

## CONFIDENCE IN CRISIS: STUDENT SELF-EFFICACY AND THE ONLINE PIVOT

Sara Garner,\* Sarah Kuborn, & Misty Chisum



**Sara Garner**



**Sarah Kuborn**



**Misty Chisum**

Department of Child and Family Studies, Southeast Missouri State University, Cape Girardeau, Missouri, USA

\*Address all correspondence to: Sara Garner, Department of Child and Family Studies, Southeast Missouri State University, Cape Girardeau, Missouri, USA, E-mail: [sgarner@semo.edu](mailto:sgarner@semo.edu)

*The COVID-19 outbreak required a pivot to remote education mid-semester. Instructors and students alike were forced to adjust to the online platform even though many lacked the training or interest to do so. This qualitative study focused on the following research question: How did satellite campus students from a university in the United States perceive their educational experience was affected by the alternative educational offerings put into place during the COVID-19 campus closure of March 2020? The results suggest that students ( $n = 106$ ) perceived barriers would affect their educational experiences. All of the barriers, including barriers to social presence and decreased self-regulation, were driven by one central theme: low self-efficacy. Students believed that online instruction would result in decreased social presence and an inability to self-regulate. To tailor effective approaches to online learning in the future, we must give instructors the tools they need to not only move materials online but also enhance student self-efficacy.*

**KEY WORDS:** self-efficacy, online learning, COVID-19, satellite campuses

### 1. INTRODUCTION

On March 13, 2020, the United States declared a national emergency due to the COVID-19 outbreak. A variety of studies have examined how universities have adjusted to pivoting to new modalities of instruction (Bao, 2020; Chakraborty et al., 2021; Crawford et al., 2020; Doyumğac et al., 2021; Dulamă & Ilovan, 2020). Professors and students had to pivot from

face-to-face learning to remote education mid-semester. To provide educational continuity, global higher education institutions had to abruptly substitute in-person class time with technology and online modalities (Govindarajan & Srivastava, 2020; Kerr-Sims & Baker, 2021). Instructors had to adjust to new modes of delivery and pedagogical models for teaching, even though some lacked experience or training for such instruction (Chakraborty et al., 2021; Carroll & Conboy, 2020; Schleicher, 2020). Additionally, students were thrust into a situation they had not chosen, and some felt ill-equipped to manage (Kerr-Sims & Baker, 2021).

This unique situation led the authors to launch a scholarship of teaching and learning (SoTL) research study as students were pivoting to online learning to better understand students' perceptions of how this pivot would influence their educational experience. Transitions are common throughout the college experience (Gale & Parker, 2014). Many transitions can be challenging and psychologically demanding, which can result in diminished student self-efficacy, resulting in students doubting their ability to succeed. As research into self-efficacy has shown, students who perceive themselves as incapable of a task may shape their learning outcomes accordingly (Zimmerman & Ringle, 1981). Thus, when students are asked to quickly adjust their approach to learning, as was the case in the spring of 2020, educators must take student's perceived self-efficacy into account when tailoring approaches to online learning.

## 2. REVIEW OF THE LITERATURE

Online enrollment continues to increase, especially since the pandemic. According to the National Center for Education Statistics data for 2020, of the nearly 19 million learners in the United States, 74% (14 million learners) took at least some online courses. The proportion of students who were enrolled exclusively online increased from 17.5% (3.4 million) in the fall of 2019 to 45.5% (8.6 million) in 2020. Additionally, the proportion of students who took at least one (but not all) of their courses online increased from 19.4% (3.8 million) to 28.5% (5.4 million) (U.S. Department of Education, National Center for Education Statistics, 2021). While the growth of distance education has seen an exponential increase as a result of COVID-19, the trend of learners enrolling in distance education is also driven by student and instructor perceptions of online learning.

### 2.1 Student Perceptions of Online Learning

Understanding student perceptions of online education is necessary if instructors are to meet the needs of students. Students enroll in distance education because of the convenience and flexibility (Lee et al., 2017; Mann & Henneberry, 2012). When enrolling in an online course, it is important for one to be ready for online learning. According to Warner et al. (1998), there are three factors involved in a student being ready for online learning: (a) readiness for online learning was determined by a student's preference for online delivery; (b) a student's confidence in using technology is necessary for learning and success in the

course; and (c) a student's ability to engage autonomously. Evans (2000) and Smith (2005) added to the literature by operationalizing the concept of readiness for online learning to include the following factors: (a) motivation for learning (Fairchild et al., 2005); (b) self-directed learning (McVay, 2001); (c) learner control (Reeves, 1993); (d) online communication self-efficacy (McVay, 2001; Roper, 2007); and (e) computer and Internet self-efficacy (Hung et al., 2010). However, a satisfactory experience is not only made up of convenience, flexibility, and student readiness. Students also desire that their instructors are both capable and responsive (Asoodar et al., 2016; Sebastianelli et al., 2015) and the course is designed to promote critical thinking (Hay et al., 2004; Picciano, 2002) and foster a sense of community and social interaction (Kim et al., 2005).

Van Wart et al. (2020) derived seven distinct factors that make up online quality based on student perceptions (organized by students' overall sense of importance): (a) basic online modality; (b) instructional support; (c) teaching presence, (d) cognitive presence; (e) social online comfort; (f) interactive online modality; and (g) social presence. When looking at students who valued the convenience of online courses, the minimum requirements for an online course included the basic online modality, cognitive presence, and online social comfort. Basically, they wanted simplicity in the online course, where the instructor is knowledgeable, knows how to use an online platform, and disseminates the information in a comfortable environment. However, students had higher standards if the course was more critical for their degree. In addition to simplicity, they also expected teaching and social presence. Students who felt strongly about having a particular learning style preference were those who believed that online courses required basic functionality as well as a strong cognitive presence, online social comfort, instructional support, and social presence. Unique from the other groups of students, they also put great emphasis on online interactive modality. They desired human interaction from both the instructor and the other students.

At the start of the pandemic, findings on student perceptions of COVID-19 emergency remote teaching indicated that students were most concerned about communicating with instructors and classmates (Froman et al., 2020). Additionally, Froman et al. (2020) found that students were concerned about keeping up with their coursework, performing in the course, and balancing school with other priorities—indicating that students lacked confidence in themselves as self-regulated learners. Literature studies conducted after the initial spring 2020 semester found that the pedagogical transition to online learning amid the COVID-19 pandemic negatively affected collaborative learning (Kalmar et al., 2022). More specifically, it affected social interactions, course design, sense of community, and student motivation (Kalmar et al., 2022). Similarly, Chakraborty et al. (2021) found that students (65.9%) who were forced into online education during the COVID-19 pandemic felt that they learned better in physical classrooms rather than through an online modality. The students (75.1%) also felt that student/professor interactions were superior in a physical classroom compared to an online setting. Overall, students felt that the discussions and collaborative activities that they would have received face-to-face were hard to replicate via an online platform (Chakraborty et al., 2021).

## 2.2 Satellite Campus Student Perceptions

Students choose to attend satellite campuses for reasons related to convenience, including scheduling, location, and the smaller student-to-instructor ratio (Hoyt & Howell, 2012). In this study, the authors defined satellite campus as a learning site at a physical distance from a university's flagship campus. Students attending satellite campuses tend to live in more rural areas, are first-generation college students, and come from low socioeconomic status backgrounds (Bambrick, 2002; Croxon & Maginnis, 2007). Additionally, many of the students are non-traditional parents with children for whom they are responsible (Bambrick, 2002; Croxon & Maginnis, 2007). The unique characteristics of satellite campus students are that many have unique learning needs and require additional support systems (Croxon & Maginnis, 2007). Hoyt and Howell (2012) indicated that students attend courses at satellite campuses because the class times fit better into their schedules and they prefer taking a class once a week that is two and one-half hours long, rather than three classes throughout the week that are one hour in duration. They also indicated that the smaller class sizes and convenient geographical location of the satellite campus were more appealing. In addition, students reported more interaction with instructors and believed they would be more likely to get a higher grade. Satellite campuses provide an environment that is conducive to the needs of students (Bambrick, 2002).

According to Burke (2017), satellite campus students viewed the following as contributing to the satisfaction of their college experience: the small campus culture, the meaningful relationships that are created, and the attention given to satisfaction. Students liked the sense of community and the welcoming atmosphere of the satellite campus. Additionally, they felt that they were able to make meaningful relationships with the students, faculty, and staff. Students also felt as though they were receiving good customer service. They felt that their feedback was valued, and the university was receptive and responsive to meeting their needs. Unfortunately, the pandemic forced satellite campus students to pivot to an online delivery mode, taking them away from the environment in which they had originally enrolled—a satellite campus experience. While there has been much discussion on the perceptions of main campus students regarding the pivot to online learning, satellite campus students are unique in their needs and desires regarding their educational experience. There has been little attention given to the uniqueness of satellite campus students and their specific perceptions of the COVID-19 pivot to online education. Therefore, the aim of this study was to examine satellite campus students' perceptions of pivoting to online learning and its effect on their educational experience. Subsequently, a secondary aim was to examine how faculty can prepare for future students.

## 2.3 Conceptual Framework

Self-efficacy, social presence, and self-regulation together guided the inquiry of this study. Self-efficacy and self-regulation refer to intrinsic motivators, while social presence refers to

the students' perceived level of extrinsic support required to succeed. When these three frameworks are balanced, students have the greatest likelihood of success.

As a key component of social-cognitive theory, self-efficacy, as originally defined by Bandura (1997), is the belief of personal ability to complete a plan of action. Self-efficacy is the belief about one's abilities, not necessarily a true representation of one's capabilities (Artino, 2012); thus, self-efficacy is a measure of confidence (Morris, 2004). One's self-efficacy may have a direct effect on a student's effort in the academic setting. Bandura (1977, 1997) posited that low self-efficacy may limit student effort and persistence, specifically when faced with difficult situations. Olivier et al. (2019) found that "student self-efficacy and classroom engagement are among the motivational factors" of learning (p. 334). Similarly, Goldman (2019) found that self-efficacy affected student motivation and achievement. Overall, self-efficacy can affect one's behavior positively or negatively based on self-perception in relation to the task at hand (Du et al., 2019).

Social presence, as originally coined by Short et al. (1976), examines communication dynamics. Kozan and Richardson (2014) defined social presence as the "degree to which participants feel affectively connected to one another" (p. 69). Furthermore, social presence has been conceptualized as the perceived *quality* of a communication method and the ability of the instructor or participants to project themselves as real people (Lowenthal, 2010; Lowenthal & Dunlap, 2018). Garrison et al. (1999) broke social presence into the following categories: emotional (affective expression); sharing personal experiences and values; open communication; developing mutual awareness and recognition; and group cohesion, i.e., building and sustaining group commitment. Additionally, social presence is one of the three main elements (social presence, teaching presence, and cognitive presence) in the community of inquiry model, which is a theoretical framework representing how learning takes place within an educational experience (Garrison et al., 1999). While social presence is an important element employed to predict student success (Richardson et al., 2017) it is not the only consideration in relation to distance education.

Self-regulation (or self-regulated learning) refers to the ability to regulate one's thoughts, feelings, and actions in a planned and systemic manner (Schunk & Ertmer, 2000). Zimmerman (2008) viewed self-regulation as a thought process to motivate oneself and plan out one's own learning. He noted that students can regulate some areas of their learning while not addressing all degrees of learning. Unfortunately, this may lead to students lacking confidence in seeing themselves as self-regulated learners (Froman et al., 2020). The realization that students may tend to struggle in areas such as personal initiative, perseverance, and adaptive skills may help us (as educators) introduce self-regulatory scaffolding to assist in increasing self-efficacy and student success.

### 3. METHODOLOGY

In response to the United States' declaration of national emergency on March 13, 2020, higher education universities had to shift from face-to-face instruction to remote instruction halfway through the semester. This study was conducted at two satellite campuses and one

delivery site of a moderately sized Midwestern public institution in the United States. A delivery site, in this case, means that the students were accessing the class from an area community college. This particular university had spring break scheduled for March 16–20 and moved in-person classes to remote learning the week of March 23. On March 22, 2020, campus coordinators emailed an online questionnaire through Survey Monkey™ to their students ( $n = 620$ ) after receiving approval by the university's institutional review board. A reminder email was sent to the students on March 30, 2020. The survey included the consent form, demographic questions, and three closed-ended questions (see Table 1), as well as the following open-ended question: How do you feel that your educational experience may change with alternative educational offerings because of the COVID-19 campus closure?

**TABLE 1:** Closed-ended question responses ( $n = 106$ )

<b>Closed-Ended Question Response</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Do you feel that your educational experience will change since you will not attend courses on campus?</b>		
Yes	73	68.9
No	33	31.1
<b>Do you feel confident your faculty can deliver the coursework to allow you to be successful the rest of the semester?</b>		
Yes	91	85.8
No	15	14.1
<b>Do you anticipate your grade to stay the same, go up, or go down with the alternative instruction?</b>		
Up	14	13.2
Down	39	36.8
Stay the same	53	50

During the spring 2020 semester, the institution reported the total undergraduate enrollment as 8,426, with 6,430 and 1,996 enrolled as full- and part-time students, respectively (flagship campus and satellite sites combined). The participants were enrolled either full or part time in at least one of the two satellite campuses and the delivery site, and had to be 18 years of age or older. Participation in the survey was optional and no incentive was provided. A total of 620 satellite campus and delivery site students were invited to participate in an online survey. Of the 620 surveys sent, 106 were completed, resulting in a response rate of 17.1%. As seen in Table 2, of the 106 participants, 26.4%, 31.1%, 18.9%, and 23.6% identified as first-year students, sophomores, juniors, and seniors, respectively. Roughly one-quarter (23%) of the participants were of non-traditional age (25–65+ years) and nearly one-half (44%) of the participants identified themselves as being first-generation college students. Twenty-seven students (25.4%) reported no previous experience with online instruction.

**TABLE 2:** Descriptive parameters ( $n = 106$ )

<b>Descriptive Parameter</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>First generation college student</b>		
Yes	47	44.3
No	59	55.6
<b>Previous experience with online instruction</b>		
Yes	79	74.5
No	27	25.4
<b>Participant age</b>		
18–24	82	77.4
25–34	11	10.4
35–44	7	6.6
45–54	2	1.9
55–64	3	2.8
65+	1	0.9
<b>Educational classification</b>		
Freshman	28	26.4
Sophomore	33	31.1
Junior	20	18.9
Senior	25	23.6

Thematic (Braun & Clarke, 2006) and constant comparative analysis (Corbin & Strauss, 2015) provided a strategy for identifying themes from the data. First, two researchers read the open-ended responses individually to become familiar with the data. Next, initial codes were created independently by the two researchers. The two researchers then met to discuss the initial coding and refined the codebook accordingly to establish inter-coder reliability (Neuendorf, 2002). The data were then read through again to refine, collapse, cluster, separate, and reorganize themes. Throughout the analysis process, the codes and themes were constantly compared. The researchers moved back and forth between the data, memos, and research to ensure that all codes and themes were reflective of the data and analyzed in relation to the research question. To ensure confirmability (Lincoln & Guba, 1985) and construct validity (Thomas, 2003, 2006) the third research member then coded the data. Upon completion, all three researchers continued to discuss the validity of the themes as movement into the literature became more rigorous. Throughout this time, a relationship between the codes was identified; this resulted in the sub-themes of (a) *social presence* and (b) *self-regulation* under the umbrella of *self-efficacy*.

## 4. FINDINGS

This study examined student perceptions of how their educational experience was affected by the shift from face-to-face learning to remote learning during the COVID-19 campus closure of March 2020. The results suggest that students perceived their educational experience would be altered by the emergency remote teaching. For many participants who perceived this change as negative, their apprehension stemmed from low self-efficacy.

### 4.1 Low Self-Efficacy

Many students did not feel confident in or positive about how their educational experience would be affected by the alternative educational offerings put into place during the COVID-19 campus closure. For example, 36.8% of students anticipated their grades would go down because of the online format. Although not explicitly stated, this feeling was coded as low self-efficacy due to the student's description of anxiety and stress. Self-efficacy, according to Bandura (1977, 1986, 1997), is a belief about one's capacity or confidence in controlling one's own motivation, behavior, and/or social environment. Participants described the anxiety and stress they were experiencing with the transition to the new educational offerings, including understanding the material and keeping up with the classes. As a result of these doubts, some students questioned their ability to succeed. Two main factors seemed to drive low self-efficacy: (a) social presence and (b) self-regulation.

It is interesting to note that even students with no earlier online experience professed a preference for face-to-face instruction. Even though a student claimed "this is all new to me," they stated emphatically, "I just enjoy the classroom setting better." This observation leads one to question what effect this notion may have had on the student's experience if, as research supports, perceived self-efficacy can influence motivation and achievement (Du et al., 2019; Goldman, 2019).

In addition, students equated online learning with a requisite loss of hands-on experiences. They associated face-to-face instruction with the opportunity for authentic, hands-on learning opportunities and seemed to view online courses as antithetical to such experiences. One student summarized the anxiety that others had stated: "I feel as though I will not succeed because I am the type of student who needs face-to-face and/or hands-on-learning." Before the first assignment was submitted online, the student had already begun to internalize the prospect of diminished performance. Considering the power of self-efficacy, this belief may have shaped the student's subsequent experience, including social presence and self-regulation.

### 4.2 Social Presence

Respondents reported a connection to the instructor and/or classmates as an important ingredient to their success. Students overwhelmingly reported the desire for contact with

instructors and/or peers and expressed the fear that they would lose this contact with the alternative educational offerings. These reports align with the Picciano (2002) social presence definition of being able to interact with students and the instructor. In addition, social presence has been conceptualized as the perceived quality of communication (Lowenthal, 2010; Lowenthal & Dunlap, 2018). Therefore, participants' responses that described interaction, engagement, or communication with instructors or students were clustered together to create social presence. Social presence was then broken up into two subthemes: (a) *instructor presence* and (b) *student presence*.

Students shared that they expected the interaction with the instructor to change with the transition to the alternative educational offerings. A sense of anxiety and fear that the instructor would no longer be accessible emerged often in the responses. For example, one student shared: "I am nervous about doing everything online. Most of my classes I talk face-to-face with my professors if there is a problem or a question. I am nervous about not getting to ask questions like that."

In general, students perceived that it would be "harder to communicate with professors and ask my professor questions." Getting questions answered by faculty in-person was highly desired and students did not feel confident in asking questions via email. One student wrote, "I am missing out on the opportunity to talk to my professors if I have any questions. Only being able to talk through email some things get lost in translation." It was as if students believed the instructor would no longer be engaged in the course when it moved online. In addition, participants felt they would not be able to fully understand assignments or what was expected of them without the instructor telling them in person: "I feel like without the teacher in front of me, I won't get the full gist of what they want from my assignments." Without the instructor's physical presence many students lacked self-efficacy in their perceptions of succeeding in the course.

Although self-efficacy emerged as the overarching theme for student anxiety regarding faculty presence, we cannot ignore the remarks students documented about the social presence of their classmates. Student presence as a sub-theme includes any responses in which participants discussed interaction with their peers or social life. When speaking of the transition to online modalities, one student stated, "There is really no student interaction. I will miss the personal feel that on campus offered." Students made remarks about missing out on maintaining their relationships with their classmates as well as learning from their classmates. One student stated, "I am missing out on the campus life" and another described, "It's going to be totally different. Missing the part of meeting and talking with your friends." They identified how important their classmates were to their learning and their success in the course. One student expressed that they thought it would be difficult to engage autonomously with learning. They stated they were "going to miss lecture and open discussion due to lack of seeing each other face to face." Other students had similar sentiments: "I learn so much by my classmates around me in real time." The participants viewed their peers as integral to their class experience and were not confident that their peer exchanges would continue online.

### 4.3 Self-Regulation

The participants expressed that the shift to online learning was incongruent with their preferred modality. Modality preference posits that learning is enhanced when material is presented in the students' preferred modality (Lodge et al., 2016). When students believed they were being asked to learn outside of this modality preference, they expressed anxiety and hesitancy.

The participants shared their anxiety in self-directing or self-initiating their efforts to succeed in the course. Such responses were coded as *self-regulation*, which requires students to manage their learning by adjusting as needed to new circumstances (Zimmerman, 2002, 2008). Many of the students who expressed low self-efficacy also expressed anxiety related to self-regulation. One student shared, "I feel that with classes being at home I may not be motivated as much to do my class work, or I may just have to push myself more to be motivated." Zimmerman (2002) supported the notion that learners must believe they can learn or succeed in a task in order to regulate their behavior. The students described the difficulty they believed they would face with keeping up with their courses. They discussed that the transition would result in greater distractions, reduced focus, and increased challenges in completing assigned work due to a lack of routine and scheduled class time. For instance, a student expressed, "It's harder to get my homework completed at home. I usually do it at my regional campus because I have no distraction." Distractions were expressed in a variety of ways. Another student lamented the lack of routine:

I believe routine will be one of the biggest changes as I have a toddler who is home with me full time now. My only online education experience has been only what I've learned this semester and I feel anxious about this, however, hopeful as well.

Thus, the students lacked confidence in their ability to self-regulate their efforts to ensure a successful outcome without the instructor's physical presence.

When faced with the idea of losing access to their preferred modality, face-to-face instruction, and the promised instructor presence, several students expressed a decreased sense of self-efficacy. One student questioned the ability to maintain focus and avoid procrastination without the structure and accountability associated with face-to-face courses: "I learn better in a classroom setting rather than at home. With not really having a schedule for going to classes, it makes procrastination easier." Another student echoed these fears and added that the tendency to become distracted would be amplified by the online format. This student lamented:

I feel my grades will be affected mostly due to the fact that I learn better in a hands-on environment, and I am very easily distracted. With being at home I have often found myself not paying attention to the class and then doing poorly on exams and quizzes.

Another student identified the lack of routine and scheduled class time as a detriment:

...I think that many students rely on that in class time to keep them on track. I am now having to work a full-time job to afford bills since the closure of my job due to the virus. There is no doubt that I will unintentionally miss an assignment due to either the

confusing situation regarding online classes, or due to my now full-time job. [...] There are many factors that make it hard to complete online courses and I believe maybe students purposely take in-person courses to stay on track.

These students, being aware of their own personal limitations, had already internalized the negative self-talk present in decreased self-efficacy.

## 5. DISCUSSION

In this study, we attempted to understand students' preconceived perceptions of how the alternative educational offerings put into place during the COVID-19 campus closure would affect their educational experience. Our findings indicate that students felt their educational experience would be affected with the move to online learning. Some students viewed online learning as incompatible with their preferred learning modality. This incompatibility led students to feel anxious and hesitant (Arora et al., 2021), leading to a lack of confidence in their ability to succeed in the course. Satellite campus students believed that, with the transition to online learning, their course would lack social presence and require a need for more self-regulation. The students reported perceived barriers to learning and academic success, and their responses suggested that their perspectives are shaped largely by their own self-efficacy. Additionally, there was concern that faculty may disappear or become unreachable. They feared that this reduction in faculty social presence would prevent them from focusing, understanding material, and managing their time effectively.

Satellite campus students reported that the shift to online course delivery would present challenges affecting their learning. This is consistent with previous literature on student perceptions of the pivot from face-to-face to online or remote teaching (Aguilera-Hermida, 2020; Harefa & Sihombing, 2022; McMurtrie, 2020a). Our results showed that students perceived their online instruction to be missing instructor and classmate presence. It was as if they believed that with the move to online instruction social presence would completely disappear, resulting in an inability to do well in their courses. Chisum (2020) found that when students feel connected to the instructor, they are more satisfied and engaged with their coursework. A lack of instructor presence is a deficit in external stimulation, which normally encourages students to engage with the material (Peck et al., 2018), and without it our participants felt nervous about not getting questions answered.

The participants expressed that the shift to online learning was incompatible with their preferred modality. When students believed they were being asked to learn outside their preference anxiety set in, and they believed they would not be able to regulate their own learning. According to UNESCO (2020), these feelings could stem from the fact that the pivot lacked the necessary change in course design. Face-to-face courses are designed differently than online courses, and without ample preparation by the instructor or the students a less positive experience is likely. Additionally, students signed up and had expectations for what a face-to-face course would entail. Students were, instead, put into a situation where they were not expecting the amount of discipline and commitment that was going to be necessary to succeed.

Many students highlighted the difficulty they felt they would experience in regulating their behaviors related to studying and completing assignments on time. Students will not make the effort nor be motivated when feeling self-defeated or displaying low self-efficacy (Bandura, 1977, 1997; Panadero & Alonso-Tapia, 2014; Zimmerman, 2002, 2008). Our findings support the connection between self-regulation and self-efficacy since the data could not be clearly separated between the two. To achieve one's goals, according to Artino (2012) “learning requires both skill and the belief that a task can be successfully executed” (p. 77). Overall, the participants in this study identified that the anxiety, which came with switching modalities, affected their perception of how well they would be able to self-regulate.

## 5.1 Limitations

A limiting factor in this study was the generalizability of the findings. The participants all attended the same institution, they all were enrolled at a satellite campus or delivery site, and the sample size was small. Therefore, the participants may not be representative of all college and university students at large. Future research should attempt to broaden the sample of participants to encompass a larger array of institutions, as well as a larger sample, in general. Another limitation within our study concerned the survey instrument. The survey included five demographic questions and only five informational questions, with only one of the questions being open-ended; this limited our qualitative data collection. Thus, future research might consider either adding additional open-ended questions to the survey or using a different data collection method such as interviews or focus groups.

## 5.2 Implications for Practice

COVID protocols have forced learning institutions to reexamine teaching practices and sustainability of in-person versus distance learning. Higher education students will always face situational and environmental challenges and barriers such as time management (Talsma et al., 2021) and work/life balance—thus, in a post-COVID world, since some students may possess low self-efficacy when faced with new situations, faculty should be aware of and address these challenges. In a time of difficulty, faculty must be trained in addressing student needs and instructed on how to help them manage expectations (McMurtrie, 2020b).

Self-regulation requires students to manage their learning by adjusting to new circumstances (Zimmerman 2002, 2008), and faculty must create a learning environment to build student self-efficacy. Online learning is no longer an ancillary form of learning; it is now mainstream (Johnston, 2020). Whether face-to-face or online “students need support and a strong instructor's presence in classes to succeed in their academic endeavors” (Singh et al., 2022, p. 30).

It is imperative that institutions focus on the importance of online courses as platforms for social interaction and social presence. Students need support and strong instructor presence (Singh et al., 2022), and they need to feel that classmates and instructors are real people,

which in turn can positively affect course satisfaction (Fiock, 2020). Garrison et al. (1999) acknowledged social presence as an important online learning element that can raise the learner's sense of community. Creating a sense of community between faculty and students from the first day of the course is essential because "the greater that the students perceive the degree of social presence among the participants in an online collaborative work group, the greater will be their predisposition to develop their own learning" (Molinillo et al., 2018, p. 48).

When it comes to online teaching, it is easy to focus on the platform as the pivotal component to student success. Faculty are often taught how to use the learning management system, including how to set up online discussions and assignments, but are often not trained on the importance of student self-efficacy in relation to social presence and self-regulation (Zimmerman, 2002, 2008). In addition, students could benefit from resiliency training, including time management, goal setting, and coping skills, especially in relation to unexpected stress.

Technology cannot guarantee quality learning outcomes. Simply putting learning materials on a learning management system will not necessarily equate to a positive learning experience. Moore (2007) reminded us that learner-to-instructor, learner-to-content, and learner-to-learner interactions must all be considered when planning distance education. Andel et al. (2020) found that social presence can be established in a short period of time. However, faculty must first be shown the connection between the level of self-efficacy that students possess and their confidence in their ability to succeed. In addition to showing faculty how to create an online learning management site, institutions must also train faculty in how to create social presence. This student-centered way of viewing the online platform is innovative in that the focus shifts from the platform itself to the personal interactions needed to create a complete learning experience. With greater emphasis on online education as more than just a means to an end, institutions must consider providing training that emphasizes the importance of student self-efficacy and its connection to social presence and self-regulation.

As we move forward from this historic moment, we would be wise to remember that "it would likely be advantageous for institutions and instructors to devote time, energy, and resources to bolster students' self-efficacy regarding online instruction" (Garris & Fleck, 2022, p. 133). Thus, when students are asked to quickly adjust their approach to learning, as was the case during the spring of 2020, educators must take students' perceived self-efficacy into account when tailoring approaches to online learning.

## REFERENCES

- Aguilera-Hermida, P. (2020). College students' use and acceptance of emergency online learning due to COVID-19. *International Journal of Educational Research Open*, 1(1), Article 100011. <https://doi.org/10.1016/j.ijedro.2020.100011>
- Andel, S. A., de Vreede, T., Spector, P. E., Padmanabhan, B., Singh, V. K., & de Vreede, G.-J. (2020). Do social features help in video-centric online learning platforms? A social

- presence perspective. *Computers in Human Behavior*, 113, Article 106505. <https://doi.org/10.1016/j.chb.2020.106505>
- Arora, A., Chakraborty, P., Bhatia, M. P. S., & Mittal, P. (2021). Role of emotion in excessive use of Twitter during COVID-19 imposed lockdown in India. *Journal of Technology in Behavioral Science*, 6, 370–377. <https://doi.org/10.1007/s41347-020-00174-3>
- Artino, A. R., Jr. (2012). Academic self-efficacy: From educational theory to instructional practice. *Perspectives on Medical Education*, 1(2), 76–85. <https://doi.org/10.1007/s40037-012-0012-5>
- Asoodar, M., Vaezi, S., & Izanloo, B. (2016). Framework to improve e-learner satisfaction and further strengthen e-learning implementation. *Computers in Human Behavior*, 63, 704–716. <https://doi.org/10.1016/j.chb.2016.05.060>
- Bambrick, S. (2002). *The satellite/remote campus: A quality experience for Australian first year students* [Conference presentation]. Sixth Pacific Rim–First Year in Higher Education Conference: Changing Agendas, Brisbane, Australia (pp. 8–10).
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>
- Bandura, A. (1986). *Social foundations of thought and action*. Prentice Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W.H. Freeman & Company.
- Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Human Behavior and Emerging Technologies*, 2(2), 113–115. <https://doi.org/10.1002/hbe2.191>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <http://dx.doi.org/10.1191/1478088706qp063oa>
- Burke, M. (2017). *Why are satellite campus students highly satisfied: An interpretative phenomenological analysis* [Doctoral dissertation, Northeastern University]. Northeastern Library Repository. <https://repository.library.northeastern.edu/files/neu:cj82q172n/fulltext.pdf>
- Carroll, N., & Conboy, K. (2020). Normalising the “new normal”: Changing tech-driven work practices under pandemic time pressure. *International Journal of Information Management*, 55, Article 102186. <https://doi.org/10.1016/j.ijinfomgt.2020.102186>
- Chakraborty, P., Mittal, P., Gupta, M. S., Yadav, S., & Arora, A. (2021). Opinion of students on online education during the COVID-19 pandemic. *Human Behavior and Emerging Technologies*, 3(3), 357–365. <https://doi.org/10.1002/hbe2.240>
- Chisum, M. (2020). Student and instructor perspectives of ITV instruction. *American Journal of Distance Education*, 34(3), 224–240. <https://doi.org/10.1080/08923647.2019.1704205>
- Corbin, J., & Strauss, A. (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (4th ed.). Sage.
- Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., Magni, P. A., & Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching*, 3(1), 9–28. <https://doi.org/10.37074/jalt.2020.3.1.7>

- Croxon, L., & Maginnis, C. (2007). The total learning environment and implications for rural student nurse retention. *Focus on Health Professional Education: A Multi-Disciplinary Journal*, 7(2), 60–70. <https://researchoutput.csu.edu.au/ws/portalfiles/portal/8613991/PID1847.pdf>
- Doyumğac, I., Tanhan, A., & Kymaz, M. S. (2021). Understanding the most important facilitators and barriers for online education during COVID-19 through online photovoice methodology. *International Journal of Higher Education*, 10(1), 166–190. <https://doi.org/10.5430/ijhe.v10n1p166>
- Du, J., Fan, X., Xu, J., Wang, C., Sun, L., & Liu, F. (2019). Predictors for students' self-efficacy in online collaborative groupwork. *Educational Technology Research and Development*, 67(4), 767–791. <https://doi.org/10.1007/s11423-018-9631-9>
- Dulamă, M. E., & Iloyan, O. R. (2020). Online university education during the COVID-19 pandemic. How efficient are the adapted instruction models? *Journal of Educational Sciences & Psychology*, 10(2), 92–111.
- Evans, T. (2000). Flexible delivery and flexible learning: Developing flexible learners? In *Flexible learning, human resource and organizational development* (pp. 227–240). Routledge.
- Fairchild, A. J., Horst, S. J., Finney, S. J., & Barron, K. E. (2005). Evaluating existing and new validity evidence for the Academic Motivation Scale. *Contemporary Educational Psychology*, 30(3), 331–358. <https://doi.org/10.1016/j.cedpsych.2004.11.001>
- Fiock, H. (2020). Designing a community of inquiry in online courses. *The International Review of Research in Open and Distributed Learning*, 21(1), 135–153. <https://doi.org/10.19173/irrodl.v20i5.3985>
- Froman, V., Berumen, D., Rodriguez, J., & Stute, C. (2020). *COVID-19 student survey: Online learning experiences and challenges experienced related to the COVID-19 pandemic*. Mt. San Antonio College. <https://www.mtsac.edu/research/images/RIE-Covid-19-Student-Survey.pdf>
- Gale, T., & Parker, S. (2014). Navigating change: A typology of student transition in higher education. *Studies in Higher Education*, 39(5), 734–753. <https://doi.org/10.1080/03075079.2012.721351>
- Garris, C. P., & Fleck, B. (2022). Student evaluations of transitioned-online courses during the COVID-19 pandemic. *Scholarship of Teaching and Learning in Psychology*, 8(2), 119–139. <https://doi.org/10.1037/stl0000229>
- Garrison, D. R., Anderson, T., & Archer, W. (1999). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2–3), 87–105. [https://doi.org/10.1016/S1096-7516\(00\)00016-6](https://doi.org/10.1016/S1096-7516(00)00016-6)
- Goldman, A.-M. (2019). Interpreting rural students' stories of access to a flagship university. *The Rural Educator*, 40(1), 16–28. <https://files.eric.ed.gov/fulltext/EJ1225163.pdf>
- Govindarajan, V., & Srivastava, A. (2020). What the shift to virtual learning could mean for the future of higher ed. *Business Education*. Retrieved May 31, 2022, from <https://hbr.org/2020/03/what-the-shift-to-virtual-learning-could-mean-for-the-future-of-higher-ed>

- Harefa, S., & Sihombing, G. L. A. (2022). Students' perception of online learning amidst the Covid-19 pandemic: A study of junior, senior high school and college students in a remote area. *F1000Research*, *10*, Article 867. <https://doi.org/10.12688/f1000research.52152.2>
- Hay, A., Hodgkinson, M., Peltier, J. W., & Drago, W. A. (2004). Interaction and virtual learning. *Strategic Change*, *13*(4), 193–204. <https://doi.org/10.1002/jsc.679>
- Hoyt, J., & Howell, S. (2012). Why students choose the branch campus of a large university. *The Journal of Continuing Higher Education*, *60*(2), 110–116. <https://doi.org/10.1080/07377363.2012.687304>
- Hung, M.-L., Chou, C., Chen, C.-H., & Own, Z.-Y. (2010). Learner readiness for online learning: Scale development and student perceptions. *Computers & Education*, *55*(3), 1080–1090. <https://doi.org/10.1016/j.compedu.2010.05.004>
- Johnston, J. P. (2020). Creating better definitions of distance education. *Online Journal of Distance Learning Administration*, *23*(2), 1–6.
- Kalmar, E., Aarts, T., Bosman, E., Ford, C., de Kluijver, L., Beets, J., Veldkamp, L., Timmers, P., Besseling, D., Koopman, J., Fan, C., Berrevoets, E., Trotsenburg, M., Maton, L., van Remundt, J., Sari, E., Omar, L. W., Beinema, E., Winkel, R., & van der Sanden, M. (2022). The COVID-19 paradox of online collaborative education: When you cannot physically meet, you need more social interactions. *Heliyon*, *8*(1), Article e08823. <https://doi.org/10.1016/j.heliyon.2022.e08823>
- Kerr-Sims, S., & Baker, D. M. (2021). Faculty perceptions of teaching online during the COVID-19 university transition of courses to an online format. *Journal of Teaching and Learning with Technology*, *10*(1), 337–353. <https://doi.org/10.14434/jotlt.v10i1.31621>
- Kim, K.-J., Liu, S., & Bonk, C. J. (2005). Online MBA students' perceptions of online learning: Benefits, challenges, and suggestions. *The Internet and Higher Education*, *8*(4), 335–344. <https://doi.org/10.1016/j.iheduc.2005.09.005>
- Kozan, K., & Richardson, J. C. (2014). Interrelationships between and among social, teaching, and cognitive presence. *The Internet and Higher Education*, *21*, 68–73. <https://doi.org/10.1016/j.iheduc.2013.10.007>
- Lee, Y. G., Stringer, D. Y., & Du, J. (2017). What determines students' preference of online to F2F class? *Business Education Innovation Journal*, *9*(2), 97–102. [http://elmstreetpress.com/images/12\\_V9N2\\_final-2.pdf](http://elmstreetpress.com/images/12_V9N2_final-2.pdf)
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.
- Lodge, J. M., Hansen, L., & Cottrell, D. (2016). Modality preference and learning style theories: Rethinking the role of sensory modality in learning. *Learning: Research and Practice*, *2*(1), 4–17. <https://doi.org/10.1080/23735082.2015.1083115>
- Lowenthal, P. R. (2010). The evolution and influence of social presence theory on online learning. In S. Dasgupta (Ed.), *Social computing: Concepts, methodologies, tools, and applications* (pp. 113–128). IGI Global. <https://doi.org/10.4018/978-1-60566-984-7.ch010>
- Lowenthal, P. R., & Dunlap, J. C. (2018). Investigating students' perceptions of instructional strategies to establish social presence. *Distance Education*, *39*(3), 281–298. <https://doi.org/>

10.1080/01587919.2018.1476844

Mann, J. T., & Henneberry, S. R. (2012). What characteristics of college students influence their decisions to select online courses? *Online Journal of Distance Learning Administration*, 15(5), 1–14. [https://ojdla.com/archive/winter154/mann\\_henneberry154.pdf](https://ojdla.com/archive/winter154/mann_henneberry154.pdf)

McMurtrie, B. (2020a). Are colleges ready for a different kind of teaching this fall? *The Chronicle of Higher Education*. Retrieved October 27, 2020, from <https://www.chronicle.com/article/Are-Colleges-Readyfor-a/248710>

McMurtrie, B. (2020b). The coronavirus has pushed courses online. Professors are trying hard to keep up. *The Chronicle of Higher Education*. Retrieved October 27, 2020, from <https://www.chronicle.com/article/the-coronavirus-has-pushed-courses-online-professors-are-trying-hard-to-keep-up/>

McVay, M. (2001). *How to be a successful distance learning student: Learning on the Internet*. Pearson Custom Publishing.

Molinillo, S., Aguilar-Illescas, R., Anaya-Sánchez, R., & Vallespín-Arán, M. (2018). Exploring the impacts of interactions, social presence and emotional engagement on active collaborative learning in a social web-based environment. *Computers & Education*, 123, 41–52. <https://doi.org/10.1016/j.compedu.2018.04.012>

Moore, M. G. (2007). The theory of transactional distance. In M.G. Moore (Ed.), *Handbook of distance education* (2nd ed., pp. 89–105). Lawrence Erlbaum Associates.

Morris, L. V. (2004). Editor's page: Self-efficacy in academe: Connecting the belief and the reality. *Innovative Higher Education*, 28(3), 159–162. <https://doi.org/10.1023/B:IHIE.0000015161.26089.a5>

Neuendorf, K. A. (2002). Defining Content Analysis. In *The content analysis: guidebook*. Sage. <https://dx.doi.org/10.4135/9781071802878.n1>

Olivier, E., Archambault, I., De Clercq, M., & Galand, B. (2019). Student self-efficacy, classroom engagement, and academic achievement: Comparing three theoretical frameworks. *Journal of Youth and Adolescence*, 48(2), 326–340. <https://doi.org/10.1007/s10964-018-0952-0>

Panadero, E., & Alonso-Tapia, J. (2014). How do students self-regulate? Review of Zimmerman's cyclical model of self-regulated learning. *Anales de Psicología*, 30(2), 450–462. <https://doi.org/10.6018/analesps.30.2.167221>

Peck, L., Stefaniak, J. E., & Shah, S. J. (2018). The correlation of self-regulation and motivation with retention and attrition in distance education. *Quarterly Review of Distance Education*, 19(3), 1–15. <https://search.proquest.com/docview/2186028843/fulltext/16110A31AF854BB2PQ/1?accountid=38003>

Picciano, A. G. (2002). Beyond student perceptions: Issues of interaction, presence, and performance in an online course. *Journal of Asynchronous Learning Networks*, 6(1), 21–40. <http://dx.doi.org/10.24059/olj.v6i1.1870>

Reeves, T. C. (1993). Pseudoscience in computer-based instruction: The case of learner control research. *Journal of Computer-Based Instruction*, 20(2), 39–46. <https://eric.ed.gov/?id=EJ467342>

- Richardson, J. C., Maeda, Y., Lv, J., & Caskurlu, S. (2017). Social presence in relation to students' satisfaction and learning in the online environment: A meta-analysis. *Computers in Human Behavior*, 71, 402–417. <https://www.doi.org/10.1016/j.chb.2017.02.001>
- Roper, A. R. (2007). How students develop online learning skills. *Educause Quarterly*, 30(1), 62–65. <https://commons.hostos.cuny.edu/ctl/wp-content/uploads/sites/26/2020/09/OnlineSkillLearning.pdf>
- Schleicher, A. (2020). The impact of COVID-19 on education. *OECD*. <https://www.oecd.org/education/the-impact-of-covid-19-on-education-insights-education-at-a-glance-2020.pdf>
- Schunk, D. H., & Ertmer, P. A. (2000). Self-regulation and academic learning: Self-efficacy enhancing interventions. In *Handbook of self-regulation* (pp. 631–649). Academic Press. <https://doi.org/10.1016/B978-012109890-2/50048-2>
- Sebastianelli, R., Swift, C., & Tamimi, N. (2015). Factors affecting perceived learning, satisfaction, and quality in the online MBA: A structural equation modeling approach. *Journal of Education for Business*, 90(6), 296–305. <https://doi.org/10.1080/08832323.2015.1038979>
- Short, J., Williams, E., & Christie, B. (1976). *The social psychology of telecommunications*. John Wiley & Sons.
- Singh, J., Singh, L., & Matthees, B. (2022). Establishing social, cognitive, and teaching presence in online learning—A panacea in COVID-19 pandemic, post vaccine and post pandemic times. *Journal of Educational Technology Systems*, 51(1), 28–45. <https://doi.org/10.1177/00472395221095169>
- Smith, P. J. (2005). Learning preferences and readiness for online learning. *Educational Psychology*, 25(1), 3–12. <https://doi.org/10.1080/0144341042000294868>
- Talsma, K., Robertson, K., Thomas, C., & Norris, K. (2021). COVID-19 beliefs, self-efficacy and academic performance in first-year university students: Cohort comparison and mediation analysis. *Frontiers in Psychology*, 12, Article 2289. <https://doi.org/10.3389/fpsyg.2021.643408>
- Thomas, D. (2003). *A general inductive approach for qualitative data analysis*. University of Auckland. [https://www.researchgate.net/profile/David-Thomas-57/publication/263769109\\_Thomas\\_2003\\_General\\_Inductive\\_Analysis\\_-\\_Original\\_web\\_version/links/0a85e53bdc04f64786000000/Thomas-2003-General-Inductive-Analysis-Original-web-version.pdf](https://www.researchgate.net/profile/David-Thomas-57/publication/263769109_Thomas_2003_General_Inductive_Analysis_-_Original_web_version/links/0a85e53bdc04f64786000000/Thomas-2003-General-Inductive-Analysis-Original-web-version.pdf)
- Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation*, 27, 237–246. <https://doi.org/10.1177/1098214005283748>
- UNESCO. (2020). *COVID-19 and higher education: Today and tomorrow: Impact analysis, policy responses and recommendations*. <https://unesdoc.unesco.org/ark:/48223/pf0000375693>
- U.S. Department of Education, National Center for Education Statistics. (2021, November). Number and percentage of students enrolled in degree-granting postsecondary institutions, by distance education participation, location of student, level of enrollment, and control and

level of institution: Fall 2019 and fall 2020. Digest of Education Statistics, Table 311.15.

[https://nces.ed.gov/programs/digest/d21/tables/dt21\\_311.15.asp](https://nces.ed.gov/programs/digest/d21/tables/dt21_311.15.asp)

Van Wart, M., Ni, A., Medina, P., Canelon, J., Kordrostami, M., Zhang, J., & Liu, Y. (2020). Integrating students' perspectives about online learning: A hierarchy of factors. *International Journal of Educational Technology in Higher Education*, 17, Article 53. <https://doi.org/10.1186/s41239-020-00229-8>

Warner, D., Christie, G., & Choy, S. (1998). *Readiness of VET clients for flexible delivery including on-line learning* (Research report). Australian National Training Authority. <http://hdl.voced.edu.au/10707/33256>

Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory into Practice*, 41(2), 64–70. [https://doi.org/10.1207/s15430421tip4102\\_2](https://doi.org/10.1207/s15430421tip4102_2)

Zimmerman, B. J. (2008). Investigating self-regulation and motivation: Historical background, methodological developments, and future prospects. *American Educational Research Journal*, 45(1), 166–183. <https://doi.org/10.3102/0002831207312909>

Zimmerman, B. J., & Ringle, J. (1981). Effects of model persistence and statements of confidence on children's self-efficacy and problem solving. *Journal of Educational Psychology*, 73(4), 485–493. <https://doi.org/10.1037/0022-0663.73.4.485>