

Benefits and Challenges of Teaching in a Hybrid and Flipped Classroom

Katryna Johnson, Ph.D.

Metropolitan State University
College of Management
1501 Hennepin Avenue, Minneapolis, MN 55403-1897
United States of America

Susan Misterek, Ph.D.

Metropolitan State University
College of Management
1501 Hennepin Avenue, Minneapolis, MN 55403-1897
United States of America

Abstract

The paper will discuss some of the benefits and challenges of using a flipped class format that is also hybrid. In a hybrid course, we use both traditional face-to-face and online learning activities. In a traditional face-to-face course, class time is spent on lecture. The flipped classroom model reverses the typical lecture and homework elements of a course. In class, little time is spent on lecture. Students are able to view online videos, lecture notes and PowerPoints before coming to class so that class time can be devoted to applying course concepts through small group discussion, exercises and course projects. Research has shown that flipping the classroom leads to higher student engagement and perceptions of learning. We will review possible measures for assessing learning and involvement in the flipped classroom. Finally, we will discuss our experience with flipping the classroom and what we have found in regards to these variables.

Keywords: Flipped Class, Inverted Class, Student Engagement, Active Learning, Experiential Learning, Student Involvement

1. Benefits and Challenges of Teaching in a Hybrid and Flipped Classroom

In all types of learning it is important to engage students. This is getting harder to do in educational environments as instructors face competition from technology in the classroom and decreased attention spans (especially from Millennials). While educators have been proponents of active learning for quite some time (Albert & Beatty, 2014; Bonwell & Eison, 1991; Khan, Grube, Bernard & McCann, 2013), we face a new challenge in engaging students who have grown up jumping constantly from one activity or application to another.

Millennials as well as many other students enjoy experiential learning or learning by doing (Kolb, 1984; Phillips & Trainor, 2014; Roehl, Reddy & Shannon, 2013). Experiential learning allows students to engage in the learning process through active participation in activities involving critical thinking. Students also engage with their peers, receive feedback from the instructor and reflect on their experiences. One pedagogical approach to learning, the flipped classroom, allows students to engage in active and experiential learning.

2. What is the Flipped Classroom?

In a traditional face-to-face course, much of the class time is spent on lecture and in-class discussion. In a hybrid or blended course, both the traditional classroom lecture and online learning activities such as discussion are used. A “flipped” classroom model reverses the order of the typical lecture-based course. That is, the lecture occurs online via video and class time is used for application of course concepts through in-class activities such as working on case studies or a class project, team-based discussions, debates, and case-based presentations (Albert & Beatty, 2016; Buch & Warren, 2017; Green, 2015; Kim, Park, Jang, & Nam, 2017; Lage, Platt & Treglia, 2013; O’Flaherty & Phillips, 2015; Phillips & Trainor, 2014; Prashar, 2016; Roehl, Reddy & Shannon, 2013; Song & Kapur, 2017).

In the online environment, students are expected to study and review short video lectures, and read lecture notes and view PowerPoints for a particular topic before coming to class. Class time is then devoted to applying what students learned from online study through small group discussion, working on activities in the class and working on case analyses.

Key to the flipped classroom is providing students with videos that discuss course concepts. These videos can be created by the instructor or can be obtained online through sites such as TedTalks, YouTube and Vimeo. Recording your own videos or finding relevant videos is very time intensive work (O’Flaherty & Phillips, 2015). As there are many great videos online from practitioners and educators on subjects in marketing that have closed captioning, we use videos that are available online in our classes. For the sake of student learning and their time, it is good to keep required videos under 10 minutes with the typical length being 3 to 5 minutes (Green, 2015). Supplemental videos of longer lengths might also be provided to go more in-depth into topics. It is a good idea to highlight for students which videos are a “must” watch.

It is important to provide students with a time for reflection in a flipped course to ensure that they are learning the concepts (Kim et al., 2017; Roehl, Reddy & Shannon, 2013; Sage & Sele, 2015). To increase student preparation, students can use journals to write their thoughts about online lectures and videos before coming to class. Sage & Sele (2015) found that student journals did help students prepare for class and improved class discussions and peer interactions.

3. Choices in Flipping the Classroom

Prashar (2016) suggests that using the flipped classroom technique does not need to be all inclusive. Prashar indicates that there are choices in using the flipped class: full flip, partial flip and do not flip.

- Full flip: is meant to fully introduce students to course concepts before coming to class using podcasts, online quizzes and readings.
- Partial flip: uses a combination of online and face-to-face instruction. This choice uses online videos and lectures for concepts that don’t need to be introduced in the class. In the class analysis and application are emphasized.
- Do not flip: uses the traditional method of teaching. No outside resources are provided to students.

Khan et al. (2013) also discusses a possible continuum of using a flipped classroom. Khan discusses a spectrum of possibilities in which not only the level of inversion (low to high) is observed, but also the level of technology that is used.

4. Benefits and Challenges of the Flipped Classroom

4.1 Benefits of the Flipped Classroom

Studies have shown that flipping the classroom leads to higher engagement and involvement (Green, 2015; Krueger & Storlie, 2015; Lage, Platt & Treglia, 2000; McCallum, Schultz, Selke & Spartz, 2015; Milman, 2012; Phillips & Trainor, 2014; Song & Kapur, 2017; Scovotti, 2016). A review of literature on using flipped classrooms (O’Flaherty & Phillips, 2015) reveals that there is indirect evidence that using flipped classrooms improves academic performance and student grades in the class. Albert and Beatty (2014) also found that grades were improved in flipped Introduction to Management courses.

Studies on students’ perceptions towards a flipped class and satisfaction levels have been generally positive (Krueger & Storlie, 2015; McCallum et al., 2015; O’Flaherty & Phillips, 2015; Stuart & Wuensch, 2016). Stuart & Wuensch (2016) examined using a flipped class in a quantitative decision sciences course and found that the flipped classroom was particularly helpful with improving student satisfaction and learning. Other quantitative fields such as economics and accounting have also found this to be the case (Lage, Platt & Treglia, 2013; Phillips & Trainor, 2011).

A flipped classroom allows students to work at their own pace in the online environment (Khan et al., 2013; Philips & Trainor, 2014; Song & Kapur, 2017). Flipping the classroom allows students to spend their time viewing lectures, notes and power points according to their schedule and pace (Philips & Trainor, 2014). Flipping also allows students who have already mastered a subject to spend less time on a topic and those who need more help can spend more time and review materials as needed (Steed, 2012). This also allows instructors to more effectively manage class time (Krueger & Storlie, 2015) and provide students with faster feedback.

To succeed in a flipped class, students need to be self-motivated (Phillips & Trainor, 2014; Roehl, Reddy & Shannon, 2013). Song & Kapur (2017) completed a literature review and found that flipped classes did increase student-motivation (in some cases). Song & Kapur (2017) also found that a flipped class allowed instructors to teach to differing abilities as the online environment provided an opportunity for students to understand concepts. The class environment allowed the instructor to use time effectively to gauge whether or not students were able to comprehend, apply concepts and synthesize information to relevant projects and activities.

The flipped classroom also addresses the seven principles for good practice in undergraduate education (Chickering & Gamson, 1999, see Table 1). First, by using class time for in-class exercises and projects versus lecture, a flipped class encourages student-faculty contact and active learning (Khan et al., 2013). Because the instructor is able to see/discuss students' responses prompt feedback is achieved. Additionally, the instructor can communicate high expectations when giving feedback in class. A flipped class also emphasizes time on task since class time can be used to apportion sections of a larger project to working in the class and keeping to a schedule. Finally, since students can work in groups on activities in class, a flipped class encourages cooperation among students. The final principle may be met (Respect diverse talents and ways of learning) as students may be required to work with people who are different from them in a face to face environment, which may increase respect.

Table 1: Chickering and Gamson's Seven Principles for Good Practice in Undergraduate Education

Encourages student-faculty contact
Encourages cooperation among students
Encourages active learning
Gives prompt feedback
Emphasizes time on task
Communicates high expectations
Respects diverse talents and ways of learning

Note: Adapted from Chickering and Gamson (1999, p. 76)

4.2 Challenges of the Flipped Classroom

The major challenges of the flipped classroom: time intensive preparation to secure videos for online portion of the class, time for finding in-class activities involving higher levels of learning, and lack of student preparation (Phillips & Trainor, 2014; Scovotti, 2016; Steed, 2012). Producing one's own video lectures is time intensive as is finding quality videos online. Videos that are online can disappear off the web which can be problematic. Even if the videos are of high quality and are accessible, students may not watch the videos or may feel overwhelmed by the number or length of the videos (Milman, 2012; Steed, 2012). Similarly, the flipped classroom relies on students to be self-motivated learners who are responsible for their own time (Phillips & Trainor, 2014; Roehl, Reddy & Shannon, 2013). Not all students have these abilities. Additionally, the flipped classroom relies on collaboration (Green, 2015). Finally, not all students enjoy collaborating on their work.

4.2.1 Solutions for the challenges. There are ways to decrease the challenges of the flipped classroom. It is important to choose or make required videos that are shorter in length. The instructor should prioritize for the students which videos are required and need to be watched before class and which ones are supplemental to assist with more in-depth learning (Green, 2015).

To assist students with the independent learning component of the course (viewing and reading materials before class) it is important to discuss early on in a live class what the student needs to do to succeed in the class (O'Flaherty & Phillips, 2015). This can be done in the first live class and additionally by providing a general discussion forum on the class site in which students can get advice from the professor and from their peers (Green, 2015). Additionally, asking students to come to class with questions on topics or post questions to discussion boards is another solution (Roehl, Reddy & Shannon, 2013). Furthermore, some faculty may wish to quiz students on materials that should have been studied prior to class.

To assist students in group collaboration, students should be allowed to choose what groups they want to work with in class on activities as this will especially help students who do not like to collaborate (Green, 2015). Self-selection also allows those students who come prepare the choice to work with others who similarly do so.

There are many types of video capture software such as Jing and Adobe Captivate that can be used to create lecture videos (Phillips & Trainor, 2014).

A reduction in the time to prepare for a flipped course can be achieved by working with a colleague teaching another section of the course to divide the labor (Lage, Platt & Treglia, 2013). An instructor can also have current lectures videotaped instead of videotaping specifically for a flipped course (Lage, Platt & Treglia, 2013).

5. Measuring Learning and Involvement in the Flipped Classroom

Previous research has provided instructors with potential questions to assess student learning in the flipped classroom. A few examples using open-ended and close-ended questions will be discussed.

McCallum et al. (2015) conducted six focus groups with mathematics and business students to assess student perceptions of the flipped classroom. An abbreviated version of the interview guide appears in Table 2.

5.1 Focus Groups

Table 2: Focus Group Interview Guide (possible open-ended interview questions for students)

Academic Involvement
1. How has the flipped classroom approach impacted (helped or not) your learning?
2. How has the flipped classroom format changed the way you approach the class?
3. How has the in-class time impacted (helped or not) your learning?
Student (Peer-toPeer) Involvement:
4. How has the flipped classroom approach differed from other classes as to how you interact with your classmates?
Student-Faculty Involvement:
5. How has the flipped classroom approach differed from other classes as to how you interact with our instructor?

Note: Adapted from McCallum et al. (2015, p. 47) interview guide

McCallum et al. (2015) found that in the flipped classroom students were more involved in viewing video lectures, felt more prepared for class, were more engaged, collaborated more with their peers, and built better relationships with their peers. Students also had positive perceptions on the professor's knowledge level, and approachability. McCallum et al (2015) and O'Flaherty & Phillips (2015) found that students thought that flipped classes took more time and effort, required more self-discipline and more responsibility on the part of the student.

5.2 Surveys

Lage, Platt & Treglia (2013) had instructors in multiple sections use end-of-the-semester surveys to assess student perceptions in a flipped microeconomics course. The survey questions (Table 3) used a 5-point Likert scale. The authors discussed a few overall means, and additionally provided some means for females and males (with approximately equal proportions of each gender).

Table 3: Flipped Class Closed-ended questions

1. I prefer this classroom to a "traditional" lecture format.
2. I believe that I learned more economics with this classroom format.
3. I would prefer to take macroeconomics with this type of classroom format.
4. I enjoyed working in groups, in class.
5. I learned a lot working in groups, in class.
6. The in class activities illustrated basic economic concepts.
7. There is too much work to do outside of class for this course.
8. I worked more in this class than my other classes this semester.

Note: Adapted from Lage, Platt & Treglia, 2013, p. 36)

Lage, Platt & Treglia (2013) found that students had a positive perception of the course (average score of 3.9). Students also believed that they learned more in the flipped class format (average score of 3.9). Interestingly, females (4.1) had a stronger perception on this question than males (3.7). Both males and females preferred the flipped class format (3.9), with females (4.1) scoring slightly higher than males on this question (3.8). Students also believed that the in-class work illustrated course concepts (4.2), with females (4.4) having a slightly stronger perception of this than males (4.1). Finally, students perceived the work in this class to be comparable to other courses (3.3).

Phillips & Trainor (2014) used a survey (Table 4) at the end of the semester to examine student perceptions of the flipped classroom in an accounting course of millennial students. The survey used a 5-point Likert scale.

Table 4: Course Delivery Questions (closed ended)

<ol style="list-style-type: none">1. My classes mostly consist of lectures2. I enjoy doing different things in class rather than lectures3. I learn best by doing rather than by listening4. I prefer my grade to be determined by exam scores5. The level of difficulty of my accounting course is about right

Note: Adapted from Phillips & Trainor (2014, p. 110)

The majority of students (91%) indicated that their classes mostly consisted of lecture, while 77% of the students prefer active learning (learning by doing). The majority of students (68%) disagreed that they wanted their grade to be determined by exam scores. Most students (75%) believed the level of difficulty in the course was at the right level.

Phillips & Trainor also asked the students how effective they found the flipped classroom to be. The majority of students (68%) found the flipped classroom to be effective or very effective. They also asked students how student learning could be improved in the course (open ended question). The top response was more interaction in the class, more problems and less lecturing (38%). Clearly these results indicate that many instructors use a course delivery method that varies from the desired methods of students.

6. Example from an Integrated Marketing Communication Course

We have partially flipped Buyer Behavior and Integrated Marketing Communications. We concur with Prashar (2015) that there are options available in flipping courses. While we intended to have fully flipped courses, we found that it worked better to have partially flipped courses so that we could spend some time in class on mini-lectures. We also determined that partially flipped classes have ranges of flipping, from a little flipping (more lecture) to having most of the class flipped (very little lecture).

6.1 Class Example: Integrated Marketing Communications

We have found that the benefits of using a flipped classroom include substantial class discussions, improved critical thinking, more student engagement in the class, and improved class projects. Student reflection papers indicate that they appreciate the time spent in class to work on activities, papers and class projects.

We create a weekly agenda for the courses for face-to-face courses that are posted in advance of class to the class site so that students know best how to prepare for class time (Table 5). This not only makes more efficient use of class time, but also enables the students who aren't as self-motivated or not as good time managers to focus their time effectively in preparing for class. This course meets once a week for 3 hours and 20 minutes. A course that meets for a shorter period of time would break up this agenda into different segments. For instance, a 50-minute course would only cover agenda items 1 to 3 in one class session.

Table 5: Example of Agenda for Students

<p>Agenda – Week 3 MKTG 343 Integrated Marketing Communications</p> <ol style="list-style-type: none">1. Team Charter – (10-15 Minutes)2. Big Idea PowerPoint (10minutes)3. Work on coming up with Big Idea (20-25 minutes)4. Positioning Statement Review (5 minutes)5. Work on Positioning Statement (15 minutes)6. Answer all 5 discussion question for Week 3 and post answers (15 minutes)7. BREAK8. Promotional Objectives PP (5 minutes)9. Discuss possible promotional objectives for IMC Plan (5-10 Minutes)10. Creative Brief PowerPoint (5-10 minutes)11. Begin work on Creative Brief (15 – 20 minutes)12. Quickly look at Storyboards (5-10 minutes)13. Start work on Sections I and II of the paper. (rest of class time) <p>*Note that times are approximate</p>

Class time is used to engage students in active learning through in-class activities on course topics, working on case studies and working on sections of the class project. This allows students to ask the instructor questions about subject matter, research topics online through the internet and university databases, interact with peers and receive feedback. We often need to use mini-lectures to capture some of the more complex content.

We spend much of class time having students do exercises or activities that apply course concepts or relate to their course projects (Table 6). For instance, research is often used in our courses so we spend time discussing the library databases, give students the opportunity to practice searching for research in class and discuss what everyone found (Table 7).

Table 6: Example of Course Project Related Activity

This week we will finalize the Big Idea which is discussed on pages 285-296 in your text. Here is a quick summary of the Big Idea (and you can also look at the power points and notes. The Preston Kelly videos and PowerPoint from Week 3 are very helpful in understanding the Big Idea):

The Big Idea (major selling idea) is the central theme of the advertising campaign and should translate into attention-getting, distinctive, and memorial messages. You should discuss the slogan that you will use to implement your Big Idea. Your entire campaign is derived from the Big Idea.

Big Idea should:

- Attracts consumer's attention
- Gets reaction
- Sets product apart from competition
- Joins product benefit with consumer's desire
- Brings life to the subject
- Makes audience stop, look and listen – breaks through advertising clutter

In Class, we will address these questions.

1. What is the team's new Big Idea for the campaign?
2. What new slogan will be used to convey the Big Idea?
3. How did the team come up with the Big Idea?
- 4 How does the Big Idea meet the needs of the target audience (make sure to clarify who the target audience is)
5. Include the positioning statement for the brand. This should be 1 sentence. See ch. 2 lecture notes and PowerPoint for how to write positioning statement.

When you are discussing your Big Idea and positioning statements please remember:

- A. The Big Idea will drive your entire campaign so whatever idea you come up with will be used for all forms of media (advertising, social media, promotions, etc.)
- B. A positioning statement discusses what is unique about your brand and relates it to your target market!

You should use this format to write your positioning statement:

For (target market) (brand name) is the (product/service description) that (benefit) because it has (reason why.)

For example Dove's positioning statement could be:

For American women aged 25-45 Dove is the soap that softens skin because it has 1/4 moisturizing lotion.

For instance, research is often used in our courses so we spend time discussing the library databases, give students the opportunity to practice searching for research in class and discuss what everyone found (Table 7).

Table 7: In Class Exercise on Research skills

Practice Your Research Skills
1. We will review the library databases that will be most helpful for the class project.
2. Please use the university's databases to research whether or not there are existing SWOT analyses on your company.
3. If you find an example, does it provide reliable information?
4. Use Google Search (or another search engine) to search for a SWOT analysis on your organization.

One final activity we use to assess the flipped classroom is an end-of-the semester reflection paper (Table 8).

Table 8: Reflection paper assignment

At the end of the semester you will write a one to two page paper (double spaced, one inch margins) on the three topics/assignments/discussions (any aspect of the course) that were most important to you in the course. Discuss why the topics were relevant in your life. This may include any topics related to the course such as working in a team, discussions, chapters, lecture notes, PowerPoints, content area information, videos, feedback, quizzes/exams, etc. The purpose of this assignment is to give me more in-depth feedback on the course.

Students have indicated that they found using class time to work on projects to be extremely helpful (Table 9).

Table 9: Sample of Excerpts from Course Reflection Papers

I must say, I really appreciate that you are always helping and guiding us. It is refreshing to finally have a professor that is actually present. I want to thank you as well. You gave us great feedback in which we were able to use to add and improve our IMC plan! We couldn't have done such a great job without your guidance and checking in on us to see if we were on track with the project! The most important and relatable thing to me throughout this course would have to be the IMC Plan itself. I think this is a great project for students to not only learn every aspect of creating a new marketing plan, but also having to be creative from choosing a product, to a new slogan, to what type of print media they're going to use. Out of all my marketing classes so far, this project has been the most fun and interesting one to me because I loved having to create the plan in general. The frequent communication and feedback motivated me to engage and also made me feel like my Professor was available and concerned about my success. The first thing I really enjoyed about this class was the overall discussions that took place throughout the course. The more you can interact with your classmates and instructor the better.
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7. Conclusion

In practice we have observed the following across our courses:

- Flipping a class is time intensive as creating or finding videos does take time. The next semester of teaching a flipped class has less of a time commitment as much of the work has been done.
- A flipped classroom works well with traditional students. Millennials are especially well adapted to this technologically driven approach that chunks course content.
- Students have different levels of preparation when they come to class. Those who are more prepared help balance those who do not.
- Classes where there is teamwork seem to work especially well for the flipped class as students have more accountability to their peers.

8. Future Research

There currently is no long-term evidence on how flipping a class room impacts educational outcomes (O'Flaherty & Phillips, 2015). While exploratory research has been conducted on flipped classrooms, there is limited empirical research on flipped classrooms, especially the field of marketing. We plan to gather data on student satisfaction and learning in a flipped classroom over the course of several years.

The flipped classroom presents various challenges and multiple benefits. While preparation on the part of the instructor and the student is increased, students in the flipped class tend to be more engaged and have higher satisfaction levels. Additionally, the flipped class allows students to work at their own pace outside of class (online) and allows class time to be focused on activities rather than lecture.

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