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# Effects of a Flipped Classroom on Student Learning and Attitudes in Social Studies

A Project Submitted in Partial Fulfillment
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## Abstract

The growing trend of technology integration in the classroom and the emphasis on individualized learning are brought together in this paper on the effects of a flipped classroom on student learning and attitudes in social studies. Little research has been done to explore the potential academic benefits and attitude improvements when implementing a flipped classroom in a middle school setting. Through an action research project conducted in a seventh grade social studies classroom, this study looks at the differences between a flipped classroom and a traditional classroom structure over the course of two units. Ninety-nine students were involved in this study with two sections of students taught utilizing traditional methods while their counterparts learned in a flipped setting. The groups were then switched for the second unit of this study so all students were exposed to both the traditional and the flipped design. Pre- and post-unit tests and surveys were used to determine differences between the instructional experiences in regards to both learning and attitudes. The concluding data from this action research project did not show major differences between the flipped and traditional sections in either student learning or attitudes.



*Keywords:* flipped classroom, inverted classroom, educational technology, middle school, student achievement, student attitudes, social studies

# Chapter One

## Introduction

Over the course of the past twenty years, the rapid advancement of technology has not only allowed inquiring minds to find the answer to just about any question instantly on the internet, but it has also developed a community which learns at their own leisure using videos, blogs and other online tools. The students of today have not experienced the frustration of waiting for books to arrive from distant libraries nor have they dug through actual newspapers to find articles from years past. Rather, their world allows them to navigate the web to gather information, learn new skills, and interact with a global community. In order to keep pace with the world outside of school, the common K-12 teacher has changes to make in an effort to improve learning for students. Marshall McLuhan, a communication theory philosopher, argued the significance of media much before the advancements we know today. In his book with graphic designer Quentin Fiore (1967), McLuhan stated "education must shift from instruction…to discovery – to probing and exploration" (p. 100). It is through media, such as online video on topics that are aimed at teaching a new skill or providing new knowledge, that students will be able to come to class and apply this new knowledge through in-class, teacher supported activities. This method of instruction, called flipped classroom instruction or inverted classroom instruction, allows students to utilize technology, most commonly in the form of an online video. The teacher provides support in the classroom as students apply their new knowledge the next day in class.

The idea of a flipped classroom is commonly linked to the names of Jonathan Bergmann and Aaron Sams (2012) who implemented this ideology into their chemistry courses at Woodland Park High School in Colorado. Bergmann and Sams started recording videos as a way

to help keep their students who missed class due to illness or sports on track with those who were physically present. The structure and school of thought behind a flipped classroom grew as the two saw students who were in class using the videos intended for the absent as a form of remediation and review. Sams then came to the revelation that "the time students need my physical presence is when they get stuck and need individual help," and the concept of assigning content-filled videos as homework emerged (p. 4).

Any student can use media to gather information on just about any topic that might pique their interest. Want to build a skateboard ramp or learn to bake cannoli? YouTube will provide a plethora of video options to help learn either skill. McLuhan (1967) argues confusion and despair emerge when we are trying to do "today's job with yesterday's tools – with yesterday's concepts" (p. 8-9). Flipped learning is another step in the direction of the future, the direction that distance education and online courses have been taking in recent years (Vaughan, 2014). The difference that lies between these types of structures is the human element, not simply the addition of videos or technology (Tucker, 2012). Rather, it is how the videos are integrated in the entire learning scheme that makes the difference. In a flipped classroom setting, students work directly with their teacher during class time, rather than struggling to solve problems or analyze information at home. Strayer (2012) explained that flipped learning has many elements similar to a blended learning environment. The basic concept of asking students to prepare for the next day's class has been around for decades and it is not uncommon to see teachers assign readings to guide the next day's instruction. The difference with flipped learning is that students are no longer passive learners, rather, they must become active in the process, and technology is the key to making this integration work.

The purpose of conducting this action research project was to implement the practice of a

flipped classroom and determine the effects it had on students' academic performance and overall attitudes towards the content area of social studies. Through research, it has been determined that there is a void in studies directly related to this topic, due in large part to the newness it has in the field of education (Bergman & Sams, 2012). By implementing a practice that not only addresses the additional use of technology for millennial students, but also the concept of individualized pacing and meeting of learning objectives, it was believed that students experiencing a flipped classroom will show significant gains in learning and attitudes when compared to students experiencing a traditional model. The goal of this action research project was to determine if there is a difference between these two types of classroom structures.

This action research project took place for approximately twelve weeks between October and March during the 2014-2015 school year at a middle school in the mid-western United States. The participants were between eleven and thirteen years old and enrolled in this public school. All four sections of this social studies course were taught by the same instructor with an average of 25 students per section. For this project, two sections were taught using the flipped model while the other two remained in a traditional classroom structure. Following one unit of this practice, the instructional model of the sections reversed for an additional unit to gather further information. The research question that was explored was: does a flipped classroom model impact student learning and attitudes towards the subject area of social studies when compared to a traditional classroom structure? Students provided data through pre- and post-tests to measure student learning as well took pre- and post-tests to measure student attitudes. As the teacher and researcher, I also kept a reflective journal to document in-class observations of both learning and attitudes.

The data collected through the pre- and post-tests as well as pre- and post-surveys were

analyzed to determine if there was a difference between the flipped sections of the course when compared to the traditional sections. Through calculating the mean scores on the same fifteen questions found on both the pre- and post-unit assessments for the entire population, the traditional group as well as the flipped group, conclusions were made on what effect a flipped classroom structure had on student learning.

The pre- and post-unit surveys were analyzed by giving point value to each response on a Likert scale. For negative response questions, the scale was inverted to allow for comparison of responses. The mean scores for each question on the survey of both the traditional and flipped sections was compared to determine if gains were made from the pre-unit to the post-unit survey due to the type of structure the students were a part of. The survey was also broken into categories based on question type to include relevance, enjoyment, and success. The mean scores from these categories allowed for further comparison of student opinions.

A reflective teacher journal was kept in order to document in-class observations. Through this qualitative data collection, an analysis of observations allowed for further insight into student attitudes. Student quotes from classroom conversations were also documented utilizing the reflective journal as evidence when analyzing data at the conclusion of the study.

Through this project, a new look into the benefits of a flipped classroom was gathered to guide future instruction. This classroom structure has the potential to keep pace with the current technological age and meet the individual needs of students. While many educational trends tend to last only a short while, the foundation of a flipped classroom has the components to make a lasting impact on educational practices in many classrooms. This action research has the potential to provide empirical evidence to help inform classroom instruction.

# Chapter Two

## Literature Review

Through the traditional method of classroom instruction and homework assignments, classrooms across the country are settings where students are given information in a one time, face-to-face experience and then expected to apply this knowledge independently through homework completion. Flipped instruction does not remove either component of traditional learning, but rather changes the way both students and teachers use their time and allows for repetition and self-pacing of instruction.

This model of instruction supports the theory of constructivism which is an educational theory in which students construct knowledge and understanding from their interaction with new ideas or experiences. Through encouraging active learning, students gain more knowledge when they experience something and reflect on it. The flipped classroom structure allows students to experience constructivism and take an active role in the learning experience. It provides opportunities for students to gain knowledge and understanding independently and then reflect and apply this new knowledge under teacher observation and support. Through constructivism, the role of the teacher shifts from the giver of facts and information to the provider of learning experiences. The same is true in a flipped classroom model. Through carefully created videos, teachers can spark curiosity for students to further their learning during class activities. Additionally, the flipped model not only allows students to gain knowledge and then apply it in the classroom, but also allows students to revisit and repeat this information as often as necessary to clarify misunderstandings.

The focus of this literature review is on the concepts that a flipped classrooms calls for: an increase in technology integration, more timely feedback and a structural shift, as well as a

change in the role of both the teacher and the student.

**Increased Technology Integration**

Through technology, teachers are able to assign content-filled videos as homework and free up class time for collaborative application of knowledge with the teacher present. Students sitting in schools right now are millennials who grew up with a variety of technological devices at their fingertips. According to Vaughan (2014) students of today are "plugged in to a wider world, full of instantaneous knowledge, communication and collaboration" (p. 26). Sitting in a classroom where the teacher lectures for forty minutes is a step backwards in this technological world. When there is a significant difference in how students learn outside of school by choice to how they learn inside school, it can lead to boredom, passivity and ultimately a decreased amount of learning (Roehl, Reddy, & Shannon, 2013). The flipped classroom model does depend heavily on the use of technology outside of the school setting. It is imperative that students can access the assigned videos in order to be successful. This additional screen time does often take time for both students and parents to adjust their daily routines to allow this to work successfully. Teachers and families must plan for the time and technology to enable all students equal access (Fulton, 2012). Teachers must provide alternatives for students without internet access or home computers, and therefore modifications may include flash drives, DVDs, files being stored on school computers or opportunities for technology use before or after school. Parents must adjust to the additional time for their children on the home computer and see the value of information being presented as homework in order to grant their children this additional technology time. The integration of technology, when used appropriately and to enhance, not simply replace, traditional lectures can lead to increases in student achievement (Lei & Zhao, 2007; Mason, Shuman & Cook, 2013; Strayer, 2012).

In his research study, Salyers (2005) set out to examine how students enrolled in traditional classes compared to those in an online learning component. He conducted a quasi-experimental study of students who self-selected into either the web-enhanced or face-to-face sections of the course. To evaluate the students' performance in either section of this course, a formal written project was graded in a double-blind grading technique with both the researcher and another faculty member. There was not a significant difference when using analysis of variance (ANOVA) techniques. Students in the web-enhanced section had a mean score of 32.20 (SD=1.71) while those in the face-to-face section had a mean score of 32.67 (SD=1.79). However, when evaluating student satisfaction using the end of course survey, he found that students taking the web-enhanced format were more satisfied with the course compared to those in the face-to-face format. Students reported benefits such as greater flexibility in scheduling as well as independent and self-paced learning. Through providing these students with the option to choose the type of course that met their individual learning styles, students who were more comfortable with an online environment were more likely to enroll in the web-enhanced version than those who did not list technology as a strong point.

As Lei and Zhao (2007) pointed out, when students are responsible for using quality educationally based online materials, they will benefit from the additional technology integration. In a flipped classroom model, it is up to the instructor to find or create these quality materials for students to utilize. Lei and Zhao examined how the quantity and quality of technology uses in the classroom could impact student-learning outcomes. The authors felt that, while there is an emphasis on including technology in the curriculum, more research should be dedicated to the concept that in order to see positive results, technology must be used in a meaningful way. In regards to the impact of technology use on GPA (grade point average), Lei

and Zhao determined that students spent on average three hours per day on computers. Regression analysis initially showed that more time on computers resulted in a negative impact on students' GPAs over the course of the year. However, upon further evaluation, it was determined that a "no-gain-point" effect occurred in this study at three hours. Therefore, three hours was the optimal amount of time a student should spend on a computer per day, any less or any more time led to a decrease in GPA. The researchers also noted that for students who may have spent the exact same amount of time on a computer, they might see different effects on their GPAs, due to the fact that quality is more important that quantity.

In analyzing survey and interview data, Lei and Zhao determined that "technologies are more widely used for inquiry and communication than for expression and construction" (p. 290). Lei and Zhao also examined which technologies had the greatest impact upon student GPAs. Students were more likely to use computer programs that did not have as significant of an impact on their education, especially if these were optional. Technologies that had the most positive impact on GPA were those related to a specific subject and also required student construction. The theory of constructivism ties into the flipped classroom model as students are active participants in their learning, guiding themselves through content with an opportunity to revisit and repeat information at their own pace.

**Timely Feedback and Structural Change**

Other important differences between the traditional classroom and the flipped classroom include the feedback cycle and structural change (Roehl, Reddy, & Shannon, 2013; Fulton, 2012; Ash, 2012). In a traditional setting, students gain knowledge in class, apply it independently and are assessed as a culminating piece to the unit. Of course, additional formative assessments allow students to *show* their misunderstandings prior to a summative assessment. In a traditional

structure, however, even the additional formative assessments may be too late to impact student learning. The frustration of misunderstanding can severely hinder students' learning processes. In the flipped classroom model, teachers are granted additional insight on student misunderstandings due to the increased interaction that occurs in this structure (Roehl et al., 2013). Students come to class with their questions from the content learned via the online videos and therefore clarification can be offered prior to moving forward. Teachers are able to modify their class structure in a meaningful way and revise student learning in real time using the flipped classroom structure (Fulton, 2012). Whether a modification is necessary for the whole group or just a small group or individual, teachers can react immediately and clear up misconceptions on the spot.

A key point is that traditional lectures can provide a vast amount of information to students in a very direct and time-efficient manner. Flipped classroom teachers do not disagree that direct instruction has its place in education. Goodwin and Miller (2013) argue "lectures aren't necessarily bad – they can be an effective way to help students acquire knowledge," however the issue is pacing (p. 78). With the great differences in students' learning styles and levels, lectures can go too fast or too slow depending on the student. Through the flipped model, students have the ability to slow down, repeat or even fast-forward through a video. The structure of a flipped classroom also appeals to millennial students who "thrive in environments of variety and change" (Roehl et al., 2013, p. 45). The role of the teacher is to best utilize the new structure of learning to meet the needs of their students.

Through the creation of direct instruction videos, the class time used in a traditional setting to give information is now repurposed for a deeper level of learning. The role of the teacher is now to both create meaningful video presentations as well as rethink the face-to-face

class time to engage students in higher levels of thinking. Typically, teachers spend much of their time preparing, designing, practicing and improving presentations made for their students. In a flipped model, teachers are not only able to utilize videos made by others, but they are also able to reuse quality videos from one year to the next. Roehl et al. (2013) argued that with less effort spent on giving lecture presentations, teachers are now able to spend more time on the student component of education. Through the internet, teachers only share their videos with their students, but also with other teachers around the world. A network of educators using the flipped model is created in many venues, which benefits both students and teachers (Tucker, 2012). The teacher now has an instructional challenge as the videos can be perfected far more than a traditional face-to-face lecture. Paying close attention to length, pace, visuals and clarity of information, teachers can appropriately and carefully create quality videos for student learning. This also allows for teacher reflection to improve practice as flipped classroom teachers have the opportunity to reflect and improve instruction on all of their recorded direct instruct lessons (Vaughan, 2014). While lectures are an important piece of this model, Bergmann and Sams (2012) remind teachers "the greatest benefit to any flipped classroom is not the videos. It's the in class time that every teacher must evaluate and redesign" (p. 47). The flipped classroom model allows teachers an opportunity to carefully create learning opportunities for their students through both videos and in-class activities as they redesign the way we all view teaching and learning.

**Change in the Role of the Teacher**

The role of the teacher on a day-to-day basis shifts from the giver of information in a traditional setting to the creator of meaningful in-class activities in a flipped setting. Due to the visibility of the application of knowledge with a flipped classroom, teachers are active in their

observable formative assessments. Teachers in a flipped setting move from student to student "watching, listening and noting who needs help" (Fulton, 2012, p. 13). Teachers can provide interventions immediately and gather groups of students together for re-teaching or clarification of instruction (Ash, 2012). A flipped model allows teachers to recognize a need for corrections early so student frustrations do not carry throughout a unit and become problematic on a final assessment (Berrett, 2012). An additional change in the role of the teacher relates to the classroom management structure within a flipped classroom. No longer is the teacher's role to keep students quiet and focused on the lecture, but rather to encourage collaboration and learning from one another, which can often be a noisy experience as the role of the student also sees changes in a flipped classroom model (Fulton, 2012). Student to teacher interaction is greatly increased in a flipped classroom compared to a traditional classroom structure. Goodwin and Miller (2013) point out that in a traditional setting, teachers are often found to be talking *at* students whereas in a flipped setting, teachers are now talking *with* students. Through the rearrangement of activities, the teacher is now able to talk to every student every day, not only to inform on misunderstandings but also to foster better relationships (Tucker, 2012). The model also provides an avenue for struggling learners to ask questions without fear of social stigma. In a traditional setting, a struggling student can feel alone and ashamed of being unsure, and therefore hesitant to raise a hand in front of a class to seek clarification. In a flipped model, when the teacher is constantly circulating and gauging understanding, asking questions may be less stressful for students.

**Change in the Role of the Student**

Both Strayer (2012) and Lage, Platt and Treglia (2000) determined that through a flipped classroom instructional model students would gain skills and opportunities to become better

learners and thus the role of the student is revamped. In Strayer's (2012) "How learning in an inverted classroom influences cooperation, innovation and task orientation," he examined how a flipped introductory statistics course compared to a traditional course in regards to learning environments. Lage, et al. (2000) looked at student and faculty perceptions of a flipped classroom model as used in an introductory economics course at the university level.

In Strayer's study, through interviews and focus groups, students in the flipped classroom model expressed concern about the structure of the class not being like what they were used to in other courses. They experienced "unsettled feelings" due to the wide variety of activities they were expected to complete during the class period (p. 182). While this caused anxiety and concern for students, it was also noted through the interviews that this environment resulted in students valuing cooperation with classmates and group learning as they worked together to complete each assignment throughout the course (p. 184).

Lage, et al. (2000) argued that flipped classroom instructional strategies can appeal to all types of learners through using a wide variety of teaching styles combined with technology. Through their article, "Inverting the classroom: a gateway to creating an inclusive learning environment," the researchers examined both student and faculty perceptions of a microeconomics course at a US university. Instructor perceptions were documented at the conclusion of this course and yielded positive responses. In general, the professors thought that this type of instructional strategy required students to "take ownership in their learning" and allowed for more faculty-student interactions within the class period (p. 37).

Together, Salyers (2005) and Lage et al. (2000) provided research to support the idea that a flipped classroom model positively enhances student perceptions of the courses in which the strategy was implemented. Students who are involved in a flipped classroom also gain a skill set

that will prove beneficial in their future endeavors. Self-motivation, accountability, independence and collaborative learning are all practiced by students in a flipped classroom. While the self-motivation aspect may take time to develop, in general, students will adjust to the new learning structure and gain intrinsic motivation to complete the video viewing in order to understand the in-class activities (Roehl et al., 2013). Lage et al. (2000) argued that use of this model allows for students with a wide variety of learning styles to use a method that suits their needs, prompting self-motivation. Student accountability is also heightened through this model. No longer can students expect to arrive to class, sit still and gain knowledge. Rather, students must come to class prepared to engage and interact in order to be successful. This increase in responsibility on the student's part will be the key to gaining knowledge (Lage et al., 2000). Flipped learning also allows for students who are absent to stay up-to-date. In a traditional model, absent students would miss the lesson, which would hinder their ability to complete assignments. In a flipped class, the lesson is available to view even when at home ill or on vacation. This leads to the independence created in a flipped classroom. Students are able to plan forward and work ahead when they are confident in the material being covered (Bergmann & Sams, 2012). Deb Wolf, a high school instructional coach in Sioux Falls stated, "for students who had not been challenged in the classroom, this was an opportunity for them to just fly. For others, it was an opportunity to take the time that they needed to move slower" (Ash, 2012, p. 4). Allowing for self-pacing sets students up to be successful in their future careers. Creating a classroom culture in which students are active learners who are aiming to meet common goals fosters a collaborative learning environment. Granted that the in-class activities may call for prescriptive collaborative learning, independent work time will also open itself to student-to-student learning. Strayer (2012) found in his study that those in the inverted model were more

willing to work together than those in the traditional structure. All of these skills gained in the newly defined role of the student while present in a flipped learning environment will enable students to take charge of their learning.

**Additional Research on Flipped Classroom**

As the concept of flipped classroom instruction is relatively new, the research behind this educational strategy is quite slim. In fact, Goodwin and Miller (2013) wrote an article dedicated to the fact that "Evidence on flipped classrooms is still coming in." They found that while the concept is new, promising results have been found thus far. A survey cited back to the Flipped Learning Network showed that of the 453 teachers who flipped their classrooms, 67% saw increased test scores, 80% noted improved student attitude and 99% would flip again. However, the basic ideas of a flipped classroom have been around for years. Technology, supportive online materials, additional time for classroom discussion, investigation, and cooperation are among the many practices that are a part of flipped classroom model. Bishop and Verleger (2013) concluded that video lectures are just as effective as face-to-face lectures at conveying information, therefore calling into question the best use of class time and further supporting the idea of assigning video lectures as homework.

Research tied to the use of technology in an educational setting aligns closely to the flipped classroom structure. Strayer (2012) looked at how a flipped model influenced cooperation, innovation, and task orientation. Through this study, an important component of flipped classrooms was highlighted in the results as students in the flipped section commented on the in-class activities loose structure. While they were more willing to work together, they were more often frustrated with the use of class time. This research shows how important in-class work is to the overall structure of a flipped classroom. Teachers cannot simply focus on creating

the videos, but must invest time and thought into the face-to-face class time. In their study, Lage, et al. (2000) examined how a flipped classroom creates an inclusive learning environment and the opinions of students and teachers using the model. Through this study, researchers found that students generally preferred the new structure when compared to the traditional and that it allowed for additional student-teacher interaction as well as student ownership for their learning.

Through an introductory teaching course, Vaughan (2014) set out to test the flipped classroom model with a group who might implement it into their future classrooms. She looked at student engagement, management, and awareness of instructional strategies for these pre-service teachers. Results indicated that the model provided the teacher with insight as to what the students were thinking prior to class time with the combined use of an online discussion board. The teacher was then able to adjust learning to fit the students' needs. In this study, Vaughan indicated that routine and predictability were imperative in this structure. With students uncertain how class time might be used, Vaughan concluded that the flipped video homework needed to have structure with aligned due dates to keep students in routine.

When Marcey and Brint (2012) decided to study the difference between a flipped and traditional structure, they encountered a faulty study due to unforeseen circumstances. This study was done with an introductory Biology course at a university and set out to see how students would perform on identical quizzes and exams when one section was flipped and the other remained traditional. Early on in the study it was shown that students in the flipped section were doing significantly better than their counterparts, however when the data was analyzed at the end of the course, it was clear that a major shift had occurred as both sections were now performing similarly on assessments. Upon analysis and investigation, students in the traditional class section admitted to watching the videos meant for the flipped section as a means of clarification

and review. This led Marcey and Brint to conclude that the videos provided a larger impact on student learning than the in-class activities they provided for their students.

**Synthesis**

Each of these studies provides insight into the benefits of a technology-enhanced curriculum that can be completed using a flipped classroom instructional model. Lei and Zhao (2007) emphasized that when students are provided with quality technology to use or view, academic success will result. Salyers (2005) determined that using a web-enhanced model of instruction provides students with opportunities to be independent learners and have a self-paced learning experience to help them better understand the topic. Strayer (2012) and Lage, et al. (2000) provided research around college courses that were utilizing the flipped classroom model. While Strayer (2012) found that those in the web-enhanced section found frustration in the unpredictable nature of the course, students overcame that by working cooperatively with their peers in order to be successful. Lage, et al. (2000) found that both student and faculty perceptions of a flipped classroom model were positive towards this type of instruction. The general trend of the research surrounding flipped classroom instruction is positive for both the teacher and student. Through the research, it is also clear that there is not one set way that all teachers must flip their classrooms, but it is clear that no matter the route taken, a flipped classroom has the potential to provide a positive experience for students.

Through the research explained above, it is clear that there are advantages to both incorporating quality technology into the curriculum as well as benefits to using the flipped classroom model in education. What is lacking from current research is a study focused on today's technologically advanced middle school students and how the flipped classroom method could lead to increased academic achievement and student attitudes toward the subject area of

social studies. To better understand the benefits or potential downfalls of implementing a flipped classroom model in a middle school social studies classroom, an action research study was completed for two units during the 2014-2015 school year. The next chapter will outline the methods utilized to best answer the research questions of does a flipped classroom model impact student learning and attitudes in the subject area of social studies when compared to a traditional classroom structure and if so, in what ways?

# Chapter Three

## Methods

Through the flipped classroom model, students may benefit with the shift in the role of the student from a passive to an active player in the classroom. The role of teacher led learning is not lost in the flipped classroom, but rather modified to allow for students to self-pace and re-watch for clarification as they work toward learning the new material. In this model, students may benefit from the increased use of technology, ability to be independent learners and the self-motivation factor that results from the flipped model. An Action Research project was chosen to see the difference between a traditional classroom structure and one that utilizes the flipped classroom method. Data were collected in a quantitative form using both pre- and post-assessments as well as pre- and post-surveys to measure both academic differences as well as changes in attitudes toward the content area of social studies. This research took place from October 1, 2014-March 1, 2015 as students completed two units of study in a seventh grade social studies course. This chapter will describe the methods utilized throughout this Action Research project including the context, participants, questions, procedures, instruments, and analysis of the data to determine if a flipped classroom model impacted student learning and attitudes towards the subject area of social studies.

### Context

This Action Research project took place at a middle school in the Midwestern United States. The city is located approximately twenty-five miles outside of a major city and has a population of around 7,000 in the village. The school district encompasses many small communities and has a total area of ninety square miles. Students at the school in this study were between the ages of eleven and thirteen and were enrolled in the seventh grade. There were

approximately 775 students in this school and they were divided into a six-house structure. Students were randomly assigned houses at this school with the exception of those who submit a request for a particular house during the registration period. Students with special needs in house used in this study are identified with an Emotional/Behavioral Disorder (EBD) and may fall on the autism spectrum while students who are Learning Disabled (LD) are placed in other houses.

**Participants and Groups**

For this Action Research project, ninety-nine of 102 students during the 2014-2015 school year were included as three parents requested their child's information not be used. Of the population, fifty-four were male and forty-five were female. The students were between eleven and thirteen years old at the time of the study. Through the house request process, forty-five students elected this house for individual educational reasons and the rest were randomly assigned. Six students were identified as special education students that participated in this study. Students who were identified as at-risk were mixed in the population of all houses and nineteen students in this study were enrolled in the Academic Support Program (ASP) offered by the school.

For the purpose of this study to compare two types of classroom instruction, two groups were formed dependent on the section of the course in which students were enrolled. The information in Table 3.1 describes the demographics of the student population in the two groups. Students in Group A and Group B were assigned from the general House population into the sections of the course that worked for their academic hourly schedule. Group B was made up of students in the hours that run back to back in the schedule (hours 4 and 5) while Group A was composed of the hours that are not sequential due to the set up required for technology resources. Group B remained in the traditional classroom structure for the first unit in this study while

Group A partook in the flipped classroom model. For the second unit in this study, the roles of Group A and Group B reversed (Table 3.2).

Table 3.1

*Group Demographics*

| | Total Students | Males | Females | Special Education | Academic Support Program |
|---|---|---|---|---|---|
| **Group A** | 46 | 25 | 21 | 2 | 10 |
| **Group B** | 53 | 29 | 24 | 4 | 9 |
| **Totals** | 99 | 54 | 45 | 6 | 19 |

Table 3.2

*Group Instructional Format*

| | Latin America Unit | Europe Unit |
|---|---|---|
| **Group A** | Flipped | Traditional |
| **Group B** | Traditional | Flipped |

**Questions**

Through this Action Research project, two specific questions were addressed. Study question 1 was: does a flipped classroom model impact student learning in the subject area of social studies when compared to a traditional classroom structure and if so, in what ways? This question aimed to see differences in academic learning between the two groups and was measured using both pre- and post-assessments on content gained throughout the unit.

Study question 2 was: does a flipped classroom model impact student attitudes toward the

subject area of social studies when compared to a traditional classroom structure, if so in what ways. This question sought to understand the difference in student attitudes surrounding the subject area and was measured using pre- and post-unit surveys. A reflective teacher journal was also utilized to document in-class observations throughout the duration of the study and to note the teacher's perspective of differences in the two types of classroom structure.

**Procedures**

For this project, a revised curriculum was developed for the flipped sections of this course (Table 3.3). Instructional videos to teach content, classroom activities to apply knowledge as well as formative assessments were created for students to self-pace throughout the units. To measure differences between a flipped and traditional structure, two sections of seventh grade social studies were a part of Group A and the other two composed Group B. Both Group A and Group B served as a control group and an experimental group during the two different units of this experiment (Table 3.2). The units of Latin America and Europe were the focus of this study; each lasted approximately six weeks in length. Prior to each unit, a pretest for content knowledge as well as a pre-unit survey for attitudes was administered. At the conclusion of each unit, the same content questions were utilized to measure differences as a result of the classroom structure in academic performance. An identical survey for attitudes was administered to both groups at the conclusion of their flipped unit.

Students in the flipped classroom sections experienced a variety of activities to gain knowledge and prove mastery of the unit. Each unit was divided into subcategories (e.g. Physical Features, Climate, etc.), which provided a structure for students to follow. As a part of this classroom structure, students were provided with an organizational guide on the course Pbworks.com website to aid their independent and self-paced learning. While much of the

learning took place within the school walls, students often would access learning materials outside of the normal school day. Access to technology either at school or at home was necessary for students to learn in this environment. Through self-pacing and student choice, those without technology access at home could complete technology-based activities at school. The teacher created a Pbworks.com website allowed a platform for students to stay organized throughout the unit and access the materials they needed. Each subcategory for the unit had set objectives, assignments, activities, and formative assessments for students to complete, all found on the course website. Completion of all subcategories indicated to the student and teacher that they were ready for the final summative assessment. The teacher's role throughout the flipped classroom experience was a supporter of learning rather than the provider of instruction. During student learning, the teacher could informally assess students, ask deep questions to spark student thought and help problem solve technical issues or answer student questions.

Students in the traditional sections of this course also experienced a variety of activities to gain knowledge in this subject area. Typical classroom activities included whole class lectures or discussions, textbook readings and activities related to the various subcategories. Formative assessments were also available for students to take as the whole class progressed through the unit at the same pace. The role of the teacher in the traditional setting was typically to lead the class through content and facilitate discussion in a formal setting.

Table 3.3

*Project Timeline*

| **Target Dates** | **Description** |
|---|---|
| **August-September 2014** | Created videos and developed curriculum/assessments; developed online platform for flipped classroom |

| | |
|---|---|
| **September 2014** | Collected parental consent |
| **October 2014** | Administered pre-assessment and pre-survey for sections groups A and B |
| **November-December 2014** | Implemented mastery flipped model for group A; Continued traditional instruction for group B |
| **End of December 2014** | Administered post-assessment for groups A and B; also post-survey for A |
| **January 2015** | Administered pre-assessment for groups A and B |
| **January-February 2015** | Implemented mastery flipped model for group B; Returned to traditional instruction for group A |
| **End of February 2015** | Administered post-assessment for groups A and B; also post-survey for B |
| **March 2015** | Analyzed assessment and survey results |

**Instruments for Data Collection**

As measurements for the two research questions for this project, both an academic pre- and post-unit assessment were given as well as an attitudes pre- and post-unit survey. Due to the double unit structure of this study, there were four instruments used over the course of the twelve weeks to measure student knowledge. The pre-test assessment for Latin America took fifteen minutes for fifteen questions and measured student's prior knowledge of this region of the world. The same fifteen questions were used as part of a forty-five minute posttest assessment for Latin America to see academic gains made during the course of the unit. Likewise, during the Europe unit pretest assessment and identical post-test assessment questions were administered each taking approximately fifteen minutes. In the Europe unit, the pre-test assessment had fourteen questions that were also present in the larger post-test assessment.

The development of the pre- and post-academic assessments was a combined effort by both the instructor as well as the textbook company's generated test questions, both aiming to

meet the academic standards for this grade level and subject area (Boehm, Armstrong & Hunkins, 2010). The use of this assessment was to answer the first research question of: does a mastery flipped classroom model impact student learning in the subject area of social studies when compared to a traditional classroom structure? Careful consideration was given to cover major unit objectives for both the Latin America and Europe units. A combination of both multiple choice and short answer questions were included to counter any student attempts at correctly guessing the right answer. All questions were worth one point with half-point partial credit available for the short answer questions.

To measure student attitudes, the same survey was given to all students before the start of the experiment and at the conclusion of their flipped unit (Appendix A). The survey measuring student attitudes was developed using the Likert 5-point scale and the questions were designed to see students' attitudes in the subject area of social studies. This survey was used to answer the second research question of "does a mastery flipped classroom model impact student attitudes toward the subject area of social studies when compared to a traditional classroom structure?" Students took this as both a pre-and post-unit survey and were allotted fifteen minutes to complete at each time (Appendix A-B). When designing the questions, I was interested in determining if there was a correlation between students' perception of their academic success in this subject area (questions 2,4,7,8,11,15), their overall enjoyment of the subject area (questions 1,3,6,9,12,14) and their perceived relevance of the material (questions 5,10,13).

A reflective teacher journal provided qualitative data to add narrative to the quantitative data for this Action Research Project. Throughout the entire action research study, the teacher recorded data using a reflective journal (Appendix D). The comments recorded in this journal were either overheard through student-to-student conversation, mentioned directly to the teacher,

or answered when asked a question by the teacher.

Throughout the entire study, students were assigned numbers as a way to compare the same student across data sets as well as maintain confidentiality. Parents and students were given the opportunity to remove their data from the study through a letter sent home at the beginning of the year (Appendix E). Data was stored using the Infinite Campus (IC) online grade book program and the paper copies of all assessments were kept secure in a locked classroom during the duration of this study and throughout the analysis of the data.

**Analysis**

The data collected through the pre- and post-unit assessments as well as pre- and post-unit surveys was analyzed to determine if there is a difference between the flipped sections of the course when compared to the traditional sections. To measure academic gains for the entire population, the mean of the pre-unit assessment was found for both groups. Then, the mean of the same questions on the post-unit assessment were found and the calculation of (post-unit – pre-unit = difference) was conducted to show a general difference in terms of academic progress over the course of the unit.

Due to the nature of the post-unit assessment being larger than the pre-unit assessment, scores on only the items that were present on both the pre- and post-test were reported. For the Latin America unit, the pre-test had fifteen questions but the post-test had fifty total questions that included the fifteen from the pre-test. For the Europe unit, the pre-test had fourteen questions while the post-test had fifty-five questions and again included the fourteen to match the pre-test. A mean score for the traditional group was compared to the mean score for the flipped group to determine if a difference was seen between these groups in end of unit knowledge.

To measure the difference in student attitudes, the pre- and post-unit survey data was

used. The survey was set up for students to answer 15 questions using the Likert 5-point scale. Prior to analyzing, a key was made for scoring which provides points on a scale of 1-5 (Appendix C). As some questions on the survey result in negative answers, careful consideration was given to those questions to reverse the point value to account for the negative (Questions 1,4,7,10,11,12,15). The mean score for each question on the pre- and post-survey was recorded for comparisons between Group A and Group B. The survey was also organized into subcategories to measure various aspects of students' perceptions. Using the key, means for each question, each subcategory (success, enjoyment, relevance) and a total survey was determined. These mean scores were compared between the flipped group and the traditional group to see how the classroom structure changed attitudes toward the subject area of social studies from pre- to post-unit.

At the conclusion of the project, the teacher reflective journal was used to look for themes and patterns that emerged from student responses. The journal structure called for student successes, frustrations, quotes and an other category most often used to document student progress or teacher thoughts. This data was first read through in its entirety to look for commonalities over the course of this experiment. The journal was the re-read to identify repeated ideas to further explain the quantitative data found through the assessments and surveys by both groups of students. The findings of the pre- to post-test, pre- to post-survey and teacher reflective journal are brought together to answer the research questions if a flipped classroom model impacted student learning and attitudes towards the subject area of social studies. In the following chapter, the results of this action research project will be discussed.

# Chapter Four

## Results and Discussion

This action research project provided evidence on the impact a flipped classroom structure has on a middle school social studies classroom. Quantitative data was taken in the forms of pre- and post-tests as well as pre-and post-surveys to determine differences between a traditional and flipped structure for the same course. Supportive qualitative data was documented through a teacher journal to inform the quantitative findings.

### Research Questions

Two specific questions were addressed throughout this action research project. Study question 1 was: does a flipped classroom model impact student learning in the subject area of social studies when compared to a traditional classroom structure and if so, in what ways? Study question 2 was: does a flipped classroom model impact student attitudes toward the subject area of social studies when compared to a traditional classroom structure, if so in what ways?

### Question 1 – Student Learning

To measure the impact a flipped classroom model has on student learning, a pre- and post-test consisting of fifteen questions was administered to both the control and experimental groups.

Table 4.1

*Mean Scores on Latin America Unit for Control and Flipped Groups*

| | Pre-Test (15 Questions) | Post-Test (15 Questions) | Difference |
|---|---|---|---|
| Group A Flipped | 4 | 11.2 | 7.2 |
| Group B Traditional | 4.9 | 11.6 | 6.8 |

Table 4.2

*Mean Scores on Europe Unit for Control and Flipped Groups*

| | Pre-Test (14 Questions) | Post-Test (14 Questions) | Difference |
|---|---|---|---|
| Group A Traditional | 3.9 | 10.9 | 7 |
| Group B Flipped | 5 | 11.2 | 6.2 |

Analysis of the results indicated that there was not a large difference in gains between the flipped and traditional groups in either the Latin America or Europe unit. It is evident that learning occurred for both groups no matter the learning environment. For the Latin America unit, the group of students who took part in the flipped classroom experience had a larger gain from their pre- to post-unit tests by only 0.4 points. For the Europe unit, when the opposite students were a part of the flipped environment, the traditional group had a larger gain pre-to post-unit by 0.8 points. Therefore, no matter if they were in the flipped or traditional environment, Group A had larger gains when looking at pre- and post-test mean scores. For both unit's pre-test assessments, Group B started with a higher point value and thus the difference between the pre- and post-test scores is smaller due to a higher pre-test mean. The student make-up of Group A compared to Group B should also be noted as twice as many students in Group B are enrolled in the school's special education program as in Group A.

**Question 2 – Student Attitudes**

To measure the impact a flipped classroom model has on student attitudes, a pre- and post-survey consisting of fifteen questions was administered to both the control and experimental groups (Appendix A-B). The tool utilized for this data used the Likert Rating Scale so students

would choose a score from “strongly agree” to “strongly disagree” following each statement. Using the scoring key (Appendix C), student responses were given numerical values in order to compute changes in student attitudes. The questions on this pre- and post-survey were categorized into three areas; relevance, enjoyment and success. Students all took the pre-survey prior to the Latin America unit and then the post-survey following the unit in which they were a part of the flipped classroom environment.

Table 4.3

*Student Attitude Survey Responses: Group A, Flipped for Latin America Unit*

| | Pre-Flip | Post-Flip | Difference |
|---|---|---|---|
| Average | 3.7 | 3.8 | .1 |
| Relevance | 3.7 | 3.8 | .1 |
| Enjoyment | 3.5 | 3.8 | .3 |
| Success | 3.9 | 3.7 | -.2 |

Table 4.4

*Student Attitude Survey Responses: Group B, Flipped for Europe Unit*

| | Pre-Flip | Post-Flip | Difference |
|---|---|---|---|
| Average | 3.7 | 3.7 | 0 |
| Relevance | 3.8 | 3.8 | 0 |
| Enjoyment | 4.0 | 4.0 | 0 |
| Success | 3.7 | 3.8 | .1 |

As shown in the above tables, very limited differences were recorded from the pre- to

post-survey on student attitudes. Pre-flip mean responses on the attitudes survey were above 3.0 on almost every question. In general terms, students already felt positive about the content area of social studies and showed this in the areas of relevance, enjoyment and perceived success in the course. Within the fifteen-question survey, there were a few results the stood out and are results that are worth mentioning. On the question of "social studies is boring" students in both Group A and Group B had more favorable views following their experience in the flipped classroom. The data for this question was reverse scored in order to compare to other questions that were stated in a positive form. Group A's responses changed by 0.5 while Group B changed by 0.3 after their turn at the flipped classroom model. Group A also showed a favorable gain of 0.5 in response to the survey question "I am interested in the cultures around the world" following their experience in the flipped Europe unit. Group B also made positive changes to the way they felt about tests/quizzes as their post-survey showed 0.4 gains on the reverse scored item "I am not confident before tests/quizzes in social studies". The pre- and post-survey provided valuable information about student's attitudes towards the content area of social studies.

To further understand student opinions, a teacher journal was kept to record comments and discussions that were not brought to light through the attitudes survey. Throughout the flipped classroom experience for all classes, I kept record of student quotes and comments made during conversation to support or contradict the findings on the attitudes survey. Common themes emerged from analysis of the data when reading the teacher reflective journal which was composed of notes taken through conversations and observations of students in the flipped sections throughout both units. Comments were made about benefit of the self-pacing component of a flipped classroom. Students stated that they were able to pause and re-watch parts of the videos which allowed them to take better notes at their own pace as well as help them better

understand the content. Students also commented that they liked it “better because there were no class distractions” and there were “no annoying questions from other kids”. Additionally, students focused heavily on the independence factor a flipped classroom allows. While most students appreciated that they could choose the time and place to watch the videos, a few struggled with this large responsibility. Students commented that they had to prioritize and plan in order to be successful in this model. They stated that it was more “work” than a traditional classroom where a teacher just “tells them information”. Active students who have nights full of practices, lessons and meetings mentioned how our flipped classroom structure let them plan their week. One student also commented “the best feeling of a flipped classroom is when you cross something off the list”. In general, students found the flipped classroom experience to be a positive environment to learn content as well as responsibility for their own learning.

There was also a new set of frustrations that emerged through the flipped classroom structure. Technology definitely plays a large part in a flipped classroom model and can be a hindrance for students who do not have access at home. As I planned my units, I was careful to plan them in a way that allowed students multiple days to complete videos and opportunities to do this requirement in the classroom if students preferred. In the community of this study, the vast majority of students have a personal device (cell phone, iPod, iPad, etc.) that allows them to access the internet either through their network or using Wi-Fi. Along with access to a device to view the videos, students needed headphones in order to listen to the videos in class, which occasionally created problems for students to remember to bring these along to class as well. If they forgot headphones on a day when they planned to watch a video, they had to problem-solve. Their options were to ask a friend, see if the library had a pair to borrow or they could work on a different activity that would not require the video.

Another documented frustration was that students could not ask questions of the teacher right away when viewing a video at home or in study hall. This created a meaningful classroom discussion about how this also occurs when students are given assignments to complete as homework.

As the teacher, I recorded observations on how a flipped classroom model was beneficial in my role as a teacher. One major positive was that when students were absent in the flipped sections of a unit, it was much easier to catch them back up when compared to students who were in the traditional sections of the same unit. I made a comment in the journal that I was able to work directly with individual students to clear up misconceptions while they worked on in-class activities and could pull small groups of students who did not fare well on their formative assessments. A flipped classroom provides the teacher more freedom to meet the needs of individual students rather than trying to meet the needs of the average student through an all-class direct instruction lesson.

While the student attitudes survey may not have shown major differences from pre- to post-results, student comments and conversations have supported the implementation of a flipped classroom structure in a middle school social studies classroom. Following Group A's experience in the flipped classroom structure, they often asked if we would be returning to that model for future units as they were aware that Group B was in that learning environment and many expressed jealously that they returned to a traditional format of learning.

# Chapter Five

## Conclusions

The advancement of technology has created a society that can learn to do just about anything after a quick search on the internet. Through an online platform, learners can rewind and re-watch segments of instructional videos to fully understand the content being presented. This concept can easily be incorporated into the K-12 school setting. There are many benefits of a flipped classroom concept including an increase in technology integration, more timely feedback and a structural shift, as well as a change in the role of both the teacher and the student to allow for better use of face-to-face time. The research on the flipped classroom is still quite limited, especially in the K-12 setting, thus this study and its results are important (Bishop & Verleger, 2013, Goodwin & Miller, 2013).

### Discussion of Results

Much like Salyers (2005) found in his quasi-experimental study, I did not find a large difference in the results between my flipped and traditional sections of the course. Group A experienced a flipped classroom for the Europe unit and gained 7.2 points on a fifteen-point assessment compared to the traditional group who gained 6.8 points on the same assessment. For the second unit, when the roles were reversed, Group B gained 6.2 points on a fourteen-point assessment in the flipped model while Group A gained 7 points on the same assessment. While I was surprised to see such a small difference on test data between the flipped and traditional sections of this course, I was overall pleased with the student feedback and application of knowledge this structure provided. Salyers found similar results as students reported the benefits of his web-enhanced format compared to the face-to-face format. When looking at the test data, I realize that my overall goal as an educator is for student growth to occur throughout a unit. This

goal was accomplished in both the flipped and traditional sections in both the Latin America and Europe units during the 2014-2015 school year. I expected to see more noticeable differences in the flipped sections, but this was not the case. For the survey items to analyze student attitudes, there were very small changes from pre- to post-survey when asked the same items on a Likert-scale survey. I hoped that students would use the videos and their online resources to better understand the content, but wonder if this was too high of an expectation for a middle school student. I occasionally wondered throughout this experiment if I was asking too much for an early adolescent mind: self-motivation, independence, time management and the desire for complete understanding. In order to see a major difference between the traditional and flipped classroom structures, all of these would have to be in place. I regret not asking students formally their perceptions of the flipped classroom to find if they viewed this model as favorably as the teacher reflective journal led me to believe. From the journal, I can tell that students enjoyed the components that make up a flipped classroom environment and these responses will guide my decision to continue to use this model in my classroom in my future teaching.

**Implications For Teaching**

As mentioned previously, there were not major differences found between the flipped and traditional classroom structures, however this action research study has allowed me to personally reflect on best practices and will have implications for my teaching. It was clear that students learned no matter the type of structure they were a part of, but the benefits from the flipped classroom definitely drive my decision to continue to utilize this structure in the future. Throughout the two units, I certainly saw students learn content in both the flipped and traditional groups, but I also saw a variety of life and learning skills develop in the flipped classroom structure. Students learned additional technology skills as they navigated the videos

and searched online for answers. Students learned independence and self-motivation as they decided when and where they could learn best. Students learned problem-solving skills as they took control of their own learning experience. Students learned that not everyone learns at the same pace and it is okay to fast forward or rewind in order to find a pace that meets their needs. Students learned many lessons outside of strictly the content while part of a flipped classroom model. I would recommend implementing a flipped classroom structure at some capacity: a lesson, a chapter, a unit, a semester, or a year, in any middle school classroom to help students become 21st century learners.

**Limitations**

A few limitations may have created issues during this action research study. For starters, the grouping of students was not completely random for Group A and Group B. Due to the nature of a school setting, factors play into scheduling that cannot allow for random assignment. Many students in this group self-selected into the House and only students enrolled in a specific branch of special education are placed into this house. Additionally, the hours that other courses are offered (i.e. academically talented courses or music options) plays into the makeup of students within one hour of social studies. Another limitation is that many of the videos, activities, and assessments were created for this school year and therefore were far from perfect. Like with any new curricular piece, with experience comes expertise, so this study may yield different results once the materials are perfected. Another limitation was the survey and assessments should be tested for reliability in order to get the most accurate information from those involved in the study.

**Suggested Modifications for Future Studies**

To improve this study, I would argue that additional time would be necessary to create

and perfect the videos used for the flipped classroom. Due to sheer-limited time, it was not possible to create perfect videos in the first year of a flipped classroom. Like with anything new, it takes some time for students to get used to the process that may impede the results. Therefore, an introductory unit to expose students to the flipped classroom may have made the transition to this learning environment better. Modification of the pre- and post-survey would also be suggested for better results. For example, the simple wording of survey questions may have skewed student responses such as the survey question that stated "Social studies is my favorite class". This survey item was the lowest scored item for both groups on the pre- and post-survey. A small change of "social studies is one of my favorite classes" might have yielded different results. While creating the pre-tests I did my best to give a variety of question topics and added short answer questions to counter the guessing potential that multiple-choice questions offer, I regret using multiple choice at all. Multiple-choice questions allow students to get points for correct answers when they may have just completely guessed. I do not feel that by using multiple-choice questions I got a complete picture of the students' prior knowledge for each unit.

I would also suggest that future studies focus on the concept of a mastery flipped classroom model (Bergmann & Sams, 2014). Through this format of instruction, students are given even more freedom to guide their learning and the teacher can work with students to individualize learning at the appropriate student level based on their mastery of learning objectives. The difference between a flipped classroom and a mastery flipped classroom is rather than assigning a video for students to view as homework and keeping the class at the same place in the curriculum, a mastery flipped classroom gives students more independence. In a mastery flipped classroom, students are given a set of assignments, activities, and assessments to complete and demonstrate mastery of a set objective on their own timeline.

The "founding fathers" of the flipped classroom, Bergmann and Sams (2012), have evolved their flipped classroom from a "traditional" flip to the "mastery" flip over the course of the past eight years. This type of learning model is not considered a new one, as many consider Benjamin Bloom the "founder of modern mastery learning" (Wiggins, 2013, p. 2). While Bloom never defined mastery itself, he did set forth the concept of setting criterion-referenced standards and proposed that this would allow students to demonstrate their high-level ability on tasks. Mastery learning also allows for learning to be the constant and time the variable component in education, which was argued by Bloom himself (Bloom, 1971).

Limited research has been done on the link between a mastery model and student motivation, finding that students are more motivated to persist through difficult tasks and are less likely to cheat when taking part in mastery learning (Guskey & Anderman, 2014). This research goes on to describe findings that show students are also less likely to cheat when given multiple opportunities to show improvement towards mastery over time, therefore setting their own pacing. The mastery model of a flipped classroom and its impact on student learning, attitudes, and motivation has real potential to inform future practice in education.

**Recommendations**

The use of the flipped classroom model may not have had major differences from the traditional model, but the study was worthwhile as evidenced by the student responses. A possible question for future research and discussion might look for student perceptions of the flipped classroom model. Had I aimed to answer that research question, I would predict positive responses based upon our in class conversations and the teacher reflective journal.

Today, technology is a vital component in students' lives and, through the flipped classroom model, we join together their schooling with their instant access to the technological

world. While this action research study may not have proven large differences in results between the traditional and flipped sections, the advantages of using this structure are still beneficial to both the students and the teacher. The flipped classroom model is a one that is certain to integrate technology, give students an opportunity to self-pace while getting timely feedback all while learning in a collaborative environment alongside their teacher. The flipped classroom is far from a fad or a step backwards, but a “flip” towards the future of teaching and learning.

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Appendix A

Social Studies Hour:
Social Studies Number:
Unit:

Pre-Unit Survey of Attitudes

Please rank your level of agreement with each of the following statements by marking one option for each statement listed below.

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| 1. Social studies is boring. | | | | | |
| 2. Social studies is one of my easiest subjects. | | | | | |
| 3. I like learning about new countries around the world. | | | | | |
| 4. I am not confident before test/quizzes in social studies. | | | | | |
| 5. Social studies is important for my future as a global citizen. | | | | | |
| 6. I am interested in the cultures around the world. | | | | | |
| 7. I do not believe I can be successful in social studies class. | | | | | |
| 8. I am confident that I will earn a high grade in social studies. | | | | | |
| 9. I look forward to coming to social studies class. | | | | | |
| 10. I do not see value in learning about other countries. | | | | | |
| 11. Social studies is difficult for me. | | | | | |
| 12. I do not enjoy social studies. | | | | | |
| 13. I see the importance of what I am learning in social studies class. | | | | | |
| 14. Social studies is my favorite class. | | | | | |
| 15. I get poor grades in social studies. | | | | | |

Appendix B

Social Studies Hour:
Social Studies Number:
Unit:

Post-Unit Survey of Attitudes

Please rank your level of agreement with each of the following statements by marking one option for each statement listed below.

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| 1. Social studies is boring. | | | | | |
| 2. Social studies is one of my easiest subjects. | | | | | |
| 3. I like learning about new countries around the world. | | | | | |
| 4. I am not confident before test/quizzes in social studies. | | | | | |
| 5. Social studies is important for my future as a global citizen. | | | | | |
| 6. I am interested in the cultures around the world. | | | | | |
| 7. I do not believe I can be successful in social studies class. | | | | | |
| 8. I am confident that I will earn a high grade in social studies. | | | | | |
| 9. I look forward to coming to social studies class. | | | | | |
| 10. I do not see value in learning about other countries. | | | | | |
| 11. Social studies is difficult for me. | | | | | |
| 12. I do not enjoy social studies. | | | | | |
| 13. I see the importance of what I am learning in social studies class. | | | | | |
| 14. Social studies is my favorite class. | | | | | |
| 15. I get poor grades in social studies. | | | | | |

Appendix C

SCORING KEY

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree | Category |
|---|---|---|---|---|---|---|
| 1. Social studies is boring. | 1 | 2 | 3 | 4 | 5 | E |
| 2. Social studies is one of my easiest subjects. | 5 | 4 | 3 | 2 | 1 | S |
| 3. I like learning about new countries around the world. | 5 | 4 | 3 | 2 | 1 | E |
| 4. I am not confident before test/quizzes in social studies. | 1 | 2 | 3 | 4 | 5 | S |
| 5. Social studies is important for my future as a global citizen. | 5 | 4 | 3 | 2 | 1 | R |
| 6. I am interested in the cultures around the world. | 5 | 4 | 3 | 2 | 1 | E |
| 7. I do not believe I can be successful in social studies class. | 1 | 2 | 3 | 4 | 5 | S |
| 8. I am confident that I will earn a high grade in social studies. | 5 | 4 | 3 | 2 | 1 | S |
| 9. I look forward to coming to social studies class. | 5 | 4 | 3 | 2 | 1 | E |
| 10. I do not see value in learning about other countries. | 1 | 2 | 3 | 4 | 5 | R |
| 11. Social studies is difficult for me. | 1 | 2 | 3 | 4 | 5 | S |
| 12. I do not enjoy social studies. | 1 | 2 | 3 | 4 | 5 | E |
| 13. I see the importance of what I am learning in social studies class. | 5 | 4 | 3 | 2 | 1 | R |
| 14. Social studies is my favorite class. | 5 | 4 | 3 | 2 | 1 | E |
| 15. I get poor grades in social studies. | 1 | 2 | 3 | 4 | 5 | S |

Category Codes: E = Enjoyment R = Relevance S = Success

Appendix D

# Teacher Reflective Journal

Unit:

Subcategory:

Date:

| Traditional Classroom Observations | |
|---|---|
| Student successes | |
| Student frustrations | |
| Student quotes | |
| Other | |

{OVER}

Unit:

Subcategory:

Date:

| Mastery Flipped Classroom Observations | |
|---|---|
| Student successes | |
| Student frustrations | |
| Student quotes | |
| Other | |

Appendix E

Dear House 7A Parents/Guardians,

As a part of your son/daughter's social studies course, they have the opportunity to participate in a research study this school year. Through my graduate studies with the University of Wisconsin – Whitewater, I am working towards my master's degree in Education and have completed significant research on the concept of a mastery flipped classroom. This school year, I will conduct a research study that seeks to address the issue of how the use of a mastery flipped classroom impacts student learning and attitudes toward the subject area.

Due to the nature of this study, not all classes will be engaged in the mastery flipped model at the same time, but please know that for at least one unit this school year, your son/daughter will experience this type of learning environment. The mastery flipped model enables students to show mastery of course content after viewing instructional videos and completing learning tasks to meet curriculum objectives. I intend to fully inform your child when they are learning in the mastery flipped model versus the traditional classroom structure and seek to include them in my study from start to finish. Together we will work to determine how best to support student learning.

If you decide to allow your child to participate, their assessment data will be used to inform my research on this subject matter. Both pre- and post-unit assessments, as well as student opinion surveys will be utilized to look for differences between the flipped classes and the traditional classes. Any information that is obtained in connection to this study will remain confidential. Student names will not be used, but rather they will be assigned an identification number and this number will be used to report any data collected.

Your child's participation is voluntary and will in no way affect their grade in my classroom. All students will participate in the classroom activities and assessments, however, if you choose to decline from this study, I will remove their non-identifiable data from my analysis. If you decide to allow your child to participate, please understand that you and/or your child are free to withdraw consent and discontinue participation at any time. If you have any questions about the study, please do not hesitate to contact me. I look forward to working with your son/daughter throughout this research process.

Ms. Chelsea Pozolinski

***Please fill out the back of this letter and have your son/daughter return it to Ms. Pozolinski during class.***

Child's Name

_____

Parent Name:

_____

- ☐ Yes, my student's non-identifiable data may be included in this study
- ☐ No, my student's non-identifiable data may not be included in this study

Your signature indicates that you have read and understand the information provided above, that you willingly agree to allow your child to participate and that you and/or your child may with withdraw your consent at any time to discontinue participation.

Parent Signature: -

_____

*Please keep the second copy of this form for your records and send a signed copy of this form with your child to school.*