Does flipping the high school psychology classroom for the direct instruction portion of the lesson produce higher quiz scores than face-to-face in-class direct instruction?

**Background**

During my internship semester, I was placed in a psychology class. For me, as a history major, this was very different; however, I have always liked psychology and thought that having the opportunity to teach it would be a very beneficial experience. I was proven correct throughout the duration of my internship, but I did quickly notice that some of the material was very complex for high school students. This is the reason that there were no tests in my class, only quizzes and projects. These unit or topic-specific quizzes tended to benefit the students much more than a lengthy and complex test. In order to monitor the performance data of my students, I check and submit to PowerSchool regularly. This helps me to monitor the class standing of each student, specifically struggling students who are in danger of failing or not graduating. If I notice that these students are beginning to fall short on assignments or are missing many assignments, they are required to come to tutoring. I also personally speak with the student and make parent contact if the issue persists. I expect all of my students to be able to take the material taught to them and apply it to their personal lives. This is very easy for them because psychology is literally the study of the mind and we talk a lot about the teenage brain.

After reviewing the data of student success within my classes, I will ask students what they did or did not understand and answer any questions that they may have. When I pass back the students’ quizzes I will also reiterate anything that the majority of the students did not understand. This differs for each student, so it is important for me to identify and understand those student differences.
attended multiple 504 meetings which also help to give me insight into student differences. The 504 meetings have given me a chance to collaborate with other teachers so that I can more fully understand the learning style of a student and what will benefit that student. I have also learned a lot about the personal lives of students giving me a greater chance to differentiate culturally within my classroom.

**Question**

I decided that I wanted to try and flip one of my psychology classes. I chose to flip my first block class and not second block. My first block always scores higher on quizzes and projects and they are also much more committed to their academics. My second block class has a lot of lower level students in it, as well as a multitude of students with a low socio economic status. I believed that the circumstances in second block would produce a negative outcome for flipping, and my first block would far better benefit from the experience. Because psychology is such an interesting topic, and can be difficult for high school students, I was very interested to see whether flipping the class for direct instruction or face-to-face direct instruction would produce higher quiz scores. I originally decided to do this topic because I was interested to see the results; particularly because there is such a push for flipping within the education world. Throughout the process of completing the project, however, I realized that flipping also provided a great outlet for differentiating instruction and giving students more autonomy in their academic lives.

In order to flip my class, I put the students’ notes online each night. They were expected to come to class the next day having watched their notes and written them on the assigned page in their interactive notebooks. When they came back to class, we simply unpacked the content via activities, philosophical chairs, and class discussions. I believe that having this extra time in class each day for more supplemental activities helps the students to better learn the content. They have the opportunity to work more closely with the material and truly understand it.

**Research**
Overall, my research on flipping the high school classroom showed a strong support for the idea; however, it is emphasized that flipping must be done properly. One cannot use “flipping” as a way to breeze through the content and not truly teach the material; unfortunately, I believe that is what many teachers do. Flipping must be done in such a way that the teacher provides students with the needed content and then they come and unpack said content together in class. Jon Bergmann, one of the pioneers of the flipped classroom, states simply that classwork becomes homework and homework becomes classwork. Students learn the material at home, but they put it to practice at school which helps with problems or questions about the content. A good way to handle any student questions that may arise during direct instruction (now given at home) is to have them write down at least one question a night, as suggested by Pamela Kachka. This is also a good way to ensure that students do their homework the night prior. I believe if done properly, flipping can result in very positive outcomes. According to Dan Berrett, flipping is not a replacement for lecture, but more of a way to improve the traditional lecture. Flipping also provides a rigid focus for teachers in presenting content. I believe videos should be no longer than ten to fifteen minutes, and this helps to get to the point of the lesson much faster. You can expand on the content the next day as you unpack that content.

Implementation Plan

The way in which I flipped my classroom was fairly simple. It did require more work on my part, but the tasks were easy. Each day I would create a Prezi of the notes that I wanted the students to write down. I then used Screencast-O-Matic to record myself talking as I went through the Prezi presentation. This automatically synced with the Prezi so the students saw the same thing I did as I was talking. After completing this, I uploaded my video to YouTube. This did not take long at all, and is a good way to store videos or presentations. After the video was successfully uploaded to YouTube, I posted the link onto Edmodo and instructed the students to take notes as they watched. The process was very smooth in
terms of getting the information to the students; however, my students did not like the idea of flipping the class. They made themselves clear that they were not advocates for a flipped class, but they did their work. At the end of my internship, I surveyed the students about flipping the class so that I could have a better understanding as to why they did not like it and what I could do differently. For many of them, they felt it took away from their leisure time and for others they simply prefer face-to-face instruction. My students also said that starting the flip earlier in the semester would have helped them with the transition. All of their feedback was very beneficial and I intend to use it to improve my technique as I flip my future classes.

**Data/Findings**

As a result of flipping the classroom, there was not a major difference in quiz scores. My data suggests that the class only dropped 3 points on the flipped quizzes from their regular scores on direct instruction quizzes. However, my second block class scored higher on their quiz as a whole than did first block; this had never happened before and it suggests that perhaps flipping my class was not as successful as I had hoped. The scores from the past two quizzes for both classes are listed below.

<table>
<thead>
<tr>
<th>Block 1</th>
<th>Block 2</th>
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<tbody>
<tr>
<td>Typical score on direct instruction quiz= 86.3%</td>
<td>Typical score on direct instruction quiz=83.7%</td>
</tr>
<tr>
<td>Average score on flipped quiz=83.4%</td>
<td>Average score on same quiz (but with direct instruction)=84.8%</td>
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Although there is not a drastic difference between the two, first block scores were three points lower and second block scores were slightly higher.

**Discussion of Findings/Conclusion**
Overall, the quiz scores lowered upon flipping my first block psychology class. They are a smart group of students and I believe that they could be very successful with a flipped classroom; however, they did not have a lot of time to ease into the whole process. I had also never given them homework before, so having to do homework on a nightly basis was a huge adjustment for them. My data suggests that flipping the psychology classroom does not, in fact, produce higher quiz scores, but I believe that if I had begun to flip the class earlier in the semester, or even given them homework earlier in the semester, flipping would have been very successful.

Despite my data and findings, I believe flipping is a fantastic idea. It makes the students think much harder about the content, and it enables them to get a vague idea about what college may be like. This is because by doing the direct instruction portion of class at home, there is more time in class to do supplemental activities in order to work with the content in much more detail. In college, they will, at some point, be required to take an online course, so getting used to having to go home and do homework online is good practice. I also think flipping produces differentiated instruction for the content and allows the students to learn in a new and exciting way because the high school classroom monotony is broken; students can do more in class. I believe students learn better by doing and working with the content rather than simply hearing it and writing it down. Flipping is something that I will most definitely incorporate into my future classrooms. I will start by only flipping honors classes, but I would like to discover a successful way to flip for the on-level students as well.
Bibliography

Ash, Katie. “Educators Evaluate ‘Flipped Classrooms’.” Education Week.


Bergmann, Jon. “Flipped Classroom.”


Kachka, Pamela. “Understanding The Flipped Classroom.”
