



Innovating the Communication Pedagogy: An Application of Flipped Classroom Technique in Communication Education

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Abstract: As students try to make sense of their college experience and the value of attaining a degree post-pandemic, educators are grappling with finding new methods to re-engage students in the classroom using a range of modalities. This case study explored student reactions to flipped classroom learning experiences, and possible relationship between the flipped classroom technique and academic performance in communication education. As a student-centric pedagogical method, the flipped classroom can offer a promising remedy for student disengagement, and the findings of this study provide supporting evidence for this conclusion. Students characterized flipped classroom as a very favorable learning experience as it (1) motivated and engaged them in the course, (2) encouraged them to make creative connections across course topics, (3) provided a self-paced, flexible learning environment, and (4) facilitated an authentic experience with the course material for deeper learning. Additionally, the quantitative analysis suggested that flipped classroom may have connections to students' academic performance in a human communication and technology course. The findings are discussed within the framework of engagement theory, and pedagogical implications are advanced for future practices of flipped classroom within communication pedagogy, particularly as a tool to address increasing student disengagement after the COVID-19 pandemic.

Introduction

Partnership for 21st Century Learning (2020) outlines critical thinking, problem-solving, communication, and collaboration as the foundational skills that will set up students for success in their professional lives after college. Teacher-centric approaches to instruction fall short of addressing these skills and meeting the expectations of today's college students. As a student-centric approach, flipped classroom

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technique promotes creative and critical thinking skills by pushing students to actively engage the course material and identify its connections to past knowledge or real-life experiences (Al-Zahrani, 2015). Interestingly, flipped classroom is not widely implemented in communication education except for a few applications in business communication (Hall & DuFrene, 2016; Pérez et al., 2019; Sherrow et al., 2016).

After the COVID-19 pandemic, students' expectations as well as their sensemaking process for attaining a college degree has shifted. For instance, a recent article published in *The Chronicle of Higher Education* highlighted the importance of connecting with students and helping them redefine the value of a college degree (McMurtrie, 2022). By putting students in the driver seat of their learning journey, flipped classroom technique not only offers an innovative toolkit to help communication students learn and practice 21st Century Skills, but also provides them an opportunity to see the real purpose and value of a college degree.

This study examines students' perceptions of learning in a flipped classroom format and its possible connections to academic performance, particularly in communication education. Data collection for this case study took place in Fall 2019, one semester before the COVID-19 pandemic abruptly moved all instruction to remote modality. The flipped classroom format provided a novel learning modality for students during this time and the implications of this study can offer great potential for online learning strategies that have become the new normal after the COVID-19 pandemic. More specifically, the learnings from this case study can shed light on proactive strategies instructors can use to address student disengagement that has recently emerged as a very problematic issue in higher education (McMurtrie, 2022). Accordingly, the first goal of this study is to explore how students perceive and react to flipped classroom technique—characterized by a student-centric, active learning pedagogy—in a communication course. The second goal is to examine possible connections between the flipped classroom technique and academic performance in communication courses. The following section will review past research findings on flipped classroom technique and introduce engagement theory as a conceptual framework (Kearsley & Shneiderman, 1998).

Literature Review

Flipped Classroom Technique

Flipped classroom redefines the teacher's role in the learning process, by placing the student in an active role for a self-regulated experience that is facilitated by changing class structure and integration of technology. It is a pedagogical technique consisting of interactive group learning activities during in-person classroom time, and online individual instruction before in-person classes (Bishop & Verleger, 2013). More specifically, online videos, activities, or assessment tools are used to convey subject content before the class time while in-person class is allocated for higher-order peer- or team-based interactive learning activities that require active participation (Chen et al., 2017). As such, in-person class time is used for active learning rather than passive transmission of course content, providing a learning environment for practicing higher-order thinking skills such as analyzing, applying, criticizing, synthesizing course concepts (Strayer, 2012).

In the flipped classroom, the student takes a central role in their self-paced learning by viewing, studying, and completing course materials before meeting with peers and the teacher during the class time. In general, flipped classrooms allow students to become more active participants in the knowledge

construction related to course subject (Butt, 2014; Davies et al., 2013), foster peer learning by increasing class interactions (Rodríguez et al., 2019), and bolster teacher-student connections by creating more opportunities for feedback regarding course materials (Mason et al., 2013). One study examining the impact of flipped classroom on the promotion of creative thinking skills found that despite its challenges, flipped classroom promoted students' creativity (Al-Zahrani, 2015). Additionally, students had a positive perception of flipped classroom technique as they reported that it significantly helped with their creative thinking processes (Al-Zahrani, 2015). Similarly, another study showed that students were highly satisfied with the flipped classroom methodology, and they performed better using this method compared to a traditional classroom (Rodríguez et al., 2019). On the other hand, some studies reported lower student satisfaction with flipped classroom due to ill-structured class systems and unclear assignments (Strayer, 2012).

While some studies reported that students performed better in flipped classroom compared to a traditional classroom (Mason et al., 2013), a group of studies found no difference in the academic outcomes of participants in flipped classrooms (Bishop & Verleger, 2013; McLaughlin et al., 2013). Though there are mixed findings regarding the effectiveness of flipped classroom technique on student learning and satisfaction, there is sufficient data to support the notion that when designed and implemented properly, flipped classroom may positively affect both student learning and engagement. One theoretical framework that can be used to frame positive effects of flipped classroom on learning is engagement theory (Kearsley & Shneiderman, 1998). The following section will summarize engagement theory as it relates to flipped classroom technique and advance research questions.

Theoretical Framework and Research Questions

Rooted in the constructivist approaches to learning, engagement theory posits that for learning outcomes to be achieved, educators should create learning environments where students are “meaningfully engaged in learning activities through interaction with others and worthwhile tasks” (Kearsley & Shneiderman, 1998, p. 20). Accordingly, learning should occur in a collaborative context, must be project-based and have a real-life outcome as these methods generate learning experiences that are “creative, meaningful, and authentic” (Kearsley & Shneiderman, 1998, p. 23). The key tenets of engagement theory align closely with the main components of flipped classroom technique as in the flipped classroom, students continuously create and recreate knowledge by means of creative and inspiring in-class activities, and ideally by working on a team project with real-world impact. In this sense, new knowledge, skills, or attitudes are achieved through integration of different learning modes than those offered by traditional, teacher-centric approaches (Kolb, 1984). For instance, students learn and practice how to reflect on and observe their experiences from different perspectives. Subsequently, they integrate their observations into logically plausible theories, and solve a real-world problem by applying reflective and observational experiences that are gained via high-level cognitive activities.

Despite the scholarly attention flipped classroom captured in a variety of fields (e.g., engineering, science, education, art, business), there are limited flipped classroom assessments in the field of communication with a few exceptions in business communication courses (Hall & DuFrene, 2016; Pérez et al., 2019; Sherrow et al., 2016). The literature suggests that when designed and implemented effectively, flipped classroom technique can promote student learning by increasing student motivation and engagement (Pérez et al., 2019). Abeysekera and Dawson (2014) argued that “the flipped classroom approach is under-evaluated, under-theorized, and under-researched in general” (p. 3). This study will attempt to

address the gap in scholarship by examining students' reactions to flipped learning experiences, and possible reflections of these on their academic performance in communication education. The following questions summarize these research objectives:

RQ1: How do students perceive and react to learning experiences in a flipped communication classroom?

RQ2: What connections can we establish between a flipped communication classroom and academic performance?

Methods

Study Design

This study used an exploratory case study methodology to examine student perceptions of flipped classroom technique and whether there are any possible connections between this technique and academic performance. The flipped course used for the case analysis was an undergraduate communication course offered at a Northeastern public university in Fall 2019, before the COVID-19 pandemic moved classroom instruction to remote modality in Spring 2020. Thus, during this time, flipped classroom format provided a novel approach for students to learn and practice course concepts by allowing them to have agency and take an active role in their learning journey.

Participants

The human communication and technology course (i.e., theoretical approaches to mediated communication, online privacy, problematic use of social media, online communities, etc.) used for this case study was an upper-level, elective communication course offered in Fall 2019. There were 23 communication majors and seven communication minors in the class. The academic majors of students ranged from communication and criminology to biology and management. The age range of the students were 19 to 24; 53% were female and 46% were male.

Procedures

The data collection occurred both during the course and afterward. The primary data source for the analysis was the student self-reflection essays submitted by 28 undergraduate students after the course completion. Additionally, class interactions, project and course grades, field notes, and observations from in-class interactions were used to complement the primary data sources. The self-reflection papers included responses to questions about students' attitudes toward the flipped classroom format, key learning takeaways from specific in-class activities, and the value they perceived in the flipped classroom technique (See Appendix for a list of reflection questions used for the analysis). All written data sources resulted in 225 pages of material. Quantitative assessments of student grades were based on the comparison of student grades in the current flipped course to the previously taught classes with a more traditional lecture format by the same instructor.

Case Description

Using a flipped learning format, the human communication and technology course aimed to provide students with a hands-on experience in communication technology use as well as solutions for improving

real-life issues in our society. This course was developed and offered in Fall 2019 using a flipped classroom format before the COVID-19 pandemic. During this time, though online instruction was offered in this institution, the norm was taking classes in person using a traditional classroom technique.

One pedagogical tool used to provide a hands-on experience with the course materials in the flipped classroom was rooted in the design thinking methodology (Brown, 2008). Student teams completed a human-centered innovation project to create an original mobile app design proposal by applying the course content as a conceptual foundation and design thinking as a creative problem-solving technique (G. Yilmaz, 2021). Using prerecorded online lectures and videos, students got familiar with course topics and relevant materials before in-person class time. Upon video-based instruction, students completed low-stakes quizzes and activities prior to in-person discussions. Once in the classroom, students completed high-level cognitive activities to engage the course material instructed online (See Table 1 for sample in-class activities).

Name	Instructions
Focused Listing	<ul style="list-style-type: none"> ▶ Come up to the board and list two-word examples for dystopian vs. utopian narratives in technological deterministic discourse about the effects of digital media on our lives. ▶ Open the board for discussion. ▶ Delete/move examples around.
Word Journal Headlines	<ul style="list-style-type: none"> ▶ Break up into groups of 5. ▶ Discuss the essence of each reading focusing on the main argument, theoretical stance, and conclusions. ▶ Create an original, interesting, funny news “headline” to capture the essence of each reading. ▶ Give the class a 1-minute pitch about why your “headline” makes sense in light of the readings and your group discussion.
Class Debate	<ul style="list-style-type: none"> ▶ Debate Group 1: Defend a stance based on the Cues Heuristic Approach. Support your claims using evidence from this line of research as it was explained in Hancock & Guillory (2015). ▶ Debate Group 2: Defend a stance based on the original arguments/research Hancock & Guillory (2015) used to debunk the assumptions Cues Heuristic Approach made.
Critical Reflection	<ul style="list-style-type: none"> ▶ Prompt: Imagine that you applied for a communication advisor position in a new tech start-up working to develop an online community app, focusing on creating healthy daily habits (e.g., nutrition, exercise, sleep, socializing, etc.). ▶ Question: What should the tech start-up do to create a safe, reliable, and effective online community? ▶ Write a research-based critical analysis discussing what factors the start-up should consider for creating a successful and effective online community app. ▶ Think about the connections between readings on digital deception, online credibility, online misinformation, and online communities. ▶ Use one theory as a theoretical framework. ▶ Support your arguments with evidence from at least 3 class readings.

Data Analysis

A thematic analysis of student self-reflection papers was conducted to examine the first research question about student perceptions and reactions to the flipped classroom technique. The themes were identified based on the representation of similar meanings and explicit repetition of words or phrases used to represent a sentiment (Owen, 1984) in students' responses to reflection questions unique to the modality of the course. In the first stage of coding, key ideas from the data were summarized using descriptive labels. In the second round, new descriptive labels were generated to illustrate connections across initial codes and recoded data (Corbin & Strauss, 2008). Additionally, class observations, student project outputs, and in-class field notes were used to complement and make sense of the emerging themes.

To provide another layer of interpretation for our findings in the thematic analysis, we quantitatively compared student grades from the course using flipped classroom technique in Fall 2019 to two classes that were taught in Fall 2016 and Fall 2015 using a more traditional lecture format. It is important to note that though the exact same assessments were administered using the exact same course material taught by the same instructor across all three courses, all objective assessments were conducted in a timed, online format including quizzes and exams in the flipped classroom. The questions used in these assessments were application questions, meaning students were required to identify or apply a course concept based on an example or a scenario provided. The questions were not knowledge-based, so students would not be able to simply look up their notes, find a definition, and answer a question. Also, the questions were randomized and timed, leaving very little time and planning to refer to class notes. Considering these boundary conditions and characteristics of the question types in the objective assessments, we attempted to control the conditions across three groups to some extent. Accordingly, one-way ANOVA was used to test average grade differences across three different class groups taught by the same instructor.

The first part of the following section summarizes the results of the thematic analysis. The second section will outline the quantitative data results, followed by the discussion of the findings.

Findings

Thematic Analysis

Overall, students thought the flipped classroom helped them learn the course material in an effective way. They found the learning process successful as the diversity of learning tools used in the flipped classroom helped them stay engaged throughout the course, allowed them to self-pace their learning outside the classroom, provided relevant learning activities to be used in their final projects, inspired them to think outside the box, and pushed them to make connections across course topics and real-life contexts. The thematic analysis showed that students had very positive reactions to the flipped classroom format as they reported this technique to (1) motivate and engage them, (2) to force them to make meaningful connections across course topics, (3) to provide a self-paced, flexible learning environment, and (4) to offer a hands-on experience with the course material for deeper learning.

More specifically, students reported feeling motivated to engage with the course material thanks to the nature of flipped classroom learning activities. For instance, several students mentioned how timed critical reflections pushed them to make connections across different course topics. Additionally, students reported benefiting from the convenience of self-paced learning modules. Finally, students

characterized in-class activities as effective tools for authentic and deep learning. The following section will elaborate on each theme with specific examples from student reflections.

Student Perceptions and Reactions to Flipped Communication Classroom

Motivation to engage with the course material. Learning tools and assessments unique to flipped classroom method helped students stay engaged. Most students mentioned that the way flipped classroom was implemented motivated them to complete the course materials and engage in higher level thinking. For instance, online quizzes and online activities were based on the information provided in the online lectures as well as the course readings. If students did not view the online lecture and complete the assigned readings, they would not succeed in the quiz or the activity. One student stated that they “liked this concept in general because it forced [them] to engage in the content more.” Similarly, in-class activities were built on the notion that students completed the online portion of the class, hence motivating them to come to class prepared to engage in high-order thinking and participate in team-based discussions. One student wrote, “this flipped class kept me engaged helping me gain interest in how technology affects us and the variety of things it can be used for as well.” Reflecting on online activities, another student wrote, “the activities would ask small, detailed questions along with general questions about the overall material. Doing these helped me gain more knowledge and kept me more engaged throughout the class.”

As students elaborated on the most helpful learning tools in the flipped class days, online quizzes and online lectures seemed to be the most effective tools for knowledge acquisition and assessment. Providing a concrete example for helpful learning tools, one student stated the following:

The online quizzes I believe were a huge help for understanding the material. I think that with a quiz, you're most required to know the material well. The quizzes showed me what I had left to learn, and they also gave me an understanding for what to expect for the online exams.

Student responses also showed that online quizzes motivated students to do the assigned class readings and pay attention while watching the videos. Students appeared to be intrinsically motivated to complete pre-class learning activities as they found these assessments relevant and useful for knowledge acquisition and necessary for in-class participation. One student summarized this sentiment stating, “the online quizzes were difficult so in order to do well I had to read and really focus on the details of the material discussed in the videos.” Another student commented, “online quizzes and activities has confirmed me throughout the semester to go in depth with my responses in a timely manner.”

Making creative connections through learning tools. There were several learning activities implemented during class time (See Table 1). For instance, critical reflection activities were designed to have students think creatively and critically in a timed session. Many students mentioned how these short write-up sessions were both challenging and rewarding at the same time. One student perfectly captured the purpose and intended effect of these active learning tools stating, “The critical reflections were the most effective on understanding the ideas presented in the readings and fully get the meaning out of using examples that could be related to our personal lives.” Echoing the preceding sentiments, another student wrote:

For one of the critical reflections that we completed in class, we were supposed to explain how we would speak to middle school students about cyberbullying. This example was really

effective in comprehending the information discussed in the previous class and made it easier to understand.

As clearly discussed in the student responses, critical reflections pushed students to make “forced” but “analogous” connections across different technological contexts. Students were forced to integrate ideas from different areas of research and make a plausible argument about how these ideas would be integrated to create a solution. Prompts given for critical reflections forced students to think creatively and led them to shift from memorizing the material to using it for knowledge construction. As one student mentioned, critical reflections achieved their goal of “helping [them] think outside the box.”

Convenience of self-paced, flexible instruction. Students had very favorable attitudes toward the self-paced instruction and learning of the course material using online modules. This format allowed them to structure their learning experience according to their own schedules. One student emphasized this point by stating, “I liked how I was able to do the readings on my own pace and then listen to the lectures on my own time.” Students also benefitted from recorded lectures as they enabled them to go back in a lecture to clarify any misunderstanding about a concept. One student stated:

The flipped class is a cool mode for me because I never had that kind of class before, then the professor records the video; it is a helpful method; if I don’t understand some theory, I can play and play the video until I know that theory.

Relatedly, another student added, “the flipped classes I enjoyed very much because it allowed me to have freedom and time to understand the material well enough.” This student particularly emphasized, “how the flipped class activities came with a mini online lecture. The lectures were great because we didn’t have to go to class to listen to the lecture. I enjoyed this flexibility.”

Deeper learning through authentic activities. One important aspect of the flipped classroom activities was that they provided an authentic experience with the course topics. Rather than engaging in traditional class discussions during in-person sessions, we implemented interactive and experiential learning activities in the classroom. One student characterized the in-class learning activities, “to be the time where everything [they] had just learned would click in [their] head. It was like all the connections were made as [they] were participating in the class activities.” For instance, in our discussion about virtual reality (VR), we had 10 virtual reality headsets brought into class by the university’s instructional design and IT team. This experience stuck with many students and several of them mentioned the positive impact of having a hands-on experience on their learning. For instance, one student commented as follows:

Learning about VR from this class opened my mind to how technology can help us develop and help put people in “other’s shoes” to experience a variety of different cultures and backgrounds. This flipped class kept me engaged helping me gain interest in how technology affects us and the variety of things it can be used for as well.

Overall, student reflections on the nature and content of flipped classroom technique suggested very favorable attitudes toward this classroom format.

Quantitative Data Analysis Results

Flipped Communication Classroom and Academic Performance

To examine the possible connections between flipped classroom technique and student performance, we compared student grades from the present class to those in previously offered classes by the same instructor and with the exact same objective assessments such as exams and quizzes. The results showed that there was a statistically significant difference between the student grades of three courses, the flipped class with the project-based learning component generating the highest average grade ($M = 85.63$, $SD = 7.94$) compared to students in classes taught with a non-flipped format in Fall 2016 ($M = 75.68$, $SD = 12.25$) and in Fall 2015 ($M = 77.15$, $SD = 21.9$), $F(2, 80) = 3.89$, $p = .024$.

Given that the project-based learning component could play a role in the overall grades, we also calculated the student grades based on objective individual exams and quizzes across three courses as the content of these objective assessments were the same. The analysis of these scores also showed a statistically significant difference across three courses. Students in the flipped class performed better ($M = 80.58$, $SD = 9.14$) compared to students in classes taught with a non-flipped format in Fall 2016 ($M = 70.89$, $SD = 11.87$) and in Fall 2015 ($M = 72.98$, $SD = 20.9$), $F(2, 80) = 3.46$, $p = .036$. Though these findings by no means imply a causal relationship between flipped classroom and academic performance, they suggest that learning experiences in flipped classroom may have favorably influenced academic performance.

Discussion

Student Learning Experience in the Flipped Class

The findings of the current study are aligned with the research on the effects of flipped classroom technique on student learning. Past studies found that the flexibility provided by the flipped class format allows student to self-regulate their learning (Steen-Utheim & Foldnes, 2018). If students are given the proper tools and a well-organized structure to learn the course materials, they feel motivated to complete learning activities alone, and come to class prepared to discuss their takeaways with the classmates. This class format allowed them to structure their school time around their work time, but also kept them on track by scaffolding the learning process with small assessments and more in-depth in-class activities.

Overall, students thought the flipped classroom helped them learn the course material in an effective way. They found the learning process effective as the diversity of learning tools used in the flipped classroom helped them stay engaged throughout the course, allowed them to self-pace their learning outside the classroom, provided relevant learning activities to be used in their final projects, inspired them to think outside the box, and pushed them to make connections between course topics and real-life contexts. These findings confirm the main propositions of engagement theory (Kearsley & Shneiderman, 1998) as students reported very favorable attitudes toward flipped classroom technique. Collaborative in-class activities that were characterized as “meaningful,” “creative,” or “applied” by students seemed to engage and motivate them to learn (Pérez et al., 2019).

Motivating students to engage in active learning by means of low-stake assessments is a central theme in flipped classroom modality (Hall & DuFrene, 2016). As the COVID-19 pandemic has made online learning approaches a new normal, communication instructors can use low-stake assessments as

incentives to increase student participation and fight student disengagement in their courses. One study examining boredom in a communication course reported that the amount of teacher-talk was one of the primary reasons for boredom for students (Deveci, 2016). Yet, if students do not come to class prepared to discuss the course material or apply it in active learning activities, instructors may have to resort to teacher-led discussions. Delegating low-stakes assessments before in-class meetings, whether online or in-person, can incentivize students to actively participate in communication classes, reduce the amount of teacher-led talk, and hopefully alleviate student boredom and disengagement.

Past research showed that students generally fail flipped classes when they do not complete online lectures or learning activities prior to face-to-face classes. One of the reasons for this is listed as low motivation for online learning and not being able to manage self-paced learning (R. Yilmaz, 2016; R. Yilmaz & Keser, 2017). Interestingly, the findings of this study showed the opposite. Students enjoyed the self-paced learning provided by the flipped classroom technique and characterized the modality as *convenient* and *valuable*. While e-learning readiness in the form of technology self-efficacy and motivation may play a role in student experiences with flipped classroom (R. Yilmaz, 2017), poor instructional design of the flipped classroom and using ineffective learning activities also play a role in student experiences (Abeysekera & Dawson, 2014; Tune et al., 2013). It is important to note that documented difficulties associated with the implementation of flipped classroom (i.e., insufficient course tools, unclear course objectives, inadequate feedback) were considered during the instructional design phase of the course used for this case study. In-class activities used in the flipped class were designed and administered to evoke a *playful* culture of learning in the classroom and to make learning fun for students. As stated in a recent study on instructional communication, making each class session “memorable, interesting, and engaging not only improves attendance rates, but it also sets the tone for student openness” (Diers-Lawson, 2021, p. 117). Incorporating high-level cognitive activities that are informative, engaging, and fun not only help student engagement, but also provide a rewarding teaching experience for instructors in the communication classroom. For flipped classroom technique to promote creative thinking, appropriate class design and suitable assignments should be designed and implemented (Martin & Schwartz, 2014).

Having used high-quality materials as well as effective teaching and learning activities possibly played a favorable role in students’ motivation, and overall experience with the self-paced learning environment offered in the flipped classroom. These finding sheds further light on the importance of taking a systematic approach to the instructional design of flipped classroom to promote student motivation, learning, and creativity (Al-Zahrani, 2015).

Lor (2017) argues that “one of the biggest challenges for education is how to prepare the students for a world that doesn’t yet exist” (p. 1), and communication students are no exception to this challenge. More importantly, it is very likely that communication students will find themselves in jobs where they will need to craft messages, make sense of meanings, fight misinformation, and find ways to navigate ambiguity for their stakeholders. These skills are particularly relevant in communication courses that focus on applied communication contexts such as crisis communication, health communication, or strategic communication. Thus, if communication students experience and practice high-level cognitive learning activities that push them to think critically in the communication classroom, they can be better equipped to function effectively in the realm of ambiguity and unknown beyond their college experience.

Academic Performance in the Flipped Class

Past research documents mixed results for the effect of flipped classroom technique on student performance. While some studies reported its positive effects on student performance (Mason et al., 2013), others did not find any difference between traditional lectures and flipped classrooms (Bishop & Verleger, 2013; McLaughlin et al., 2013). When compared to previously taught classes without a flipped format, the academic performance of students in the present course was higher. Though a large portion of the grade was based on the team project, students peer-evaluated each other and not all group members earned the same grade. For instance, while three members of a team earned an A, one group member could earn a C in the team project. The content of these assessment tools was generally consistent across all three courses. The only difference was that in the flipped class, all objective assessments were conducted in a timed, online format including quizzes, exams, and worksheets. Though students could look at their notes during the online completion of these assessments, the questions were mostly application-based and randomized, making it very difficult to use notes. Additionally, the standard deviation of the mean grade in the flipped class was much smaller than those of previous semesters. This evidence further documents that students in the course with the flipped classroom technique collectively performed better than students in classes taught with a more traditional, teacher-centric format. Though this finding does not imply a causal link between flipped classroom technique and academic performance, it suggests that flipped classroom may create a positive learning environment conducive to improved academic performance.

These findings are not surprising as carefully and systematically designing and implementing a flipped classroom technique is essential to student learning and satisfaction. Additionally, student motivation plays an important role in whether a flipped format can generate positive or negative effects on student learning.

When we interpret the quantitative results with the qualitative findings, the high student grades in the flipped class format can be further contextualized. Scholarship in flipped classroom reports that student engagement and motivation is essential for perceived effectiveness of a flipped classroom (Pérez et al., 2019). Research also shows that when students are intrinsically motivated and actively involved in their learning, they perform better compared to when they are extrinsically motivated and passive (Deci et al., 2011). As evident in the student reflections, the way flipped classroom was designed and implemented in the present case helped students stay motivated and engaged in the course. As such, it is possible that intrinsic motivation and student engagement may also contribute to the relationship between flipped classroom and overall performance.

Engagement theory posits that for effective learning to occur, students must be engaged in the coursework (Kearsley & Shneiderman, 1998), and flipped classroom technique, more than any other time, can help instructors engage the students in the college classroom. For instance, one study conducted among undergraduate students of an organizational communication class reported that using flipped classroom during the pandemic “helped increase student engagement and was very different from anything else students experienced” (Ishkova et al., 2021). Another study reported that “taking initiative in learning and peer communication can inform interventions to help students at greatest psychosocial and academic risk” (Morris et al., 2021, p. 23), particularly as the remote and hybrid learning modalities have become the norm post-pandemic.

Pedagogical Implications

Another source of data for understanding students' experiences with the flipped classroom format came from in-class observations throughout the semester. Mid-semester course feedback provided additional data points to reflect on the possible connections between the flipped classroom and student learning. The following section summarizes insights gained through thematic data analysis, teacher observations in the classroom, as well as student feedback on the class structure.

Regular Attendance as an Added Benefit

Attendance in the flipped class was more regular compared to classes taught using a traditional format. Though no official attendance was taken, students still showed up to class more regularly than the previously taught courses. Perceived effectiveness of the flipped classroom as well as student satisfaction with it (Pérez et al., 2019) may have played a role on improving attendance. Past research documented that when students were given the opportunity to practice what they watched or read, they saw the value in attending classes (Sherrow et al., 2016). As such, by attending the class to engage in class activities, students would exert more effort to meet the course requirements and accomplish the learning outcomes to great extent (Robinson & Hullinger, 2008). Additionally, as students knew that the in-person class time would be dedicated to engaging group activities rather than traditional lectures, they may have felt more motivated to attend the classes regularly, especially when they complete the pre-class work.

Time for Acclimating to Flipped Classroom

Research on innovative teaching techniques suggest that simply implementing a novel approach does not guarantee its success. At mid-semester, students voiced their need for reducing ambiguity regarding in-class activities before they come to class. They also mentioned that they were not feeling comfortable actively participating in some of the activities that made them very conspicuous in the class such as debate activities. Encouraging students "to feel comfortable with being uncomfortable" is essential to instilling creative and critical thinking skills in the flipped classroom. One way to reduce student anxiety about high-level learning activities is to inform them about an upcoming in-class activity before class and give them extra time to reflect on the activity. After all, one of the keys to the success of flipped classroom approach is to ensure that students have a clear understanding of what is happening in and outside the classroom (Sherrow et al., 2016). For instance, before in-class critical reflection write-up days, students would receive a list of discussion questions to think over before the in-person class meeting. Once in the classroom, a class discussion on these questions using interactive techniques such as forced connections or mind mapping would take place. Following these activities, they would be provided with the writing prompt for the critical reflection session. Making these slight changes had a very positive impact on student comfort levels and attitudes toward the flipped class format, and possibly reflected positively on their performance. Communication instructors can benefit from developing and introducing flipped classroom format to students.

Low-Stake Assessments to Improve In-Class Participation and Learning

Student preparedness for in-class activities is essential to success of flipped classroom technique (Rahman et al., 2015). Current research shows that students' reading compliance for course preparedness is very low, and decision to read depends on perception of information usefulness and relevance (Sharma et

al., 2013). Accordingly, if teachers want students to engage in higher-order interactive and collaborative in-class activities after completing the course readings, they should implement low-risk assessments prior to class time to highlight the relevance and usefulness of readings. Research shows that failure to complete the out-of-class work negatively affects learning outcomes in flipped classes as well as instructor satisfaction. Such low-stakes pre-class assessments can boost student motivation to complete the required course materials, and come to class prepared (Hall & DuFrene, 2016). It is also important that these activities are closely related to student interests and concerns, as such relevance would highly contribute to student engagement (Pérez et al., 2019). For instance, these assessments can motivate students to complete the readings, view the lecture slides, and apply what was learned in an online activity before they come to class for a more in-depth discussion and application. Students who complete these online quizzes and online activities are more likely to participate in class discussions and have a deeper learning experience through collaborative learning activities.

Timed Critical Essays for Deeper Learning and Creative Thinking

One effective tool to help students connect and synthesize all out-of-class and in-class learnings is having them write timed critical reflection essays during the class period. These reflection essays can be structured as application of course concepts in different contexts and should include some degree of task complexity. Research shows that in order to improve engagement in the flipped classroom activities, students should be exposed to activities with a certain degree of complexity, as simplistic, routine activities reduce the perceived effectiveness of the flipped classroom technique (Pérez et al., 2019). For instance, for the online community chapter in this class, a critical reflection prompt instructed students to synthesize their learnings from readings on online deception and online communities to generate recommendations for a fictitious mobile app company. Students were asked to write up a persuasive pitch for the startup that is based on theory and empirical research findings. Such writing assignments high in complexity push students to think divergently, apply the course material in a real-life context, and think about the ways they could present what they learned for an unexpected audience.

Flipped Remedy to Re-Engage Students

As discussed in McMurtrie (2022), instructors should find innovative ways for connecting with students and help them make sense of their college degrees post-COVID-19. Flipped classroom technique may equip instructors with tangible tools to accomplish this goal. For instance, by creating learning experiences that build on the connections between students' personal interests and the course material, instructors can incite more excitement, and thereby, generate more engagement from students. As flipped classroom puts students in charge of their learning, instructors can start moving away from one-size-fits-all approaches to teaching and start giving students freedom to adopt *personalized* learning experiences.

Real-life problem-solving projects comprise the backbone of any flipped classroom as they force students to translate theoretical concepts and academic research into real-life applications. When students are tasked with working on complex problems that have a real-life outcome, they demonstrate more willingness to engage in deeper learning of the course material (G. Yilmaz, 2021). As proposed in the engagement theory, collaboratively working on meaningful learning tasks strongly contribute to intrinsic motivation to learn (Kearsley & Shneiderman, 1998). As such, interactive learning practices intertwined with real-life problems in a flipped classroom can intrinsically motivate students to learn

the course material while providing them with the much needed meaning they are looking for in their college degrees.

Limitations and Future Directions

The limitations in this study are twofold. First, to examine the connections between flipped classroom technique and student performance, we compared grades on objective course assessments (i.e., exams, quizzes) between the course taught with the flipped classroom technique and two courses taught with a traditional format. The content of these assessments was the same and all three courses were taught by the same instructor, but the modality difference in administering the assessments (online vs. in-person) may have played a role in student grades. Though the application-based questions in the objective assessments make it almost impossible to look up answers in an online test, future studies should examine student performance in a flipped classroom by controlling for this factor.

Second, this study took an exploratory approach to examine student perceptions and reactions to flipped classroom learning experiences. The thematic analysis suggested that students generally enjoyed the flipped classroom modality and characterized it as a valuable learning method. To dissect the unique effects of variables embedded in the flipped classroom (e.g., group project, classroom culture, sense of belonging in the class, etc.), future studies should adopt a confirmatory approach to thematic analysis (Guest et al., 2012). Alternatively, future studies can explore the research questions advanced in this study using an experimental design to establish causal links across flipped classroom technique, student learning experience, and academic performance.

Conclusion

As evidenced by the findings of this study, flipped classroom can provide communication students with more meaningful and relevant learning experiences compared to traditional, teacher-centric approaches. Flipped classroom technique can help communication students develop and practice their critical and analytical thinking skills, and, thereby, better prepare them for the ever-changing complexities of the world waiting for them beyond the college campus. If more communication instructors start to offer flipped courses that are systematically designed and playfully executed, students can experience the significance of their in-class learnings for the world outside the classroom. Flipped technique is worth a try for innovating the communication pedagogy. After all, what is a better remedy for disengagement than immersing our students in a meaningful, relevant, and fun learning journey?

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Appendix

Self-Reflection on “Flipped” COMM 300

1. What was your initial attitude toward “flipped class” format before you took this course?
 2. Did your attitude change or transform as you completed the flipped course? Please explain briefly.
 3. Having completed this course:
 - a) What do you think you liked the most about the flipped learning format?
 - b) What do you think you liked the least about the flipped learning format?
 - c) What do you think helped you the most to learn the course material in this flipped format?
 - (i) Which online materials did help you the most? Give specific examples and provide a short rationale for why you liked these the most.
 - (ii) Which *in-class activities* were your favorite? Give specific examples and provide a short rationale for why you liked these the most.
 - (iii) Which *in-class activities* were your *least* favorite? Give specific examples and provide a short rationale for why.
 4. What tips would you give a *fellow student* for success in a flipped course?
 5. What tips would you give a *professor* who is planning to teach a flipped course?
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