existing structures for distance students using:

1. pre-recorded, streaming lectures;
2. live workshops with their current tutors;
3. extended online office hours by appointment;
4. an exclusive forum for communication.

When study resumed, we focused on familiarizing students with expectations for online learners, such as more frequent engagement with the LMS for both communication and learning activities and a greater degree of self-directed learning (Kahu et al., 2020). Initially attendance was low, and "live" attendance remained limited. We quickly realized further communication was needed to encourage these students to continue engaging with the course. Students who had not accessed the course within a week of the semester resuming were offered additional support though direct communication from course staff and through referrals to student support offices.

OFFSHORE INTERNAL STUDENTS

To establish online learning spaces for our offshore students, some of whom had not experienced learning in the NZ context, it was critical for course staff to familiarize them with learning in the LMS environment and acclimatizing to a foreign culture and pedagogies. We could not implement the same online tools the domestic internal students were using, as the Chinese government maintains strict policies about software use within their borders, controlled by "the Great Firewall" (Lau, 2020). This meant no access to Adobe products or the University's online streaming service and prohibited use of all Google services, including access to Google Docs, Drive and Gmail, and Google Search and YouTube, which students frequently use when conducting research for assessments. To facilitate a smooth transition, course staff:

1. created an "offshore students" LMS page and dedicated communication forum specific to their needs;
2. adopted WeChat channel, with direct, regular communication to all students in the cohort;
3. made recorded lectures directly downloadable;
4. conducted weekly, synchronous Zoom workshops taught by the same tutor to allow student-teacher interpersonal relationships to evolve and were recorded for those unable to attend in-person.

In order to maximize their participation, only offshore internal students were in this group. Finding their voice and expressing their opinions in face-to-face classes alongside native English speakers proves challenging enough (Hsu and Huang, 2017); expecting the same in a virtual classroom could be intimidating. Since these students had not yet built relationships with their domestic peers, nor experienced strategies teachers use to encourage participation, we felt it more beneficial to have

workshops solely for them. Nevertheless, they tended to remain passive observers. Therefore, in semester 2, a Mandarin-speaking tutor was enlisted to facilitate conversations in their native tongue, alongside the English-language curriculum. For groupwork, we created teams of students based only in China, so they could engage with each other using the technologies available to them.

CONCLUDING THOUGHTS

Shifting to wholly online learning meant careful consideration of our three cohorts' subcultures and tailoring support and engagement differently. For course staff, flexibility and increased communication became the norm. Awareness of the unique subcultures within our broader student cohort meant we could respond more personally and empathetically to the individual needs of 600+ students.

The domestic distant students, largely self-directed, continued studying in familiar ways without any major changes; however, a significant increase in pastoral care and communication was needed. Additional support focused on well-being, implemented through extended deadlines and increased communication as we monitored engagement and proactively reached out to those we perceived were falling behind.

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For the internal cohorts, we adopted key strategies to meet online learning expectations guided by our experience teaching of distance learners, while recognizing the unique subcultures with different learning needs in an online learning space. The two internal subcultures required different engagement methods for workshop delivery, interpersonal relationship development and maintenance and communication. Though this increased workload for course staff, course feedback indicated students felt supported throughout this challenging semester and most completed the course successfully, with a comparison of 2019 and 2020 showing overall pass rates for the course as 80.8 and 81.25%, respectively.

At present, our offshore students are continuing to study online and our internal students have returned to campus for small-group workshops. Applying the lessons learned in 2020, we are well-prepared to revert quickly to online teaching for our internal student subcultures, should future need arise.

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All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

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Speech Anxiety in the Communication Classroom During the COVID-19 Pandemic: Supporting Student Success

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A wealth of literature clearly supports the presence of speech anxiety in the communication classroom, especially in those classes with a focus on public speaking and/or presentations. Over the years, much work has been done on intentional approaches to empowering students to effectively manage their speech anxiety in face-to-face, hybrid, and online communication courses. These research-based findings have led to best practices and strong pedagogical approaches that create a supportive classroom culture and foster engaged learning. Then COVID-19 appeared, and things changed. In an effort to keep campuses safe and save the spring semester, everyone jumped online. Many instructors and students were experiencing online education for the first time and, understandably, anxiety exploded. Between the uncertainty of a global pandemic, the uncharted territory of a midterm pivot to fully online education, and the unknown effects of the situation on our educational system, our stress levels grew. Public speaking and presentations took on new meaning with Zoom sessions and webcams and our speech anxiety, undoubtedly, grew, as well. Reflecting upon the scholarship of the past with an appreciation of our present situation and looking toward the future, we will curate a list of best practices to prepare students to effectively manage their speech anxiety with agency, ability, and confidence.

Keywords: speech anxiety, public speaking anxiety, instructional communication, communication pedagogy, Best Practices

INTRODUCTION

It is impossible for Isabella to catch her breath. Her pulse is racing, she is flushed, and her thoughts are a jumbled mess. She is desperately trying to remember her plan, slow her breathing and visualize success but it is impossible to do anything but panic. She is convinced she will embarrass herself and fail her assignment. Why had she postponed taking her public speaking class? Yes, it would have been bad in a “normal” term but now, amidst the coronavirus pandemic, she had to take the class online. Though it seems unimaginable that the class could be more terrifying, add Zoom sessions, internet connection issues, and little engagement with her teacher or classmate and Isabella’s out of control speech anxiety is completely understandable. If you have been in a college classroom, most likely, you have had to deliver a presentation, lead a discussion, or share a poster presentation. If so, you know what speech anxiety is like. Most of us have experienced the racing heart rate, difficulty concentrating and sensory overload characteristic of speech anxiety (Dwyer, 2012). For some of us, like Isabella, the

speech anxiety is almost debilitating. Even if you are one of the rare people who does not experience speech anxiety, you probably witnessed your classmates struggle with the stress, worry and insecurity caused by speech anxiety. It was prevalent before the arrival of COVID-19 and now with the stressors associated with the pandemic, virtual learning, and social distancing it will most likely increase. Fortunately, we have the research, resources, and resolve to intentionally craft classroom culture that will support communication success.

Meeting the Challenges of COVID-19

In the early spring of 2020, the coronavirus pandemic arrived in the United States, and required an unprecedented mid-term pivot. Classes rapidly moved from face-to-face instruction to online platforms in days. Teachers who had never taught online were learning while teaching, managing that additional workload while trying to stay connected with students who were worried and often overwhelmed. In addition to the public and personal health concerns of the virus, there were worries about online learning, the economy, and mental health. The bright spot was that in so many classes, the connections had been established before the pivot and so teachers and students were able to engage with familiar people in new ways. It was not an ideal situation but there was a sense that we were all in this together.

The fall of 2020 found many institutions of higher education and their faculty, staff, and students once again engaged in online instruction and it looks like it will be that way for the near future. We were faced with the new challenge of creating supportive and engaging class spaces completely virtual (in many cases) or in hybrid form with some classes combining online coursework with limited in-person instruction. Experience taught us that our students were speech anxious and that we needed to intentionally design safe and engaging spaces to support their success even before the arrival of COVID-19. Our challenge was to adopt a new skillset and look to the online learning community for resources, suggestions, and best practices.

Pandemic Pedagogy

Articles and emerging research on the response to the pandemic at the institutional, classroom, and individual level provide a glimpse into how we can craft virtual classroom spaces that support learning while meeting the needs created by COVID-19. Common themes for solid pandemic pedagogy include a focus on student mental health and well-being (Gigliotti, 2020; Burke, 2021), an appreciation of technology challenges and access issues (Turner et al., 2020; Burke, 2021; Singh, 2021), and a commitment to engaged teaching and learning (Turner et al., 2020; Jenkins, 2021; Lederman, 2021). The fundamentals of good teaching are the same regardless of the modality and the foundational pedagogical practices are also similar, yet the primary difference is that solid online education has been designed for a virtual modality, not adapted to fit it (Kelly and Westerman, 2016). How can we craft safe and supportive online and virtual spaces for students to find, develop, and then actively share? A good place to start is with wayfinding which can “reinforce ways of knowing and problem solving,” (Petroski and Rogers, 2020, p. 125). Wayfinding supports efficacy and

empowerment while meeting the challenges of pandemic pedagogy and can be incorporated into online communication classes to reduce speech anxiety and build classroom culture.

Speech Anxiety

The fear of public speaking, known as glossophobia, is a common and real form of anxiety (Sawchuk, 2017) affecting as much as 75% of the population (Black, 2019). In the scholarly literature, it is usually referred to as communication anxiety, communication apprehension, or communication avoidance (Richmond and McCroskey, 1998). In more popular sources, such as Harvard Management Communication Letter, it has been called stage fright (Daly and Engleberg, 1999) and speech anxiety (Getting over speech anxiety, 2001). In this work, we will refer to it as *speech anxiety* as that term most closely targets the experience we are exploring.

Regardless of the label, it is our innate survival mode of flight, fight, or flee in the face of imminent (real or perceived) danger (Thomas, 1997; Dwyer, 1998). Our mind feels a threat from a public speaking situation and our body responds accordingly. Common symptoms can include increased heart rate, blood pressure, and breathing; excessive perspiration, skin flush or blush; shaky voice; trembling hands and feet; or dry mouth and nausea (Thomas, 1997; Dwyer, 1998; Black, 2019).

There are many tips and techniques that can help those with speech anxiety manage their symptoms and communicate effectively across a variety of modalities. Some common strategies include relaxation, visualization, cognitive restructuring, and skills training (Motley, 1997; Thomas, 1997; Richmond and McCroskey, 1998; Dwyer, 2012).

- (1) Typical relaxation tips can include mindfulness, deep breathing, yoga, listening to music, and taking long walks,
- (2) Visualization involves inviting the speaker to imagine positive outcomes like connecting with their audience, making an impact, and sharing their presentation effectively (Thomas, 1997; Dwyer, 1998). It replaces much of the negative self-talk that tends to occur before a speech opportunity and increases our anxiety.
- (3) Cognitive restructuring is a more advanced technique with the goal “to help you modify or change your thinking in order to change your nervous feelings,” (Dwyer, 2012, p. 93). In essence, it involves replacing negative expectations and anxious feelings about public speaking opportunities with more positive and self-affirming statements and outlooks.
- (4) Skills training is what we do in our classrooms and during professional workshops and trainings. It can include exploring speech anxiety and discussing how common it is as well as ways to effectively manage it (Dwyer, 2012). It also involves analysis of the component parts, such as delivery and content (Motley, 1997) practicing and delivering speeches in low stakes assignments, collaborating with classmates, and engaging in active listening (Simonds and Cooper, 2011).

Ideally, solid skills training introduces the other techniques and encourages individuals to experiment and discover what

works best for them. There is no one-size-fits-all solution to speech anxiety.

Classroom Culture

According to the Point to Point Education website, “Classroom culture involves creating an environment where students feel safe and free to be involved. It’s a space where everyone should feel accepted and included in everything. Students should be comfortable with sharing how they feel, and teachers should be willing to take it in to help improve learning,” (Point to Point Education, 2018, paragraph 2). Regardless of subject matter, class size, format, or modality, all college classes need a supportive and engaging climate to succeed (Simonds and Cooper, 2011). Yet having a classroom culture that is supportive and conducive to lowering anxiety is especially critical in public speaking courses (Stewart and Tassie, 2011; Hunter et al., 2014). Faculty are expected to engage and connect with students and do so in intentional, innovative, and impactful ways. These can be simple practices, like getting to know students quickly and referring to them by their preferred name, such as a middle name or shortened first name (Dannels, 2015), or more elaborate practices like incorporating active learning activities and GIFTS (Great Ideas for Teaching Students) throughout the curriculum (Seiter et al., 2018). We want to create a positive and empowering classroom climate that offers equitable opportunities for all students to succeed. As educators, we can infuse empathy, spontaneity, and equality into our pedagogy while being mindful of different learning styles and committed to supporting diversity and inclusion (Simonds and Cooper, 2011; Dannels, 2015). Furthermore, our communication classrooms need to be intentional spaces where challenges, such as anxiety disorders, mental health issues, learning disabilities and processing issues, are supported and accommodated (Simonds and Hooker, 2018).

DISCUSSION

Ideally, we want to cultivate a classroom culture of inquiry, success, and connection. We also want to foster immediacy, the “verbal and nonverbal communication behaviors that enhance physical and psychological closeness,” (Simonds and Cooper, 2011, p. 32). Multiple studies support that teachers who demonstrate immediate behaviors are regarded as more positive, receptive to students, and friendly (Simonds and Cooper, 2011). As teachers and scholars, we want to make a positive impact. Dannels (2015) writes that “teaching is heart work,” (p. 197) and she is right. It demands an investment of our authentic selves to craft a climate of safety and support where comfort zones are expanded, challenges are met, and goals are reached.

Educators need to be mindful of and responsive to the challenges COVID-19 presents to the health and well-being of our students, colleagues, and communities. In May of 2020, the National Communication Association (NCA) devoted an entire issue of its magazine to “Communication and Mental Health on campus 2020,” (Communication and mental health on campus, 2020) highlighting the importance of this issue in our communication education spaces. Suggestions included learning more about mental health issues, engaging in thoughtful conversations, listening intentionally and actively, promoting well-being, and serving as an advocate and ally (Communication and mental health on campus, 2020).

Scholarship about instructional communication, computer mediated communication and online education (Kelly and Fall, 2011) offers valuable insights into effective practices and adaptations as we intentionally craft engaging and supportive spaces, so our students feel empowered to use their voice and share their story, even those with high speech anxiety. Instructional communication scholars focus on the effective communication skills and strategies that promote and support student success and an engaged learning environment (Simonds and Cooper, 2011).

General strategies to teach effectively during the pandemic can be helpful and easily adaptable to our public speaking classrooms. Being flexible with assignments, deadlines and attendance can support student success and well-being as can creativity, engagement activities, and appealing to different learning styles and strengths (Mahmood, 2020; Singh, 2021). It seems everyone is presenting virtually now, not just in our communication classrooms and that can take some getting used to. Educators can model and promote effective communication by being conversational and engaging and empathizing with the many challenges everyone is facing (Gersham, 2020; Gigliotti, 2020; Jenkins, 2021; Singh, 2021).

This is also a great opportunity to innovate and cultivate a new classroom climate looking at communication in a new way for a new, digital age. During this time of change we can harness opportunities and encourage our students to develop the skillsets needed to communicate effectively during COVID-19 and after. Preparing them as digital communicators with a focus on transferable and applicable skills would help them in other classes and the job market (Ward, 2016). Innovations to our courses, assessment tools, and learning outcomes can all happen now, too (Ward, 2016). This is the time to innovate our course experiences across all modalities, reinvent what public speaking means in the modern, digital age and intentionally craft learning spaces for all students in which speech anxiety is intentionally addressed and effectively managed.

Best Practices

- (1) Be flexible, as a matter of practice not exception. Speech anxiety was experienced by most students to some degree and was debilitating for some pre-pandemic and adds another layer of stress for students who are capable and resilient yet dealing with a lot. Podcasts are a common communication medium and may ease the anxiety of some students while highlighting the importance of word choice, rate, and tone. They also involve less bandwidth and technology and may be easier for many students to create.
- (2) Reframe communication as a skill of the many, not just the few. Highly speech anxious students tend to believe they are the only ones who have a fear of presenting and only certain, confident individuals can present well. Neither of these are true. If we reframe presentations as conversations, demystify speech anxiety by discussing how common it is, and empower our students with the knowledge that they can effectively communicate, we can reduce anxiety, build confidence, and develop important skills that transcend disciplines and promote self-efficacy.
- (3) Build a community of support and success. When we see our students as individuals, celebrate connection

and collaboration, and actively engage to learn and grow, we co-create an impactful and empowering space that supports success not by being rigid and demanding but by being innovative, intentional, and inspiring.

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AUTHOR CONTRIBUTIONS

I am thrilled to contribute to this project and explore ways we can empower our students to effectively manage their speech anxiety and share their stories.

Conflict of Interest: The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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COVID-19: Expanding the Culture of Teaching Mathematics

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Keywords: COVID-19, culture, education, online learning, learning technology, mathematics education

INTRODUCTION

The culture of teaching mathematics has remained inert for many years. Mathematics instructors have generally been reluctant to embrace distance learning, begrudgingly offering online sections for lower-level courses while strongly opposing such delivery for higher-level courses (Allen and Seaman, 2012; Yang, 2017). The argument for opposition is that these courses require a culture of in-person lecturing and one-on-one mentoring to adequately demonstrate the material. While there may be merit to this rationale in heavily theoretical courses, courses that have substantial visual components can greatly benefit from breaking with oratory traditions and embracing online delivery methods.

The onset of COVID-19 forcing classes online provides an opportunity for mathematics instructors to experience the benefits of virtual learning first-hand. Prior to the COVID-19 outbreak, I had delivered online sections for Calculus 1 and 2, but through the transition I was able to develop an online section of Calculus 3. In doing so, I found that the lectures made for online delivery for this class were superior to those I presented in face-to-face sections, due in part to the heavier weighted visual component in Calculus 3 compared to its earlier counterparts. Therefore, I posit that mathematics courses with substantial visual elements can benefit considerably from expanding the culture of teaching mathematics to include distance learning.

BACKGROUND ON CALCULUS 3

Calculus 3 is a class where comprehending visuals is a primary focus. The mathematics in the course is theoretically similar to Calculus 1 and 2, but Calculus 3 takes these previously learned calculus methods and applies them to multiple dimensional problems (c.f., Stewart et al., 2020). Specifically, the limitations of possible applications from Calculus 1 and 2 are expanded to allow the application of calculus theory to 3D space along with a time variable. Applications in Calculus 3 are thus far more realistic; however, with this advancement comes the complication of visualizing the frameworks. To wit, a major focus of the course is developing techniques to visualize three-dimensional objects using two-dimensional media (e.g., paper, white boards, and computer screens). This is the first-time students are expected to formally tackle 3D visualizations in Calculus and as such it presents an unprecedented challenge for many of them (Weber and Thompson, 2014; Martinez-Planell et al., 2015).

Prior to COVID-19, I can find no record of Calculus 3 or any higher-level math course being offered online at my institution. However, the transition to online learning in the Spring 2020 semester forced instructors to adapt all math courses to an online environment extemporaneously. Further, it meant that math courses would be offered fully online for the foreseeable future beginning Summer 2020. Leaning on the social presence literature for guidance, my experience teaching Calculus 3 fully online helped me understand the potential for creating a strong and effective online learning experiences in advanced mathematics courses.

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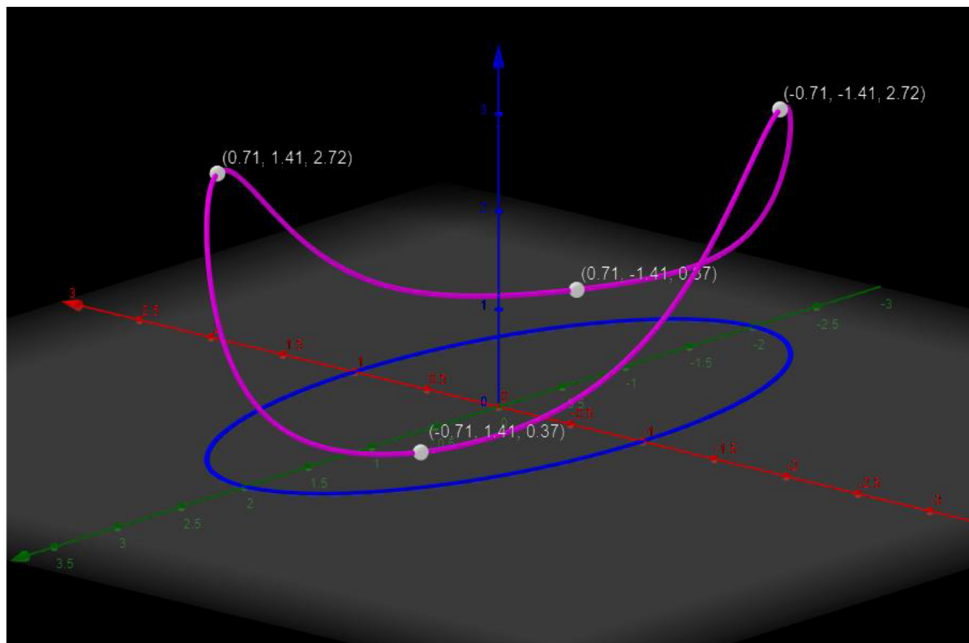


FIGURE 1 | Example constructed using GeoGebra.

BUILDING CALCULUS 3 FOR ONLINE DELIVERY

Social presence is the degree to which a mediated communication experience feels like a face-to-face experience (Bracken and Lombard, 2004). That means for an online student, the more social presence developed in a classroom, the more the online learning experience feels like a face-to-face learning experience (Kelly and Westerman, 2016). The Community of Inquiry Model of social presence dictates that to develop social presence in the online classroom, instructors should engage in communication practices that are:

1. Affective: expressive; sharing emotions, opinions, or ideas
2. Interactive: invites frequent communication
3. Cohesive: uses terms like “we,” “our,” or “us” (Garrison et al., 2010)

In building online Calculus 3, I searched for ways to diffuse these social presence cues into the classroom. This began with recording lectures before the semester began. I took care with each lecture to describe tasks as what “we’re looking at” or “what we need to do next” to infuse cohesive language. It was also my job to make sure that the lessons were not too formal. Unknown to me before studying social presence, my students could benefit from relevant, very brief stories about the content (Kaufmann and Frisby, 2017) that allowed me to use affective communication, but also make myself more of a real person rather than an automated lecture system.

Using screen capturing and editing software, along with digital writing software, and mathematical graphing software, lectures

were prepared for housing in the learning management system. Though skeptical at the outset, I quickly found that the lectures crafted using this approach were far more efficacious than any lecture I had previously given in the face-to-face sections of this course. Specifically, with the editing available in the video format, I could mention a three-dimensional object as part of an explanation and then instantly cut to a graph of that object. From there I could freely rotate and zoom in and out to fully explore the object. Further, in the graphing software it is possible to program animations showing how quantities or objects change over time in 3D space, which is the theoretical bedrock of Calculus 3 (see **Figure 1**). This allowed me to improve the clarity of my words in a way that was far more efficient than in the face-to-face environment.

To be clear, using these supportive graphs or animations in Calculus 3 lectures is not unheard of, nor is it novel since I have developed comparable visual representations in my previous sections of the course. However, presenting these visuals in the middle of an in-person lecture is often time consuming, with the class often waiting for an ornery computer to work or timing out for handouts to be distributed to each student. With the adeptness granted by video editing, the presentation of the most appropriate visualizations was prompt, and thus each virtual lecture could include more such visualizations than possible in a comparable face-to-face lecture.

It can be argued that such efficiency may make these lectures too dense to be effective. However, this offers another advantage of the medium, specifically that videos can be paused, rewound, and watched multiple times, an advantage that is not possible with face-to-face lectures. Following the Community of Inquiry

Model, it became clear that part of my job once the semester started was to emphasize this very benefit with my students. Specifically, it was my job to encourage them to pause, rewind, or rewatch these videos, taking advantage of their ability repeat the communication or take the lessons at their own pace. Second, it was also my job to remind students regularly that they were welcome to email or meet with me through Zoom to ask questions. Both of these jobs captured the interactivity component of social presence.

Notably, I also had to encourage students to ask questions because a substantive disadvantage to this method is that students cannot ask questions and get immediate answers during the lectures like they can during in-person lectures. This meant that being available to my students when they needed me made teaching online far more time consuming than face-to-face. Students in asynchronous courses access lectures at all times of the day, and as they are learning math, they cannot progress in their understanding until their questions were answered. This means that committing to interactive communication is a time-consuming endeavor, but one critically impactful on their learning experience.

DISCUSSION

The instructional concepts described here are not new to the world of communication research. Communication scholars have long known that online instruction can be just as effective as face-to-face instruction, if not more effective, provided the course is delivered in accordance with the needs of online course learners (c.f., Kelly and Westerman, 2016). This means that online delivery of any course can theoretically be more effective than face-to-face learning if the instructor uses the technology optimally and communicates effectively (Kelly and Westerman, 2016). However, these studies appear to allude most mathematics instructors, and most STEM faculty at large, yet have the potential to bolster the teaching culture across fields.

In my own class, I perceived improved student motivation and engagement. Overall students were more focused on critical thinking and conceptual understanding over rote memorization of procedural methods. In fact, I observed less reliance on publisher provided learning aids such as the *Help Me Solve*

feature of Pearson's online course delivery tools, a crutch many students are over reliant on. Instead, more students engaged with me directly and exhibited a curiosity of the material beyond the algorithmic steps.

With the sudden shift to online instruction due to COVID-19, along with the increasing demand for online programs, mathematics instructors will need to be open to the culture of online learning in order to better serve their students now and in the future. Additionally, the utilization of edited lecture videos is not only applicable to online courses. In fact, such lectures could be implemented in face-to-face courses by delivering a flipped class. In such a class, the lectures would be viewed outside of class, and class time would be devoted to active learning assignments moderated by the instructor. This method would integrate the advantages from the culture of the online class along with the advantages of in-person mentoring and grouped active learning. Flipped classes have been found to increase student motivation and performance in STEM courses and students often have improved performance in flipped classrooms compared to traditional classrooms (Amresh et al., 2013; Herreid and Schiller, 2013). Further, with active learning at the core of flipped classrooms, it has also been shown that active learning improves student performance, motivation, and retention in STEM classrooms (Prince, 2004; Michael, 2006).

Whether incorporated in online classes as the featured delivery of content, or as supplemental resources in a face-to-face class, the development of mindfully edited lecture videos that follow social presence guidelines can improve the culture of teaching mathematics classroom as seen in communication literature and through my anecdotal experience during the transition to online instruction due to COVID-19. My aspiration is that my peers can use my example and experience in order to implement recorded lectures within their visually intensive mathematics courses, and in so change the culture of teaching mathematics so that we meet the students where they need us, not only where we the faculty are comfortable.

AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and has approved it for publication.

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Classroom Culture When Students are Reluctant to Learn Online: Student Dissent Behaviors Explained by Their Self-Efficacy, Control of Learning, and Intrinsic Motivation

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Student beliefs about classroom culture, instructor behaviors, and their own abilities to learn significantly influence their academic engagement. COVID-19 has drastically altered the classroom environment, forcing many students into a virtual learning platform they may not have preferred or felt comfortable with. Whether it is the fault of the instructor or the environment, students who are dissatisfied engage in instructional dissent. This study examined the influence of instructor clarity, instructor relevance, self-efficacy, intrinsic motivation, distributive justice, procedural justice, and interactional justice on student dissent. The data supported six modified models, indicating a significant difference between students' expressive, rhetorical, and vengeful dissent behaviors based on whether or not they were enrolled in their preferred learning platform.

Keywords: student dissent, control of learning beliefs, Self-efficacy, perceived immediacy, intrinsic motivation, instructional beliefs model

INTRODUCTION

The onslaught of COVID-19 in early 2020 drastically altered the academic landscape and left no university untouched (Floyd, 2021). As COVID-19 pushed many universities fully online, students who did not enjoy online courses or did not believe they are capable of succeeding in them were forced into an environment in which their self-efficacy, intrinsic motivation, and control of learning beliefs are lowered. Students engage in dissent behaviors when they are unsatisfied with a class and when they experience low affective learning (Goodboy, 2011a; Goodboy, 2011b). Previous research established instructor misbehaviors as a primary influencer of student dissent (Goodboy and Myers, 2012). However, student characteristics can also contribute to dissent (Goodboy and Myers, 2012; Goke et al., 2020; Johnson and Kelly, 2020). Specifically, students have been found to engage in vengeful dissent when they have low self-efficacy and believe their efforts have no effect on their academic success (Goke et al., 2020). With the pandemic came high levels of uncertainty and an increased dependency on virtual technologies (Stephens et al., 2020), as well as an opportunity to reevaluate teaching pedagogy and practices (Horse and Nakagawa, 2020). As students and instructors adjust to new technology and classroom dynamics during COVID, instructor behaviors and student characteristics are both likely to influence student dissent in new ways.

In 2011, Weber et al. proposed the Instructional Beliefs Model (IBM) as a theoretical framework to explain how students' perceptions of instructor behaviors, classroom characteristics, and their own characteristics influence their academic outcomes. This framework purports that any instructor behavior, student characteristic, or classroom characteristic could be examined as a first-order variable and any student belief could be inserted as a second-order variable. These, in turn, influence the third order variables: academic outcomes. Following this framework, communication from instructors has been found to increase student perceptions of academic self-efficacy and their propensity to approach the instructor when they feel an injustice has occurred (LaBelle et al., 2013). In addition to academic outcomes such as dissent, the framework of the IBM has worked while examining the effect of instructor misbehaviors on math anxiety in students, mediated by their perception of immediacy (Kelly et al., 2020). This expands Weber et al.'s framework to include students' psychological response to instructor behaviors as a student belief. Kelly et al. (2020) found that regardless of how instructors intend for their behaviors to be interpreted, students responded to their perception of those behaviors rather than the behaviors themselves.

The present study uses the IBM to examine how perceptions of classroom justice, the relevance and clarity of the instructor, student self-efficacy, and intrinsic motivation influence dissent in the classroom. Previous works have supported and expanded the way the IBM views classroom interactions. However, what has not been extensively studied is how student preferences in learning platforms influence the model. Because COVID-19 has forced students into learning environments they may not prefer or feel comfortable with, it is important to explore these effects.

LIT REVIEW

Self-Efficacy

Self-efficacy is the belief one holds about their ability to successfully achieve an established goal or perform a specific task (Schunk, 1991; Badura, 1997) and is shaped through social comparisons, education, culture, and family (Wentzel and Miele, 2016). These perceptions, in turn, influence the amount of effort and perseverance employed when undertaking a specific task (Schunk and Pajares, 2012). Rather than a general disposition, self-efficacy is a belief relative to a particular domain or context (Bandura, 2006). Meaning, it is possible to have high levels of self-efficacy for one task and not another based on past experiences and skill in that area.

Academic self-efficacy identifies the level of success a student believes they are capable of achieving on an academic task (Bandura, 1993; McKeachie et al., 1996). One way students gauge their ability is by comparing themselves to their classmates, which may positively influence their self-efficacy if accompanied by the motivation to catch up or have a negative influence if they believe their efforts will make no difference (Kesici and Erdogan, 2010; Schwarzer, 2014). Therefore, it is possible for a student with high levels of self-efficacy to also possess enough motivation and self-regulation to successfully

persevere through a difficult task (Solheim, 2011). However, students with low levels of self-efficacy are less likely to participate (Høigaard et al., 2015).

Intrinsic Motivation

Intrinsic motivation can be defined as the enjoyment of and interest in an activity for the sake of engaging in that activity (Cury et al., 2006). Intrinsically motivated individuals will embrace tasks willingly, as they expect their involvement to lead to more enjoyment (Radel et al., 2016). Intrinsic motivation has been found to influence an individual's behavior and self-determination (Ng, 2018), often resulting in students exerting more effort (Ali et al., 2010). Students with high levels of intrinsic motivation perform much better academically than those who get their motivation from external sources (Afzal et al., 2010). They also tend to exert more effort (Ali et al., 2010; Gillard et al., 2015) and have higher levels of engagement (Corpus and Wormington, 2014; Wigfield et al., 2015; Weidinger et al., 2017).

A teacher's behavior may influence the goals students set, their emotional state, and persistence, which can all influence intrinsic motivation (Maulana et al., 2013, 2014; You et al., 2016). When teachers offer personal reassurance to students, there is an increase in the students' willingness to take chances and feel comfortable with new approaches to learning (Shin and Zhou, 2003; Gu et al., 2017). Care and autonomy support from the instructor have been shown to be positively correlated with intrinsic motivation (Bieg et al., 2011). Granting autonomy and providing support encourages students to engage in an environment where they can align their personal interests with the goals of the instructor, increasing students' intrinsic motivation through their self-determination and personal initiative (Yidong and Xinxin, 2013).

Instructor Clarity

Providing students with clear instruction improves their ability to learn (Titworth et al., 2015; Bolkan, 2017). Instructor clarity has been defined as behavior that effectively shows instructors' ability to present information and course content to students through the use of appropriate verbal and nonverbal messages (Chesebro and McCroskey, 1998; Bolkan et al., 2017). Clarity is multidimensional in nature and can be understood at various levels because it is both a behavior and an impression. Titworth and Mazer (2011) state that instructors may engage in different behaviors to make the lesson clearer for students, but the effectiveness of those chosen behaviors relies on whether or not the students recognize those behaviors.

Both students and instructors must be engaged with one another in order to secure clarity in the classroom (Titworth and Mazer, 2011). Previous research has found that the ability of an instructor to teach clearly provides the necessary conditions for students to properly engage in their learning objectives and process content more effectively (Seidel et al., 2005; Bolkan et al., 2016; Bolkan, 2017). Further, Bolkan (2017) found that instructor clarity helps students' learning abilities, because it helps them create organized models of their learning and allows them to organize information in ways that help them retain information (Lorch and Lorch, 1995; 1996). Conversely, students are more

likely to be distracted by things like texting when instructors are unclear in their communication (Johnson, 2013).

Instructor Relevance

Keller (1983) has defined relevance as whether a student considers the course instruction as pertinent to their own personal or career needs and goals. These considerations are often based in part on students' prior knowledge and experiences in the classroom (Frymier and Shulman, 1995). Students who believe instructors relate the content to them are more motivated and successful (Weber et al., 2011; Mansson, 2016) and tend to have more favorable views of those instructors, rating them as more competent, trustworthy, and caring (Schrodt, 2013; Mansson, 2016). Students also perceive instructors as more credible when relevant examples and exercises are used that tie the course content to students' personal and professional goals (Schrodt, 2013).

Classroom Justice

Classroom justice is the perception of fairness in processes or outcomes by students in the instructional environment and contains three dimensions: distributive, procedural, and interactional justice (Chory-Assad and Paulsel, 2004b). *Distributive justice* is the perception that there is fairness in the outcome of transactions (Deutsch, 1985), determined through the comparison of one interaction to another (Adams, 1965; Austin, 1997; Cropanzano and Greenber, 1997). Distributive justice in the classroom is not determined by the outcome (such as a grade) itself, but rather the fairness of that outcome in comparison to what was expected, what the student believed they deserved, or its relation to the outcome of a classmate (Chory-Assad and Paulsel, 2004b). *Procedural justice* is the perception of fairness in the process to reach a given outcome (Byrne and Cropanzano, 2001). For example, the process through which an instructor decides which policies should be implemented or how a student is evaluated would be considered procedural justice. *Interactional justice* refers to the perception of fairness in the treatment of students by the instructor when communicating with them and implementing policies (Chory-Assad and Paulsel, 2004a).

Despite being correlated with one another, distributive, procedural, and interactional justice are distinct constructs that interact differently with other variables and should be measured individually (Chory-Assad, 2002; Chory-Assad and Paulsel, 2004b; Paulsel et al., 2005; Chory, 2007). When these three are lacking in the classroom, students experience negative emotions about the environment (Horan et al., 2010) and are more likely to engage in indirect aggression toward instructors (Chory-Assad and Paulsel, 2004a; 2004b). Similarly, perceptions of procedural justice were found to influence student motivation and affective learning (Chory-Assad, 2002), while interactional and procedural justice have been found to influence state motivation and cognitive learning (Horan et al., 2012). While each type of perceived fairness influences student outcomes, procedural justice has been found to play a more significant predictive role (Chory-Assad, 2002; Chory-Assad and Paulsel, 2004b). When instructors are clear, provide good feedback, and

justify the reason a student received a particular grade, students have a more favorable perception of procedural fairness (Chesebro et al., 2004; Seidel and Tanner, 2013).

Control of Learning Beliefs

Control of learning beliefs (COLB) are the degree to which a student believes that it is their own efforts that determine their academic outcome rather than external factors (Pintrich et al., 1991). However, the belief that their actions directly influence their success or failure must also be accompanied by appropriate learning strategies for students to be successful (Rotgans and Schmidt, 2012). For example, Muwonge et al. (2019) found that students with greater COLB also had higher GPA scores and that the favorable outcome was most significantly mediated by critical thinking and organization. Meaning, the students who believed their efforts would determine their success employed the necessary critical thinking and organizational strategies to retain the material. Their finding was consistent with past research which indicates that students with higher COLB are more likely to study strategically and effectively (Khatib, 2010; Sen and Yilmaz, 2016; Muwonge, 2017) and are more likely to engage in necessary learning strategies such as effort regulation, rehearsal, and elaboration (Sungur and Tekkaya, 2006).

Perceived Immediacy

Perceived immediacy refers to the level of perceived psychological closeness a message receiver feels in response to the sum of communicative behaviors displayed by the message sender (Kelly, 2012; Kelly et al., 2015). Kelly and Westerman's (2016) review of immediacy literature indicated that the instructor behaviors of smiling, using vocal inflection, and giving students eye contact (Zhang and Witt, 2016) normally increase students' perceived immediacy toward their instructor. Using inclusive language and soliciting students' viewpoints has also been shown to increase these perceptions (Violanti et al., 2018). In the online setting, Vareberg et al. (2020), Vareberg and Westerman (2020) found that student perceptions of immediacy increased when instructors referred to students by name or were mindful of message response times while using technology.

When face-to-face, numerous studies have found that perceived immediacy mediates the relationship between instructor immediate (or non-immediate) behaviors and student learning variables. For example, instructor misbehaviors of lecturing and antagonism have been found to increase student math anxiety through the mediation of perceived immediacy (Kelly et al., 2020) while professor clarity and immediate behaviors negatively influenced writing apprehension through perceived immediacy (Kelly and Gaytan, 2020). Professors who take extra time to manage perceived immediacy with students through formal perception checks can expect to achieve more positive communicative outcomes in the classrooms than those who do not (Johnson and Kelly, 2020).

Participation

Participation is defined as the questions or comments raised by students during class (Fassinger, 1995) and is influenced by

instructor and student characteristics, as well as instructor behaviors. Students with higher levels of self-efficacy are more likely to participate in the classroom (Mahyuddin et al., 2006) and students that are engaged with the material have higher recall of course content (Petress, 2006). Subsequently, participation has been associated with higher performance on exams and in courses (Christle and Schuster, 2003; Kelly, 2008; Steger-Jager et al., 2012).

Students are more likely to participate in an environment they consider to be safe (Rocca, 2010), which is why instructor behaviors such as support and reinforcement have been found to influence student participation (Goodboy and Bolkan, 2009; Siti et al., 2010). Conversely, when students feel that there are low levels of distributive, procedural, and interactional justice in the classroom they may choose to not participate (Horan et al., 2010), and when they become dissatisfied with the environment they may engage in dissent behaviors (Holmgren and Bolkan, 2014). However, if students fear that a lack of participation may negatively impact their success in the course they may continue to participate and not allow their displeasure to be seen by their instructor (Holmgren and Bolkan, 2014).

Instructional Dissent

Instructional dissent is the process through which students voice their disagreements about class related issues (Goodboy, 2011a; Goodboy and Myers, 2012) and is suggestive of the absence of positive results in the classroom such as satisfaction and learning (Goodboy, 2011b). Dissent is known to be present in a classroom setting alongside perceived justice (Horan et al., 2010; Goodboy, 2011a, 2011b; Bolkan and Goodboy, 2013; Holmgren and Bolkan, 2014) and is often caused by multiple factors, including stipulations around grading, policies in the classroom, teaching style, abusing the syllabus, and unreasonable testing (Goodboy, 2011a). Three types of dissent have been identified by Goodboy (2011a); expressive, rhetorical, and vengeful.

Expressive dissent is often an attempt to vent negative feelings in order to feel better and receive wanted support and care over discouragement in the classroom (Goodboy, 2011a; Goodboy and Myers, 2012). Although expressive dissent is usually directed toward other classmates or support systems, it can have a negative impact on the environment of the classroom if the frustrations are overheard by the instructor (Hasting and Bham, 2003; Frisby et al., 2015).

Rhetorical dissent is an attempt to persuade the instructor to correct a perceived wrong, such as changing a grade (Goodboy, 2011a; Goodboy and Meyers, 2012). Rhetorical dissent is the only form of dissent that involves direct communication with the instructor (Goodboy, 2011a) and has been found to slightly increase the learning process in students (Goodboy, 2011b).

Vengeful dissent is often used in an attempt to ruin or harm an instructor's reputation. It can also be used as a form of revenge for students who wish to steer future students away from the class or instructor by talking poorly of their teaching ability and class (Goodboy, 2011a; Goodboy and Meyers, 2012). Vengeful dissent has been found to be positively related to student academic entitlement and low levels of academic self-efficacy (Goodboy et al., 2014).

Rationale

Because level of perceived psychological closeness felt by students with their instructor is influenced by the behaviors displayed by instructors (Zhang and Witt, 2016), and students tend to view relevant instructors more favorably (Schrodt, 2013; Mansson, 2016), the following are hypothesized:

- H1: Instructor relevance and perceived immediacy will be positively correlated
- H2: Instructor clarity and perceived immediacy will be positively correlated
- H3: Self-efficacy and perceived immediacy will be positively correlated
- H4: Intrinsic motivation and perceived immediacy will be positively correlated

Students are affected by their perception of instructor behaviors, regardless of the instructor's intentions (Kelly and Westerman, 2016), which means that it does not matter how fair the instructor intends to be, students will respond to how fair they perceive the instructor is being. Therefore, the following are hypothesized:

- H5: Procedural justice and perceived immediacy will be positively correlated
- H6: Distributive justice and perceived immediacy will be positively correlated
- H7: Interactional justice and perceived immediacy will be positively correlated

When instructors make the content relevant to students, they are more likely to be motivated to learn (Frymier and Shulman, 1995; Weber et al., 2011; Mansson, 2016), which means that the way instructors relate information should also have a direct effect on students' beliefs about their ability to employ the necessary learning tactics to be successful. Therefore, the following are hypothesized:

- H8: Instructor relevance and COLB will be positively correlated
- H9: Instructor clarity and COLB will be positively correlated

Students' COLB have been found to influence their perception about their ability to succeed (Bandura, 1986; Bandura, 1997) and significantly predict their level of self-efficacy (Partin et al., 2011). Therefore, the following is hypothesized:

- H10: Self-efficacy and COLB will be positively correlated

Additionally, when instructors offer encouragement to students, they increase the students' willingness to take risks (Shin and Zhou, 2003; Gu et al., 2017). Therefore, the following is hypothesized:

- H11: Intrinsic motivation and COLB will be positively correlated

Perceptions of classroom justice influence students' emotions about the environment (Horan, 2010) and can affect students' motivation and affective learning (Chory-Assad, 2002). Therefore, the following are hypothesized:

- H12: Procedural justice and COLB will be positively correlated
- H13: Distributive justice and COLB will be positively correlated
- H14: Interactional justice and COLB will be positively correlated

Because instructor traits such as friendliness, openness, professionalism, and investing in students increase student likelihood to participate (Abdullah et al., 2012), and a dissatisfaction of instructor behaviors such as instructor misbehaviors can reduce student participation (Goodboy and Bolkan, 2009), the following are hypothesized:

- H15: Instructor relevance and participation will be positively correlated
- H16: Instructor clarity and participation will be positively correlated

Students who have high levels of self-efficacy are more likely to engage in the course (Hoigaard et al., 2015), while intrinsically motivated students have greater interest in the material and willingness to embrace the task (Cury et al., 2006; Radel et al., 2016). Therefore, the following are hypothesized.

- H17: Self-efficacy and participation will be positively correlated
- H18: Intrinsic motivation and participation will be positively correlated

Students may choose to not participate when instructors are viewed as unfair or misbehaving (Goodboy and Bolkan, 2009). Because procedural, distributive, and interactional justice encompass the perceived fairness of treatment, process of assessment, and outcome in the classroom, the following are hypothesized:

- H19: Procedural justice and participation will be positively correlated
- H20: Distributive justice and participation will be positively correlated
- H21: Interactional justice and participation will be positively correlated

Students who have high levels of perceive immediacy are also more likely to view their instructor favorably (Kelly et al., 2018b), and when students dislike their instructor, they are more likely to engage in dissent behaviors (Goodboy, 2011b). Therefore, the following are hypothesized:

- H22: Perceived immediacy and expressive dissent will be negatively correlated

H23: Perceived immediacy and vengeful dissent negatively correlated

H24: Perceived immediacy and rhetorical dissent will be positively correlated

Students' COLB influence the sense of control they feel over their academic success and the subsequent effort they exert (Pintrich et al., 1991; Khatib, 2010). Dissent is also related to grade orientation, academic entitlement, and a lack of academic self-efficacy (Goodboy et al., 2014). Therefore, the following are proposed:

- H25: COLB and expressive dissent will be negatively correlated
- H26: COLB and vengeful dissent will be negatively correlated
- H27: COLB and rhetorical dissent will be positively correlated

Student dissent is also influenced by how students choose to participate in the classroom in response to instructor behaviors (Goodboy, 2011b; Goodboy et al., 2014). Therefore, the following are proposed:

- H28: Participation and expressive dissent will be negatively correlated
- H29: Participation and rhetorical dissent will be positively correlated
- H30: Participation and vengeful dissent will be positively correlated

These hypotheses combine to form a model that explains student dissent through the structure of the Instructional Beliefs Model proposed by Weber et al. (2011). The proposed model can be found in **Figure 1**. The model functions as a framework in which students' psychological response to their instructors, the learning environment, and their own characteristics influence their learning outcomes.

Additionally, it is likely that student beliefs and behaviors will be significantly influenced by whether they are able to enroll in the type of class they feel most comfortable. Because of COVID-19, many university classes have transitioned online. While not inherently problematic, it could be a significant factor in how interested they are or capable they feel in the course. For example, if a student was unable to enroll in their preferred class platform because it was only offered online, or if the instructor changed to an online environment without consulting the students, it could change their academic beliefs and feelings toward both the class and instructor. Therefore, the following research question is posed:

RQ1: Will students who were able to enroll in their preferred learning environment respond differently than those who were not?

METHOD

Participants

In total, $n = 600$ students participated in this study, completing a full questionnaire. Of those participants, 224 students were in a course format they preferred, and 376 students were forced into a

TABLE 1 | Demographic characteristics.

		Preferred	Not preferred	All participants
N		224	376	600
Sex (n)	Male	79	153	232
	Female	145	223	368
Class rank (n)	Freshman	100	190	290
	Sophomore	47	84	131
	Junior	30	42	72
	Senior	33	37	70
	Graduate student	14	23	37
Ethnicity (n)	Asian/Pacific Islander	10	12	22
	Black/African American	7	4	11
	Hispanic/Latino	5	6	11
	Native American/American Indian	4	4	8
	White/Caucasian	198	350	548
Age		$M = 20.42$ ($SD = 4.36$)	$M = 19.94$ ($SD = 3.97$)	$M = 20.15$ ($SD = 4.12$)
Format (n)	Online, synchronous	45	155	200
	Online, asynchronous	26	29	55
	Face-to-Face	10	5	15
	HYFLEX	137	152	289
	Combination	6	35	41

TABLE 2 | Fit statistics.

	GFI	CFI	RMSEA	SRMR	χ^2
Intrinsic motivation	0.99	0.98	0.12	0.03	χ^2 (2, $N = 600$) = 19.00, $p < 0.001$
Self-efficacy	0.83	0.92	0.18	0.05	χ^2 (20, $N = 600$) = 404.60, $p < 0.001$
Self-efficacy modified	0.97	0.98	0.10	0.02	χ^2 (9, $N = 600$) = 67.44, $p < 0.001$
Control of learning beliefs	0.94	0.94	0.25	0.04	χ^2 (2, $N = 600$) = 76.89, $p < 0.001$
Expressive dissent	0.81	0.89	0.17	0.05	χ^2 (35, $N = 600$) = 655.52, $p < 0.001$
Expressive dissent modified	0.90	0.94	0.16	0.04	χ^2 (14, $N = 600$) = 225.00, $p < 0.001$
Vengeful dissent	0.93	0.98	0.16	0.01	χ^2 (9, $N = 600$) = 153.53, $p < 0.001$
Rhetorical dissent	0.98	0.99	0.08	0.02	χ^2 (9, $N = 600$) = 41.93, $p < 0.001$
Instructor clarity	0.86	0.90	0.13	0.07	χ^2 (35, $N = 600$) = 384.03, $p < 0.001$
Instructor clarity modified	0.97	0.98	0.07	0.03	χ^2 (20, $N = 600$) = 72.82, $p < 0.001$
Instructor relevance	0.80	0.87	0.15	0.05	χ^2 (54, $N = 600$) = 782.43, $p < 0.001$
Instructor relevance modified	0.94	0.95	0.10	0.03	χ^2 (27, $N = 600$) = 186.55, $p < 0.001$
Distributive justice	0.77	0.87	0.16	0.06	χ^2 (54, $N = 600$) = 873.78, $p < 0.001$
Distributive justice modified	0.92	0.95	0.15	0.04	χ^2 (14, $N = 600$) = 193.80, $p < 0.001$
Procedural justice	0.78	0.87	0.13	0.05	χ^2 (90, $N = 600$) = 1022.36, $p < 0.001$
Procedural justice modified	0.92	0.95	0.09	0.04	χ^2 (44, $N = 600$) = 272.31, $p < 0.001$
Interactional justice	0.94	0.98	0.12	0.02	χ^2 (14, $N = 600$) = 127.68, $p < 0.001$
Perceived immediacy	0.96	0.98	0.08	0.02	χ^2 (27, $N = 600$) = 117.96, $p < 0.001$
Participation	0.10	0.10	0.05	0.01	χ^2 (2, $N = 600$) = 4.60, $p < 0.001$

format they did not prefer due to the restructuring of COVID-19. **Table 1** shows a breakdown of participant demographics for each group.

Procedure

Data were collected from a midwestern university and an eastern university through volunteer sampling. Potential participants were presented with a link leading to the informed consent of an online questionnaire. For the midwestern university, an email with a link directing them to the study was sent to all students across campus using a research listserv. For the eastern university, an email containing the study link was randomly sent to individuals in a research pool consisting of students from

various classes across campus. Students from the midwestern university were offered no incentive unless their class offered credit for research participation. The pool of students from the eastern university were offered extra credit for participating in research presented to the pool. Before moving on to rest of the questionnaire, students were instructed to thinking of the last course they attended or logged into (depending upon whether they were enrolled in synchronous or asynchronous courses).

Instrumentation

The questionnaire also included 13 continuous measures plus demographic items. Before hypothesis testing, all measures were subjected to confirmatory factor analysis (CFA). The fit statistics

TABLE 3 | Descriptive statistics.

	Mean	SD	Min-max	Skewness	Kurtosis	α
Intrinsic motivation	4.99	1.14	1.00–7.00	–0.78	1.10	0.82
Self-efficacy	5.25	1.27	1.00–7.00	–1.06	0.88	0.94
Control of learning beliefs	5.39	1.21	1.00–7.00	–0.91	0.68	0.86
Expressive dissent	3.93	1.84	1.14–8.00	0.27	–0.81	0.94
Vengeful dissent	1.55	1.18	1.00–7.00	2.77	7.68	0.98
Rhetorical dissent	3.42	1.42	1.00–7.00	0.17	–0.57	0.91
Instructor clarity	5.28	1.18	1.13–7.00	–0.85	0.51	0.89
Instructor relevance	4.86	1.35	1.00–7.00	–0.648	–0.07	0.93
Distributive justice	5.40	1.17	1.14–7.00	–0.92	0.58	0.94
Procedural justice	5.49	1.11	1.27–7.00	–1.10	0.99	0.94
Interactional justice	5.69	1.31	1.00–7.00	–1.31	1.47	0.97
Perceived immediacy	5.37	1.28	1.00–7.00	–0.88	0.46	0.95
Participation	4.61	1.51	1.00–7.00	–0.47	–0.38	0.92

for the original and modified measures can be found in **Table 2** and the descriptive statistics for the measures utilized in hypothesis testing can be found in **Table 3**.

Format

To determine the format of the class they were considering throughout the questionnaire, participants were asked to identify if the class was: online, synchronous (meets in real time through zoom or some other platform, lectures are scheduled), online, asynchronous (there are no lectures or lectures are not scheduled for a specific time, e.g., they are uploaded), face-to-face (lectures are held physically, in person), HYFLEX (Lectures are held physically, but students may choose to attend in person or virtually), or a combination (sometimes the class meets virtually and sometimes it meets face-to-face). The same descriptors were used when asking which format they wished the class was offered in. These two items were used to identify whether students were enrolled in their preferred course format.

Intrinsic Motivation

Intrinsic motivation was assessed through the intrinsic motivation submeasure Pintrich et al.'s (1991) Motivated Strategies for Learning Questionnaire. It consisted of four Likert-type items with a 7-point response scale ranging from *Strongly Disagree* to *Strongly Agree*. Artino (2005) reported that it had good face and convergent validity.

Self-Efficacy

Self-efficacy was also assessed through a Pintrich et al.'s (1991) submeasure. The self-efficacy submeasure consisted of eight Likert-type items with a 7-point response scale ranging from *Strongly Disagree* to *Strongly Agree*. Artino (2005) reported that it had good face and convergent validity.

Control of Learning Beliefs

Control of learning beliefs was assessed through Pintrich et al.'s (1991) submeasure, consisting of four Likert-type items. Items had a 7-point response scale ranging from *Strongly Disagree* to *Strongly Agree*. Artino (2005) reported that it had good face and convergent validity.

Instructor Clarity

Instructor clarity was measured using Chesebro and McCroskey's (1998) teacher clarity short inventory (TCSI). The measure was made up of 10 Likert-type items. Items were measured on a 7-point scale ranging from *Strongly Disagree* to *Strongly Agree*.

Instructor Relevance

Instructor relevance was measured using Frymier and Shulman's (1995) teacher relevance measure. The measure was made up of 12 Likert-type items. Items were measured on a 7-point scale ranging from *Strongly Disagree* to *Strongly Agree*. Frymier and Shulman (1995) reported strong criterion validity.

Distributive and Procedural Justice

Both distributive and procedural justice were measuring using Chory-Assad and Paulsel's (2004b) distributive and procedural justice measure. Distributive justice consists of 12 Likert-type items on a 7-point scale ranging from *Strongly Disagree* to *Strongly Agree*. Procedural justice consists of 15 Likert-type items on a 7-point scale ranging from *Strongly Disagree* to *Strongly Agree*. Chory-Assad and Paulsel (2004b) state that the collinearity between distributive and procedural variables were not problematic.

Interactional Justice

Interactional justice was measuring using Chory's (2007) revised interactional justice scale consisting of seven items. Items were measured on a 7-point scale ranging from *Extremely unfair* to *Extremely fair*. Chory (2007) reported evidence of content validity.

Perceived Immediacy

Perceived immediacy was measured using Kelly et al. (2015) measure. The assessment included nine semantic differential-type items. Items were measured using a 7-point response scale. Kelly et al. (2015) reported that the measure showed evidence of both content and convergent validity.

Participation

Participation was measured using Fassinger (2000) student participation scale. The scale included five Likert-type items that with a 7-point scale ranging from *Strongly Disagree* to *Strongly Agree*.

TABLE 4 | Correlation matrix.

	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Intrinsic motivation													
2 Self-efficacy	0.47 ^a												
3 Control of learning beliefs	0.41 ^a	0.64 ^a											
4 Expressive dissent	-0.12 ^a	-0.29 ^a	-0.29 ^a										
5 Vengeful dissent	-0.03	-0.06	-0.11 ^a	0.42 ^a									
6 Rhetorical dissent	0.25 ^a	0.15 ^a	0.13 ^a	0.17 ^a	0.35 ^a								
7 Instructor clarity	0.36 ^a	0.58 ^a	0.55 ^a	-0.44 ^a	-0.20 ^a	0.75							
8 Instructor relevance	0.44 ^a	0.58 ^a	0.51 ^a	-0.33 ^a	-0.06	0.18 ^a	0.73 ^a						
9 Distributive justice	0.35 ^a	0.75 ^a	0.60 ^a	-0.34 ^a	-0.14 ^a	0.07	0.61 ^a	0.55 ^a					
10 Procedural justice	0.42 ^a	0.66 ^a	0.61 ^a	-0.40 ^a	-0.19 ^a	0.09 ^b	0.74 ^a	0.70 ^a	0.72 ^a				
11 Interactional justice	0.34 ^a	0.54 ^a	0.50 ^a	-0.39 ^a	-0.18 ^a	0.05	0.70 ^a	0.70 ^a	0.61 ^a	0.80 ^a			
12 Perceived immediacy	0.33 ^a	0.51 ^a	0.48 ^a	-0.44 ^a	-0.21 ^a	0.12 ^b	0.70 ^a	0.72 ^a	0.52 ^a	0.72 ^a	0.80 ^a		
13 Participation	0.36 ^a	0.24 ^a	0.10 ^b	-0.00	0.09 ^b	0.39 ^a	0.09 ^b	0.22 ^a	0.12 ^a	0.12 ^a	0.05	0.13 ^a	

^aCorrelation is significant at the 0.01 level (2-tailed).

^bCorrelation is significant at the 0.05 level (2-tailed).

Instructional Dissent

Dissent was measured using Goodboy (2011a) assessments. The measures include 23 Likert-type items: 10 expressive dissent, six rhetorical dissent, and six vengeful dissent. Each item was measured on a 7-point scale ranging from *Strongly Disagree* to *Strongly Agree*. Goodboy (2011b) reported the measures showed evidence for strong content validity. Notably, Goodboy (2011a) cautions that these measures should not be used in the same model as they are not theoretically correlated constructs.

RESULTS

Unidimensional Measurement Models

The AMOS Maximum Likelihood Parameter Estimation Algorithm was used to conduct the unidimensional measurement model tests via CFA. Bryne's (2016) standards of fit were applied, which stated that good fit was indicated by goodness of fit index (GFI) ≥ 0.90 , comparative fit index (CFI) ≥ 0.90 , standard root mean residual (SRMR) ≤ 0.08 , and root mean square error approximation (RMSEA) ≤ 0.06 . Bryne (2016) also indicated that RMSEA $0.06 \leq 0.08$ is acceptable, and RMSEA ≤ 0.1 was mediocre. Applying these standards, perceived immediacy, participation, and rhetorical dissent had evidence of good fit statistics.

All fit statistics for COLB, interactive justice, intrinsic motivation, and vengeful dissent had good GFI, CFI, and SRMR, but had an elevated RMSEA score for each measure. The standard residual covariance matrix was examined to see if any items were causing a significant amount of residual error on items, however no problematic items were found. Therefore, the measures were used with an elevated RMSEA score.

Distributive justice, procedural justice, instructor relevance, instructor clarity, self-efficacy, and expressive dissent all had an acceptable SRMR score, but an elevated RMSEA score and low GFI and CFI scores. When the standard residual covariance matrix was reviewed, several items were found to cause significant residual error upon other items in the measure. Therefore, these items were removed one at a time, starting

with the most problematic item and respecifying the measurement model after each removal. Five items were removed from distributive justice: "The grade you expected to receive on the exam," "the effort you put into studying for the exam," "the grade most other students at this university would have received on the exam," "the grades other students in the course will probably receive," and "the grade(s) you've received in similar courses." Procedural justice had four items removed: "How the instructor conducts class discussions," "the amount of work required to get a good grade in this course," "the number of questions on exams," and "the level of difficulty of the course content." Three items were removed from expressive dissent: "I complain to others to express my frustrations with this course," "I express my disappointment about this course to other people because it helps me feel better," and "I talk to other students so we can discuss the problems we have in class." Instructor relevance had three items removed: "Provides explanations that make the content relevant to me," "uses exercises or explanations that demonstrate the importance of the content," and "gives assignments that involve the application of the content to my career interest." Two items were dropped from self-efficacy: "I'm certain I can understand the most difficult material presented in the readings for this course," and "I'm confident I can understand the most complex material presented by the instructor in this course". Instructor clarity lost two items: "Projects assigned for this class have unclear guidelines," and "my teacher is not clear when defining guidelines for out of class assignments."

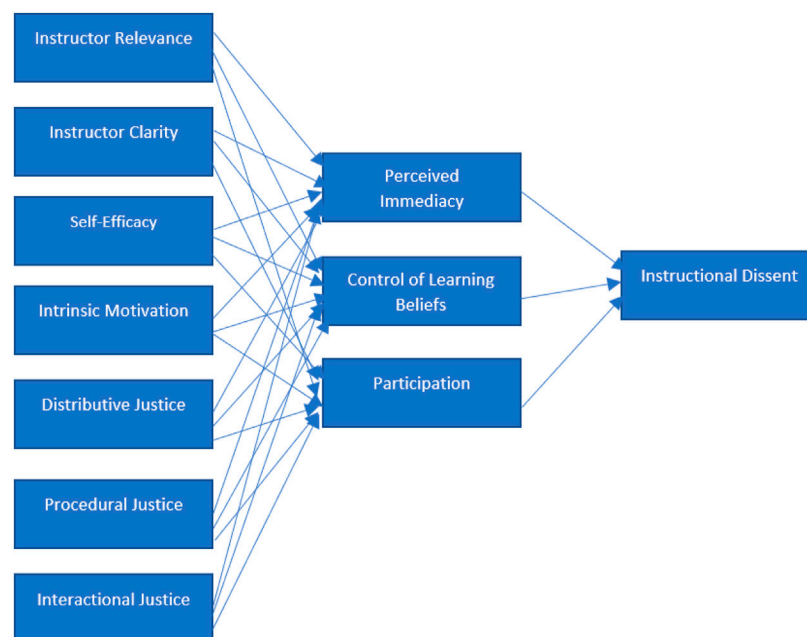
Hypothesis and Research Question Testing

All hypotheses were tested through Pearson correlations. The data were consistent with all hypotheses except for hypothesis 21, which predicted a positive relationship between participation and interactional justice ($r = 0.05$, $p = 0.19$), and hypotheses 28, which predicted a negative relationship between participation and expressive dissent ($r = -0.00$, $p = 0.97$). The correlation matrix is displayed in Table 4.

To test our research question, an independent samples *t*-test was run on each of the measures to see whether there was a significant difference between students who received the format

TABLE 5 | Independent Samples *t*-Test.

	<i>t</i>	<i>M</i> (preferred)	<i>M</i> (not preferred)
Intrinsic motivation	$t(598) = 3.22, p < 0.01$	5.19	4.88
Self-efficacy	$t(598) = 3.04, p < 0.01$	5.46	5.13
Control of learning beliefs	$t(598) = 2.93, p < 0.01$	5.58	5.28
Expressive dissent	$t(598) = -2.72, p < 0.01$	3.66	4.08
Vengeful dissent	$t(598) = 0.00, p = 1.0$	1.55	1.55
Rhetorical dissent	$t(598) = 0.69, p = 0.50$	3.47	3.39
Instructor clarity	$t(598) = 3.09, p < 0.01$	5.47	5.17
Instructor relevance	$t(598) = 4.25, p < 0.01$	5.15	4.68
Distributive justice	$t(598) = 2.73, p < 0.01$	5.57	5.30
Procedural justice	$t(598) = 2.67, p < 0.01$	5.65	5.44
Interactional justice	$t(598) = 1.95, p = 0.05$	5.83	5.61
Perceived immediacy	$t(598) = 3.10, p < 0.01$	5.58	5.25
Participation	$t(598) = 1.22, p = 0.22$	4.71	4.56

**FIGURE 1** | Proposed model.

they preferred for a class and those who did not. A statistically significant difference was found between groups in all measures except for vengeful dissent, rhetorical dissent, participation, and interactional justice. The full results are displayed in **Table 5**.

Model Testing

The AMOS Maximum Likelihood Parameter Estimation Algorithm was employed again for structural equation modeling (SEM). Mean differences between the variables in accordance with whether students were in their preferred format indicate that the models will be moderated. Therefore, each of the proposed dissent models will be tested separately within each sample, resulting in six separate models.

First, the expressive dissent model was tested for the group of participants in their preferred format. Fit statistics for the model were as follows: GFI = 0.99, CFI = 0.99, RMSEA = 0.07,

SRMR = 0.02. Therefore, the global fit statistics support the hypothesized model. Indirect effects were then tested using bootstrapping with subsamples of 200 participants and a 95% confidence interval. The indirect paths from interactional justice ($-0.33 < \rho < -0.08$), instructor relevance ($-0.19 < \rho < -0.01$), and instructor clarity ($-0.29 < \rho < -0.06$) to expressive dissent were statistically significant. However, the indirect paths from self-efficacy ($-0.25 < \rho < 0.07$), intrinsic motivation ($-0.02 < \rho < 0.17$), procedural justice ($-0.25 < \rho < 0.01$), and distributive justice ($-0.12 < \rho < 0.10$) were not. Therefore, these paths were removed from the model. Fit statistics for the modified model were as follows: GFI = 0.98, CFI = 0.99, RMSEA = 0.07, SRMR = 0.02. Thus, the data support the modified expressive dissent model which is displayed in **Figure 2**.

Second, the expressive dissent model was tested for the group of participants whose class was not in the format they preferred.

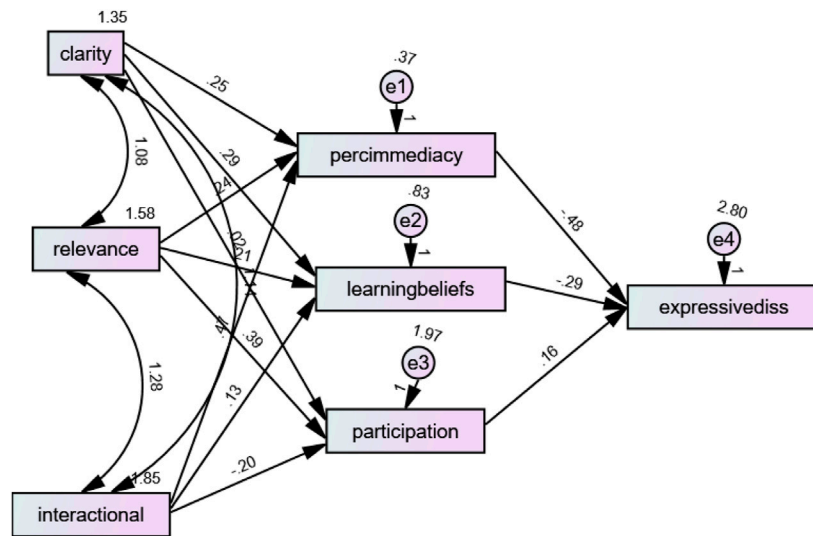


FIGURE 2 | Expressive dissent with class preference (Supported model).

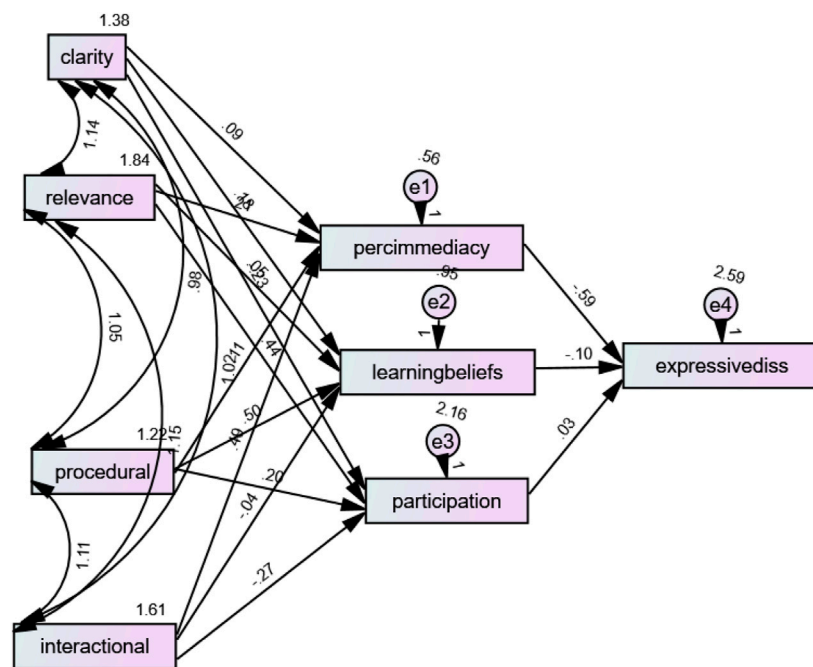


FIGURE 3 | Expressive dissent without class preference (Supported model).

Fit statistics for the model were as follows: GFI = 0.99, CFI = 0.99, RMSEA = 0.07, SRMR = 0.02. Therefore, the global fit statistics support the hypothesized model. Indirect effects were tested using bootstrapping with subsamples of 200 participants and a 95% confidence interval. The indirect paths from interactional justice ($-0.42 < \rho < -0.20$), procedural justice ($-0.25 < \rho < -0.00$), and clarity ($-0.20 < \rho < -0.01$) to expressive dissent were significant. However, the indirect paths from self-efficacy ($-0.12 < \rho < 0.04$), intrinsic motivation ($-0.08 < \rho < 0.12$), distributive justice

($-0.03 < \rho < 0.17$), instructor relevance ($-0.19 < \rho < 0.04$) were not. Therefore, those paths were removed from the model. Fit statistics for the modified model were as follows: GFI = 0.99, CFI = 0.99, RMSEA = 0.07, SRMR = 0.02. Thus, the data support the modified expressive dissent model which is displayed in **Figure 3**.

Third, the rhetorical dissent model was tested for the group whose class was in the format they preferred. Fit statistics for the model were as follows: GFI = 0.99, CFI = 1.0, RMSEA = 0.03,

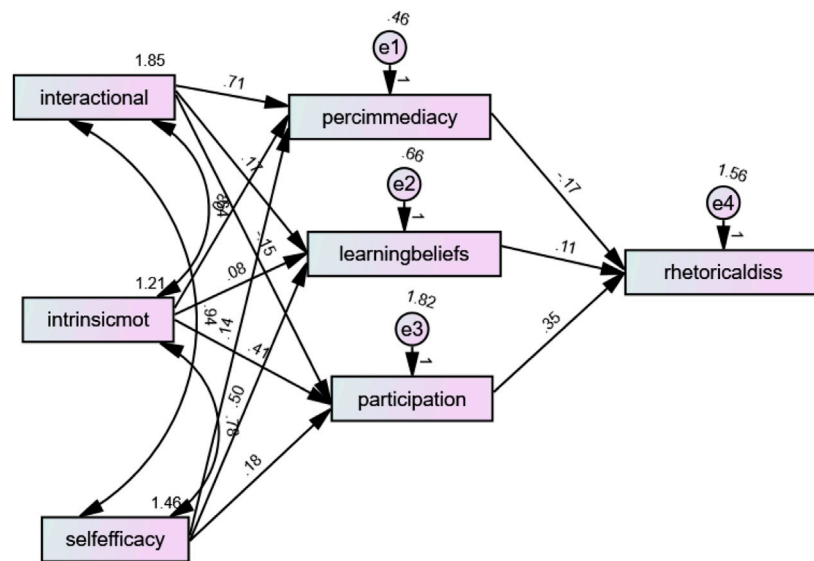


FIGURE 4 | Rhetorical dissent with class preference (Supported model).

SRMR = 0.02. Therefore, the global fit statistics support the hypothesized model. Indirect effects were tested using bootstrapping with subsamples of 200 participants and a 95% confidence interval. The indirect paths from self-efficacy ($0.01 < \rho < 0.26$), intrinsic motivation ($0.06 < \rho < 0.25$), and interactional justice ($-0.29 < \rho < -0.03$) to rhetorical dissent were significant. However, the indirect paths from procedural justice ($-0.11 < \rho < 0.16$), distributive justice ($-0.18 < \rho < 0.03$), instructor relevance ($-0.07 < \rho < 0.18$), and instructor clarity ($-0.16 < \rho < 0.08$) to rhetorical dissent were not. Therefore, these paths were removed from the model. Fit statistics for the modified model were as follows: GFI = 0.99, CFI = 1.0, RMSEA = 0.04, SRMR = 0.02. Thus, the data support the modified rhetorical dissent model which is displayed in **Figure 4**.

Fourth, the rhetorical dissent model was tested for the group whose class was not in the format they preferred. Fit statistics for the model were as follows: GFI = 0.99, CFI = 1.0, RMSEA = 0.06, SRMR = 0.02. Therefore, the global fit statistics support the hypothesized model. Indirect effects were tested using bootstrapping with subsamples of 200 participants and a 95% confidence interval. The indirect paths from intrinsic motivation ($0.08 < \rho < 0.25$) and instructor relevance ($0.07 < \rho < 0.24$) to rhetorical dissent were significant. However, the indirect paths from self-efficacy ($-0.04 < \rho < 0.17$), interactional justice ($-0.13 < \rho < 0.07$), procedural justice ($-0.07 < \rho < 0.17$), distributive justice ($-0.08 < \rho < 0.10$), and instructor clarity ($-0.17 < \rho < 0.02$) were not. Therefore, they were removed from the model. Fit statistics for the modified model were as follows: GFI = 0.98, CFI = 0.97, RMSEA = 0.10, SRMR = 0.04. Thus, the data support the modified rhetorical dissent model which is displayed in **Figure 5**.

Fifth, the vengeful dissent model was tested for the group whose class was in the format they preferred. Fit statistics for the model were as follows: GFI = 0.98, CFI = 0.99,

RMSEA = 0.09, SRMR = 0.02. Therefore, the global fit statistics support the hypothesized model. Indirect effects were tested using bootstrapping with subsamples of 200 participants and a 95% confidence interval. The indirect paths from interactional justice ($-0.24 < \rho < -0.04$), and instructor clarity ($-0.13 < \rho < -0.02$) to vengeful dissent were statistically significant. However, the indirect paths from self-efficacy ($-0.07 < \rho < 0.14$), intrinsic motivation ($-0.00 < \rho < 0.12$), procedural justice ($-0.08 < \rho < 0.07$), distributive justice ($-0.08 < \rho < 0.03$), and instructor relevance ($-0.12 < \rho < 0.03$) to vengeful dissent were not. Therefore, these paths were removed from the model. Fit statistics for the modified model were as follows: GFI = 0.99, CFI = 1.0, RMSEA = 0.01, SRMR = 0.02. Thus, the data support the modified vengeful dissent model which is displayed in **Figure 6**.

Finally, the vengeful dissent model was tested for the group whose class was not in the format they preferred. Fit statistics for the model were as follows: GFI = 0.99, CFI = 0.99, RMSEA = 0.06, SRMR = 0.02. Therefore, the global fit statistics support the hypothesized model. Indirect effects were tested using bootstrapping with subsamples of 200 participants and a 95% confidence interval. The indirect paths from interactional justice ($-0.17 < \rho < -0.03$) and instructor clarity ($-0.09 < \rho < -0.01$) to vengeful dissent were significant. However, the indirect paths from self-efficacy ($-0.06 < \rho < 0.05$), intrinsic motivation ($-0.02 < \rho < 0.10$), procedural justice ($-0.09 < \rho < 0.01$), distributive justice ($-0.02 < \rho < 0.07$), and instructor relevance ($-0.05 < \rho < 0.03$) to vengeful dissent were not, and clarity ($-0.09 < \rho < -0.01$). Therefore, those paths were dropped from the model. Fit statistics for the modified model were as follows: GFI = 0.99, CFI = 0.99, RMSEA = 0.07, SRMR = 0.03. Thus, the data support the modified vengeful dissent model which is displayed in **Figure 7**.

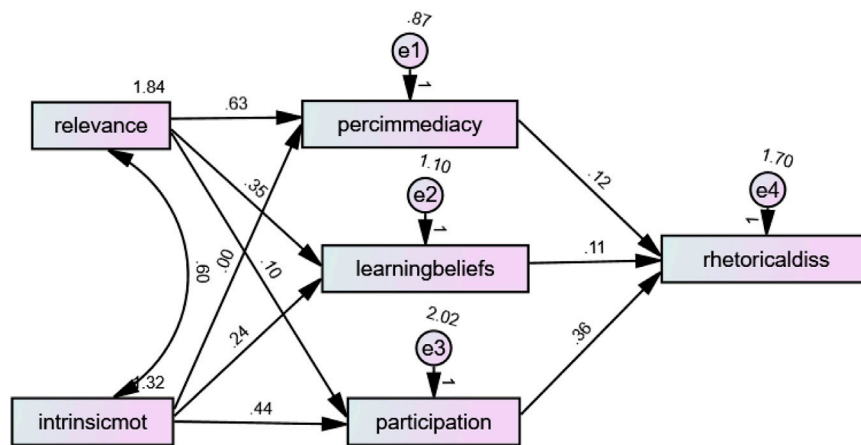


FIGURE 5 | Rhetorical dissent without class preference (Supported model).

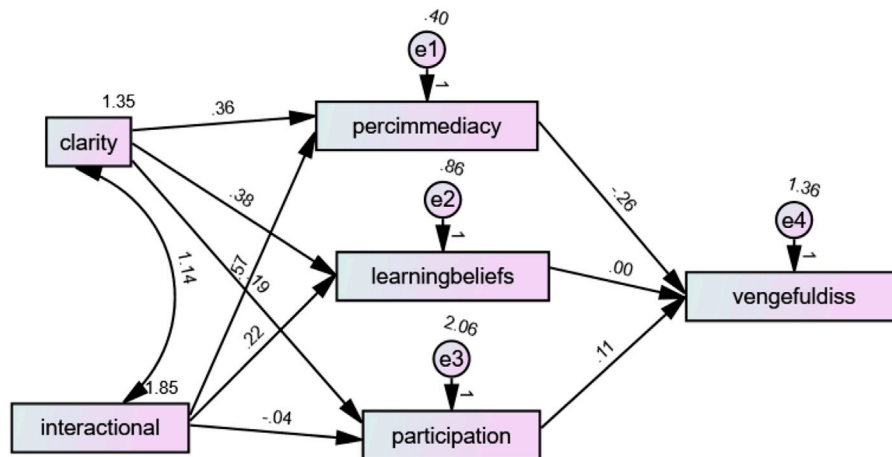


FIGURE 6 | Vengeful dissent with class preference (Supported model).

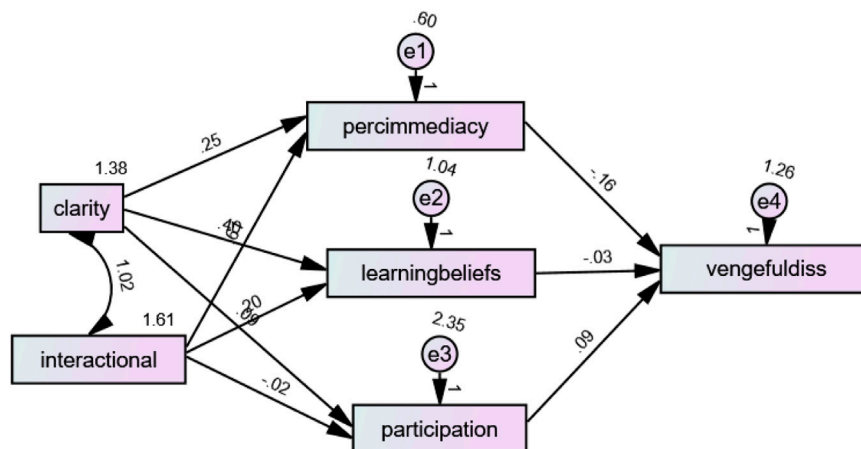


FIGURE 7 | Vengeful dissent without class preference (Supported model).

DISCUSSION

Guided by the IBM (Weber et al., 2011), this study sought to better understand student dissent in the COVID-19 classroom structure. In total, 31 hypotheses were proposed, forming models that predicted that dissent was explained by teacher behaviors, student characteristics, and classroom characteristics through the mediation of student beliefs.

The first seven hypotheses indicate the relationships between the first order variables and perceived immediacy. Hypothesis 1 predicted a positive relationship between relevance and perceived immediacy. The data were consistent with this hypothesis, indicating that students experienced higher levels of perceived immediacy when the instructor presented the content in such a way that it seemed relevant to their career or personal goals. Hypothesis 2 predicted a positive relationship between instructor clarity and perceived immediacy. The data were consistent with this hypothesis, indicating that instructors that were clear were also perceived as more immediate by students. The third hypothesis predicted a positive relationship between self-efficacy and perceived immediacy. The data were consistent with this hypothesis, indicating that when students believe they are capable of succeeding they are also more likely to perceive their instructor as immediate. Hypothesis 4 predicted a positive relationship between intrinsic motivation and perceived immediacy. The data were consistent with this hypothesis, indicating that intrinsically motivated students were more likely to report higher perceptions of immediacy with their instructor. Hypotheses 5, 6, and 7 predicted a positive relationship between procedural, distributive, and interactional justice and perceived immediacy. The data were consistent with these predictions. This indicates that when students believe the process through which their grades and classroom policies are determined is fair, each student is treated fairly in relation to one another, and that the interactions between the instructor and all students are equally fair, they will report higher levels of perceived immediacy with their instructor.

Hypotheses 8 through 14 deal with the relationships between the first order variables and students' COLB. Instructor relevance and instructor clarity were predicted to have a positive relationship with COLB in hypotheses 8 and 9. The data were consistent with both hypotheses, indicating that students are more likely to believe that their efforts, rather than extenuating factors, directly contribute to their academic success when the instructor is clear and when they relate the material to the goals of the student. Hypothesis 10 predicted a positive relationship between self-efficacy and COLB. The data were consistent with this hypothesis, indicating that students who believe they are capable of succeeding are more likely to believe that success is a direct result of their own efforts. Students' intrinsic motivation and COLB were predicted to have a positive relationship in hypothesis 11. The data were consistent with this hypothesis, indicating that as internally driven students focused on their work, they were more likely to believe their efforts would result in success. Hypotheses 12, 13, and 14 predicted that procedural, distributive, and interactional

justice would be positively correlated with students' COLB. The data were consistent with these predictions. This indicates that when students believe the instructor fairly evaluates them, each student is treated fairly in relation to one another, and that the interactions between the instructor and all students are equally fair, they are more likely to believe that their efforts can result in success because they are uninhibited by unfair classroom procedures or grading practices.

Hypotheses 15 through 21 predict the relationship between the first-order variables and student participation. Instructor relevance and instructor clarity were predicted to have a positive relationship with participation in hypotheses 15 and 16, both of which were supported by the data. This indicates that students are more likely to participate when the instructor clearly presents information and establishes its relevance to the student's goals. Hypothesis 17 predicted a positive relationship between self-efficacy and participation. The data were consistent with this finding, indicating that when students believe they are capable of succeeding they are more likely to engage the material and participate. Hypothesis 18 predicted a positive relationship between intrinsic motivation and student participation. The data were consistent with this hypothesis, indicating that students who engage in a task because they enjoy it are more likely to participate. The prediction that procedural justice and distributive justice would be positively related to student participation (hypotheses 19 and 20) was supported, but interactional justice did not have a significant effect on student participation (hypotheses 21). These findings suggest that students are more likely to participate when they believe the instructor will evaluate them through a fair, objective process and that they will be treated equally in relation to one another. However, the degree to which an instructor fairly treats students while communicating with them and implementing policies did not have a significant effect on their participation.

Each of the proposed models predicted a relationship between the second-order student belief variables and a type of student dissent. Hypotheses 22 through 30 predict the relationship between the second-order variables and third-order student learning outcomes. Expressive and vengeful dissent were predicted to have a negative relationship with perceived immediacy (hypothesis 22 and 23) and were both supported. The results indicate that students were less likely to vent about the class or the instructor and were less likely to engage in vengeful acts of retaliation when the instructor was perceived as more immediate. Hypothesis 24 predicted a positive relationship between rhetorical dissent and perceived immediacy. The data were consistent with this, indicating that students who felt psychologically closer to their instructor were also more likely to engage the instructor directly when attempting to resolve an issue.

Expressive and vengeful dissent were predicted to have a negative relationship with students' COLB (hypotheses 25 and 26), both of which were supported. These results indicate that students who believe their efforts do not significantly contribute to the academic success, or that they will do poorly regardless of effort are more likely to vent their emotions to others who are incapable of changing their situation or go after the instructor's

reputation. Hypothesis 27 predicted that rhetorical dissent and students' COLB would be positively correlated. The data were consistent with this, indicating that students are more likely to engage the instructor directly to resolve an injustice or perceived wrong in the classroom when they also believe that their actions are what influences their academic outcomes.

Hypothesis 28 predicted a negative relationship between participation and expressive dissent but was not supported. Finally, participation was predicted to have a positive relationship with both rhetorical and vengeful dissent (hypotheses 29 and 30). The data were consistent with both of these, indicating that students who actively participate in the classroom are more likely to engage the instructor directly when they believe an injustice has occurred, but they are also more likely to engage in malicious attacks against the instructor.

While none of the proposed models were supported, a modified version of each were supported by the data. Because COVID-19 has created uncertain times and less-than-ideal learning circumstances, often throwing students and instructors into situations they would not have chosen, it is important for the models to reflect that many students were unable to enroll in their preferred learning platform. This is significant because a student is likely to choose the class and platform they are most comfortable with when given the option. Whether a student is comfortable with the physical or virtual classroom environment could influence their perceptions of self-efficacy, intrinsic motivation, level of participation, and so forth (as indicated by the independent t-tests). Therefore, in addition to testing student dissent models with only one dissent variable at a time as recommended by LaBelle et al. (2013), we construct two models for each path to dissent. This resulted in one model for the group of students who were able to enroll in their preferred platform and one for those who were not, resulting in a total of six models. The separation provides a comparison between the factors that influence both groups of students in their decision to employ expressive, rhetorical, and vengeful dissenting behaviors.

It is notable that the supported models for expressive dissent are different between the students who were able to enroll in their preferred class and those who were not. Support for the model in which students were enrolled in their preference indicates that instructor clarity, instructor relevance, and interactional justice indirectly influence expressive dissent through perceived immediacy, COLB, and participation. On the other hand, the model for students who were not enrolled in their preferred class indicates that instructor clarity, instructor relevance, interactional justice *and* procedural justice indirectly influence expressive dissent through perceived immediacy, COLB, and participation. The lack of procedural justice in the supported model for students in a class they preferred suggests that the process of how their grade is determined or how the instructor evaluates them is less important to these students.

Prior research has not been able to explain expressive dissent through student characteristics (Goke et al., 2020) or instructor behaviors (LaBelle et al., 2013), though they have been able to explain vengeful and rhetorical dissent respectively. Thus, Goke et al. (2020) suggested that future research look to classroom

characteristics to explain expressive dissent. This paper is a response to that call. The modified expressive dissent models in the present study indicate that the classroom characteristic of interactional justice influenced students' expressive dissent through the mediation of participation, COLB, and perceived immediacy in both groups of students. Further, the classroom characteristic of procedural justice influenced expressive dissent for students who were not in their preferred platform. Meaning, how fairly students believed they were treated by the instructor in communication and implementation of policies influenced their propensity to vent to each other or others, regardless of whether their class preference was met. However, the inclusion of procedural justice in the model for students without their preferences met suggests that when students are not attending class in their preferred platform, how fair they believe the process of evaluation is in that class is also important to them when determining whether they will engage in expressive dissent.

Like the expressive dissent models, the modified rhetorical dissent models differed between the groups of students. For students who were enrolled in their preferred platform, interactional justice, intrinsic motivation, and self-efficacy indirectly influence rhetorical dissent through perceived immediacy, COLB, and participation. For students who were not enrolled in their preferred platform, instructor relevance and intrinsic motivation indirectly influence rhetorical dissent through perceived immediacy, COLB, and participation. While both models support intrinsic motivation, the differences between them suggest that when the class is taught in the student's preferred platform, they are more likely to engage the instructor directly when they feel the instructor is fair in communication and when they have higher beliefs in their ability to succeed. Conversely, when the class is not in their preferred format, students will weigh how relevant the instructor makes the material in their decision to rhetorically dissent.

The supported vengeful dissent models were the same regardless of whether students were enrolled in their preferred platform. In both groups, clarity and interactional justice indirectly influence vengeful dissent through perceived immediacy, COLB, and participation. A closer examination of the beta weights reveals that interactional justice most significantly influences perceived immediacy while instructor clarity most significantly influences students' COLB. Meaning, whether a student perceives their instructor as immediate is most significantly influenced by how fairly they believe the instructor treats them when communicating with students or enacting course policies. Consistent with previous research, perceived immediacy was negatively related to vengeful dissent (Johnson and Kelly, 2020), indicating that students who perceive their instructor as cold, distant, or aloof in their communication or implementation of course policies are more likely to go after the instructor's career or reputation in retaliation. Similarly, the degree to which students believe it is their own efforts that determine their success in the course is most significantly influenced by how clear the instructor is when presenting information. Since COLB is negatively related to vengeful

dissent and positively related to instructor clarity, students who believe their efforts are futile because their instructor is unclear are more likely to engage in vengeful acts in retaliation.

Although the correlations between distributive justice and the second-order variables were all supported, distributive justice was not a significant contributor to any of the supported models in this study. Since students primarily base this perception on their performance in comparison to others (Chory-Assad and Paulsel, 2004a), it is possible that social distancing and the transition to online learning limited communication between students, reduced their ability to compare grades, and subsequently reduced the importance of distributive justice when determining perceived fairness in the classroom culture. Alternatively, students might simply have placed a higher value on interactional and procedural justice in the current academic climate.

Support for clarity and interactional justice in the Instructional Beliefs Model as indirect influencers of vengeful dissent is a novel finding since LaBelle et al. (2013) did not find support for their vengeful dissent model with instructor clarity as an indirect predictor, and Goke et al.'s (2020) supported vengeful dissent model was indirectly influenced by self-efficacy and COLB. However, these results are not surprising as past research has established that students expect their instructors to be verbally and nonverbally immediate, engaging, and clear communicators (Frymier and Weser, 2001; Strage, 2008). A violation of these expectations could be considered instructor misbehaviors (Kearney et al., 1991) or unfair teaching practices (Horan et al., 2010), which have been shown to influence student dissent (Goodboy, 2013; Horan et al., 2010). Therefore, our findings are consistent with past research, despite supporting a unique model that explored students' perceptions of immediacy and participation as moderating variables between instructor clarity, interactional justice, and vengeful dissent.

IMPLICATIONS

COVID-19 has significantly altered the face of higher education, posing new challenges for instructors as they attempt to establish a strong culture in their virtual environments. Engendering perceptions of immediacy with students and encouraging them to participate in an online or HYFLEX platform can be challenging. As demonstrated in this study, students value different aspects of the classroom culture depending on whether or not they are enrolled in their preferred learning platform. While instructors might not always be aware of student preferences, they can still take steps to increase student participation, self-efficacy, intrinsic motivation, and perceptions of justice in the classroom.

To increase perceptions of immediacy with students and decrease expressive and vengeful dissent, instructors should be clear in their communication. It is especially important that instructors be mindful of the delay in message response time that occurs in an online setting (Varberg et al., 2020; Varberg and Westerman, 2020). If the interactions are asynchronous, such as through email, instructors should be mindful of the length of time

between responses since perceptions of immediacy are engendered through timely responses. Even in a synchronous lecture, instructors must allow time for their students to be finished asking a question or speaking before responding and must allow time for their message to go through before expecting a response from their students. Technology-mediated conversations come with a delay that can cause frustration if participants talk over one another or cut each other off.

Past research has established that a lack of clarity contributes to student distractions such as texting (Johnson, 2013). Students are already more likely to get distracted when learning virtually since they are using technology and it is hard for instructors to monitor how it is being used. Clear communication reduces the contribution that the instructor has to these distractions and decreases the likelihood that students will engage in expressive or vengeful dissent. Clarity has also been demonstrated to determine whether the necessary conditions are present for students to confidently engage the materials (Bolkan et al., 2016; Bolkan, 2017), highlighting its importance for those enrolled in a platform in which they feel less capable. In a virtual environment where it is much easier for students to get distracted, clear and engaging communication is more important than ever.

Fairness in communication and the implementation of policies, as well as a fair grading process were significant predictors of student dissent. Both interactional and procedural justice influence whether students will participate, feel psychologically close to the instructor, or believe their efforts significantly contribute to their academic success. This seems to be particularly true for students who are not enrolled in their preferred platform, which aligns with previous findings that a sense of interactional or procedural injustice negatively influences student psychological engagement and participation (Berti et al., 2010; Horan et al., 2010). Meaning, if students believe they are not being treated fairly by the instructor during interactions or grading, they will be more likely to avoid participating or engaging the material. Lower participation has been shown to decrease student success (Christle and Schuster, 2003; Kelly, 2008; Steger-Jager et al., 2012), which in turn is likely to cultivate dissatisfaction and increase dissent. The importance of getting students to participate highlights the necessity for instructors to be transparent in their grading policies and treat their students equally. Instructors must clearly indicate how students will be assessed and ensure they are treated fairly in all interactions. One way for instructors to increase perceptions of fairness is by confirming student questions and effectively responding to them (Young et al., 2013).

Finally, students' levels of self-efficacy and intrinsic motivation contributed to their desire to participate and their propensity to engage in rhetorical dissent. Rhetorical dissent is considered to be more constructive since it involves the attempt to persuade the instructor to change a perceived injustice (Goodboy, 2011a). Instructors who increase students' self-efficacy and intrinsic motivation will also increase participation (Mahyuddin et al., 2006). To establish a strong classroom climate, instructors should focus on increasing student engagement and rhetorical dissent. This might include inviting constructive criticisms to help shape the classroom culture, admitting when a mistake has been made

and correcting it, making clear connections between the goals and interests of the students and the classroom material, and providing small, low-stakes tasks throughout the semester that help build students' confidence in their mastery of the material.

Limitations

There were a few notable limitations in this study. First, the measures for interactional justice, intrinsic motivation, and vengeful dissent had elevated RMSEA. However, Chen et al. (2008) question whether a universal cutoff is even valuable for RMSEA since its sensitivity to minor misfit causes elevation to happen quite frequently. Second, the two groups into which students were divided (preferred class, not preferred class) were not proportional. There were significantly more students not enrolled in their preferred course for online, synchronous and combination classes. Additionally, between the groups, most students were enrolled in HYFLEX. Therefore, it is possible that the direct comparisons between our supported models are somewhat limited.

Future Directions

The IBM predicts how student beliefs, student characteristics, classroom characteristics, and instructor behaviors influence academic outcomes. What is not considered in this model is the effect that inequalities outside of the classroom have on student-teacher interactions, students' views of themselves, and access to education and technology. Since COVID-19 exacerbated existing disparities (Stephens et al., 2020) it is important that these effects be explored in future projects to better understand the new classroom dynamics post-pandemic.

Previous works indicate that differences in racial and socioeconomic backgrounds influence experiences in the classroom (Howard, 2018; Thomas, 2019; Horse and Nakagawa, 2020), as does curriculum (MacDonald, 2019; Small, 2020). Future research should examine how these factors influence classroom culture and student perceptions of their ability to succeed. Closely allied to these works on social inequalities in the classroom, has been the student characteristic of self-esteem, (Bernard and Lowe, 2019; Lui and Quezada, 2019; Yep and Lescure, 2019), which could serve as a connection between the pedagogical social justice and IBM research.

Finally, COVID-19 further emphasized the digital divide in our society. Student participation could be influenced by their access to technology, something that was not measured in this study. Future works should investigate the effects the digital

divide might have on student participation, motivation, and self-efficacy to further understand student dissent and classroom culture in a post-pandemic climate.

CONCLUSION

Overall, this study highlights the importance of classroom culture in predicting student dissent through interactional and procedural justice, as well as the clarity and relevance of the instructor. As indicated by Johnson and Kelly (2020) and supported in this study, student perceptions play a significant role in their beliefs about their own academic capabilities. The findings of the present study further this understanding and suggest that student perceptions about themselves in relation to the class platform, as well as their perceptions of the classroom environment and teacher behaviors, influence their academic engagement. Whether or not students enroll in their preferred academic platform influences their perceptions of justice, clarity, relevance, self-efficacy, and intrinsic motivation, and affects how they respond to injustice in the classroom. Instructors should ensure their classroom environment enhances student perceptions of their own ability to succeed and encourages participation.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Kristy Shirley North Dakota State University IRB. Written informed consent for participation was not required for this study in accordance with the national legislation and the institutional requirements.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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