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ACCOUNTING STUDENTS' PERCEPTIONS OF ONLINE LEARNING

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ABSTRACT

The entire world transitioned to online learning in 2020 because of social distancing restrictions stemming from the Covid-19 pandemic. This event marks a major paradigm shift in the way we educate our youth. For years prior to the pandemic, educators experimented with different types of online learning. Researcher understood that online learning offers many unique advantages but were also aware of its many weaknesses. Often, educators used small components of online learning to supplement their traditional, in-person classes. However, in 2020, almost all learning became online learning. Rather than organizing a single class to conduct case studies of online learning, the entire world became a case study. At Penn State, three different forms of online learning were offered to students, including remote asynchronous, online synchronous, and hybrid / mixed mode online learning. Students at Penn State had diverse attitudes, perceptions, and opinions regarding these three forms, as well online learning in general. This study explores students' perceptions, rather than student performance, because professors and instructors taught each form of online learning in a different way, even class by class. Therefore, measuring whether students performed better class by class would have been nearly impossible. However, measuring perceptions is a feasible study. This study focuses on accounting students' perceptions because these students had the opportunity to learn in each of the three online learning environments. In this study, these perceptions uncovered themes that illustrate the major advantages and disadvantages of online learning. I believe that by understanding these student perceptions, educators can make improvements in both online and traditional, in-person classes to enhance the learning experience of students for years to come.

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Chapter 1

Introduction

The Covid-19 pandemic forced students and educators around the world to adapt to a new paradigm of learning. Because in-person classes could not be held due the contagious nature of the virus, online learning became the focus of education. Although online learning saved students from losing their opportunity to gain an education, many disdained it for its shortcomings. Online learning and traditional, in-person learning are considerably different systems. Naturally, different types of students responded in different ways, with different attitudes, and different objectives. In this study, I will paint a portrait of accounting students' perceptions of online learning and its many forms. The focus is on accounting students because I, myself am an accounting student. Furthermore, I believe accounting students have a unique skill set that separates them from other students. Accountants are analytical people that problem solve and deeply understand patterns. As such, I wanted to build a deeper understanding of these students' attitudes toward online learning and uncover any relevant patterns.

There are three forms of online learning. At the Pennsylvania State University, they are classified as follows:

Remote Synchronous Instruction (online synchronous): “Students attend all classes remotely at the scheduled time. Faculty will identify the communication and collaboration tools appropriate for real-time student interaction and engagement in their course”.

Remote Asynchronous Instruction (remote): “Course material is made available for students to work through on their own schedules with deadlines for activities and assessments. A variety of communication and collaboration tools allow students to interact and engage at times that work best for them”.

Mixed-Mode Instruction (hybrid): “A combination of instructional modes is deployed at the instructor's discretion to meet social distancing requirements in physical spaces, while also providing students with opportunities for face-to-face interaction and access to specialized on-campus spaces and equipment”.

In this study, all three forms of online learning were analyzed. I utilized a mixed mode research method and conducted a survey as well as interviews. The goal of this study was to answer two questions. First, “How do accounting students perceive online learning and its various forms”. Second, “How can accounting students’ perceptions of online learning be used to improve the learning experience of the traditional, in-person classroom?”.

Overall, in this study I found that while accounting students have a negative perception of online learning, they did see some benefits. Additionally, the findings illustrate that accounting students prefer the hybrid synchronous form rather than the remote asynchronous or online synchronous forms of online learning. Finally, educators can improve the in-person classroom by adopting digital or video conference office hours and by implementing aspects of the hybrid or flipped classroom. I believe the findings and conclusions in this study can improve the learning experience for accounting students for years to come and help professors, especially at Penn State, better understand their students’ preferences.

Chapter 2

Literature Review

Overview

The twenty first century is characterized by the wide-spread adoption of information technology and dramatic advances in the applications of digital technology. The digital transformation illustrates a rapid change in nearly all dimensions of society. However, various industries and platforms experienced transformation at different points in time, at different paces, and in different ways. For example, Apple digitalized music in the early 2000s with the advent of the iPod and iTunes. Amazon disrupted the retail industry “by making online shopping fast and convenient”, utilizing cloud computing and information technology, and developing a seamless supply chain network (Duffy). Financial services underwent a digital transformation over the past several decades (Rospigliosi). Different catalysts came into play over the years accelerating the rate at which digital trends were adopted in a particular industry. The coronavirus pandemic is one such catalyst and has affected a plethora of areas. Education is one of the most notable.

Education at all levels is now experiencing enormous discontinuities (Rospigliosi). Teaching and learning have trended digitally for years, but lockdowns, forced by the coronavirus pandemic, accelerated the pace of adoption significantly (Rospigliosi). Until recently, some believed that eLearning was merely “complementary support” to traditional learning (Mladenova et al). Instructors utilized online textbooks, course management systems (like Canvas), and online learning software, but the “in-person” lecture remained the focal point. However, before the coronavirus pandemic began, “there was already high growth and adoption in education technology, with global EdTech investments reaching US\$18.66 billion in 2019 and the overall market for online education projected to reach \$350 Billion by 2025” (Li & Lalani). Once the pandemic entered full swing, platforms like Zoom Video Communications, Microsoft Teams, and Google Hangouts Meet saw massive increases in use (Li & Lalani). Virtual software and

video conferencing solved problems related to social distancing and the inability to hold full scale class sessions in-person.

In this study eLearning and online learning are used synonymously. Broadly speaking, I define online learning as the use of the internet and digital resources to provide educational content.

Online Learning Research

In general, online learning has both advantages and disadvantages. According to one study, students believe that eLearning can improve their performance, make accomplishing tasks easier, and improve teaching. Additionally, this study found that students believe the introduction of mixed mode or hybrid learning could replace fully in-person classes (Tagoe). Another study found that students save a significant amount of time in remote asynchronous classes. Students reported that this form of learning fit better into their busy schedules (O'Malley). Additionally, one researcher stated that “the use of technology and software extends the form of communication, thereby extending intellectual stimulation and comprehension of the subject matter” (Ocak). The use of various educational mediums unlocks new methods of learning.

However, there many disadvantages too. First, students have more possibilities to share answers and cheat during online examinations, which leads to inflated grades (Mladenova et al). Second, for many students, eLearning creates more stress and consumes more time than traditional, in-person learning (Mladenova et al). One older study indicated that students do not prefer online synchronous learning to traditional, in-person learning. Students in this study also reported that they believe distance learning or online synchronous learning is extremely ineffective (O'Malley). Another study found that online learning has lower levels of social presence, social interaction, and student satisfaction than face-to-face learning (Bali & Liu). The authors of one study wrote that “eLearning environments pose such disadvantages as hindrance of the socialization process of individuals, lack of sufficient recognition between the teacher

and the learner and limitations concerning the communication among learners” (Akkoyunlu & Soylu).

Students greatly value the social elements of higher education. However, blended learning, also known as hybrid learning, mitigates this lack of socialization by offering some in-person learning mixed with online learning components.

Blended Learning

Blended learning combines the face-to-face component of in-person learning with online experiences. Ideally, these components complement each other with their particular strengths to maximize the learning experience (TeachThought). However, this definition is purposely broad as blended learning can assume a variety of forms. One researcher stated the essential benefit of blended learning as follows: “E-learning environments ensure the flexibility and efficacy which cannot be found in a classroom environment whereas face-to-face learning environment provides the social interaction which is required for learning” (Akkoyunlu & Soylu).

Many studies demonstrate that blended learning offers significant benefits and students appear to prefer it to other forms of online learning. One study illustrated that during the Covid-19 pandemic, students preferred the blended form when available (Mladenova et al). Blended learning “facilitates a community of inquiry”, which provides the conditions for students to discuss ideas and debate (Garrison & Kanuka). Students typically have this community in a traditional classroom, but the blended approach enhances it by utilizing discussion forums and online resources. Another study found that students suffer when they are “solely and completely immerse in technology-based instructional delivery methods” (Lim & Morris).

Flipped Classroom

The flipped classroom or flipped learning is a form of blended learning, with a more specific structure. Therefore, the flipped approach uses both face-to-face and online components. First, students receive recorded, online lectures, prior to attending class. These videos are prepared by the instructor or educator and students must prepare for in-person classes using these videos. Second, students attend in-person classes where they complete higher-level activities that refine their learning with instructor supervision (Evseeva & Solozhenko). Students are given the ability to complete the recorded materials at their own pace. This allows the students to absorb the material and come to class more prepared (O'Flaherty & Phillips). In essence, students learn basic material on their own time, using this information to prepare for in-person classes where they experience active learning, problem solving, and discussion.

Studies show that flipped learning offers serious advantages. Students move at their own pace, giving them useful flexibility; instructors can monitor student progress as students complete the online materials; and class time become significantly more effective (Fulton). This increased flexibility provides professors the ability to give more attention to struggling students without holding back advanced students (Psihountas). Additionally, studies show that students positively perceive the flipped classroom structure. These students especially valued short, pre-recorded lectures on various topics in addition to course notes (Butt). The central theme of the flipped classroom, as well as blended learning, relates to the idea that “active learning works best”. One study asserts that “doing is the secret” and that active student engagement provides instructors the ability to “catch students’ interest and emotion” (Herreid & Schiller).

During the Covid-19 pandemic flipped classrooms and blended learning were utilized to offer students the opportunity to attend in-person classes, in small groups. Some hybrid classes at Penn State utilized the flipped model but did not label the class as a “flipped classroom”.

Chapter 3

Methods

Overview

This study utilized a mixed method research design in order to answer the question: “How do accounting students perceive online learning and its various forms?” A secondary question elaborates by asking: “How can accounting students’ perceptions of online learning be used to improve the learning experience of the traditional, in-person classroom?” In order to answer these questions, three separate hypotheses were tested. These hypotheses include:

Hypothesis One (Null Hypothesis): Accounting students will have no significant preferences regarding the three types of online learning.

Hypothesis Two (Alternative Hypothesis A): Accounting students will have differing preferences regarding the three types of online learning. Students will prefer the hybrid / mixed mode of online learning the most and prefer the remote asynchronous mode of online learning the least.

Hypothesis Three (Alternative Hypothesis B): Accounting students will have differing preferences regarding the three types of online learning. Students will prefer the hybrid / mixed mode of online learning the most and prefer the online synchronous mode of online learning the least.

A mixed method research design combines elements of both quantitative and qualitative research approaches for the broad purposes of breadth and depth of understanding and corroboration (Johnson et al). In this study, the quantitative component included a survey. Data from the survey was analyzed to uncover key themes of accounting students’ perceptions towards online learning and its various forms. The qualitative component utilized brief interviews, which were transcribed to complement the survey findings.

Mixed method research designs vary considerably in terms of purpose as well as in timing. This study utilized mixed method research for the purpose of complementarity, which relates to the elaboration, enhancement, illustration, and clarification of the results from one method with the results from the other method (Greene et al). In this study, the qualitative interviews were utilized to illustrate, in colorful detail, the quantitative findings. In essence, the qualitative findings put “meat on the bones” of the “dry” quantitative findings (Bryman). Additionally, the qualitative research provided necessary context to explain key themes uncovered in the survey data. Because the qualitative research was utilized for the purpose of complementing the quantitative data, it was important to properly time the two components.

This study was designed so that the two separate research methods were conducted sequentially, meaning one component preceded the other component. Additionally, the two components were dependent, meaning the implementation of the second component depends on the results of data analysis in the first component (Schoonenboom & Johnson). Specifically, this study exhibits an explanatory sequential design, in which a first phase of quantitative data collection and analysis is followed by the collection of qualitative data, which are used to explain the initial quantitative results (Creswell). The findings from analyzing the quantitative survey were used to form the interview questions used in the qualitative component of the study. The final point of integration occurred following the conclusion of the qualitative interviews. At this point findings from both studies were analyzed together to form the basis for this thesis.

Quantitative Component

The first stage in this study consisted of a quantitative survey and analysis. The intended survey respondents served as a sample of the population of accounting students at The Pennsylvania State University (Penn State). In total, 90 accounting students completed the survey. Because the purpose of

this study was to determine how accounting students perceive online learning, only upper level accounting students, including Juniors, Seniors, and 5th Years, were surveyed. At Penn State, lower-level students, encompassing Freshmen and Sophomores, lack the proper exposure to accounting coursework, being that these students typically take only one introductory accounting class and focus more on a broad collection of various business courses in their first two years.

Additionally, at Penn State there are three accounting programs offered. The first program is simply an undergraduate bachelor's in accounting program. The second is an Integrated Master of Accounting program (Integrated MAcc), where students complete both a Bachelor and Master of Accounting degree simultaneously. The third is a One-Year Master of Accounting program (One Year MAcc), in which students complete a Master of Accounting degree in one year following their respective undergraduate degree. This survey obtained responses from each of these three programs. However, the majority of respondents consisted of Integrated MAcc students, simply because these students were more receptive in the distribution of the survey. Additionally, I am an Integrated MAcc student myself, which likely caused more of my peers to be receptive rather than students in other programs that I am less acquainted with. For the same reason, more 5th year students responded to the survey than Seniors and Juniors.

The survey consisted of 60 questions in total. However, this survey used display logic to allow students to skip questions about a type of online learning that he or she did not actually experience. For example, a student that had one class in the asynchronous remote format and another in the online synchronous format, but no classes in the hybrid / mixed format, would only be asked question regarding the asynchronous remote and online synchronous online learning types. Therefore, the number of questions required to complete the survey varied, depending on a respondent's answer to Q26 – "I had classes in the following structure in the fall 2020 semester (check all that apply)".

Additionally, this survey used a seven-point Likert Scale, which is commonly used to gauge respondent's attitudes or perceptions on a particular topic. The scale has two extremes that embody

opposite attitudes on the subject matter. In the case of this study, seven related to “Strongly Agree” while one related to “Strongly Disagree” (although there are one or two instances where this was flipped in order to visualize the findings more clearly). All integers between those two points relate to a less strongly held sentiment, with the median integer four, relating to a completely neutral attitude or “Neither Agree nor Disagree”. Each Likert Scale value was multiplied by the number of responses for that particular answer choice. These products were summed and then divided by the total number of responses. This value is referred to as the *Likert Average* throughout this study.

Qualitative Component

The qualitative study consisted of interviewing ten survey respondents, transcribing these interviews, and analyzing the transcripts to uncover key themes. As mentioned in the methods overview subsection, this component followed the initial quantitative study. Again, the purpose of adding a qualitative study was to illustrate, or to “put meat on the bones” of, the quantitative survey results. The interviews added context and meaning to the data and provided a deeper level of insight to understand the information.

Ten students were selected and invited to participate in a short, ten-minute interview. In selecting interviewees, several factors were taken into consideration to ensure a diverse body of interviewees and high quality of research. First, only students that responded to the survey completely, and answered that he or she would be willing to be interviewed were selected. Second, only students that indicated that they experienced a remote asynchronous, online synchronous, *and* hybrid / mixed mode class were selected. Students that did not take all three types of online classes were excluded from interviews because the interviewees were asked comparative questions regarding the various types of online learning. Students needed to understand each type of online learning to preserve the quality of the interviews.

Third, in order to promote diversity amongst interviewees, demographics were taken into consideration. An equal number of male and female respondents were selected. Additionally, because there were fewer seniors and juniors that opted for interviews, these students were selected at preference.

Finally, in the case of selecting between two identical, demographic respondents, relative GPA level was taken into consideration. In order to sort respondents' GPAs into separately identifiable categories, the mean GPA of all applicants was calculated. The three buckets were called "Relatively Low GPA", "Relatively Medium GPA", and "Relatively High GPA". The mean GPA was relatively high at 3.70, which shows that on average, the survey respondents consist of good students. Therefore, it is important to note that while one category is "Relatively Low GPA", these students are still good students, when compared to the national average GPA of college students of 3.15 (Lindsay). Students with a GPA equal to or greater than one half of a standard deviation from the mean, or students with a 3.78 GPA or higher, were grouped into the "Relatively High GPA" category. Likewise, students with a GPA equal to or less than one half a standard deviation from the mean, or students with a 3.61 GPA, were grouped into the "Relatively Low GPA" category. All other students were, by default, grouped into the "Relatively Medium GPA" category. These categories were also utilized in the survey result data analysis.

In sum, five female and five male students were selected. Of those ten students, two were Juniors, two were Seniors, and six were 5th Years (this is because considerably more 5th Year students met the criteria for interviews). Finally, three students had "Relatively Low GPAs", three had "Relatively Medium GPAs", and four had "Relatively High GPAs". Figure 1 illustrates this breakdown.

These ten students were asked four questions about their experience with online learning. Each question was designed to be open-ended and broad, while still aiming to gain as much information as possible. Figure 2 displays the interview questions in the order they were asked.

1. Tell me about your overall experience with online learning. What were your biggest takeaways (both positive and / or negative)?
2. Which form of online learning did you prefer the most? Why? {Which aspects of this form of online learning made it appealing to you?}
3. Which form of online learning did you prefer the least? Why? {What made this form of online learning less preferable to the other forms?}
4. Are there any aspects from the online learning environment (from any of the three forms) that you would want to bring into the traditional in-person classroom? Why?

Figure 1 - Interview Questions

Finally, each interview was transcribed, themes were uncovered through analysis, and insightful quotes were grouped into categories. This analysis was coupled with the quantitative analysis to form the basis of the findings in this study.

Chapter 4

Findings

Overview

As previously stated, this study used a mixed mode research design including a quantitative survey, followed by a qualitative set of interviews. The findings described in this section are based on the integrated analysis of both of these components. Additionally, these findings answer the essential questions of this study. As stated before, the first question asks, “How do accounting students perceive online learning and its various forms?” The second question asks, “How can accounting students’ perceptions of online learning be used to improve the learning experience of the traditional, in-person classroom?” In order to answer the first question, the three hypotheses were tested. Refer back to the methods section to review these [hypotheses](#).

Both the alternative hypotheses assume that the hybrid / mixed mode will be perceived the most positively by accounting students. Based on personal experience completing course work in each form of online learning, coupled with conversations with students about their opinions of the different forms, it was evident prior to completing this study that students generally prefer in-person learning. The hybrid / mixed mode is the only form of online learning that offers an in-person component to its course structure. As described in the literature, students generally value the social element of in-person learning. This study seeks to prove that accounting students indeed prefer this form of online learning to the other forms of online learning.

Alternative Hypothesis A and Alternative Hypothesis B differ in the form of online learning that students prefer the least. Prior to completing this study, there was no compelling evidence to suggest accounting students had any preference between the remote asynchronous and online synchronous forms of online learning.

To answer question two: “How can accounting students’ perceptions of online learning be used to improve the learning experience of the traditional, in-person classroom?”, each form of online learning was analyzed in greater detail to uncover what aspects of that form were appealing to accounting students. Additionally, survey questions regarding accounting student perceptions towards online learning in general were analyzed to uncover broad themes. The interview findings were utilized to add context to this quantitative analysis.

Therefore, the findings section is outlined as follows. First, survey respondent demographics and general learning attitudes will be discussed. The purpose of this section is to illustrate the types of students surveyed as this has implications on the findings of this study. Second, accounting students’ attitudes regarding online learning in general will be analyzed. This will provide important context for the remainder of this study. Third, the three types of online learning will be compared at a high level to prove which hypothesis was correct using the Likert Scale analysis. Finally, accounting students’ perceptions of the three types of online learning will be analyzed in greater detail to uncover best practices.

Survey Demographics

This study focused exclusively on accounting students. The interviewee demographics were covered in the methods – qualitative section. Therefore, this section focuses only on the survey respondent demographics. All 90 survey respondents were accounting majors at Penn State. There are three accounting programs at Penn State, as mentioned in the methods section. Most survey respondents were part of the Integrated MAcc Program. Table 1 displays the breakdown.

<i>Survey Demographics - Accounting Program</i>		
Bachelors in Accounting	6	7%
Integrated MAcc Program	80	89%
One Year MAcc Program	4	4%
Total	90	100%

Table 1 - Survey Demographics - Accounting Program

Because I am a student in the Integrated MAcc Program, more students in my program were willing to take the survey and survey distribution was more effective. A similar theme is exhibited with the number of students in each class standing. Table 2 illustrates that the majority of respondents were 5th year accounting students.

<i>Survey Demographics - Class Standing</i>		
Junior	26	29%
Senior	18	20%
5th Year	46	51%
Total	90	100%

Table 2 - Survey Demographics - Class Standing

Regarding ethnicity, the majority of respondents were white with only a few respondents in each of the other various ethnic groups. There was a relatively even distribution of male and female respondents, as displayed in Table 4.

<i>Survey Demographics - Ethnicity</i>		
White	76	84%
Black or African American	1	1%
American Indian or Alaska Native	0	0%
Asian	8	9%
Native Hawaiian or Pacific Islander	1	1%
Other	2	2%
Latino / Hispanic	2	2%
Total	90	100%

Table 3 - Survey Demographics – Ethnicity

<i>Survey Demographics - Gender</i>		
Male	41	46%
Female	48	53%
Prefer Not to Say	1	1%
Total	90	100%

Table 4 - Survey Demographics - Gender

The demographics this study focused on are class standing, gender, and relative GPA. Relative GPA, as described in the methods – qualitative study, was based on the average GPA of the survey

respondents. This average GPA was a 3.70 and the boundaries of the GPA buckets was based on adding or subtracting one half the standard deviation of all respondents' GPAs. This created three, similarly sized buckets that were useful in analysis and filtering. Table 5 illustrates the number of students in each GPA bucket and the range of each GPA bucket.

<i>Survey Demographics - Relative GPA Level</i>			
Relatively Low GPA	(3.606>GPA)	26	29%
Relatively Medium GPA	(3.606<GPA>3.784)	34	38%
Relatively High GPA	(3.784<GPA)	30	33%
Total		90	100%

Table 5 - Survey Demographics - Relative GPA Level

It is important to note that the average GPA amongst the survey respondents was relatively high in comparison to national averages. The primary reason for this is that, again, most of the respondents were students in the Integrated MAcc Program at Penn State. This program is particularly selective, as students have to apply to become a part of the program. Lower GPA students are often filtered out during the application process. Therefore, the average Integrated MAcc Program student tends to be more motivated, with a greater focus on maintaining good grades. This theme is also illustrated in the survey respondents General Learning Attitudes.

General Learning Attitudes

Survey respondents were asked several questions pertaining to their attitudes toward learning in general. These questions are neither specific to online learning nor traditional, in-person learning. The aim of these questions was to determine if the sample population exhibited positive attitudes regarding their studies or negative attitudes. Also, these questions were asked prior to any questions related to online learning. Therefore, the responses to these questions represent the students' general attitudes without sentiments toward online learning skewing their perspectives.

The results show that the respondents were highly motivated students that typically attend class, actively participate, and spend more time studying than the average student. Respondents were asked the following four questions on a seven-point Likert Scale:

Survey Question #9: "In general, I spend more time studying than the average student"

Survey Question #12: "In general, I attend most of my class sessions"

Survey Question #13: "In general, I would consider myself motivated to learn"

Survey Question #14: "In general, I actively participate in class"

Overwhelmingly, students agreed with all four of these statements. The Likert Averages for each question were 5.20, 6.46, 5.81, and 4.87, respectively. A Likert Average of 7 equates to a student strongly agreeing with the statement. Students answered that they consistently attend class and are motivated to learn. The lowest Likert Scale average related to active participation, but many students feel uncomfortable participating in class. Even so, students still agreed with that statement more than they disagreed. [Appendix A](#) displays the survey data related to these four questions.

This information was important to take into consideration when analyzing the rest of the survey data. Clearly, the accountant students surveyed in this study are highly motivated students. These students care about their education. However, as you will see, the surveyed students have considerably different attitudes regarding online learning in general. The next section breaks down these attitudes and explores key themes related to the online learning experience.

Online Learning Attitudes

This section provides the final layer of context regarding accounting students' perceptions of online learning. In order to understand why the students in this study preferred certain methods of online

learning to others, it is important to take a high-level look at their attitudes toward online learning in general. There are several findings in this section that are particularly striking. This section is structured by theme. Survey findings are used to quantify the theme, while interview quotes will provide context, illustration, and explanation. All survey questions mentioned in this section will have supporting data listed in [Appendix B](#).

Overall Attitudes

Generally, respondents had a negative attitude regarding online learning. However, the purpose of this study is not to criticize online learning for its downsides, but rather to understand students' attitudes to uncover best practices that could improve the learning experience for students in the future. Survey respondents were asked if they felt they got their money's worth with the online environment. Overwhelmingly, they disagreed. Interviewees were asked to describe their overall experience with online learning. Strikingly, these are some of the responses:

“Umm, my overall experience with online learning, I would say was, to be brutally honest was overall negative. I think I’m like most people more of like an in-person learner.”

“So, I would say ... I was happy I was able to take my classes last semester, but I would have preferred them being in person because I feel like I get more out of being taught in an in-class setting.”

Most of the interviewees stated at some point that they preferred traditional in-person learning to online learning. However, as seen in the second quote above, students were grateful to be able to take classes and receive an education. Students were asked if they believed that their professors did everything in their power to foster a positive learning experience ([Q24](#)). The Likert Average for this question was an even 5.00, illustrating that students, on average, agreed with the statement. Students were also asked if they had sufficient resources (including classtime, notes, homework, study materials etc..) to learn and

succeed (Q21). Similarly, students agreed with this statement, as the Likert Average was 4.81. These two questions show that students negatively perceived online learning itself. Students felt that professors did as good of a job as possible given the circumstance and felt that they had ample resources to succeed.

Transition, Adaptability, Workload, and Stress

Students found that they were able to transition into the online learning environment successfully. However, it took time for many students to adjust. Survey respondents were asked if they had no problem adjusting to the online environment (Q15). The Likert Average was 3.62, meaning students generally felt that the initial transition was difficult. However, another question asked if students grew accustomed to online learning (Q17). The Likert Average of 4.74 shows that students did indeed have more success transitioning as time progressed. Several students reflected these sentiments during their interviews:

“I mean obviously I got the hang of it towards the end.”

“I found the transition to be easier than I expected, umm, both from the student and the teachers end. I felt that everyone did a good job of integrating zoom, umm, most people seemed to get over the technological difficulties pretty quickly.”

Juniors seem to have had a more difficult transition than seniors and 5th years. Likert Averages for Q17 were filtered and aggregated by class standing. Juniors had the lowest Likert Average, meaning they had the most difficult transition. This is likely because course difficulty increases considerably between Sophomore and Junior year. Figure 7 illustrates this finding.

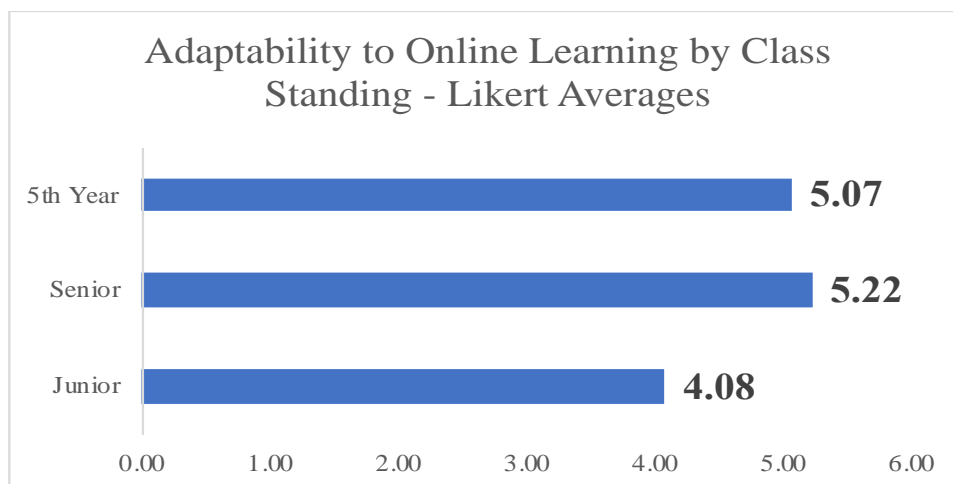


Figure 2 - Adaptability to Online Learning by Class Standing

One junior described her experience transitioning into online learning. She took online classes her sophomore year stating:

“We switched to online learning, umm, almost a year ago and some of my classes it was pretty easy, they already had, umm, videos set up. So, for my finance class, umm, I already wasn’t going to in-person classes. I was just watching the lectures online.”

However, this year she started taking more difficult classes. She stated that the transition was difficult, and her performance suffered:

“So, in the fall, I started taking master’s level classes for accounting ... they wanted to be able to have some of it in-person and so what they did is they condensed the class. So, I had half the semester, every single day, I had an accounting class, and it was a huge transition for me. Umm, not having time in between my classes to study for the next class or catch up on reading and I ended up having to drop that class and I failed it.”

Students also felt that their workload increased in the online environments, as suggested in the previous quote. One question asked students if their workload increased in the online environment ([Q19](#)). The Likert Average of 4.63 shows students somewhat agreed that it did. Again, juniors appear to have experienced a larger increase in workload, but this is not completely due to online learning.

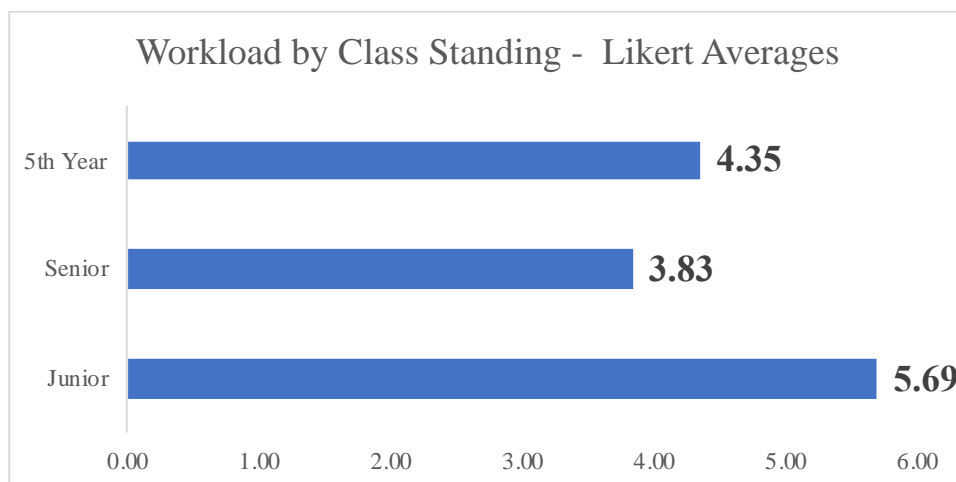


Figure 3 – Online Learning Workload by Class Standing

Respondents were asked if they found online learning to be more stressful than traditional learning (Q16). The Likert Average of 5.23 illustrates that they certainly did. Juniors reported that they felt considerably more stressed than this average.

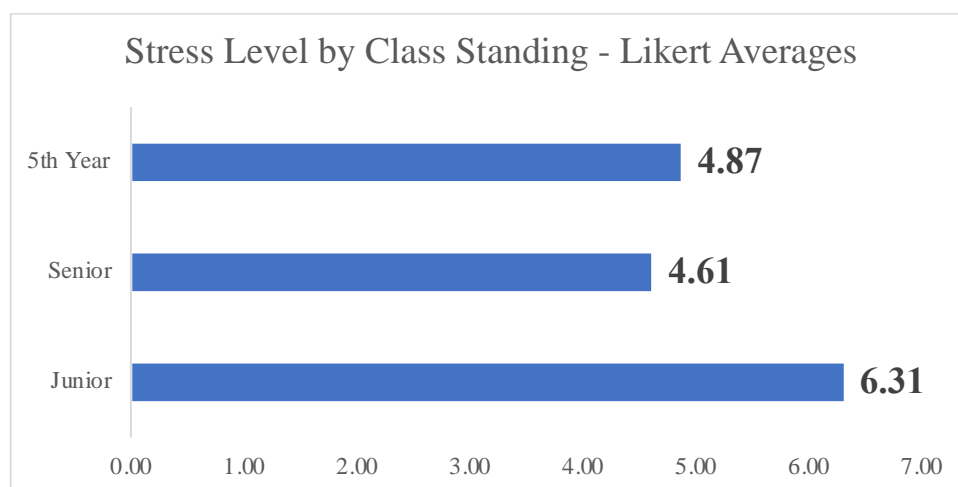


Figure 4 - Stress by Class Standing

Learning Experience

While the survey did not ask specific questions about learning experience. Interviewees offered valuable insight into three major issues with the online learning experience. First, students felt that online

learning lacked the social element that makes in-person learning appealing. This lack of socialization was particularly evident in the remote synchronous and online synchronous forms of online learning.

“I think I’m like most people, more of like an in-person learner. Like, I like to go in class. I like to be with my friends, talk to the teacher, meet people in person. Umm, so, with the online learning I didn’t get to have that since it’s through zoom and you’re at home too, with so many distractions.”

Second, technology issues and general “screen fatigue” made online learning exhausting for students. I define screen fatigue, also referred to as “excess screen time”, as the monotonous nature of sitting in place, watching a computer screen for long periods of time. Students struggled to focus as they spent hours every day on their computers, listening to lectures that lacked social connection.

“Zoom fatigue was so real. It was so hard to concentrate when I was on Zoom.”

“So, I would only go in once a week, and then the other times I would sit on Zoom and listen to the professor talk to the people that were in the class, and a lot of the times I couldn’t hear what he was saying, umm, his microphone wasn’t working a lot, and he was really teaching to the students in the class that he could see, which is very reasonable because others were in-person sitting in front of him. Umm, but a lot of the time he would forget about the Zoom students, and umm, would forget to turn up the volume. So, if we asked a question, he would just, you know like, keep going on with his lecture because he couldn’t hear us.”

Finally, students found serious issues with the way exams were conducted. Survey respondents were asked if they believed students cheated more in the online environment ([Q25](#)). With a Likert Average of 5.99, it is blatantly evident that cheating was a serious problem. Not one single respondent reported that they believed students did not cheat more. One interviewee described the situation well:

“The biggest thing I noticed is that testing was very difficult to do, like accurately, just because there were so many different ways to cheat, umm, whether it be taking exams with

other students, using the internet, having notes right next to you. I felt like it was really hard to prevent or have like a good handle on ... from the professors' end."

Performance

The purpose of this study was not to determine whether students performed differently in the online environment. However, students were asked if they felt that they performed better (Q22). A Likert Average of 3.30 illustrates that they generally felt they performed worse. Juniors reported the lowest average performance and high GPA students appear to have had the least impacted performance.

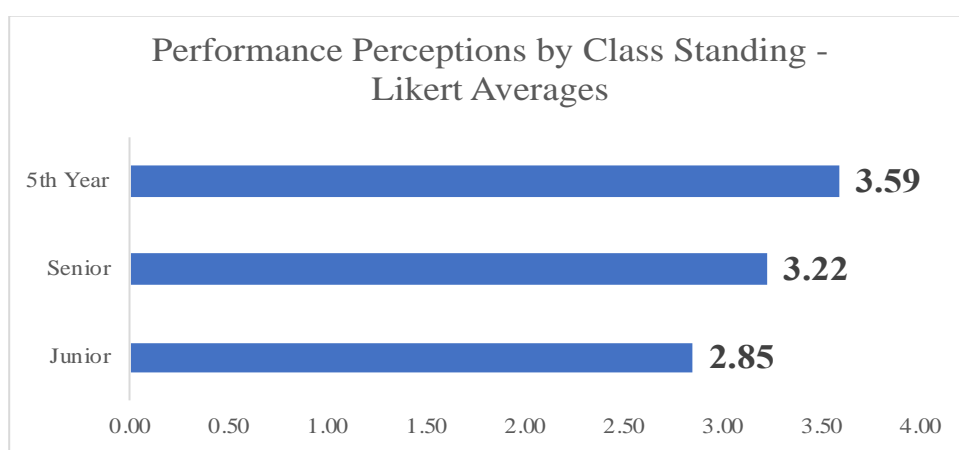


Figure 5 - Performance by Class Standing

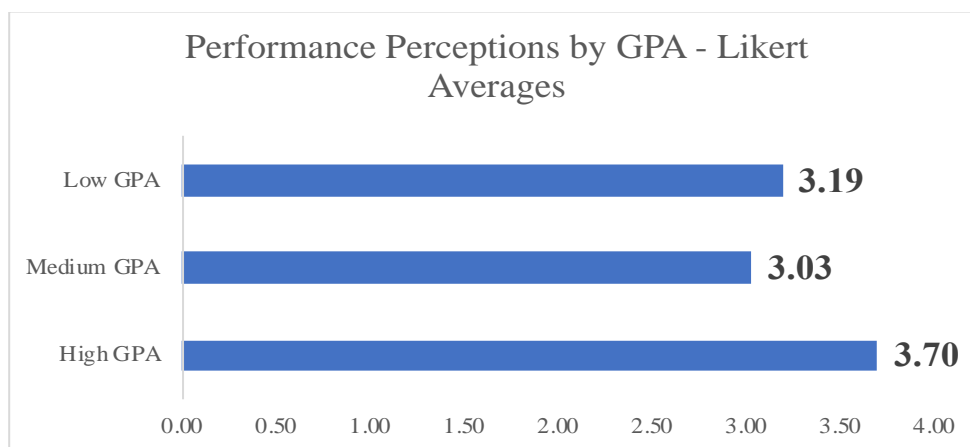


Figure 6 - Performance by Relative GPA Level

One positive finding was that students appreciated the flexibility of online learning. Students felt that pre-recorded lectures helped them improve their performance.

“most of my professors would pre-record lectures, which I could watch before class and then I could come to the lecture at the allotted time with questions. And I think that this worked, umm, well for me.”

With this context covered we can now compare the three types of online learning.

Types of Online Learning Attitudes in Comparison

To determine which form of online learning accounting students preferred the most and the least and determine the validity of each [hypothesis](#), the survey asked respondents the same five questions about their perceptions of that particular type. Each of these questions utilized the seven-point Likert Scale. For each type of online learning, the Likert Averages for all five questions were summed to calculate a Likert Total. The online learning form with the greatest Likert Total was the most preferred and the form with the lowest Likert Total was the least preferred. Additionally, the interviewees were asked to discuss their favorite and least favorite form of online learning. These findings corroborated the quantitative analysis.

The five survey questions used to compare the different forms of online learning are as follows:

1. *I felt that I learned the material better in this environment (“**Learning Experience**”)*
2. *I was motivated to work hard and study in this environment (“**Motivation**”)*
3. *I felt more stressed in this environment (“**Stress Level**”)*
4. *I felt well prepared for exams and / or projects in this environment (“**Preparation**”)*
5. *If I had the choice, I would opt to take a class in this environment in the future (“**Future Interest**”)*

Students were asked these same five questions for all three types of online learning. For all five questions, the hybrid / mixed mode form had the most favorable Likert Averages. Consequently, it ranked the highest. On the contrary, the remote asynchronous form scored the lowest on four of the five

questions. It scored marginally better on stress level than the online synchronous form. Regardless, the remote asynchronous form scored the lowest. Table 6 summarizes the ranking calculation. For a more detailed breakdown of each question reference [Appendix C](#).

Online Learning Forms Ranked			
Component	Remote Asynchronous	Online Synchronous	Hybrid / Mixed Mode
Learning Experience	3.09	3.38	4.64
Motivation	2.84	3.77	4.45
*Stress Level	3.43	3.32	3.89
Preparation	3.29	3.99	4.57
Future Interest	3.24	3.61	4.38
Likert Total	15.89	18.08	21.92
Rank	3	2	1

*Stress Level utilized an inverse Likert Average because a higher Likert Average for this question was unfavorable. Therefore, strongly agree was assigned the Likert Value of 1 instead of 7, while strongly disagree was assigned 7 instead of 1.

Table 6 - Online Learning Forms Ranked (Survey Findings)

Additionally, the interview responses corroborated these rankings. The interviewees nearly unanimously stated that they preferred the hybrid / mixed mode form the most. Also, there was a close split between remote asynchronous and online synchronous for the least preferred form. However, no students selected remote asynchronous as their favorite, while two selected online synchronous. Consequently, the interview ranks were the same as the survey result ranks.

Interviewees' Online Learning Type Preferences			
	Remote Asynchronous	Online Synchronous	Hybrid / Mixed Mode
Favorite	0	2	8
Least Favorite	5	4	1
Rank	3	2	1

Table 7 - Online Learning Forms Ranked (Interview Findings)

These ranks prove that the null hypothesis was incorrect, as there clearly was a difference in perception between the different types of online learning. Furthermore, alternative hypothesis B was also incorrect. Although it correctly stated that the hybrid / mixed mode form of online learning would be the

most preferred form of online learning, it incorrectly asserted that the online synchronous form would be the least preferred. However, alternative hypothesis A was indeed correct. It predicted that the hybrid / mixed mode would be the most preferred and that the remote asynchronous would be the least preferred. The final three findings subsections go into detail to describe these rankings, while also uncovering best practices that can be implemented in the traditional, in-person classroom.

Remote Asynchronous Perceptions

The remote asynchronous form of online learning was the least preferred. As described in the comparison subsection, students reported that they did not learn material well, lacked motivation and preparation, and lacked interest in taking a class in this format in the future. In addition to these metrics, survey respondents were asked to select their top three disadvantages and advantages of learning in the remote asynchronous environment. Interviewees were also asked to describe their favorite and least favorite forms of online learning. They were prompted to explain the aspects of these forms that were appealing for their most preferred method or unenjoyable for their least preferred method. A few key themes, both positive and negative, appeared in analyzing this information.

Advantages & Positive Aspects:

The survey respondents indicated that their top three advantages of remote asynchronous learning were flexibility, the ability to pause, replay, and fast forward lectures, and similarly, the ability to learn at their own pace. However, these advantages more or less illustrate the same key theme, which is that students appreciate the efficiency and flexibility of online learning. Aside from the general convenience of remote asynchronous learning, students did not have much positive feedback regarding this form of online learning. Figure 7 illustrates the survey responses regarding these advantages.

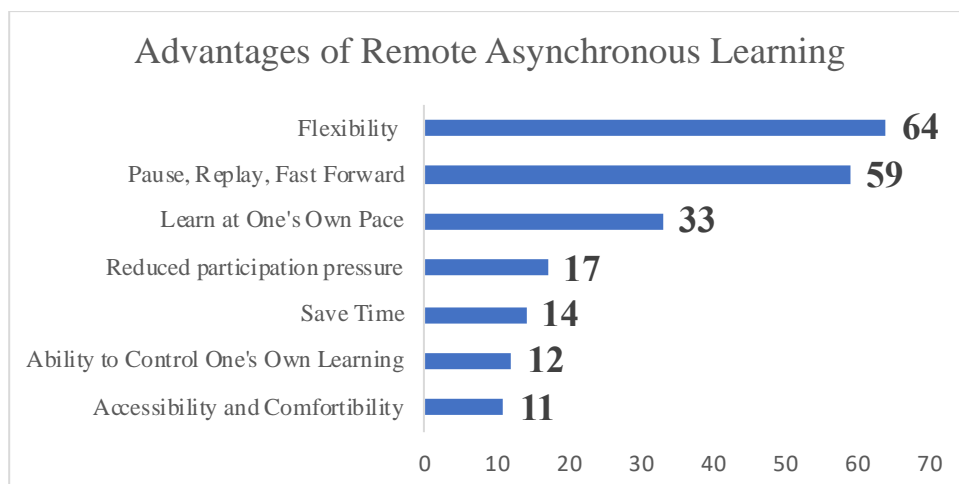


Figure 7 - Advantages of Remote Asynchronous Learning

Regarding flexibility, the interviewees mainly focused on the advantage that they could manipulate their weekly schedules because they could watch prerecorded lectures at their own convenience. Other students explained that they could learn when they felt motivated to focus.

“I mean I definitely enjoyed the flexibility of it, like most I’m super busy with other classes one week I could kind of put it off or... and then catch up in a week that I’m less busy.”

“I could do it when I had the time and was ready to concentrate on it, and I could go back if I didn’t understand something or didn’t hear something correctly.”

Naturally, flexibility also relates to the ability to pause, replay, and fast forward as well as the ability to learn at one’s own pace. Students generally appreciated that they could save time by speeding up lectures. Students also took advantage of replaying prerecorded videos to review material.

“Being able to speed it up to like 1.5x speed because that became nice to be able to stop and go back.”

“I just like flexibility of being able to do it at my own pace. You know, and that way if you’re confused about something, you can go back and re-watch that.”

Disadvantages & Negative Aspects

Unfortunately, students had significantly more complaints regarding remote asynchronous learning than compliments. Survey respondents reported the top three disadvantages of remote asynchronous learning as less engaging / difficult to concentrate, lack of a relationship with the professor, and lack of socialization with peers. The interviews also uncovered these prevalent themes. Figure 8 displays the top disadvantages of remote asynchronous learning.

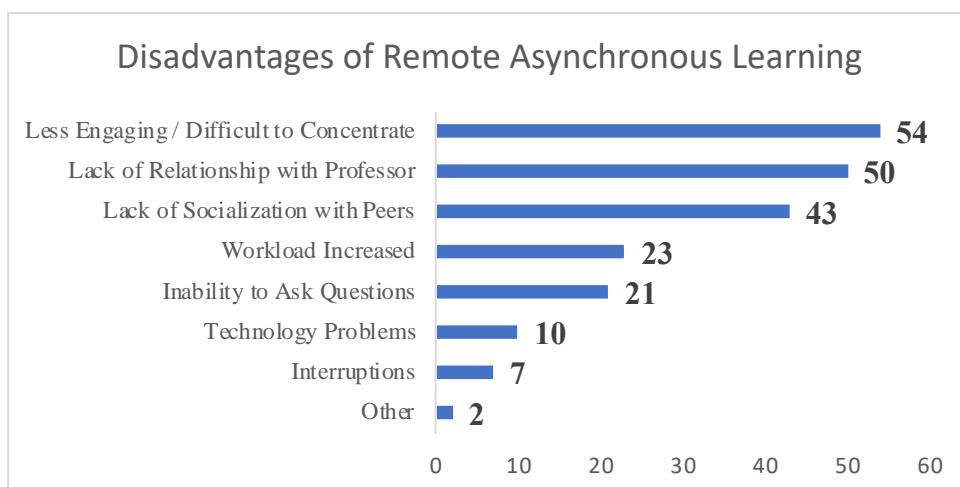


Figure 8 - Disadvantages of Remote Asynchronous Learning

Students did not feel engaged in the remote asynchronous environment. Without live lectures, regardless of whether they were online or in-person, students felt isolated. Many students stated that they did not feel engaged or motivated to even watch the required lectures. Students felt that there wasn't a sense of accountability to watch lectures and that there was little incentive to do so.

"I think the teacher had anticipated that it was up to our discretion at, like, what pace you could watch these lectures at, which I think he found out at the end, just meant that no one watched them, or like watched a few and didn't really stay on topic because ... people don't actually do things that don't seem to be required."

"In my experience there's also no real accountability to actually do the class. You can kind of just do the assignments and not watch a single lecture."

People generally like being around other people. Students appreciate the sense of community found in the in-person classroom. However, in the remote asynchronous environment many students describe a complete lack of community. Interviewees explained that the lack of connection with the professor as well as the absence of socializing with peers was an extremely negative aspect of the remote asynchronous environment. One student summarized this sentiment perfectly:

“I never really felt a connection with the professor and same with the other students outside like the project group. I barely even knew who was in that class. It just really felt more of like a one-on-one, like where it’s me with just like the class itself.”

Overall, these were the primary negative themes that students described. Students also disliked that they could not ask the professor questions during lectures. They were aware that they could email the professor or go to office hours, but often the questions were immaterial and not worth emailing the professor over. This finding was more evident in the interviews than in the survey. Although students believed the remote asynchronous form of online learning was convenient and flexible, the lack of engagement, motivation, and socialization significantly hampered the students’ learning experience

Online Synchronous Perceptions

Although the remote asynchronous form was the least preferred form of online learning, the online synchronous form was a close second. Students actually reported the highest levels of stress in this environment. Again, the survey asked respondents to select advantages and disadvantages, and the interview asked students to elaborate on why they preferred or did not prefer the online synchronous form. For this type of online learning, the interviews added significant value. Interviewees described disadvantages to the online synchronous environment that I did not include in the survey. Students did not describe the survey advantages as much as expected during the interviews, but the disadvantages were consistent.

Advantages & Positive Aspects:

Students responded in the survey that they valued the ability to re-watch lectures the accessibility and comfortability of learning wherever they wanted, the ability to ask questions, and the general structure / accountability that online synchronous classes provided. Students reported the ability to re-watch lectures as the most popular advantage, which is interesting because not all online synchronous classes actually provide this feature. Figure 9 illustrates these advantages:

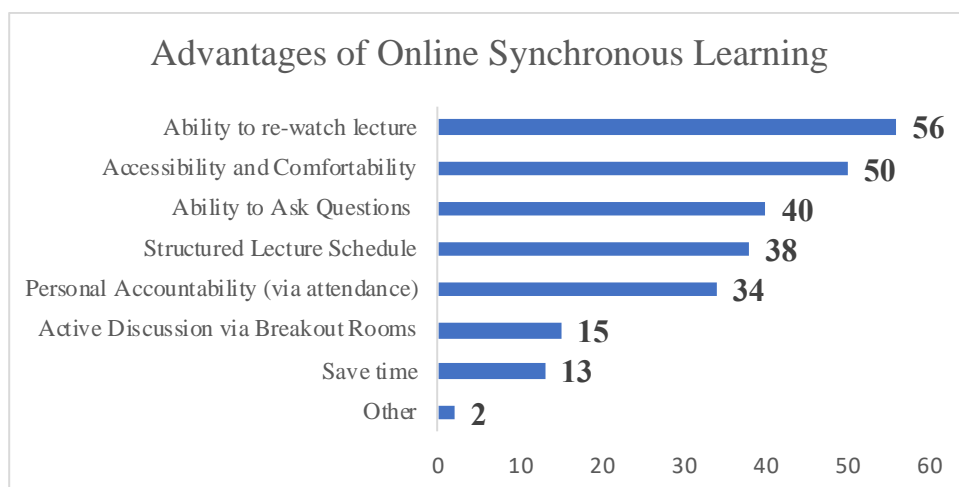


Figure 9 - Advantages of Online Synchronous Learning

The interviewees did not focus on the top two advantages listed above. Instead, students focused on personal accountability and the ability to ask questions during the live lectures. Many students disliked the disorganized structure of asynchronous learning. These students valued a course structure that provides accountability, requiring them to stay on top of their studies.

“I probably would prefer the live Zoom classes because it makes you stay on top of everything ... It just keeps you on top of everything, so you don’t delay.”

Students also appreciated the private message function available in some online synchronous classes because it allowed them to message the professor without interrupting the class. One student explained that he was confused about a subject and was quickly able to resolve his confusion because of this feature.

Disadvantages & Negative Aspects

The survey findings exhibited similar negative themes to the disadvantages of remote asynchronous learning. Again, students felt a lack of engagement and disliked the lack of socialization with peers and the professor. Additionally, students in the survey reported that excessive screen time caused problems. Interviewees emphasized this theme significantly. Figure 10 illustrates the top disadvantages of online synchronous learning:

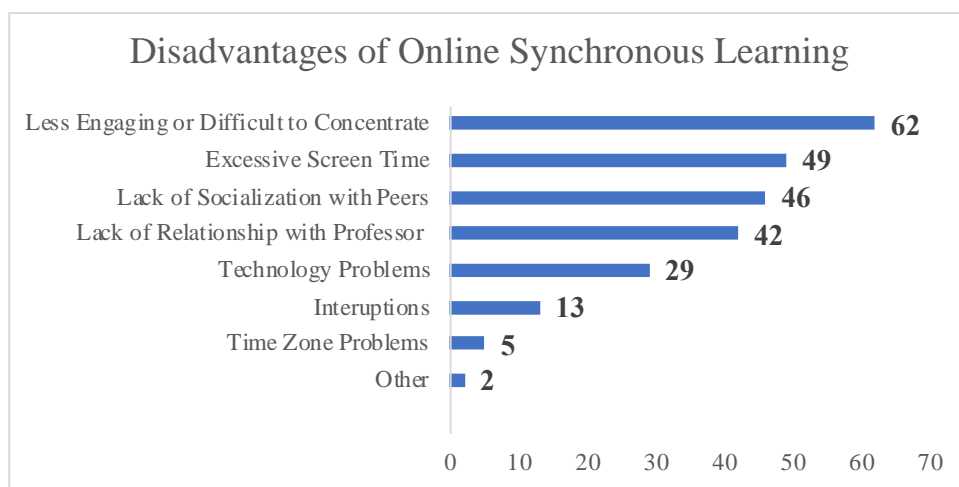


Figure 10 - Disadvantages of Online Synchronous Learning

The interviewees explained that they struggled to concentrate and remain engaged in this environment because of excessive screen time. Therefore, the top two disadvantages listed above are somewhat related. Interviewees explained:

“When you’re looking at your computer, as you’ve been doing all day, it’s really easy to just to focus in and out, and to miss key points about what he’s talking about.”

“On Zoom, with distractions all around you, it’s hard to like, listen and catch everything that he’s saying really fast. So, I thought that was too hard to keep up with.”

The survey results illustrate that students felt a lack of socialization with peers and a lack of relationship with the professor even though they attended live lectures with these people. The

interviewees explained that the nature of online synchronous lectures prevented students from engaging with each other and the professor. One interviewee describes this dilemma:

“Most of the time it was just the professor sharing their screen and everyone in the class was muted and their cameras were off, and nobody was participating even if the professor asked a question. People would kind of just sit there, so you could see that the entire class just was not engaged. There would blatantly be times where professors would ask questions and people just wouldn’t even respond. So, they were either not at their computer, they weren’t listening, or they just didn’t care.”

These findings illustrate that students valued the structural elements of online synchronous learning but grew fatigued of constantly looking at computer screens. However, these structural elements are also found in the traditional, in-person classroom. This structure made online synchronous classes feel “normal” as opposed to other forms of online learning. However, only the convenience of attending live lectures from the comfort of home is unique to online synchronous learning. For the most part, students disliked the online synchronous environment because they value the social elements of being around other people and dislike the awkwardness that online meetings catalyze.

Hybrid / Mixed Mode Perception

Students preferred the hybrid / mixed mode form of online learning the most by an immense margin. As illustrated in the [comparison section](#), the hybrid form scored the highest for every single metric. Students reported having the best learning experience in this mode. Interestingly, many of the disadvantages of the remote asynchronous and online synchronous forms of online learning were considered advantages in the hybrid mode. Furthermore, this mode included several components that accounting students felt could be implemented into the traditional, in-person classroom. Like with the other forms of online learning, the hybrid mode had both positive and negative themes.

Advantages & Positive Aspects:

As previously mentioned, students significantly preferred the hybrid mode. The hybrid mode offers some in-person class time, which students valued above all else. In fact, the top two advantages reported by survey responses related to flexibility between online and in-person learning and a general preference for in-person learning. Several of the disadvantages of other methods of online learning were advantages of the hybrid mode, including the social elements of building a relationship with professors and socializing with peers. Students also valued the ability to ask questions in-person instead of navigating the complexities of remote learning. Figure 11 outlines the top hybrid advantages:

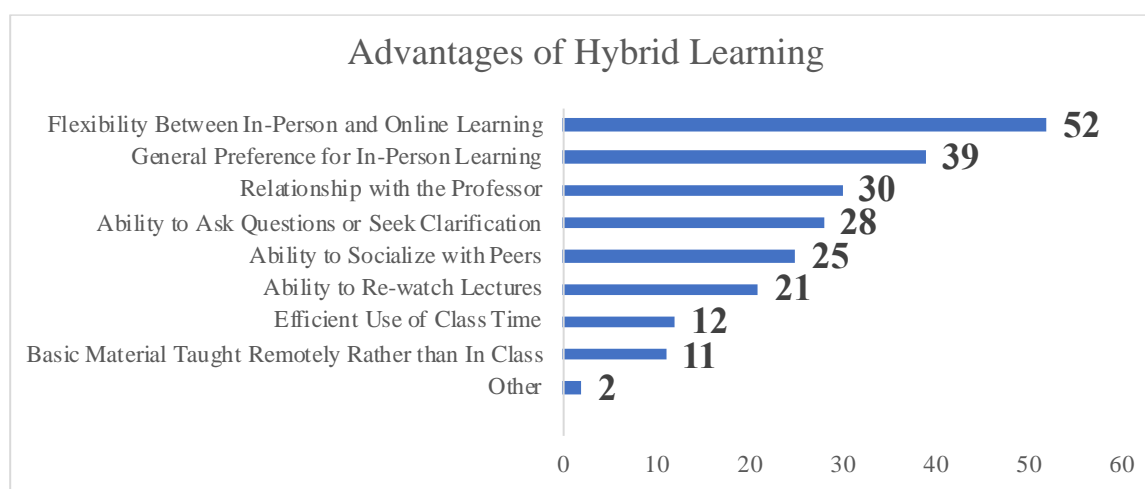


Figure 11 - Advantages of Hybrid Learning

The interviewees discussed these same advantages. However, they focused more on the social elements and the efficiency of the hybrid method. Naturally, the in-person component of hybrid learning promoted significantly more social opportunities than the other forms of online learning. Therefore, this section focuses on other positive themes because it takes little explanation to describe how the hybrid mode appealed to students from a social standpoint.

“I think hybrid is the best. Mostly because you can move at your own pace during the lecture, but you still get to build that connection with your professors and you get to see fellow students and you can be a little bit more mobile, getting out of your apartment, getting out of your house, and going onto campus”.

The interviewees endorsed the use of recorded lectures as a supplement to the in-person lectures, particularly short pre-class recordings that outlined important concepts. Students also appreciated recorded lectures to review important material, providing much needed flexibility. Recorded lectures improved the learning experience by more efficiently disseminating information to students. Limited in-person class time required professors to make judgement calls regarding which information they discussed in-person and which information students learned on their own time. Students preferred when professors uploaded PowerPoint lectures on basic material for them to study on their own time because in-person time then focused on problem solving, active learning, and higher-level concepts.

“I prefer the hybrid, mostly because I think it allows the professors to like, more efficiently use their time. Like, the live sessions can be used for ... working through like difficult problems or like breaking down more complex topics. Whereas the asynchronous portions of those classes can be used for ... reading the textbook or like taking notes on slides, like things that don’t necessarily need to be done with the professor, and then you can use live time to like, like I said, discuss more complex things.”

Additionally, this format allowed students to come to class more prepared. Students described the benefit of coming to class with a baseline understanding of the material so that they could refine their understanding. Many students preferred prerecorded lectures to reading textbooks as a pre-class activity.

“We already had a head start on what we were supposed to know. So, I think it really let us like get more practice in and ask more questions in the classroom, as opposed to taking up two full days of lecture and then doing, you know, 15 minutes of problems on Fridays.”

Interviewees for the most part stated that they had little to no interest in taking remote asynchronous or online synchronous classes in the future. However, a few interviewees stated that they would take a hybrid class in the future, but they would not want all their classes taught in that format. Some interviewees stated that they would take a hybrid class, but it would depend on the course subject. For example, students explained that conceptual classes, like business law, were ideal hybrid candidates.

Disadvantages & Negative Aspects

Students did describe several downsides to the hybrid form of online learning. Most notably, survey respondents felt a sense of inconsistency and disorganization in the management of hybrid classes. Additionally, the complexity of hybrid class structure often confused students. Students also reported unclear expectations in their hybrid classes. Far less students reported a lack of engagement as a disadvantage in this environment unlike the remote asynchronous and online synchronous forms of online learning. Figure 12 illustrates these findings:

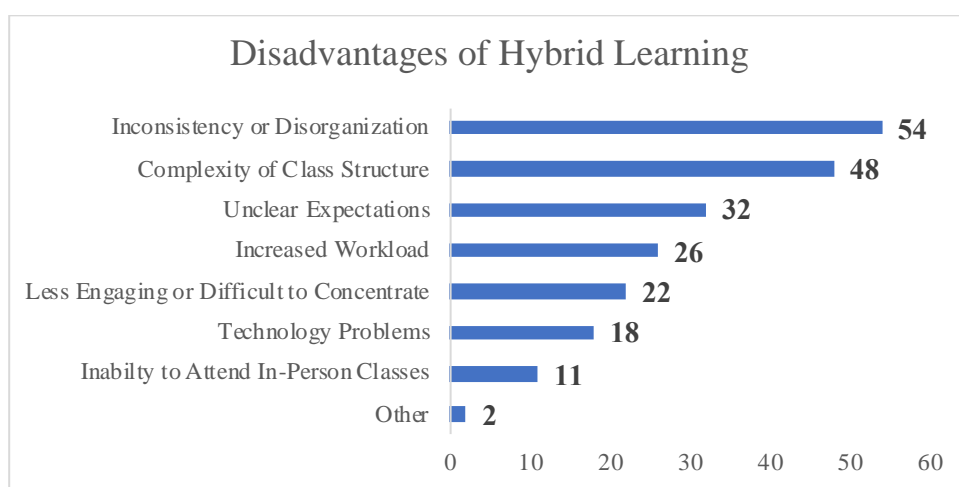


Figure 12 - Disadvantages of Hybrid Learning

The general negative theme in the hybrid environment primarily related to a general sense of confusion. Because some lectures were online and other were in-person, students found it difficult to keep track of their day-to-day schedule. Some hybrid classes allowed students to attend class once a week for a short period of time while others allowed students to attend class once every few weeks for a longer period of time. Some hybrid classes utilized a remote asynchronous component, while others sometimes offered live online synchronous lectures. All of this proved difficult to keep track of for many students.

“I feel like personally, I would like something more consistent. So I felt like even though it was in-person for one of my classes, and I like being in-person more; I just felt like I wasn’t getting what I wanted to be getting out of it, even though I was going in-person for one of them, and then it being online for some of the other days.”

Another theme not described in the survey results related to the general learning experience in some hybrid classes. Because many students were incapable of attending in-person classes, for a plethora of reasons, some students attended in-person while others attended via Zoom or another video conferencing platform. This created a general sense of tension. The in-person students disliked having their class time interrupted by “Zoom Students”, but those students complained that the professor did not provide them proper attention. The following two quotes illustrate these contrasting views:

“I went to class, like, in-person. So, it was just kind of annoying, like, every time someone said something in class, the professor had to, like, repeat it for the people on Zoom because her microphone didn’t get what people in the back were saying. I just really didn’t like that, umm, I thought, like, we, the in-person people were like there for show kind of, if that made sense.”

“A lot of the time the professor would forget about the Zoom students, and umm, would forget to turn up the volume. So, if we asked a question, he would just, you know, keep going on with his lecture because he couldn’t hear us. Umm, so, that was really difficult.”

Overall, students certainly preferred the hybrid mode of online learning, but like any learning environment, the hybrid mode has its shortcomings. However, these disadvantages could potentially be mitigated. To reduce student confusion, hybrid classes need detailed planning. Students need up-to-date outlines of their class schedule and this should remain as consistent as possible. In the future, students will have less conflicts attending classes in-person. Therefore, future hybrid classes can solve the problem of having some students attend class in-person while others attend online by simply having an in-person component and a separate online component. These components will not need to be offered concurrently in the future, if classes are offered in the hybrid format and health concerns are reduced.

The next section of this study draws conclusions from all of these findings and offers advice on how to improve in-person classes utilizing lessons learned from the various types of online learning.

Chapter 5

Conclusions

This study focused on accounting students' attitudes of online learning in general and in its many forms. On average, the students surveyed and interviewed are highly motivated individuals that care deeply about their education. Students provided credible feedback and their honest perceptions. This study set out to answer two questions. First, "how do accounting students perceive online learning and its various forms". Second, "how can accounting students' perceptions of online learning be used to improve the learning experience of the traditional, in-person classroom?" In this section, I will provide concise answers to these questions based on the findings explained previously.

Question One

Generally, accounting students had a negative perception of online learning. Students reported an increased workload and high levels of stress. Students felt that they performed worse academically and were often confused with class expectations. However, students reported many positive aspects of their online learning experience as well. For example, the survey data indicated that students believe that professors did a great job creating a positive learning environment and provided them with all the necessary resources to succeed. Students stated that they preferred in-person learning, but the survey results and interview responses indicate that students successfully adapted to the online environment. Naturally any significant change fosters resentment initially, but as students adjusted to the online environment, their attitudes improved. I believe that if online classes continue, attitudes will become more positive as educators resolve the negative aspects of online learning.

Additionally, many of the negative themes described above were more prominent amongst Juniors. These students had to adjust, not only to online learning, but also the more demanding workload

of higher-level accounting classes. These students explained that as time progressed, they became significantly more comfortable in their online classes.

There were three key negative themes in the online environment that educators must resolve if they offer online classes in the future. First, online classes lack the social aspects that in-person learning offers. Second, screen fatigue exhausts students and makes the online learning experience draining. These two problems are inherent to online learning.

The third problem relates to widespread cheating. Some professors made cheating so easy, its fundamentally disturbing to think about. Students explained that professors gave exams where students could literally type the question in on Google and the answer popped up as the first search result. This absolutely demolished the academic integrity of the online environment. Once some students realized they could cheat, they spread the word to other students. Interviewees explained that before long, the majority of students were cheating, when possible. [Survey results](#) corroborate these statements. In my opinion, this was the single biggest problem in the online learning system and probably could have been prevented if professors exhibited more effort. This problem also exists in traditional, in-person classes. Professors that give students quizzes on learning management software like Canvas need to ensure that the questions they ask are not easily accessible on the internet. They could stop this problem *easily* by creating their own exam questions, which they should be more than capable of doing. There are other preventative and detective measures available, but that is not the focus of this thesis.

Regarding the different types of online learning, students preferred the asynchronous remote form the least because this form lacked the most social interaction and students did not feel any incentive or motivation to complete the bare minimum of class work. However, while students did not like this type of learning they did appreciate the flexibility of controlling their own learning. Students did not enjoy the online synchronous form of learning either for similar reasons. They especially reported excessive screen time as a prominent issue. However, students valued the structure online synchronous classes provided. Finally, the results illustrate that accounting students preferred the hybrid form of online learning the most

because it included an in-person component and made efficient use of class time. Across all forms of online learning, but particularly the hybrid mode, students explained that recorded lectures were extraordinarily beneficial. The major downside to the hybrid mode relates to its fundamentally confusing structure. However, I believe professors could resolve this problem with more experience teaching in a blended format.

Question Two

There are several positive aspects from the online environment, particularly the hybrid mode, that educators can utilize in the in-person classroom. I believe that the future of higher education involves greater utilization of digital resources. In this section I will describe several ways educators can utilize these resources to improve the learning experience for their students. I listed these conclusions in order of involvement, meaning each recommendation involves more effort on the educators end to implement.

As mentioned throughout the study, students greatly valued the flexibility offered by online learning. One aspect of this flexibility that I did not covers relates to video conference office hours. Many students stated that they particularly appreciated their professors' willingness to host office hours on platforms like Zoom because they could save time and received proper incentive to attend office hours, even for simple clarifications.

"I really enjoyed virtual office hours, honestly because ... I feel like I heard a million times my friends say 'oh I should go to office hours, but I don't wanna like walk all the way over to that building or I don't have time to go there or'".

Previously, when learning occurred in the in-person classroom, students often did not feel motivated to attend office hours, in some circumstances, because they might have to walk across campus just to have a three-minute question answered. Professors should continue to offer online office hours as well as in-person office hours to accommodate the hectic schedules of their students. Professors can easily implement this suggestion.

Second, as both the literature and this study illustrate, the hybrid mode of learning provides significant benefits. I believe that educators should implement a variation of the hybrid mode that reduces some of the disadvantages highlighted in the findings section, which primarily relate to a lack of structure. The literature suggests that blended learning, or hybrid learning, needs high level planning by the professors to reach peak effectiveness. To sustain a successful hybrid class, professors should identify the needs, goals, and objectives of their students and focus on building solid strategic and operational plans (Garrison & Kanuka). In the ideal hybrid class, without Covid-19 restrictions limiting in-person class size, professors should hold in-person classes on a regular schedule to mitigate student confusion. This schedule should also outline a set program of recorded, supplementary videos or lectures too. The most popular advantage of hybrid learning, according to interviewees, is the use of recorded videos.

“I think that it could be very beneficial if there was a little bit of pre-class instruction before you get there. Umm, I know that a lot of professors say to like, read the book before class, but honestly that just doesn’t happen. I think a little bit of like a pre-class lecture or warm-up video would be beneficial. Something very quick, in like 10-15 minutes, just to watch the night before class to preface the information you’re going to learn would be really beneficial because today’s day and age bore from reading the textbook before class.”

Naturally, professors may view the process of recording dozens of videos as overly time-consuming, but this use of time is merely an upfront cost. Professors can use these recorded videos in future classes. Therefore, the opportunity cost of taking the time to record lectures could decrease over time as educators grow more comfortable with that medium. Additionally, students will come to class more prepared, and the overall learning experience should improve. Educators can also increase the efficiency of class time by allowing students to learn the more tedious material on their own time, which students appear to appreciate.

“I do like, like prerecorded lectures, like short little bursts so you have an idea of what you are learning about in class that day. So, maybe that would be a good idea to

implement in the regular classroom. Umm, just quick pre-lectures to get everyone on the same page and make class time more efficient.”

Therefore, the disadvantage of this suggestion is that professors need to spend additional time planning and prepping, but the advantages include less future planning, more prepared students, greater efficiency and effectiveness, and happy students.

Finally, professors can take the hybrid model to the next level by implementing a flipped classroom. In this model, professors utilize online resources, especially recorded lectures to teach students basic material. Students learn the lower-level concepts on their own time and then attend class to refine their understanding of the material. In person classes center around active learning, problem solving, and engaging students' critical thinking skills. One of the most popular hybrid classes, according to interviewees in this study, was a finance course taught in a flipped setting. The professor posted “mini-series” PowerPoint lectures on canvas. Students could watch these lectures at their own pace and learned the basic material necessary to come to class prepared. Then, in-person, the professor worked through complicated problems with the students, answered questions, and focused on refining his students' understanding of the material.

Again, the disadvantage of the flipped classroom relates to the upfront cost of designing the class structure and recording lectures. However, research indicates that the advantages significantly outweigh this concern. Students receive all of the advantages of online learning, including flexibility, the ability to control the pace of their learning, and the ability to refine their understanding by re-watching lectures. Additionally, the flipped classroom eliminates many online learning disadvantages. Students receive the important socialization that makes in-person learning so preferable and as long as professors amply plan the class, the confusion from lack of structure can be eliminated. I believe that more and more educators will adopt the flipped model in the coming years because of all of its advantages and its excellent use of all learning mediums.

In conclusion, online learning has been a truly valuable learning experience for both students and educators. The lessons learned over the past year will provide essential insight for years to come. I believe that many aspects of the online environment are here to stay. Students have adjusted to the new model and the traditional, in-person classroom will likely see modification and the incorporation of many of the positive components of online learning. Covid-19 truly disrupted the way we educate the population and the way we learn will never be the same.

Start here

Chapter 6

Recommendations

In this section I have a few recommendations for further research on the subject of students' perceptions of online learning. This study focused exclusively on accounting majors, particularly on students in Penn State's Integrated Master of Accounting Program. As previously mentioned, this program is highly selective, and so the sample of accounting students in this study is relatively more motivated than the average student. A future study focusing on accounting majors pursuing only a bachelor's degree could illustrate student perceptions of the average student more effectively. Additionally, a study analyzing student perception of freshmen and sophomore students would add an additional layer of context to my findings. Naturally, studies on other majors aside from accounting or even business could add significant value as well.

In this study, I filtered the survey findings by gender, class standing, and relative GPA level. However, in this write up, I did not focus attention on the differences in perception of these various demographic groups as much as I could have. The main reason for this relates to my opinion that the central themes described throughout this paper did not vary considerably amongst these groups. I did touch on the fact that juniors appeared to have a more difficult online experience, but aside from that I did not dive as deeply into demographic differences in perceptions. Future studies could easily build off this and add even greater context.

Finally, I believe further research into hybrid learning and flipped classrooms, now that all students have experienced online learning, is essential. These teaching models could dramatically improve the learning experience for students. Now that students around the world have somewhat adjusted to online learning, hybrid learning could certainly become even more popular. Studies into student perceptions of this subject could prove that these models are indeed valuable.

Appendix A

General Learning Attitudes: Likert Score Tables

<i>In general, I spend more time studying than the average student</i>			
<i>Answer Choice</i>	<i>Likert Scale</i>	<i>Responses</i>	
Strongly agree	7	20	22.22%
Agree	6	21	23.33%
Somewhat agree	5	27	30.00%
Neither agree nor disagree	4	10	11.11%
Somewhat disagree	3	6	6.67%
Disagree	2	3	3.33%
Strongly disagree	1	3	3.33%
Grand Total		90	
<i>Likert Average</i>		5.20	

<i>In general, I attend most of my class sessions</i>			
<i>Answer Choice</i>	<i>Likert Scale</i>	<i>Responses</i>	
Strongly agree	7	57	63.33%
Agree	6	23	25.56%
Somewhat agree	5	8	8.89%
Neither agree nor disagree	4	0	0.00%
Somewhat disagree	3	1	1.11%
Disagree	2	0	0.00%
Strongly disagree	1	1	1.11%
Grand Total		90	
<i>Likert Average</i>		6.46	

<i>"In general, I would consider myself motivated to learn"</i>			
<i>Answer Choice</i>	<i>Likert Scale</i>	<i>Responses</i>	
Strongly agree	7	26	28.89%
Agree	6	42	46.67%
Somewhat agree	5	13	14.44%
Neither agree nor disagree	4	2	2.22%
Somewhat disagree	3	3	3.33%
Disagree	2	3	3.33%
Strongly disagree	1	1	1.11%
Grand Total		90	
<i>Likert Average</i>		5.81	

<i>"In general, I would consider myself motivated to learn"</i>			
<i>Answer Choice</i>	<i>Likert Scale</i>	<i>Responses</i>	
Strongly agree	7	26	28.89%
Agree	6	42	46.67%
Somewhat agree	5	13	14.44%
Neither agree nor disagree	4	2	2.22%
Somewhat disagree	3	3	3.33%
Disagree	2	3	3.33%
Strongly disagree	1	1	1.11%
Grand Total		90	
<i>Likert Average</i>		<i>5.81</i>	

Appendix B

General Online Learning Attitudes: Likert Scale Tables

<i>Q24 - I believe that my professors did everything in their power to foster a positive online learning environment</i>			
<i>Answer Choice</i>	<i>Likert Score</i>	<i># of Responses</i>	<i>% of Total</i>
Strongly agree	7	14	15.56%
Agree	6	28	31.11%
Somewhat agree	5	20	22.22%
Neither agree nor disagree	4	10	11.11%
Somewhat disagree	3	11	12.22%
Disagree	2	4	4.44%
Strongly disagree	1	3	3.33%
Grand Total		90	
<i>Likert Average</i>		<i>5.00</i>	

<i>Q21 - I had sufficient resources (including classtime, notes, homework, study materials etc..) to learn and succeed</i>			
<i>Answer Choice</i>	<i>Likert Score</i>	<i># of Responses</i>	<i>% of Total</i>
Strongly agree	7	5	5.56%
Agree	6	30	33.33%
Somewhat agree	5	30	33.33%
Neither agree nor disagree	4	4	4.44%
Somewhat disagree	3	12	13.33%
Disagree	2	7	7.78%
Strongly disagree	1	2	2.22%
Grand Total		90	
<i>Likert Average</i>		<i>4.81</i>	

<i>Q15 - I had no problem adjusting to the online learning environment</i>			
<i>Answer Choice</i>	<i>Likert Score</i>	<i># of Responses</i>	<i>% of Total</i>
Strongly agree	7	5	5.56%
Agree	6	13	14.44%
Somewhat agree	5	16	17.78%
Neither agree nor disagree	4	6	6.67%
Somewhat disagree	3	19	21.11%
Disagree	2	21	23.33%
Strongly disagree	1	10	11.11%
Grand Total		90	
<i>Likert Average</i>		<i>3.62</i>	

<i>Q17 - I grew accustomed to online learning</i>			
<i>Answer Choice</i>	<i>Likert Score</i>	<i># of Responses</i>	<i>% of Total</i>
Strongly agree	7	7	7.78%
Agree	6	25	27.78%
Somewhat agree	5	34	37.78%
Neither agree nor disagree	4	8	8.89%
Somewhat disagree	3	6	6.67%
Disagree	2	4	4.44%
Strongly disagree	1	6	6.67%
Grand Total		90	
<i>Likert Average</i>		<i>4.81</i>	

<i>Q19 - My workload increased in the online learning environment</i>			
<i>Answer Choice</i>	<i>Likert Score</i>	<i># of Responses</i>	<i>% of Total</i>
Strongly agree	7	16	17.78%
Agree	6	20	22.22%
Somewhat agree	5	15	16.67%
Neither agree nor disagree	4	13	14.44%
Somewhat disagree	3	10	11.11%
Disagree	2	12	13.33%
Strongly disagree	1	4	4.44%
Grand Total		90	
<i>Likert Average</i>		<i>4.63</i>	

<i>Q16 - I found online learning to be more stressful than traditional learning</i>			
<i>Answer Choice</i>	<i>Likert Score</i>	<i># of Responses</i>	<i>% of Total</i>
Strongly agree	7	24	26.67%
Agree	6	24	26.67%
Somewhat agree	5	15	16.67%
Neither agree nor disagree	4	9	10.00%
Somewhat disagree	3	13	14.44%
Disagree	2	4	4.44%
Strongly disagree	1	1	1.11%
Grand Total		90	
<i>Likert Average</i>		<i>5.23</i>	

Q25 - I believe students cheated more in the online environment				
<i>Answer Choice</i>	<i>Likert Score</i>	<i># of Responses</i>	<i>% of Total</i>	
Strongly agree	7	36	40.00%	
Agree	6	29	32.22%	
Somewhat agree	5	13	14.44%	
Neither agree nor disagree	4	12	13.33%	
Somewhat disagree	3	0	0.00%	
Disagree	2	0	0.00%	
Strongly disagree	1	0	0.00%	
Grand Total		90		
Likert Average		5.99		

Q22 - I felt that I performed better in the online environment				
<i>Answer Choice</i>	<i>Likert Score</i>	<i># of Responses</i>	<i>% of Total</i>	
Strongly agree	7	3	3.33%	
Agree	6	3	3.33%	
Somewhat agree	5	13	14.44%	
Neither agree nor disagree	4	25	27.78%	
Somewhat disagree	3	15	16.67%	
Disagree	2	17	18.89%	
Strongly disagree	1	14	15.56%	
Grand Total		90		
Likert Average		3.30		

Appendix C

Online Learning Types Comparison: Likert Scale Tables

<i>Learning Experience</i>				
<i>Answer Choice</i>	<i>Likert Scale</i>	<i>Remote Asynchronous</i>	<i>Online Synchronous</i>	<i>Hybrid / Mixed Mode</i>
Strongly agree	7	5	2	15
Agree	6	4	8	12
Somewhat agree	5	7	12	14
Neither agree nor disagree	4	11	18	9
Somewhat disagree	3	8	14	14
Disagree	2	19	18	8
Strongly disagree	1	16	12	2
Grand Total		70	84	74
Likert Average		Remote Asynchronous 3.09	Online Synchronous 3.38	Hybrid / Mixed Mode 4.64

<i>Motivation</i>				
<i>Answer Choice</i>	<i>Likert Scale</i>	<i>Remote Asynchronous</i>	<i>Online Synchronous</i>	<i>Hybrid / Mixed Mode</i>
Strongly agree	7	2	1	10
Agree	6	4	12	11
Somewhat agree	5	9	20	15
Neither agree nor disagree	4	5	12	17
Somewhat disagree	3	12	17	9
Disagree	2	22	14	11
Strongly disagree	1	16	7	1
Grand Total		70	83	74
Likert Average		Remote Asynchronous 2.84	Online Synchronous 3.77	Hybrid / Mixed Mode 4.45

<i>Stress Level</i>				
<i>Answer Choice</i>	<i>*Likert Scale (inverse)</i>	<i>Remote Asynchronous</i>	<i>Online Synchronous</i>	<i>Hybrid / Mixed Mode</i>
Strongly agree	7	17	11	8
Agree	6	10	15	7
Somewhat agree	5	10	22	21
Neither agree nor disagree	4	8	17	10
Somewhat disagree	3	9	10	9
Disagree	2	16	9	15
Strongly disagree	1	0	0	4
Grand Total		70	84	74
Likert Average	<i>(For Visual Purposes)</i>	Remote Asynchronous 4.57	Online Synchronous 4.68	Hybrid / Mixed Mode 4.11
Inverse Likert Average	<i>(For Ranking Purposes)</i>	2.43	2.32	2.89

Preparation				
Answer Choice	Likert Scale	Remote Asynchronous	Online Synchronous	Hybrid / Mixed Mode
Strongly agree	7	3	3	9
Agree	6	4	11	12
Somewhat agree	5	11	21	21
Neither agree nor disagree	4	7	16	13
Somewhat disagree	3	20	18	9
Disagree	2	17	10	9
Strongly disagree	1	8	5	1
Grand Total		70	84	74
Likert Average		Remote Asynchronous 3.29	Online Synchronous 3.99	Hybrid / Mixed Mode 4.57

Future Interest				
Answer Choice	Likert Scale	Remote Asynchronous	Online Synchronous	Hybrid / Mixed Mode
Strongly agree	7	4	3	11
Agree	6	8	15	16
Somewhat agree	5	9	14	12
Neither agree nor disagree	4	10	6	8
Somewhat disagree	3	7	16	9
Disagree	2	13	18	11
Strongly disagree	1	19	11	6
Grand Total		70	83	73
Likert Average		Remote Asynchronous 3.24	Online Synchronous 3.61	Hybrid / Mixed Mode 4.38

BIBLIOGRAPHY

- Akkoyunlu, B., & Soylu, M. Y. (2008). "A Study of Student's Perceptions in a Blended Learning Environment Based on Different Learning Styles". *Educational Technology & Society*, 11 (1), 183-193.
- Bali, S, & Liu, M C. "Students' Perceptions toward Online Learning and Face-to-Face Learning Courses." *Journal of Physics: Conference Series*, vol. 1108, 2018, doi:10.1088/1742-6596/1108/1/012094.
- Bryman A. Integrating quantitative and qualitative research: how is it done? *Qualitative Research*. 2006;6:97–113. doi: 10.1177/1468794106058877.
- Butt,Adam. "Student Views on the Use of a Flipped Classroom Approach: Evidence from Australia." *Business Education & Accreditation*, vol. 6, no. 1, 2014.
- Creswell JW, Plano Clark VL. *Designing and conducting mixed methods research*. 2. Los Angeles: SAGE; 2011.
- Duffy, Clare. "How Jeff Bezos Changed the World." *CNN*, Cable News Network, 16 Aug. 2019, www.cnn.com/2019/08/16/tech/jeff-bezos-amazon.
- Evseeva, A. and A. Solozhenko. 2015. "Use Of Flipped Classroom Technology In Language Learning", *Procedia-Social and Behavioral Sciences*, 206.
- Fulton, K. (2012). Upside down and inside out: Flip your classroom to improve student learning. *Learning & Leading with Technology*, 39(8), 12-17.

- Garrison, Randy & Kanuka, Heather. "Blended Learning: Uncovering Its Transformative Potential in Higher Education." *The Internet and Higher Education*, vol. 7, no. 2, 2004, pp. 95–105., doi:<https://doi.org/10.1016/j.iheduc.2004.02.001>.
- Greene JC, Valerie J, Caracelli, Graham WF. "Toward a conceptual framework for mixed-method evaluation designs". *Educational Evaluation and Policy Analysis*. 1989;11:255–274. doi: 10.3102/01623737011003255.
- Herreid, Clyde Freeman, & Schiller, Nancy A. "Case Studies and the Flipped Classroom." *Journal of College Science Teaching*, vol. 42, no. 5, 2013, pp. 62–66. *JSTOR*, www.jstor.org/stable/43631584.
- Johnson BR, Onwuegbuzie AJ, Turner LA. "Toward a definition of mixed methods research". *Journal of Mixed Methods Research*. 2007;1:112–133. doi: 10.1177/1558689806298224.
- Li, Cathy & Lalani, Farah. "The COVID-19 Pandemic Has Changed Education Forever. This Is How." *World Economic Forum*, 2020, www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/.
- Lim, D. H., & Morris, M. L. (2009). "Learner and Instructional Factors Influencing Learning Outcomes within a Blended Learning Environment". *Educational Technology & Society*, 12 (4), 282–293.

- Mladenova, Tsvetelina & Kalmukov, Yordan & Valova, Irena. (2020). "Covid 19 -A Major Cause of Digital Transformation in Education or Just an Evaluation Test". *TEM Journal*. 9. 1163-1170. 10.18421/TEM93-42.
- O'Flaherty, J. and C. Phillips. 2015. "The Use of Flipped Classrooms in Higher Education: A Scoping Review", *The Internet and Higher Education*, 25.
- O'Malley, John. "Students Perceptions of Distance Learning, Online Learning and the Traditional Classroom." *Online Journal of Distance Learning Administration*, vol. 2, no. 4, 1999.
- Ocak, Mehmet. "What We Learned about Distance Education during Covid-19?" *EPALE - Electronic Platform for Adult Learning in Europe*, European Commission, 22 Apr. 2020, epale.ec.europa.eu/en/blog/what-we-learned-about-distance-education-during-covid-19.
- Psihountas, Debbie. "Flipped Classrooms and Finance—Is This a Better Way to Learn?" *Journal of Financial Education*, vol. 44, no. 1, 2018, pp. 1–11. *JSTOR*, www.jstor.org/stable/26573533.
- Rospigliosi, Asher. (2020). "How the coronavirus pandemic may be the discontinuity which makes the difference in the digital transformation of teaching and learning". *Interactive Learning Environments*. 28. 383-384. 10.1080/10494820.2020.1766753.
- Schoonenboom, Judith & Johnson, Burke R. *Kolner Z Soz. Sozpsychol.* 2017; 69(Suppl 2): 107–131. Published online 2017 Jul 5. doi: 10.1007/s11577-017-0454-1

Tagoe, Michael. "Students' Perceptions on Incorporating e-Learning into Teaching and Learning at the University of Ghana." *International Journal of Education and Development Using Information and Communication Technology*, vol. 8, no. 12, 2012, pp. 91–103.

TeachThought. "The Definition Of Blended Learning." *TeachThought*, 19 May 2020, www.teachthought.com/learning/the-definition-of-blended-learning/.

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- Assembled a team of student leaders to build TCS, an organization focused on fostering ethical literacy, critical thinking skills, and writing abilities
- Enhanced organizational longevity through strategic alignment with the Tarriff Center and key Smeal faculty
- Led the TCS team in cultivating organizational culture, recruiting new members, organizing meetings, and general management of a new, growing, student-led organization

Student Philanthropy Network*Executive Board – Director of Undergraduate Initiatives***University Park, PA***Mar 2019 - Mar 2020*

- Developed a strategic plan to organize an event for GivingTuesday, a nationwide day of charitable giving
- Partnered with Penn State's Office of Annual Giving to select the 2019-2020 Senior Class Gift, an endowment for Counseling and Psychological Services (CAPS)

Masters of Accounting Student Association*Executive Board - Secretary***University Park, PA***Dec 2018 – Dec 2019*

- Coordinated the MAcc Mentorship Program, consisting of over 250 individuals, to help new students assimilate
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EXPERIENCE

Deloitte & Touche, LLC*Audit & Assurance, Financial Services Industry Intern***New York, NY***Jan 2020 – Feb 2020*

- Performed analytical procedures and substantive testing on a group audit team to provide assurance on the consolidated financial statements of a global Fortune 50 life insurance company
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New Century Financial Group, LLC*Consultant***Princeton, NJ***May 2019 - Aug 2019*

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