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INVESTIGATING THE FLIPPED CLASSROOM MODEL IN A HIGH SCHOOL WRITING COURSE: ACTION RESEARCH TO IMPACT STUDENT WRITING SKILLS AND ENGAGEMENT

by

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Submitted in Partial Fulfillment of the Requirements

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المنارة للاستشارات

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DEDICATION

First, I would like to dedicate this work to my husband, Michael, for greeting me each morning with “Hello, Dr. Florence” and constantly reminding me that I could do this. Michael, your love, positivity, and reassurance helped keep me going. Also, to my daughters, Cassandra and Kathleen, for always cheering me on. Girls, your firm belief gave me a reason to make you proud. Finally, to my father who always told me when I was a little girl that education was the one thing that no one could take from you. Thanks, Daddy.

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ABSTRACT

The purpose of this action research was to evaluate the implementation of the flipped classroom model in a high school English classroom. Students are entering college and the workforce lacking the minimum writing skills needed, which may be the result of a lack of engagement throughout school. The flipped classroom model is one teaching and learning strategy that has been shown to increase student achievement, close the achievement gap, and increase student engagement and critical thinking. This study focused on three research questions: (1) How and in what ways does implementing a flipped classroom model in a high school writing course affect students' writing quality?; (2) How and in what ways does implementing a flipped classroom model in a high school writing course affect students' engagement?; and (3) How and in what ways does the flipped classroom model affect students' perceptions and experiences? Data collection will incorporate an evaluative, convergent parallel mixed methods design using preintervention and postintervention writing tasks, surveys, and observations. After transcribing, reviewing, and coding the data, overlapping themes were identified.

Findings revealed the flipped classroom model had a positive impact on student writing achievement, engagement, and students' perceptions of the model on their learning. The answers to these questions along with any other themes are presented, and the general value of the model is discussed.

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CHAPTER 1

INTRODUCTION

National Context

Many students on the cusp of graduating and moving from high school to either college or the workforce are facing a problem: a lack of writing skills. The National Center for Education Statistics studied the writing skills of 28,000 randomly selected 12th graders. The study revealed that 73% scored *below proficient* (The Nation's Report Card: Writing, 2011). This issue carries over into higher education. Since the 1970s colleges and universities have placed students with low writing skills into remedial-level English courses at the cost of millions of dollars to the institutions and students; however, due to budget cuts, many colleges are being forced to cut such courses (Huse, Wright, Clark & Hacker, 2005).

Graduates choosing employment rather than college after high school also contend with the repercussions of low writing achievement. College Board, a company known for the Scholastic Aptitude Test and Advanced Placement tests, surveyed 64 human resource directors from major companies including Whirlpool, Exxon, Sprint, Pfizer, and IBM (The National Commission on Writing, 2004). The study identified writing as a key skill for initial employment as well as for promotion As a result of this lack of writing achievement, American corporations are spending an estimated 3.1 billion each year remediating employee writing proficiency (The National Commission on Writing, 2004). More recently and more specifically, Messum, Wilkes, Peters, and

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Jackson (2017) surveyed 38 senior managers in the health services industry to discover what they believed to be the most significant employability skills. Of the 44 items on the survey, *written communication* was ranked fifth only behind the soft skills of *integrity*, *interpersonal skills*, *teamwork*, and *flexibility*.

One cause for this lack of writing achievement on the national level may be lack of student engagement. According to a Youth Truth national survey (2017), only 60% of high school students feel engaged at school, only 48% feel that what they are learning in school will help them outside of school, and only 52% enjoy coming to school. A 2016 survey of over 2,000 tenth through twelfth grade students indicted that 34% considered dropping out of school (Geraci, Palmerini, & Cirillo, 2016). Interestingly, the report also revealed the students who consider dropping out of school were the same students who reported being the least satisfied (Geraci et al., 2016).

During the 2015-2016 school year, over 47 million U.S. students on average entered the classroom each day; in South Carolina that number was over 700,000 (National Center for Educational Statistics [NCES], 2018). When students are absent, however, they miss valuable content. Chronic absenteeism is when students miss at least fifteen days in a school year (United States Department of Education [USDOE], 2019). Approximately 16% of all students are chronically absent, and high school students experience an even higher rate of 21%, which translates into 100 million lost school days (South Carolina Department of Education [SCDOE], 2019). This lack of daily engagement in the education process in general is an indication of what writing instructors experience on a local level within their classrooms.

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One possible strategy addressing the problem of lack of writing achievement is the flipped classroom model (FCM). This teaching and learning strategy, developed by two high school teachers- Jonathan Bergmann and Aaron Sams, requires students to access the initial content or lecture at home while completing hands-on, interactive activities at school (Brame, 2013). The model goes to the heart of engagement by replacing the passive student lecture with active, collaborative activities (Abeysekera & Dawson, 2015). Several studies have shown the FCM to also increase engagement (Chyr, Shen, Chiang, Lin, & Tsai, 2017; Clark, 2015; Moore, Gillett, & Steele, 2014).

FCM increases teacher efficacy (Hunley, 2016; Isaias, McKimmie, Bakharia, Zornig, & Morris, 2017; Peterson, 2016) allowing teachers to move freely around the room and to work one-on-one with those who most need it. Additionally, the model increases critical and higher-level thinking in students (McLean, Attardi, Faden, & Goldszmidt, 2016; Mortensen & Nicholson, 2015; Saulnier, 2015) by giving them an opportunity to work collaboratively. Finally, the model has been shown to increase achievement (Bhagat, Chang, & Chang, 2016; Chen, 2016; Olakanmi, 2017), which is the ultimate goal.

Local Context

In South Carolina and more locally in State School District (a pseudonym; SSD), low writing achievement affects students from the elementary to the college level. According to the 2002 The Nation's Report Card, South Carolina's 4th graders scored *significantly lower* than the national average and the 9th worst in the country (The Nation's Report Card, 2002). In addition, in 2017 the SCDOE reported that 55.5% of SSD's 7th graders and 50.4% of 8th graders scored *low* on the state's College and Career

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Readiness Writing Assessment (SCDOE, 2017b). A report by ACT adds to this local deficit by revealing the 2017 national average for the writing portion of ACT was 6.7 on a scale of 2-12 (ACT, 2017). However, the SCDOE reported the South Carolina average was 5.9 (SCDOE, 2017c), and the SSD average was 6.6 (SCDOE, 2017a). Both South Carolina, and SSD to a lesser degree, fall short of national average achievement levels in writing.

According to a SCDOE report on higher education, 39.7% of the 2015-2016 South Carolina high school graduates went on to college. Of those, 22.6% failed an English Language Arts course during their freshman year in college. The report also indicated of the 594 Patriot High School (a pseudonym; PHS) graduates who went to college, 242 took an ELA course and failed it (40.74%) (SCDOE, 2016).

My own classroom reflects this lack of achievement and engagement as well. For example, in the fall of 2017 one class of 12th grade students wrote argumentative papers on a topic of their own choosing. After the construction of each paragraph (introductory, body, counterargument, conclusion), students submitted rough drafts for feedback. After receiving feedback including the identification of errors in grammar, diction, and craft, students submitted final drafts of the paper. Of those students, over 59% submitted papers still containing over ten errors in conventions, diction, and craft. This leaves one wondering why students refused to engage and utilize such a significant resource for achievement.

Engagement is also an issue at PHS. During the 2017-2018 school year, 96.3% of the students took an engagement survey on which the school was awarded a rating of *average*. Although this rating was higher than some schools in the district and state, it

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revealed student disconnect (SCDOE, 2018). Specifically, 14% of students indicated they were not satisfied with the learning environment of the school (SCDOE, 2018). On the local level, students revealed a lack of both writing skills and engagement.

In an attempt to address writing achievement, during the 2017-2018 school year, the district implemented an automated writing evaluation software as a part of a writing assessment and plagiarism package from Turnitin®. The software called Revision Assistant provided instant writing feedback to students and was piloted in only a handful of classrooms. In 2018-2019, the pilot was expanded to English 1 classes throughout the district. However, the results have not been made public, and the pilot was not expanded to include senior-level, English 4 students.

Statement of the Problem

There is a lack of writing achievement that is impacting Americans. This influence can be felt in both the higher education and business sectors. However, this deficit begins at the K-12 level. Specifically, students at PHS are experiencing a lack of writing achievement and engagement with the traditional, teacher-centered lecture model for writing.

Purpose Statement

The purpose of this action research study was to evaluate the implementation of a flipped classroom model (FCM) of learning with senior-level English students at PHS. This research is guided by three questions:

(1) How and in what ways does implementing a FCM in a high school writing course affect students' writing quality?

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(2) How and in what ways does implementing a FCM in a high school writing course affect students' engagement?

(3) How and in what ways does the FCM affect students' perceptions and experiences?

Subjectivity & Positionality

I currently teach three sections of 12th grade English at PHS. However, my teaching career began many years ago in rural East Tennessee. After having my first child at 16, I found my options limited. My father insisted that attending college made practical, financial sense, so I finished high school and went on to the University of Tennessee earning a B.A. in English Literature and a teaching certificate. Education was empowerment, allowing me to raise my child and provide for myself. These experiences shaped my pragmatic, practical world-view, and in turn shaped my study (Hookway, 2016). As a pragmatist, I focused upon a current problem impacting my students' achievement and empowerment, and I searched for a practical solution to that problem I could share with my peers.

My first teaching position was as an in-school suspension teacher where I developed a passion for at-risk youth that led to 17 years teaching at an alternative school. I wanted to know more about how to empower students and to lead other teachers to do so, so I earned an M.S. in Curriculum & Instruction and an M.S. in Administration. At the alternative school one of my many quasi-administrative tasks was to oversee the online learning system. The school used the Planning for Learning and Teaching Online Learning Environment (PLATO®) and years later Edgenuity®, to help these student access courses they otherwise would not have been able to take with our limited staff.

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The goal was to keep them on track to graduate, and I witnessed how the district leveraged technology to create equity and opportunity for at-risk students.

In my current position at PHS, I work with mostly middle-class students whose parents are for the most part actively engaged in and concerned about the education of their children. However, there are still students of various ethnic, gender, and socio-economic backgrounds who fall through the cracks, especially in writing achievement. I have witnessed technology increase engagement and opportunity with the students at the school level, and I wanted to know more about how to leverage technology to help all students embrace the empowerment of education.

Since I studied my own subject area in my own classroom and school, I am an insider. However, I am aware of my positionality as a teacher. Students may view me as an outsider due to my age, education, and position of power (Herr & Anderson, 2005). Since I have a great passion for finding a solution to writing achievement issues, I was cautious not to negate my objectivity by pushing students in any particular direction (Peshkin, 1988). If students failed to utilize the FCM to its fullest, they were allowed to do just that.

My childhood and life experiences created biases I considered in the early stages of research planning in order to avoid stumbling across them at the end of my study (Peshkin, 1988). I grew up with bootstrap mentality—the idea that one must provide for one's self and not look elsewhere for support. This makes it difficult for me to have empathy for students who do not embrace opportunities to better themselves. A lack of empathy could create a bias against students who do not appear to utilize their resources of technology, peers, or the instructor. Also, I have an affinity for at-risk youth that

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cannot be ignored. My desire to see such at-risk students achieve could possibly create a bias in students chosen to participate or even in interpreting results. In addition, I must not allow my biases to cause me to presuppose. Presuppositions could taint otherwise effective research questions and limit my research (Agee, 2009).

Definition of Terms

Achievement: Achievement, specifically in writing, is defined as the ability to create text, over multiple sentences and paragraphs, weaving into a "meaningful whole" fitting the need of a potential reader (Torrance & Fidalgo, 2012, p. 338).

Constructivism: Constructivists define learning as an active process in which the learner constructs meaning based on his or her own subjective views of reality, within his/her own world (David, 2015) through experience and the act of reflecting on that experience (Harasim, 2015).

Conventions: Conventions is short for "…conventions of standard English grammar and usage when writing or speaking...[and] capitalization, punctuation, and spelling when writing" (SCDOE, 2019, p. 4-5). Command of conventions is reflected in South Carolina English 4 writing standards and is therefore directly linked to writing achievement.

Convergent Parallel (Triangulation) Design: A type of mixed-methods study in which the researcher collects both qualitative and quantitative data, separately analyzes them, and compares the finding in order to determine if they have similar results (Creswell, 2014; Mertler, 2014).

Diction: Diction is a writer's choice of words in a piece of writing. According to the SSD argumentative rubric, in exemplary writing these words should be precise,

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purposeful, appropriate, and varied, and maintain consistent style and objective tone.

Error: An error is a "clear deviation from the norms of standard written English" (Epes, 1985).

Flipped Classroom Model: A specific type of blended learning, the FCM is one in which activities traditionally completed at home are completed in class, and activities traditionally completed in class are completed prior to class (Honeycutt & Garrett, 2014).

Formative Feedback: Formative feedback is teacher created information regarding weaknesses in writing with the intent to modify either a student's thinking or behavior for the purpose of improved learning (Shute, 2007).

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CHAPTER 2
LITERATURE REVIEW

Introduction

The purpose of this action research study was to evaluate the implementation of a FCM of learning with senior-level English students at PHS. The review of the related literature focused on three research questions: a) How and in what ways does implementing a FCM in a high school writing course affect students' writing quality, (b) How and in what ways does implementing a FCM in a high school writing course affect students' engagement, and c) How and in what ways does the FCM affect students' perceptions and experiences?

Four variables identified in the research questions served as a basis for the literature review: (a) flipped classroom, (b) engagement, (c) perceptions of flipped learning, and (d) writing quality. The sources came from a variety of electronic databases including *ProQuest, EBSCO*, and the academic search engine *Google Scholar*. Within these databases, the searches were narrowed to peer reviewed publications available in full-text versions with a date of publication after 2014. In addition, Google was valuable for locating online educational journals encouraging faculty to implement flipped learning by providing research-based resources. I located such journals by utilizing the advanced search option and limiting results to those with .edu domains. In addition, the University of South Carolina online library database proved a valuable resource and also allowed for the limitation of only peer-reviewed, full-text sources. Finally, articles

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obtained through preliminary searches served as sources for data mining or as leads to other research and researchers.

Key words and phrases searched within each database included *flipped learning*, *flipped classroom*, *engagement*, *writing motivation*, and *writing theory*. While searching for more refined topics, some searches proved to be too specific. For instance, a *ProQuest* search for *flipped classroom for differentiating instruction,* returned no matches; however, I had more success by altering the limiters to *flipped classroom* (and) *differentiating* (and) *instruction*. This one alteration returned 529 matches. A Google search for *flipped classroom* (and) *writing* revealed a textbook containing a chapter by Clarice Moran and Carl Young. This led me to go back to Google for their names and *flipped classroom,* which led me to the only article on FCM in a high school English class I was able to locate.

This review of literature is organized into four major sections. First, I discuss FCM providing definition, components, theoretical underpinnings, and advantages and disadvantages. Second, I discuss the FCM impact on student motivation and engagement defining motivation, connecting motivation to engagement, and connecting engagement to the FCM. Third, I discuss the impact of FCM on writing quality including a definition of quality writing, the impact of FCM on achievement, and how writing quality is measured using analytic rubrics. Finally, I discuss FCM and student perceptions including the impact of the FCM on student perceptions and how student perceptions are measured.

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Flipped Classroom Model of Instruction

Each year the New Media Consortium made up of experts in the field reports on the biggest trends and the most pressing problems in education. In 2015 and again in 2018 they identified rethinking the roles of teachers and specifically cite flipping the classroom as an effective strategy (New Media Consortium, 2015, 2018). In this section I provided the following: (a) a definition of the FCM, (b) the components of the FCM, (c) theoretical underpinnings of the FCM, and (d) the advantages and disadvantages of the FCM.

Defining the Flipped Classroom

The traditional learning model is a teacher-centered paradigm through which a student's first exposure to content occurs in a classroom via a teacher, with students practicing and applying new content at home (Brame, 2013). Blended learning, also known as hybrid, web-enhanced instruction, or mixed-mode instruction, is a combination of face-to-face instruction and technology that requires at least some physical co-presence of instructors and students (Nuruzzaman, 2016). FCM is a specific type of blended learning. In the FCM, activities traditionally completed at home are completed in class, and activities traditionally completed in class are completed prior to class (Honeycutt & Garrett, 2014). There is often an online element, or video lecture involved in the at-home step; however, students might also have a reading assignment (Nanclares & Rodríguez, 2016). Furthermore, the traditional face-to-face lecture is replaced with active, collaborative activities (Abeysekera & Dawson, 2015). This reversal allows more time for students to complete hands on activities, answer questions, discuss material, and work collaboratively during class time (Berrett, 2012; Schmidt & Ralph, 2016). The

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nature of the model not only inverts content delivery but also alters the role of students from passive to active consumers of material (Berrett, 2012). Conversely, the instructor becomes a facilitator, providing students an opportunity to take responsibility for learning and attaining knowledge (Maquivar & Ahmadzadeh, 2016). In short, the definition of the FCM is multifaceted, evolving, and is generally defined as a reversal of the traditional teaching approach.

Components of a Flipped Classroom Model

The basic premise of FCM is to free up valuable class time for engaging activities by allowing students to access to video lectures at home (Milman, 2012). While some researchers investigating the FCM only consider the two components of engaging activities inside class and video lectures outside of class (DeLozier & Rhodes, 2017; Moffett & Mill, 2014; Moore & Chung, 2015), other researchers include an initial assessment of learning to ensure students view the lecture video (Bishop & Vergler, 2013; Boevé et al., 2017; Clark, 2015, Persky & McLaughlin, 2017; Shih & Tsai, 2017). In this section I discussed the research for each of the three components: (a) video lectures, (b) initial assessment of learning, and (c) in-class activities.

Video lectures. Researchers have found there are guidelines that should be followed when creating video lectures. Guo, Kim, and Rubin (2016) studied 6.9 million student-learning sessions with lecture videos and discovered that to increase student engagement, videos should be relatively short and preferably have a talking head rather than just a slide presentation. Additionally, Engin and Donanci (2014) found that interesting pictures and writing with voice-overs engaged high school English students in instructional videos. Moreover, Timcenko, Purwins, Triantafyllou, and Kofoed (2015)

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found the creation of such lecture videos to be so time consuming that teachers often preferred to utilize premade lectures such as those found at Khan Academy. Teachers in the FCM may have to make difficult decisions about whether to invest the time in creating videos or to utilize videos made by others.

Initial assessment of learning. Researchers have shown there are different means by which an instructor may assess what students learn while watching video lectures and to ensure that they do. Moran and Young (2014) suggested having students write a discussion post to a shared online space in response to the learned material. Additionally, Shon and Smith (2011) found the use of text polling software easy for their undergraduate social work students to use; the instructor would propose a question to which the students would respond using their devices. Furthermore, Elliot (2014) had his college computer systems analysis students submit a rough draft to be shared with others and revised in class. Teachers utilizing the FCM need to identify the specific purpose of the initial assessment while designing the course.

In-class activities. After the initial assessment of student content knowledge, the remainder of a FCM class should focus on higher-level, cognitive activities (Brame, 2013). Instructors can choose to manage this time in various ways. This section focused on two strategies: (a) independent learning and (b) group learning.

Independent learning. Many instructors utilizing FCM have used class time for students to work independently to apply what was learned in the video. Clark (2015) studied the FCM with high school algebra students. While the researcher noted collaborative activities as well, he cited the use of guided, independent practice during class. Additionally, Chen (2016) studied the FCM with high school students enrolled in a

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health class during which students used class time to practice skills independently through journal writing, textbook activities, and worksheets. Furthermore, Engin and Donanci (2014) used the class time of their FCM to allow high school English students to work individually on the writing concept they learned in the lecture video and to provide students with individual feedback on their writing. Independent activities for students to complete in class are one strategy for focusing on higher-level, cognitive activities.

Group learning. Researchers implementing the FCM may choose to have students work in groups completing an activity during class. Peterson (2016) studied the FCM with college statistics students who spent in-class time working in randomly assigned pairs applying the lecture video content to assigned problems. A survey of participants revealed that 100% of the students either *strongly agreed* or *agreed* that working in pairs allowed the instructor to effectively answer their questions; whereas, only 75% of students reported the same response in the traditional course. Saterbak, Volz, and Wettergreen (2016) studied the flipping of a first-year engineering design course at Rice University. In this study, students were placed on teams of four to six students based on areas of interest, and each team worked on differing client-sponsored projects such as the creation of a forearm rotation measurement for a children's hospital or a robot obstacle course for the National Aeronautics and Space Administration. The researchers were able to replace lecture time with this type of higher-level activity and to increase engagement in the design process through collaboration and identified student interests. Danker (2015) studied the effects of the FCM in a college performing arts course in which student groups completed learning activities in class. The study revealed that the majority of students perceived they either provided or received useful feedback from the

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instructor or peers during this segment of the flip. By requiring students to access the lecture prior to class, instructors implementing the FCM can provide students opportunities to work in groups in order to have a deeper learning experience during class time.

In their recent meta-analysis of flipped classroom studies, Cheng, Ritzhaupt, and Antonenko (2019) remind instructors who are contemplating flipping "to be judicious with appropriate learning content and the requirements to successfully implement the flipped classroom" (p. 816). With this in mind, FCM is divided into three components: video lectures, initial assessment of learning, and in-class activities. These in-class activities come in the form of individual or group activities. Independent activities allow for students to demonstrate their personal skill level (Chen, 2016; Clark, 2015; Engin & Donanci, 2014). However, small group activities provide a deeper learning experience through collaboration (Saterbak et al., 2016) and instructor and peer feedback (Danker, 2015; Peterson, 2016). Instructors implementing the FCM should consider each component of the model and plan strategically prior to implementation.

Theoretical Underpinnings of Flipped Classroom Model

In this section the theoretical underpinnings of the FCM is discussed. First, I share constructivist theory: a definition, the roles on the learner and instructor, its benefits and disadvantages, and the subcategory of social constructivism. Next, I discuss Bandura's social learning theory. Finally, I connect these theories to the FCM.

Constructivism. Constructivists define learning as an active process in which the learner constructs meaning based on his or her own subjective views of reality, within his/her own world (David, 2015) through experience and the act of reflecting on that

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experience (Harasim, 2015). The principles of constructivism include identification of learning context, learner control, varied presentation of information, problem solving skills, and assessment that reflects a transfer of knowledge and skills (Ertmer & Newbie, 2013). The constructivist learning process involves continuous testing and refining of a learner's understanding or perception making his or her knowledge an individual construction (Zhou, 2004). Since knowledge is an internal construction based on personal experience, constructivism focuses on knowledge building in which learners are continuously testing their own hypotheses (David, 2015; Zhou, 2004).

Constructivists posit that learners acquire and store new knowledge by assimilating into preexisting schemas, taking into a revised schema, or placing into an entirely new grouping of knowledge (Cherry, 2018). Students in a constructivist setting are placed in the center (Xu & Shi, 2018) and learn by doing project or problem-based activities that are relevant to the students' lives (Siklander, 2015). By doing these types of learning activities, students define their own reality through experience while actively learning (Cey, 2001).

The role of the instructor in a constructivist setting includes authentic and relevant learning experiences, teaching students to construct meaning, and monitoring and evaluating those constructions (Cey, 2001; Ertmer & Newbie, 2013). In short, the goal is for learners to construct a personal model of information (Vogel-Walcutt, Gebrim, Bowers, Carper, & Nicholson, 2010) under the guidance of the instructor (Xu & Shi, 2018).

Benefits of constructivism include the inclusion of learner processing skills, learner-initiated and controlled technology use, and the building of personal

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interpretations (Ertmer & Newbie, 2013; Zhou, 2004). However, constructivism can overload a student's working memory, confuse the learner regarding which information is relevant, and fail to effectively guide the acquisition of knowledge (Vogel-Walcutt et al., 2010). Constructivism has been described as cognitivism in disguise, specifically utilizing strategies such as scaffolding and problem solving (Johnson, 2014). Although constructivism may overload a student's working memory, if both instructor and student roles within the constructivist classroom are clearly defined, students can experience an active, student-centered course.

A subcategory of constructivism is social constructivism. In 1934 Vygotsky published his theory on child development, and a major component of his theory was the concept of learning through a More Knowledgeable Other (MKO). The basic premise of MKO is that cognitive development results from a child's problem solving experiences shared with someone else who is more capable, such as a parent, teacher, or peer (Mishra, 2013).

Social learning theory. After observing children as they watched the actions of adults, Bandura (1971) challenged the ideas of behaviorist B.F. Skinner by asserting not all human behavior is the result of one's environment. Bandura instead posited that behavior is influenced by the environment and vice versa: **"**In the social learning view, man is neither driven by inner forces nor buffeted helplessly by environmental influences. Rather, psychological functioning is best understood in terms of a continuous reciprocal interaction between behavior and its controlling conditions" (p. 2).

Bandura's social learning theory posits that in this interaction between individual and environment, the environment is equally as influencing as the behavior it controls

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(Bandura, 1971). One specific aspect of social learning is observational learning. Bandura (1971) suggested there are four steps in observational learning: (1) a learner must attend to, not just be exposed to the model, (2) a learner must remember what the model did, (3) the learner must reproduce the modeled behavior, and (4) the learner must experience some positive reinforcement to induce them to retain the newly acquired knowledge. The idea that people learn from each other via observation, imitation, and modeling applies to students and their influence on one another (Bandura, 1971).

Connection between theory and Flipped Classroom Model. Constructivist learning theory plays a vital role in the self-directed learning found in the FCM (Xu & Shi, 2018) and a shift from lecture-driven to process-driven curriculum (Sankey & Hunt, 2013). Additionally, Vygotsky's theories, specifically the idea of a MKO, support the FCM in two major ways. First, FCM students access initial exposure to content through a video lecture meaning the MKO could be a device delivering the content (e.g. laptop, smart phone, tablet) (Putman, 2014). Furthermore, the in-class component of the FCM consists of collaborative student activities during which a peer who is more proficient could serve as the MKO (Chan, Pandian, Joseph, & Ghazali, 2012). When implementing a FCM, instructors should keep in mind the major characteristics of constructivism as they relate to learner-centered activities and student groupings. Additionally, FCM is underpinned by social learning theory. Students in the FCM have the opportunity to learn through observation, imitation, and modeling through in-class activities. By observing and exchanging thoughts with peers, students tend to learn from the experiences of those peers, which in turn may influence and expand the student's thoughts and ideas (Williams, 2017). By positioning the FCM within the parameters of social learning

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theory, one sees students observe both instructors and peers giving them the opportunity to quickly adapt and learn.

Advantages and Disadvantages of the Flipped-Classroom Model of Instruction

In this section I begin by discussing the (a) advantages of the FCM including its influence on student achievement, critical thinking, and engagement, along with the increase in teacher efficacy. I also share some (b) disadvantages of the FCM including time management issues, increased workload, and issues with technology.

Advantages of flipped classroom model. The FCM provides several academic advantages for students. These advantages include increases in a) student achievement, b) critical thinking, c) student engagement, and d) teacher efficacy.

Increases achievement. FCM has allowed students to outperform their peers in traditional classrooms, helped students perform better over time, and closed the achievement gap. Olakanmi (2017) studied the FCM with high school chemistry students and found the students in a FCM outperformed the control class on all assessments. Chen (2016) also studied the effects of flipping a high school health class and found that the control and experimental classes performed equivalently on the first posttest. However, on the next two tests, the students in the FCM outperformed their peers increasingly over time. Bhagat et al. (2016) also conducted a study on the effects of the FCM with high school students. Like Chen (2016), those in the FCM group outperformed the control group. Notably, the lower performing students showed an even greater increase in achievement. No matter the subject area or achievement level, high school students tend to perform better in the flipped classroom environment. There will be a fuller and more specific discussion on achievement in a subsequent section.

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Increases critical thinking. The FCM has been used to improve critical thinking skills, develop a deeper understanding of content, and engage students in deep and active learning. In a FCM, students have an opportunity for a deeper engagement with course content. Mortenson and Nicholson (2015) studied the FCM experience of college equine science students who reported the learning model gave them opportunities for critical thinking. Additionally, Saulnier (2015) studied the effects of the FCM with college students in a systems analysis course and found the increased interaction with the instructor allowed students to better analyze problems and understand processes, which fostered a deeper understanding and lead to increased ability to execute course outcomes. McLean et al. (2016) also studied the impact of a FCM with college-level physiology courses and found students believed the FCM encouraged less multitasking and more engagement in deep and active learning than a traditional course. Studies indicate that enrollment in a FCM course provides the opportunity for students to experience increased critical thinking.

Engages students. The FCM has also been found to increase student communication, involvement, and engagement. Specifically, it makes students active participants in their own learning. Clark (2015) conducted a study of the FCM with high school algebra students and found they experienced an increase in communication with their peers compared to the traditional classroom. Chyr et al. (2017) conducted a study of the FCM with first year college students taking a technology course and discovered that the students experienced a significant increase in involvement after the flip. Additionally, Moore et al. (2014) studied the effects of flipping seventh and eighth grade math classes and found that the model increased student engagement. Regardless the age or subject

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matter being taught, students in a FCM can be more actively engaged in their own learning.

Increases teacher efficacy. Instructors of FCM classes have covered more material, have built better relationships with students, and have provided more helpful feedback than instructors of traditional classes. Isaias et al. (2017) studied a FCM college psychology course and discovered that instructors were able to cover more content in the FCM than in a traditional lecture format. Additionally, Hunley (2016) studied three high school science teachers as they flipped their classes and found that the teachers reported being able to build better student relationships than in a traditional teacher-centered class. Finally, Peterson (2016) studied two sections of college statistics courses and discovered the students in the FCM course rated the effectiveness of the instructor and helpfulness of instructor feedback higher than the students in the control group. Whether in a college or high school setting, teachers utilizing the FCM tend to experience increased efficacy.

In summary, FCM has been shown to increase student achievement (Bhagat et al., 2016; Chen, 2016; Olakanmi, 2017). The teaching and learning model has also been shown to increase critical thinking (McLean et al., 2015; Mortensen & Nicholson, 2015; Saulnier, 2015) and engagement (Chyr et al., 2017; Clark, 2015; Moore et al., 2014) in students. Finally, the FCM has been shown to increase teacher efficacy (Hunley, 2016; Isaias et al., 2017; Peterson, 2016).

Disadvantages of flipped classroom model. Although there are numerous studies supporting the FCM, research indicates that perhaps there are some disadvantages including student time management issues, teacher workload, and issues with technology.

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Time management. One disadvantage of the FCM is that some students report an inability to balance the requirements for succeeding in this type of course. A study of freshmen in a FCM college math course revealed the student increase in self-regulation was no larger than in that of a traditional class (Elakovich, 2018). Also, a study of college analysis course revealed the students struggled with time and task management (Saulnier, 2015). Additionally, a study of a FCM fifth grade math class revealed one of the students' biggest frustrations was missing class time to watch the video because they had not done so at home (Wiley, 2015). If students do not have a carefully planned agenda and follow the schedule designed by the instructor, students may not experience success in the FCM.

Workload. Another negative side effect of the flipping process is that instructors have experienced an increased workload. A 2016 study surveyed teachers with at least two years of flipping experience. This study revealed that the teachers perceived the FCM too large of a time investment due to logistical and organizational issues with the video creation process (Hunley, 2016). Additionally, Largo (2017) surveyed 120 high school teachers and discovered that 64% cited the time needed to implement the FCM as the reason for not wanting to flip. For instance, Muir and Geiger (2016) discovered one particular high school math teacher who hosted over 140 instructional videos for a single math course. Teachers undertaking the FCM may have to commit more time to planning than those in a traditional model.

Issues with technology. Many teachers and students involved in a FCM class have encountered issues with technology. A 2017 study of university faculty members with FCM experience revealed that the platform on which lecture videos were hosted

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often malfunctioned causing student frustration and access issues (Dey, 2017). For example, Conner et al. (2014) reported university students in FCM courses experienced issues with the video platform and poor video quality, which affected their access to content. Beyond platform and video quality issues, Schmidt and Ralph (2016) assert that teachers often underestimate the number of students without basic internet access. It is possible that students and teachers involved in the FCM may experience technical difficulties.

To summarize, literature supports the idea that the benefits of the FCM outweigh the disadvantages. There are some possible disadvantages to the FCM such as student time-management issues, issues with teacher workload, and issues with technology experienced by both groups. However, none of the cited disadvantages include a decrease in achievement. In contrast, all of the reported advantages link to achievement (cf. Bhagat et al., 2016; Chen, 2016; Olakanmi, 2017).

Flipped Classroom Model and Impact on Student Perceptions, Motivation and Engagement

Studying student perceptions of the FCM is easily done through surveys, which explains the plethora of research conducted in this area. As a result, although this section covers other attributes of the impact of the model, it is skewed toward perception. This section discusses the impact of the FCM on (a) student perceptions, (b) motivation and (c) engagement.

Student Perceptions

This section covers numerous studies focusing on student perceptions of the FCM. In general, students find the FCM (a) enjoyable, (b) flexible, and (c) valuable.

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Enjoyable. Students in a FCM course have indicated they find the model enjoyable. Moran and Young (2014) surveyed Advanced Placement English Language Arts and Composition (AP Lang) students after the implementation of their flip. Students in the course indicated they *enjoyed learning with the flipped method of instruction* (M = 3.27/5, SD = 0.81) and *enjoyed watching the videos very much* (M = 3.55/5, SD = 0.94). After flipping an Introduction to Programming course, Fryling, Breimer, and Yoder (2016) surveyed their students who indicated they *liked the flipped classroom model* (M = 8.93/10). Also, Masland and Gizdarska (2018) presented college psychology students with vignettes describing two instructors, one representing traditional instruction and the other the FCM. The researchers then surveyed students in regards to their perceptions of the instructors and conducted a thematic analysis of the open-ended questions asking students to justify their instructor choice. The results of this analysis revealed that 56% of students preferred the FCM to the traditional model, and 28% believed the FCM instructor would likely be more fun. Instructors who choose to implement the FCM can look forward to students enjoying the class.

Flexible. Students in a FCM course have indicated they find the model to be flexible. After flipping a university research methods course, Nouri (2016) surveyed 240 students about their experience. The survey results indicated that with the FCM students felt *more flexible and mobile as a learner* (M = 3.95/5, SD = 1.10) and that it allowed them to *study at [their] own pace* (M = 3.75/5, SD = 0.91). Additionally, Guggisberg (2015) interviewed high school math students enrolled in a FCM about their experiences with the FCM during which 50% indicated liking the convenience of being able to work according to their own schedules. After flipping a university psychology course at the

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University of Queenlsand in Australia, Isaias et al. (2017) surveyed students about their perceptions of the course. The survey results denoted that FCM gave students more flexibility to manage their time (46% strongly agreed and 31% agreed) and more flexibility in arranging their schedules (49% strongly agreed and 30% agreed). Students taking a FCM course can expect more flexibility in how they manage and utilize their time.

Valuable. Students in a FCM course have indicated they find value in the experience. Mortensen and Nicholson (2015) surveyed their equine science students after experiencing the flipped course. These students indicated the model encouraged *independent, creative, and critical thinking* ($M = 4.45/5$). After flipping a high school math class, Clark (2015) conducted a thematic analysis of the student interviews and focus group sessions. This analysis revealed students perceived improved communication both with the teacher and with peers with the FCM. Muir and Geiger (2016) also surveyed students who had experienced a FCM high school math class. The results indicated that 100% of the students found the video lectures helpful, and 100% of the students agreed with the statement *I think I understood the work better in class because I watched the tutorial.* Students in a FCM class can expect to find value in the model's increased communication, higher-level thinking and the tools provided by the instructor.

Student Motivation

According to Ryan and Deci (2000), motivation is when an individual is activated, moved, or energized toward an end. People vary in the amount and types of motivation they possess (Ryan & Deci, 2000). This section covers the two main types of motivation: intrinsic and extrinsic.

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Intrinsic. Intrinsic motivation is fostered by autonomy (controlling one's actions), competence (being self-efficacious) and relatedness (affiliating with and connecting to others) (Cook & Artino, 2016). This type of motivation does not come from pressures or rewards and results high quality and creative learning (Ryan & Deci, 2000). Students with a supportive adult tend to experience an increase in intrinsic motivation and autonomy in general (Froiland, 2011). Researchers have investigated the relationship between intrinsic motivation and the feeling of inclusion. For example, Bidee et al. (2017) investigated intrinsic motivation with healthcare volunteers and discovered that when volunteers felt included they had a tendency to feel competent and motivated to participate.

Extrinsic. Extrinsic or external influences often come in the form of "career goals, societal values, promised rewards, deadlines and penalties" (Cook & Artino, 2016, p. 1009). Extrinsic motivation drives an individual to an action because it "leads to a separable outcome" (Ryan & Deci, 2000, p. 5). Although students may show a limited initial compliance in response to extrinsic rewards, this type of reward is less effective in the long-term when compared to intrinsic rewards (Benabou, & Tirole, 2003). Extrinsic motivation varies with its degree of autonomy depending on if the outcome is self-determined or determined by an outsider (Ryan & Deci, 2000). Researchers have also investigated the effect of extrinsic motivation. For example, Nielsen, Jakobsen, and Andersen (2011) studied how teachers viewed mandated creation of student plans when seen as a support rather than a means for those in power to control. The study revealed that teachers who viewed the plans as supportive had a higher intrinsic motivation to complete them. Motivating students is key to the success of a FCM. Through an

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understanding of both intrinsic and extrinsic motivation, instructors are better equipped to design a successful course.

Several researchers have investigated the relationship between motivation and engagement. Wu (2019) studied 4,211 college students collecting data from pre and posttests and the National Survey of Student Engagement (NSSE). Motivation was measured using eight academic motivation scale items, and engagement was measured using 16 academic engagement items. The research revealed "significantly positive effects of academic motivation on academic engagement and academic achievement (i.e., GPA) across four years in college" (Wu, 2019, p. 108). Additionally, Chaw and Tang (2019) studied 103 massive open online course (MOOC) students to investigate why so many students fail to complete courses. The researchers gathered data using the Measures of Engagement Survey (MES) produced by the Lifelong Achievement Group along with a questionnaire. The findings included the validity and reliability of the MES instrument as well as the fact that positive motivation leads to positive engagement. Finally, Chau and Cheung (2018) investigated hospitality and tourism students in Macao using a self-created questionnaire, the reliability of which was tested using Cronbach's alpha. Each of the four constructs, active learning, motivation, engagement, and satisfaction, were tested for reliability. The researchers discovered that motivation was directly related to engagement, and engagement was directly related to student satisfaction. In order ensure students engage in a course, the instructor needs to address student motivation.

Student Engagement

Several researchers have examined the impact on the FCM on student engagement. Smallhorn (2017) explored flipping a college genetics course specifically

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investigating engagement through surveys, attendance records, and the view counts of lecture videos. Smallhorn discovered that as student engagement in the FCM increased, so did student achievement. McLaughlin et al. (2014) studied the impact of flipping a university pharmaceutics course on student engagement using the end of course evaluations. By comparing course evaluations of a previous, traditional course and the FCM course evaluations, the researchers discovered an increase in student engagement with the FCM. Students in the traditional course had a mean response of 3.51 (*SD* = 0.59) to the statement *Active student engagement was consistently encouraged by instructors*, and the FCM course students gave a mean response of 3.78 (*SD* = 0.46). Additionally, the traditional course students gave the mean rating of 3.87 (*SD* = 0.50) for the question *Approximately what percentage of class did you attend*, and the FCM course provided a mean response of 3.96 (*SD* = 0.19) for the same response. Also, the researchers investigated student perceptions of engagement using pre and post course surveys. The traditional course mean student response to *I participated and engaged in discussion in class* was 2.66 (*SD* = 0.71), and the mean response for the FCM course was 2.97 (*SD* = 0.63). In a third study, Hung (2015) examined the effects of flipping an English language class. The researcher gathered data using a 26-item questionnaire adapted from the Study Process Questionnaire (SPQ) created by Biggs, Kember, and Leung (2001). The items on the survey included 25 five-point Likert scale items and one open-ended, researcher-created question regarding student satisfaction. Students in the FCM course had a higher perception of learning engagement (*M* = 4.20/5, *SD* = 0.45) than the traditional course students (*M* = 3.64/5, *SD* .51). By flipping a course, instructors can expect to see increased student engagement, and in turn, increased achievement.

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Motivation, both intrinsic and extrinsic, is an important consideration when designing a course. Instructors must motivate students in order to ensure they are engaged. One way to increase student engagement is through the implementation of the FCM.

Studying Student Perceptions, Motivation, and Engagement

Researchers have used various methods to measure students' perceptions when implementing a new learning model such as FCM. This section describes four methods of measure and explain how specific researchers utilized (a) surveys, (b) interviews, (c) focus groups, and (d) observations.

Surveys. One method of gathering data regarding student perceptions is through a survey. Surveys provide quantitative trends of a sample through which a researcher may generalize or draw inferences to the overall population (Creswell, 2014). Researchers must consider population size, whether the sampling will be single stage or clustering, the selection process, and select an instrument that has content, predictive, and construct validity as well as reliability (Creswell, 2014).

Several researchers have utilized surveys in measuring student perceptions in the FCM. Moran and Young (2014) utilized a modified version of the Computer Attitude Questionnaire (CAQ) (Knezek & Christensen, 1996) on which students responded using a Likert-type scale from one (*strongly disagree*) to five (*strongly agree*). Muir and Geiger (2016) implemented an online survey adapted from an existing instrument from a previous study (Muir, 2014) consisting of 24 questions on a five-point, Likert-type scale. This survey was conducted online. Additionally, Isaias et al. (2017) implemented a survey to gather data about students' perceptions. This survey was an end-of-semester

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survey implemented via Blackboard® learning management system. The instrument consisted of questions on engagement, flexibility, assessment, and instructional methods including two open-ended questions about likes and suggestions regarding the FCM. Many other researchers have utilized surveys and questionnaires to gauge student perceptions of the FCM (Fryling et al., 2016; Gugisberg, 2015; Masland & Gizdarska, 2018; Mortensen & Nicholson, 2015; Nouri, 2016). Researchers planning to implement a survey or questionnaire to gather data about student perceptions will find it an easy and time-saving instrument.

Interviews. Another method of gathering information about student perceptions of FCM is through interviews. There are three types of interviews: structured, semi-structured, and open-ended. Structured interviews adhere to a predetermined set of questions, semi-structured interviews use the same question base allowing clarifying questions, and open-ended interviews have a few, broad questions allowing varied responses (Mertler, 2014).

Although not as commonly utilized as the survey, several researchers have implemented interviews to gather data about student perceptions of the FCM. Clark (2015) used random sampling to identify interviewees in a study of a FCM high school math class. Muir and Geiger (2016) conducted semi-structured interviews of high school math students, taking about 40 minutes for each. In this study, the researchers chose to interview students in pairs. Finally, Danker (2015) interviewed performing arts students to gather data about perception of the FCM. Danker conducted short, semi-structured interviews with 19 students from both cohorts with questions focusing on experiences and behaviors in the FCM. Researchers implementing interviews as a data source for

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student perceptions should be prepared to invest a great deal of time and effort to conduct the sessions and process the information gathered.

Focus groups. A third method a researcher might use to gather data regarding student perceptions of the FCM is by asking questions to focus groups of students. Students are often more comfortable talking in small groups, which may produce more information; however, these sessions can be lengthy, and there is a possibility of one or two students dominating the conversation (Mertler, 2014). Additionally, focus groups should not be used in isolation but as a part of a comprehensive study (Scott, 2011).

Although less often than both surveys and interviews, researchers have utilized focus groups to gather data about student perceptions of the FCM. Conner et al. (2014) used focus groups to investigate student perceptions of FCM teaching methods course at the University of Florida. Clark (2015) also utilized focus group sessions as a part of his qualitative data collection with high school math students. Zainuddin and Attaran (2016) utilized focus groups to gather data about college student perceptions of a FCM educational course in order to allow students to describe the experience in their own words. Researchers, especially action researchers can utilize focus groups as an additional qualitative data source.

Observations. A fourth means by which researchers have collected data regarding student perceptions is through observations. Hunley (2016) walked around three FCM classrooms speaking to students and inquiring about their thoughts. The researcher utilized a qualitative coding sheet to record responses. Although observations are one means of gathering data, researchers may have to ask clarifying questions of students to identify their true perceptions.

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There is a correlation between the FCM and positive student perceptions, motivation, and engagement. Numerous studies indicate that students find the model an enjoyable way to learn. Additionally, students find the FCM works into their schedules and has value in their learning process. Furthermore, a FCM increases student engagement. Researcher might measure such student perceptions and engagement using surveys, interviews, focus groups, and observations.

Flipped Classroom Model and Impact on Achievement and Writing Quality

Though little research has been done to measure the FCM's specific effect on writing achievement, the model has been shown to have an impact on student achievement in general. This section first discusses the impact of the FCM on achievement then focus on writing and writing quality.

Impact on Achievement

In FCM very few studies focus on writing, specifically writing with high school students. Engin and Donanci (2014) studied the FCM with high school writing but focused on the positive student perceptions of the video lectures rather than how FCM affected writing achievement. Moran and Young (2014) also examined high school students in an ELA class but concentrated on student engagement with the FCM. Shaffer (2016) also studied students in a high school literature class but focused on the teachers' FCM processes. Other FCM studies focused on the progress of second language learners (Afrilyasanti, Cahyono, & Astuti, 2017; Soltanpour, & Valizadeh, 2018). Since there are no studies centering specifically on the effects of the FCM on high school writing achievement, in this section I discuss the effect the FCM has on student achievement in general and how the model closes the achievement gap.

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Increases achievement. The FCM has been found to increase student achievement. In their recent meta-analysis of FCM studies, Cheng et al. (2019) reviewed published research from 2000 to 2016 and found that 41 out of 55 empirical studies favored a FCM classroom. VanSickle (2016) studied the effect of the FCM on college algebra students and observed that the mean final exam scores for students in the FCM (M = 77.2) were higher than the students in the control/ traditional class (M = 70.5). Additionally, Sun and Wu (2016) examined the effect of the FCM on college physics students in Taiwan and learned the students in the FCM had mean posttest scores that were higher (M = 69.09) than the students in the control class (M = 62.58). Furthermore, El-Senousy and Alquda (2017) investigated the FCM with college Computer 101 students and discovered that the mean posttest scores for students in the FCM (M = 12.08) were higher than those in the control group (M = 8.23). Finally, Webb and Doman (2016) studied the effect of the FCM with ESL/EFL students and found that students in a composition class whose first language was not English also had greater gains than those students in a traditional classroom. Instructors in a FCM teaching varied disciplines and ages can expect their students to outperform those in the traditional classroom.

Closes achievement gap. The FCM has been shown to close the gap between students who are low achieving and students who are high achieving. While investigating the effects of the FCM with K-12 Information and Communication Technology students, Kostaris, Sergis, Sampson, Giannakos and Pelliccione (2017) implemented an initial diagnostic assessment to identify students as low, medium, or high achievers. The results of the study revealed that while students identified as high performers had a mean gain of 12.69%, the students identified as low performers had a mean gain of 22.49%. Day

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(2018) studied the effects of the FCM with college anatomy students also identifying students as lower or higher performing based on grade point average. The results of this study revealed that students in the FCM experimental group identified as lower-performing outperformed students in the traditional class control group. Finally, Cormier and Voisard (2018) studied the effects of the FCM on college organic chemistry students and found that students in the FCM had higher mean exam scores (M = 77%) than those in the traditional classroom (M = 73%). Cormier and Voisard also stratified the students by grade point average and concluded that students identified as low-achieving had the greatest gains. Those students they identified as low-achieving in the FCM had a mean exam score of 70% compared to the 60% for those in the traditional classroom. Instructors who have classes with students with diverse ability levels can close the gap by utilizing the FCM.

Writing Quality Defined

There is a paucity of research on the effect of the FCM on writing achievement. Few researchers focus on high school students, and even fewer focus on high school writing. Most studies relating FCM to writing focus on second language learners or student perceptions of the model. The majority of studies in this field are in other subject areas and in the college setting.

Key to the idea of researching interventions and processes to increase writing achievement is to define characteristics of quality writing (Van Steendam, Tillema, Rijlaarsdam, & VandenBergh, 2012). Quality writing at the high school level has various characteristics. First, the writing organization and style should match the task, discipline, and audience for which it is designed (SCDOE, 2015). Odell (1981) reminds writing

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instructors of the significance of the audience when writing. The author asserts that when students create writer-based prose as opposed to reader-based prose, the product may "fail to consider the needs, interests, and knowledge of the persons who will read the text" through the inclusion of unclear transitions and confusing terms with a meaning known only to the writer (Odell, 1981, p. 100). Additionally, high school student writing should utilize language that is clear and coherent and accomplishes the purpose of the written piece (i.e. to entertain, argue, or inform) (SCDOE, 2015). According to the What Works Clearinghouse, effective writing on the secondary level "presents ideas in a way that clearly communicates the writer's intended meaning and purpose" (Graham et al., 2016). Furthermore, writing of high quality incorporates the crafting techniques of expert writers from a variety of mentor texts (SCDOE, 2015).

Measuring Writing Quality Through Error Classification and Analysis

It is a commonly accepted practice for teachers to utilize holistic rubrics to score writing. Although holistic rubrics can be an efficient means of assessing writing, they do not provide explicit feedback for each criteria (Sundeen, 2014). For example, a high rubric score for *organization* might refer to a presence of explicit transitions, an absence of extraneous details, or the ordering of events in a clear chronological sequence (Odell & Cooper, 1980). As such, rubrics also do not provide an evaluation that is absolute, specifically for researchers (Gantt, 2010). A more effective means of capturing a before and after picture of writing gains is through the use of an error classification list and an error analysis based on that list.

Error classification is the process by which researchers identify common writing errors. For example, after reading 300 randomly chosen college essays, Connors and

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Lunsford (1988) identified a list of twenty common errors including tense shifting, lack of comma after an introductory element, and vague pronoun reference. Witty and Green (as found in Connor & Lunsford, 1988), analyzed 170 college freshman-level essays and created a list of ten common errors including pronoun agreement and wrong tense. Prior to counting student-writing errors, researchers should create a list of those errors.

To summarize, there are numerous benefits of the FCM including the research supporting that students find the model enjoyable, flexible, and valuable to their education. Furthermore, FCM increases motivation, and in turn, engagement.

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CHAPTER 3

METHODS

Purpose Statement

Students at PHS and more specifically those in my 12th grade English classes, experienced a lack of writing achievement and engagement with traditional, teacher-centered lecture model teaching and learning. The purpose of this action research study was to evaluate the implementation of a FCM of teaching and learning with senior-level English students at PHS.

The following research questions were addressed in this study:

1. How and in what ways does implementing a FCM in a high school writing course affect students' writing quality?
2. How and in what ways does implementing a FCM in a high school writing course affect students' engagement?
3. How and in what ways does the FCM affect students' perceptions and experiences?

Research Design

Action research stems from general systems theory, which posits that the world is made up of complex systems and system processes that influence one another; the human mind is one of those systems (Greenwood & Levin, 2007). General systems theory connects to action research insomuch as action research sets out to transform society into ever opening systems (Greenwood & Levin, 2007). Early researchers, postpositivists, believed in collecting measurable, observable data either supporting or refuting an

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identified theory; however, later constructivists and transformativists, believing in subjective research based on social processes, began to collect qualitative data and use the data inductively to identify themes (Creswell, 2014). Finally, pragmatists created a type of study that arose from the need to solve local, identified problems and realized that a mixed-methods study would free the researcher to use the best of qualitative and quantitative data to identify a solution (Creswell, 2014). Action researchers posit that reality is "interconnected, dynamic, and multivariate and always more complex than the theories and methods that we have at our disposal" (Greenwood & Levin, 2007, p. 54).

Action research is appropriate for this study because it (a) solves problems, (b) is relevant to a local setting, and (c) creates an opportunity for empowerment. PHS students, like all students, are individuals with distinct challenges and issues. Action research is framed by a researcher's desire to address such problematic situations within his or her community (Rudestam & Newton, 2014). In addition, action research allows researchers to use inquiry to confront situations outside current local knowledge, take action to gain knowledge about the problem, and learn better how to proceed with similar situations (Morgan, 2013). Action research is systematic and provides a means for improving the practice of teaching for a unique population (Mertler, 2017) such as the students of PHS.

Furthermore, action research is a means for instructors to study their own classrooms to improve the quality of their teaching (Mertler, 2014). It is widely known that educators have varying experiences from class to class and from year to year as well as experiences that differ from those of other educators. Action research takes into account these differences solving unique problems while using relevant social science

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methods, implementing relevant actions, and utilizing relevant local stakeholders and participants (Greenwood & Levin, 2007).

Action research is also an appropriate research design due to its ability to create empowerment and social change. Brydon-Miller, Greenwood, and Maguire (2003) assert action researchers are a hybrid of "scholar [and] activist in which neither role takes precedence" (p. 20). Much like most traditional school districts, SSD department heads and district-level coordinators make the majority of the significant curriculum and instruction decisions (e.g., grading policy, rubric design, reading selections, textbooks, etc.). Action research allows for a shift in locus of control from professional researchers and district-level personnel to those instructors who would traditionally be the subjects of that research (Herr & Anderson, 2005). Through this action research, I was empowered to make decisions affecting my own teaching and ultimately the achievement of my students.

Traditional mixed methods research focuses on explaining a research problem; however, action research sets out identify a solution (Mertler, 2017). Action research also differs from traditional research in that it is interested in building local theory as opposed to filling in gaps in knowledge of scholarly discipline (Buss & Zambo, 2014). Furthermore, action research utilizes all social science methods integrated into an expanded, multi-method research strategy that involves local participants, is relevant a local context, utilizes the practical knowledge of stakeholders, and has validity that is tested in action (Greenwood & Levin, 2007)

For this study, I used a convergent parallel design (Creswell & Plano-Clark, 2018). Convergent parallel design combines the results of both qualitative and

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quantitative data analyses to provide a more robust understanding of the problem, to validate each other, and/or to determine the reliability of participant response across data sources.

I also utilized Stringer's (2007) action research interacting spiral first by looking at qualitative student data and quantitative data in the form of pre-intervention writing task scores. I took the second step of thinking about a unit having utilized the FCM model as an intervention to maximize student achievement and address student needs as revealed in the records and in pre-intervention writing achievement. I then took the third step of acting by administering the intervention to my 12th grade English students (Creswell, 2014). I began the cycle again by looking at the postintervention writing task, classroom observation, survey, and artifact data to better understand how/if the intervention was successful and to better understand student perceptions. As Stringer (2007) suggested, I shared results with peers allowing PHS teachers to collectively improve the process, and acted by developing an improved, collective intervention.

Setting

This action research took place at Patriot High School (PHS) in an English 4 class. The physical space was a typical teacher-centered, brick and mortar classroom with student desks and a teaching station situated in the front with a screen for projecting lecture material. Normally, due to the small room size and large student number, the desks would have been in long rows facing the front of the room to maximize viewing of materials projected in the front of the room. However, for the intervention, the students were grouped into collaborative groupings, either triads or quads; therefore, the groups were relocated to a common area in the school's entry and into the hallway.

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Traditionally in my English 4 class, I would provide a teacher-centered lecture on a multiple aspects of narrative writing in class and ask students to apply that knowledge outside the class setting by composing narratives independently. When they would return to class, they would submit that piece, and the class would move on. However, I realized that too many students struggled with creating an effective piece of writing this way. In order to help students better succeed, I broke the writing process into stages and created mini lessons requiring students to go home and apply just that day's knowledge. Although students experienced more success with this process method, absent students still struggled. In 2015, to fulfill a need for absent students missing these mini lectures, I began recording my lectures for them to access while at home. However, the time in class was not collaborative in nature, nor was every student required to utilize the videos.

The semester prior to this study, students were issued laptop computers, and they used this new technology throughout this intervention. During this action research, students were provided video lectures to view on their laptops at home or a location most convenient to them before the next class session. Students then came into class and worked collaboratively with their assigned small group to apply the new writing concept utilizing Google Docs software on the laptops. Because of this, the groups were situated near electrical outlets, and I ensured each group had access to a power strip in order to reduce the likelihood of lack of student participation due to technology failure.

Participants

The participants, 54 students ranging in age from age 16 to 19, were 61% male and 39% female. Of the students in this course, 78% identified as Caucasian, 9% as African American, 8% as Hispanic, 5% as a combination of ethnicities, and 2% as

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Islander. The students in the study were eleventh and twelfth graders enrolled in English 4, a required course for a high school diploma. For many years the course level was referred to as college preparatory. Later, the affix was changed to seminar. In 2019, both affixes were dropped, and now the lowest level of senior English is called English 4. PHS did not provide an honors level English 4 option; consequently, students who have taken honors-level English in the past but do not wish to pursue the rigor of Advanced Placement English or college level English 101 opted for English 4. This limitation created uniquely and greatly varied achievement.

Since PHS was the only high school in the district to serve students with autism, I had two students from that program along with their shadows. Additionally, I had five students being served for learning disabilities, emotional disabilities, or a 504 plan with accommodations ranging from preferential seating and extended time on assignments to frequent breaks and shortened assignments. On the other hand, I also had 11 students identified as gifted. Additionally, I had one student from Brazil who was being served as a second-language learner with whom I had to communicate via a translation application. With the exception of five transfer students, each would have completed an end-of-course examination after completing English 1. A review of student records revealed a range in the end-of-course examination scores from 53 to 100 ($M = 76.49$, $SD = 10.77$). Additionally, with the exception of two transfer students with incomplete records, each would have an English 3 grade in the system. A review of records revealed a range in grades in this course from 93 down to a student who previously failed the course and earned a grade of 60 through a credit recovery program ($M = 81.04$, $SD = 8.31$).

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Participation in this study was voluntary with no rewards for participation and no consequences for non-participation. Of the students and parents, 54 consented and assented to the study. As the instructor in the classes, my role was to provide the content and to lead all collaborative activities, which made me a participant researcher (Buss & Zambo, 2014). In this role, I also conducted all pre and postintervention writing tasks, student surveys, and observations.

Intervention

The intervention for my six-week study involved the implementation of the FCM of instruction and learning during a narrative writing unit. I chose this model of teaching and learning because it increases student achievement (Bhagat et al., 2016; Chen, 2016; Olakanmi, 2017), increases student critical thinking (McLean et al., 2016; Mortensen & Nicholson, 2015; Saulnier, 2015), increases student engagement (Chyr et al., 2017; Clark, 2015; Moore et al., 2014), and increases teacher efficacy (Hunley, 2016; Isaias et al., 2017; Peterson, 2016).

This section begins by discussing the theoretical influences of the FCM. Then, the second part of this section details how these components look in this study. The three components explained in both sections are a) out-of-class activities, b) pre-class activities, and c) during-class activities.

Theoretical Influences

The FCM intervention for this study was influenced by several theories, which served to guide the creation of the intervention along with its corresponding activities and assessments. These theories include a) constructivist theory, b) social learning theory c)

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cognitive theory, and d) self-determination theory (see Table 3.1). Each of these is described in further detail below.

Table 3.1. *Theories and Influenced Elements of Flipped Classroom Model (FCM)*

Theory	Influenced Elements of the FCM
Constructivist Theory	• Writing task • Active, student-centered environment • Video lectures
Social Learning Theory	• Collaborative groups
Socio-cultural Theory	• MKO- purposeful groups high-medium-low • Peer instruction (PI)
Self-determination Theory	• Competence- color-coded writing • Relatedness- collaborative learning • Autonomy- self chosen narrative topics and group names

Constructivist theory. Constructivists posit that learning is a student-centered, active process in which active learners construct their own meaning by completing projects within their own world that are relevant to their own lives (Cey, 2001; Creswell, 2014; David, 2015; Siklander, 2015). Additionally, the instructor in a constructivist classroom rarely provides models, rather guides learners to construct their own models (Vogel-Walcutt et al., 2010). This theory informed the intervention task, environment, and video lectures. Students were allowed to choose the setting, characters, and conflicts faced by those characters as they wrote their narratives rather than utilizing a teacher-provided writing task. Additionally, the setup of the during-class activities was collaborative in nature allowing students to actively learn. Finally, the videos themselves

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were constructivist in nature as they provided students with writing guidance but no exemplar writing models, which allowed them to construct their own meaning.

Social learning theory. Social learning theorists posit that learners are influenced by their environment and learn through observation, imitation, and experience of their peers (Bandura, 1971; Williams, 2017). Much like constructivist theory, the ideas behind social learning theory supported the collaborative student groupings during in-class activities.

Socio-cultural theory. Social cultural theorists posit that students learn from a MKO who could come in the form of a parent, a teacher, or even a peer (Mishra, 2013; Vygotsky, 1934). In this intervention the students were grouped in triads of low-medium-high achieving students, which provided low achieving students with an MKO within their own collaborative group. Also, students learned from instructional videos that served as a digital MKO.

Self-determination theory. Proponents of self-determination theory assert that students are motivated through intrinsic motivation to express one's capacities (competence), through a desire for affiliation, connectedness or unity with others (relatedness), and a feeling of freedom to express one's self (autonomy) (Cook & Artino, 2016; Deci & Ryan, 2002; Reeve, Ryan, & Deci, 2018). This intervention assured competence and relatedness through collaborative groupings. Finally, autonomy was ensured through students' self-chosen group names and narrative topics.

Components of This Flipped Class

This intervention flipped a narrative writing unit. A common, traditional writing model might involve a teacher-centered lecture with models followed by students'

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attempts to apply what was learned from that lecture independently. This intervention inverted that concept and was made up of three basic elements: a) out-of-class activities, b) pre-class activities, and c) during-class activities.

Out-of-class activities. Instructional videos are a powerful instructional tool. Specifically, they allow for learner ability differentiation (Clark, 2015; Smith, 2015). My students had an initial exposure to content via brief, teacher-created instructional videos (see Table 3.2). Each video was between 7-10 minutes long and was created using Screencast-O-Matic screen capturing software. I created lecture presentations with speaker notes for each slide and used the software to capture the video and audio of the lecture. The videos were saved in an .mp4 format and uploaded to the school's learning platform for student access. Students needed Internet access and ear buds (if accessing in a public place) to watch the videos. The videos could be downloaded while at school for access off line.

Table 3.2. *Flipped Classroom Model Components of This Study*

Component	Example Activities	Time Frame
Out-of-class activities	Video lectures	
	a) Overview and Beginning Frame	Week 1
	b) Freytag's Pyramid and Plot Diagram	Week 2
	c) Meaningful Dialogue	
	d) Precise Words	Week 3
	e) End Frame	Week 4
		Week 5
Pre-class activities	Learning checks	Daily
During-class activities	Peer instruction and writing circles	Daily

Since the flipped unit was the narrative writing process, each instructional video aligned to one or more expectation criteria of the district scoring rubric (see Figure 3.1)

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The first video entitled Overview and Beginning Frame provided students with an overview of the unit including a brief review of the rubric and narrative assignment expectations. Then, the corresponding video taught students about framed stories ensuring they were prepared to create an effective lead (see Figure 3.1).

Expectations
Narrative Focus (x2)- Establishes and maintains a clear setting, narrator and/or characters, and one or multiple point(s) of view to tell a story
Lead- Produces an effective, engaging lead that addresses the audience and purpose
Sequence and Transitions • Produces an organized, consistent sequence of events from beginning to end • Effectively and consistently uses of a variety of transitional strategies between and within paragraphs, phrases, etc.
Elaboration (x2) - Purposefully and effectively uses a variety of elaboration techniques: (2 or more) • multiple plot lines • detailed descriptions • dialogue • problem, situation, or observation and its significance • pacing (flashback, flashforward, foreshadowing)
Diction and Craft (x2)- Purposefully develops consistent tone and mood for the subject matter through: • precise words and phrases • sensory language • figurative language • voice/reflection
Conclusion Produces a unifying, reflective conclusion for audience and purpose (prompt)
Conventions and Format- Demonstrates a strong command of conventions: • few, if any, errors in usage and sentence formation • proficient and consistent use of punctuation, capitalization, and spelling • accurate paper format (provided by teacher)

Figure 3.1. Patriot High School narrative writing rubric.

The second video taught students about Freytag's Pyramid and the significance of a plot diagram. Figure 3.2 illustrates the key elements of Freytag's Pyramid. This corresponding lecture video ensured students had a narrative focus as well as a meaningful story sequence. The third video instructed students how to create and format

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meaningful dialogue, which in turn ensured students had proper elaboration. The fourth video familiarized students with precise word choice assuring student narratives had appropriate diction and craft. Finally, the fifth video taught students how to create an end frame for their story. This skill aligned with the conclusion criterion on the rubric (refer back to Figure 3.1).

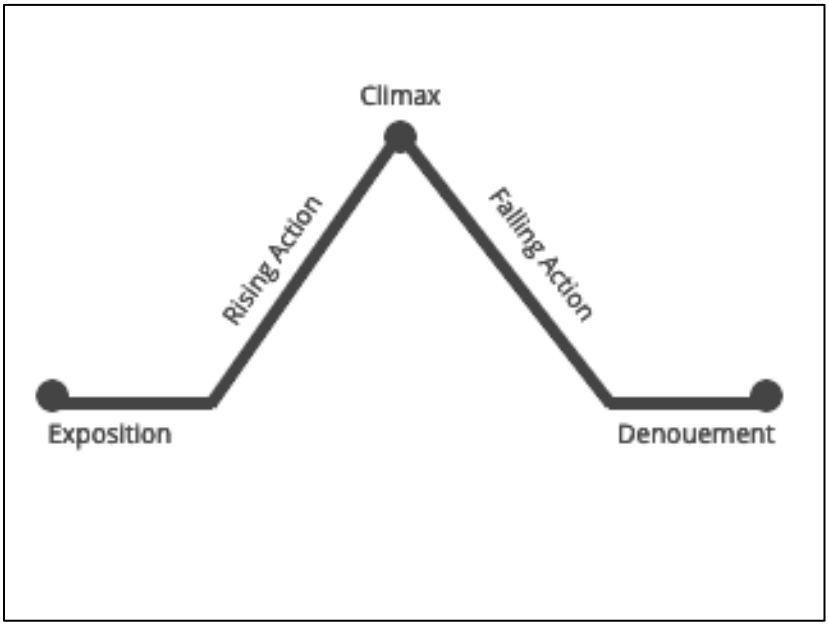

Figure 3.2. Freytag's Pyramid.

In addition to serving as a conduit for initial content delivery, students could also use these videos out-of-class as a study tool. Absent students could use the videos to catch up with their peers. Also, the videos could be watched multiple times to prepare for the learning checks. Additionally, struggling students could watch the video as slowly as needed, and English language learners could utilize subtitles.

Pre-class activities. It is important that I carefully created and thoughtfully deployed assessment tools for my flipped class (Saterbak et al., 2016). As a result, for my

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pre-class activity I gave students a daily formative learning check using the Schoology learning management system. Each learning check was multiple-choice and directly related to the major content ideas from the video lecture. Schoology scored the learning checks automatically allowing for immediate assessment and planning. Figure 3.3 highlights the questions for video lecture two. By clicking *View Attempts*, I could drill down into student achievement to see how a student answered a particular question.

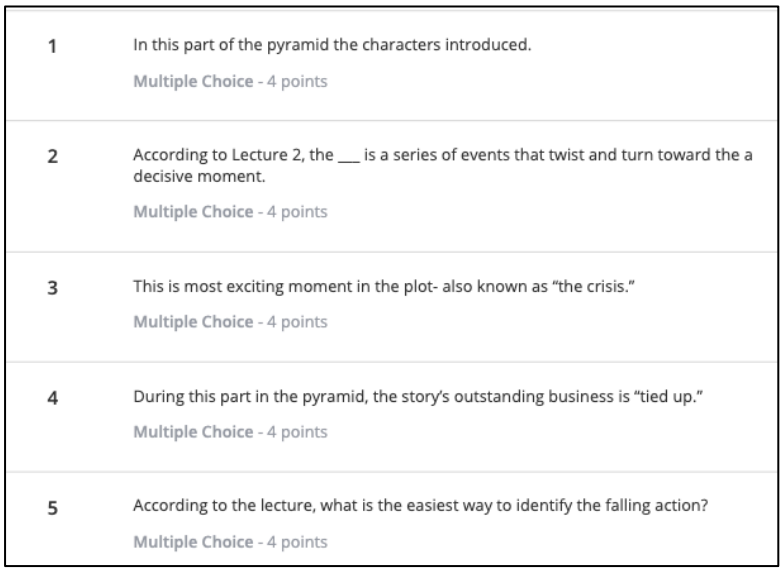

Figure 3.3. Schoology learning for lecture two.

Additionally, a click of the icon allowed me to quickly view the overall score statistics (see Figure 3.4). These features assisted me in establishing the agenda for the quick review. The more students missed, the longer the class would spend on the review.

During-class activities. Students who participate in PI experience an increase in conceptual comprehension while exhibiting a positive attitude toward the model (Al-

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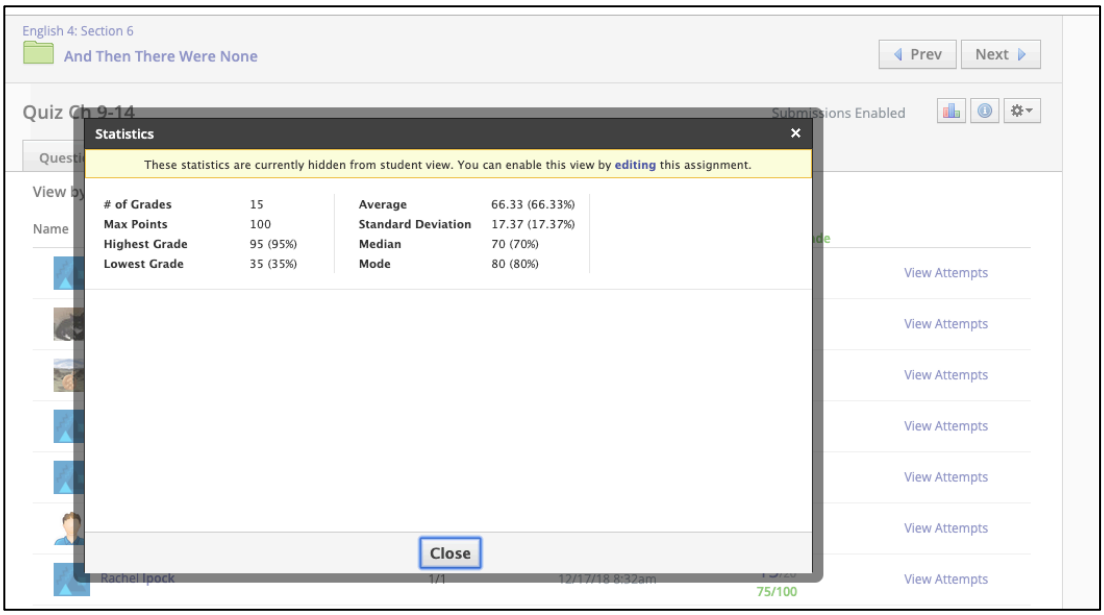

Figure 3.4. Schoology statistics capabilities.

Hebaishi, 2017). Each day after the learning check, students took part in a brief PI activity. Using the results of the learning check, I posited a question to the class. Students had moment to discuss then move toward a student with whom they disagreed. Then, I allowed a student to share the answer. This process was repeated up to five times if students did not do well on the learning check. On the other hand, PI was altogether eliminated if every student did extremely well on the learning check.

Writing circles are powerful tools for improving writing skills (Roberts, Blanch, & Gurjar, 2017; Spark & Moses, 2014). I utilized data gathered prior to the unit to group participants into high-medium-low triads. Each group represented a small writing circle and had the opportunity to create their own framed story narrative much like Chaucer's *Canterbury Tales*. This narrative was a collaborative effort and was a single written piece produced using Google Docs. Each day, students were given a specific task. For example, the following was the task for Day 1:

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> Much like the Wife of Bath and the Pardoner, you will create a framed story warning readers of the destructive nature of the seven deadly sins. Today your group will choose a sin and a modern narrator who would be perfectly suited to warn against that sin. Next, your group will work collaboratively using Google Docs to write a beginning frame. To whom will they tell their tale and how will the tale come about? Although this frame should be somewhat brief (about ½ page), be sure it lets the reader know who is talking, where they are, and why they are there. Also, make sure the conversation is organic and not forced.

Students took the elements learned from the instructional video and used them to build and revise this group narrative. As I walked around and observed each group, I also watched their progress in real time on their Google docs. I also encouraged students to ask each other any clarifying questions they might have. Occasionally, a group would not finish the assigned task and would have to arrange to meet on the doc to finish. Each group ended class by setting goals for themselves and their narrative before they met again.

Data Collection Methods

Throughout this convergent parallel (triangulation) study, five data collection methods were administered to assess the implementation the FCM as an intervention in a twelfth grade English course at PHS. Each source either provided demographic information or aligned directly with a proposed research question (see Table 3.3). The study required the collection of both quantitative and qualitative data to provide a comprehensive, in-depth perspective as well as achieve triangulation (Bloomberg & Volpe, 2015; Patton, 2002). Furthermore, the qualitative sources allowed me to further

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elaborate upon and triangulate the quantitative data collected (Mertler, 2017). The sources include (a) the document review of student records, (b) a preintervention writing task, (c) a postintervention writing task, (d) a student survey, and (e) observations.

Table 3.3. *Research Questions and Data Source Alignment*

Research Questions	Data Sources
RQ1: How and in what ways does implementing a flipped classroom model in a high school writing course affect students' writing quality?	• Preintervention Writing Task • Postintervention Writing Task
RQ2: How and in what ways does implementing a flipped classroom model in a high school writing course affect students' engagement?	• Classroom Engagement Survey with open-ended questions • Observations
RQ3: How and in what ways does the flipped classroom model affect my students' perceptions and experiences?	• Classroom Engagement Survey with open ended questions • Observations

Document Review: Student Records/Testing Data

Once proper permissions and institutional approval for human subjects was obtained (see Appendices A & B), I assigned participants pseudonyms and used descriptive statistics to build a demographic profile and to assign students to their groupings. In order to accomplish this, I accessed qualitative data found in student records focusing on age, gender, and ethnicity. I already had access to this information on the district's Enrich database, so this posed no difficulty. In addition, I identified past achievement levels specifically focusing on the writing portion of English 1 end-of-course examination, a required, standardized test for all freshman-level students at PHS. These data were also available on the Enrich database. This type of document review was

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appropriate for gathering demographics because the process required little time and no transcription (Creswell, 2012). This information ensured the student groupings were varied by ethnicity, gender, and ability level.

Preintervention Writing Task

The first quantitative data source was the preintervention writing task. Prior to the implementation of the intervention, I administered a narrative writing assignment (Appendix C) in order to establish students' baseline writing achievement levels (see Table 3.3, RQ1). The task required students to write an essay responding to the following prompt: *Tyrik has the strangest dream about two fish. The next day at school he tells his friend all about it. Write a story of the conversation.* Though it was not directly stated in the assignment, this task required students to write a framed narrative.

Postintervention Writing Task

In order to better understand the impact of the intervention on student writing achievement (see Table 3.3, RQ1), I administered a second writing task upon the completion of the intervention. The second writing assignment included a prompt similar to that of the preintervention writing asking students to write a framed story (see Appendix D). The postintervention prompt was *Tim's friend Jaylen always wanted a new red Mustang. Tim decides Jaylen needs to hear the story about the blue bird who always wanted to be a peacock. Write a one-page story of the conversation.*

Student Survey

One data collection method was a student survey (Wang, Bergin, & Bergin, 2014), which I administered after the intervention to assess student engagement in and student perceptions of the FCM. This survey consisted of both multiple choice and open-

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ended questions. First, I used four subscales from Wang et al.'s Classroom Engagement Inventory (CEI). These subscales included (a) affective engagement (five items), (b) behavioral engagement (five items), (c) disengagement (three items), and (d) cognitive engagement (eight items). One subscale, engagement-compliance was not included in this study. Also, adjustments to the original survey were necessary to better align the item statements with the FCM. For example, item 6 was changed from *I get really involved in class activities* to *I get really involved in the collaborative activities* because this study focused heavily on the collaborative nature of the FCM. Additionally, since I administered the survey after the completion of the intervention, I made all item statements in past tense. See Table 3.4 below for a sample of items.

Table 3.4. *Sample Classroom Engagement Inventory Survey Items*

Classroom Engagement Inventory Subscales	Example Items
Affective Engagement	• In class I feel interested.
Behavioral Engagement	• I work with other students, and we learn from each other.
Disengagement	• I just pretend like I am working.
Cognitive Engagement	• I judge the quality of my ideas or work during class activities.

Wang et al.'s (2014) affective, behavioral, and disengagement subscales asked students to rate themselves on the following scale for each item: *never*, *hardly ever*, *monthly*, *weekly*, and *each day of class*. Since this study was brief, I adjusted this scale to *never*, *rarely*, *occasionally*, *frequently*, and *always*. For data analysis purposes, a student's response of *never* was converted to a 1, *rarely* to a 2, *occasionally* to a 3, frequently to a 4, and *always* to a 5. The cognitive engagement items used a 7-point

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Likert-type scale ranging from 1 (*not at all true*) to 7 (*very true*). The authors of this instrument (Wang et al., 2014) did not label the other numbers on this subscale. Reliability coefficients for the four subscales ranged from .84 to .91. This survey could be reproduced and used for non-commercial research without permission.

Finally, I added four open-ended items gauging student perceptions of the FCM to the end of the survey. For example, one question asked students, *Now that you have experiences a flipped narrative writing unit, what do you perceive to be its advantages?* Open-ended survey questions such as this are qualitative in nature and provide a "seemingly limitless number of responses" (Mertler, 2014, p. 139). I used McNaughton's (2017) study on student perceptions of the FCM as a basis for these open-ended questions (see Appendix E for full survey).

Observations

A second qualitative source was observations. The purpose was to observe student engagement (see Table 3.3, RQ2) and to triangulate what students reported as their perceptions of the FCM (see Table 3.3, RQ3). In order to better understand the complexities of the situation, I acted as participant observer as students completed collaborative activities (Patton, 2002). There were five days during which three periods of students worked in their collaborative grouping, and I conducted observations during each of those days for a total of 15 observations. During each observation, I focused on two randomly chosen groups. Observations were appropriate for this study because they allowed me to evaluate the collaborative activities in a way that went beyond what may be obtained from student responses from the surveys (Patton, 2002).

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According to Creswell and Plano-Clark (2018), protocols are useful for organizing an observation and should include a means for the researcher to record descriptions of events and reflective notes regarding "emerging codes, themes, and concerns" (p. 181). Although checklists are less time consuming, a protocol that allows for anecdotal records allows researchers to capture unplanned events (Kuhs, Johnson, Agruso, & Monrad, 2001). Because of this, I used an informal observation protocol adapted from Creswell (2012) (see Appendix F). According to Creswell (2012), a protocol should contain the following elements: (a) a header recording time, place, etc, (b) columns dividing the page for recording descriptions and reflections, (c) and a place to sketch the site to help recall of events and details. While observing, I used clear, objective language to record student comments verbatim in the *Description* column before I made any reflective remarks (Kuhs et al., 2001). These comments helped later with the thick, rich descriptions and corroborated other data sources.

Data Analysis

The quantitative and qualitative data in this study created a basis from which I triangulated and built justification for themes and assertions about the effect of the FCM on writing achievement, engagement, and perception in a 12th grade English classroom (Creswell, 2014; Mertler, 2017). Below are descriptions of the analysis methods for each research question, the interfacing of those data, and reporting the findings. See Table 3.5 for an alignment of the research questions with their data sources and methods of analysis. In this section I will discuss the analyses and reporting of (a) RQ1, (b) RQ2, (c) and RQ3.

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Table 3.5. *Research Question and Data Source Alignment*

Research Question	Data Source(s)	Data Analysis Method(s)
RQ1: How and in what ways does implementing a FCM in a high school writing course affect students' writing quality?	• Preintervention Writing Task • Postintervention Writing Task	• Error Classification • Descriptive statistics • Error Classification • Descriptive statistics
RQ2: How and in what ways does implementing a FCM in a high school writing course affect students' engagement?	• Classroom Engagement Inventory (CEI) Survey • Open-Ended Survey Items	• Descriptive statistics • Inductive analysis
RQ3: How and in what ways does the FCM affect my students' perceptions and experiences?	• CEI Survey • Open-Ended Survey Items	• Descriptive statistics • Inductive analysis

Research Question 1: Student Writing Achievement

RQ1 asks, *How and in what ways does implementing a flipped classroom model in a high school writing course affect students' writing quality?* I used data from two sources to answer this question: (a) preintervention writing task and (b) postintervention writing task.

Analysis. First, since each piece was submitted digitally, I used Microsoft Word® to determine a word count for each pre and postintervention piece. Next, I read each piece twice looking for student attempts at dialogue and marked each with a small check in the margin (see Figure 3.5).

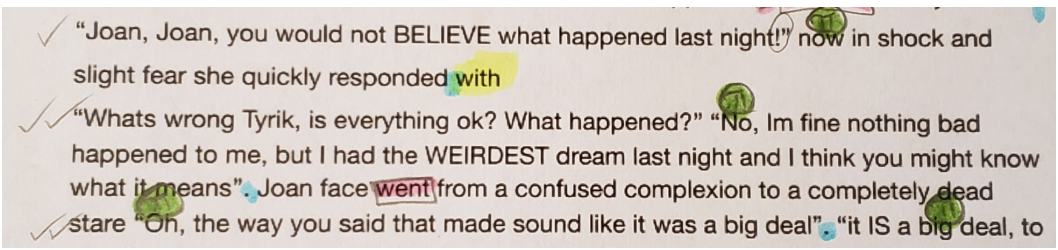

Figure 3.5. Preintervention dialogue attempt markings.

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Finally, I developed a Narrative Indicators List (see Appendix G) along with corresponding Error Classifications and Evidence of Errors (see Table 3.6). To create this list and its corresponding classification of errors, I met with five peers who were familiar with the narrative rubric and errors commonly seen in our students. I met with each peer twice to allow them to add to and refine both the indictors and evidence of errors.

Table 3.6 *Error Classifications and Evidence of Errors*

Error Classifications	**Evidence of Errors**
Dialogue Formatting	• Period outside of quotation mark or missing • Comma outside quotation mark or missing • Double punctuation • Comma missing after beginning tag
Tag Issues	• Does not match punctuation • Has capitalization error • Tag missing or unclear • Tag/ dialogue woven like informative writing
Narrative Craft Issues	• Tense shifting • Narrator issues (1st person) • Inappropriate use of italics (for dialogue, etc.)
General Writing Issues	• Off topic • New paragraph needed • Indentation needed • New speaker not given new line • Repetitive, or unnecessary dialogue

Using this list, I located, highlighted, and tallied errors in each of the four categories including dialogue formatting errors, tag errors, narrative craft errors, and general errors. Each preintervnention and postintervention student writing piece was read a minimum of four times to ensure the tallies were correct (see Figure 3.6). These data were analyzed using descriptive statistics.

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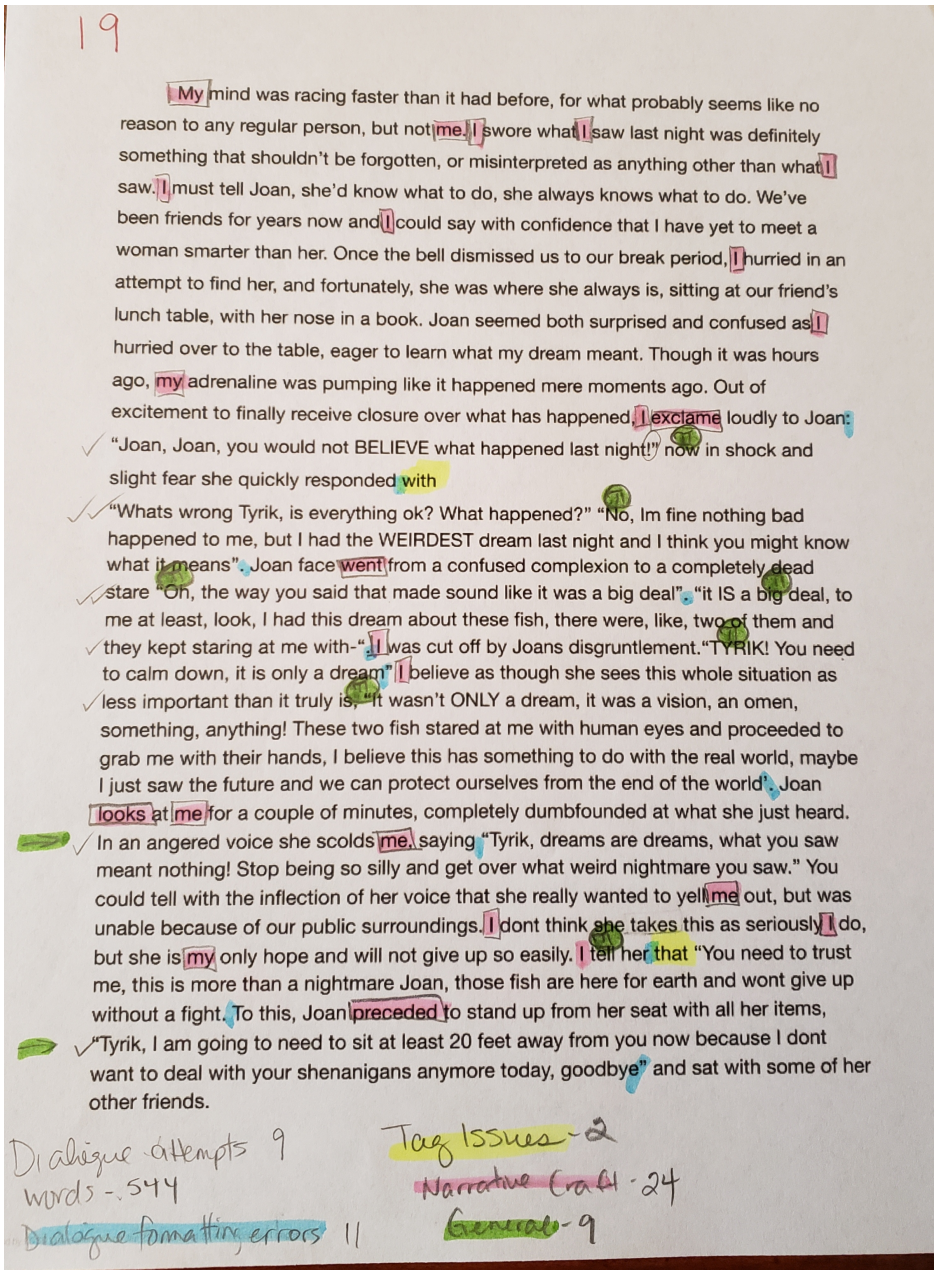
19

My mind was racing faster than it had before, for what probably seems like no reason to any regular person, but not me. I swore what I saw last night was definitely something that shouldn't be forgotten, or misinterpreted as anything other than what I saw. I must tell Joan, she'd know what to do, she always knows what to do. We've been friends for years now and I could say with confidence that I have yet to meet a woman smarter than her. Once the bell dismissed us to our break period, I hurried in an attempt to find her, and fortunately, she was where she always is, sitting at our friend's lunch table, with her nose in a book. Joan seemed both surprised and confused as I hurried over to the table, eager to learn what my dream meant. Though it was hours ago, my adrenaline was pumping like it happened mere moments ago. Out of excitement to finally receive closure over what has happened, I exclame loudly to Joan: "Joan, Joan, you would not BELIEVE what happened last night!" now in shock and slight fear she quickly responded with "Whats wrong Tyrik, is everything ok? What happened?" "No, Im fine nothing bad happened to me, but I had the WEIRDEST dream last night and I think you might know what it means". Joan face went from a confused complexion to a completely dead stare "Oh, the way you said that made sound like it was a big deal". "it IS a big deal, to me at least, look, I had this dream about these fish, there were, like, two of them and they kept staring at me with-" I was cut off by Joans disgruntlement."TYRIK! You need to calm down, it is only a dream" I believe as though she sees this whole situation as less important than it truly is, "It wasn't ONLY a dream, it was a vision, an omen, something, anything! These two fish stared at me with human eyes and proceeded to grab me with their hands, I believe this has something to do with the real world, maybe I just saw the future and we can protect ourselves from the end of the world". Joan looks at me for a couple of minutes, completely dumbfounded at what she just heard. In an angered voice she scolds me, saying "Tyrik, dreams are dreams, what you saw meant nothing! Stop being so silly and get over what weird nightmare you saw." You could tell with the inflection of her voice that she really wanted to yell me out, but was unable because of our public surroundings. I dont think she takes this as seriously I do, but she is my only hope and will not give up so easily. I tell her that "You need to trust me, this is more than a nightmare Joan, those fish are here for earth and wont give up without a fight. To this, Joan preceded to stand up from her seat with all her items, "Tyrik, I am going to need to sit at least 20 feet away from you now because I dont want to deal with your shenanigans anymore today, goodbye" and sat with some of her other friends.

Dialogue attempts 9
words - 544
Dialogue formatting errors 11

Tag Issues - 2
Narrative craft - 24
General - 9

Figure 3.6. Preintervention error markings.

Reporting. After the analysis, I created narrative passages to convey the findings and included a table of preintervention and postintervention mean counts each of the four error classifications along with standard deviation, and alpha value. The narrative passage noted if the *p* value was less than the alpha value of .05 indicating a statistical

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significance between the preintervention and the postintervention writing tasks (Mertler, 2017). The six areas were word counts, dialogue attempts, dialogue-formatting errors, tag errors, narrative craft errors, and general errors. The narrative passage made a final observation on the effect of FCM on achievement.

Research Question 2: Engagement

RQ2 asks, *How and in what ways does implementing a flipped classroom model in a high school writing course affect students' engagement?* I used data from two sources to answer this question: (a) Classroom Engagement Inventory (CEI) survey results and (b) observations.

Classroom Engagement Inventory survey results. I began by analyzing the student surveys. The first 21 Likert-style rating items measured student affective engagement, behavioral engagement, cognitive engagement, and disengagement. I used descriptive statistics to determine the measures of central tendency indicating the typical or collective attitudes toward engagement in these three areas. Descriptive statistics is appropriate for these ordinal items since there are multiple grouped items measuring each of the constructs listed above (Sullivan & Artino, 2013).

Observations. During the observations I specifically looked for student contributions to tasks, discussions, and physical movements, all of which were indicators of engagement on the observation protocol (see Appendix F). I began by reading and knowing my data before beginning the coding process to get a sense of the overall database (Creswell, 2017; Stuckey, 2015). I then transcribed and analyzed the reflections portion of the observation protocol. After submitting transcriptions into Delve (n.d.), I began coding by looking for recurring ideas, words, and phrases (Strauss & Corbin,

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1990). Finally, I created comprehensive themes by constantly comparing this data (Creswell, 2014; Glaser & Strauss, 1967). In addition to what was said by the students, I also looked for latent or hidden meaning within the contents (Saldaña & Omasta, 2017). Findings included themes such as (a) proactive and sustained use of resources and collaborative opportunities, (b) space and time for collective decision making and learning, and (c) enjoyable, relaxed, personalized learning.

Reporting. This section had two tables of results: (a) survey frequency distribution table with central tendency and (b) the themes identified through the coding of the observations. These data outcomes informed the question of whether or not the FCM affected student engagement.

Research Question 3: Perceptions and Experiences

RQ3 asks, *How and in what ways does the flipped classroom model affect my students' perceptions and experiences?* I use data from the open-ended items I added to the CEI survey to answer this question.

Analysis. The four open-ended items asked students to account for advantages, disadvantages, changes in perception, and advice regarding the FCM. Much like the observations, these data were qualitative in nature and were coded. First, I began by transcribing student responses to these open-ended items of the survey. Next, I read and knew my data before beginning the coding process in order to get a sense of the entire database (Creswell, 2017; Stuckey, 2015). After submitting to Delve, I began looking for recurring ideas, words, and phrases (Strauss & Corbin, 1990) and created comprehensive themes through constant comparison (Creswell, 2014; Glaser & Strauss, 1967). In addition, as the participants wrote, I also looked for latent or hidden meaning within the

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contents (Saldaña & Omasta, 2017). Findings included themes (a) proactive and sustained use of resources and collaborative opportunities, (b) space and time for collective decision making and learning, and (c) enjoyable, relaxed, personalized learning.

Reporting. As recommended by Stuckey (2015) I kept my research questions in mind as I read, jotting down any impressions that struck me as relating to those questions. For example, my RQ3 was *How and in what ways does the flipped classroom model affect my students' perceptions and experiences?* As I scanned the open-ended survey data initially, I looked for common advantages and disadvantages. The responses to these open-ended survey items were coded using the constant comparative method by identifying phenomenon of interest, identifying concepts of interest, and making certain assumptions based on my understanding of the phenomenon (Glaser & Strauss, 1967).

Procedures and Timeline

At PHS, students utilized block scheduling, which meant the students I had in the fall of 2019 would not be the same students as I had in the spring of 2020. This created the issue of a time crunch for gathering and analyzing data in the spring. However, it also created a unique opportunity for me to pilot my student grouping strategies, lecture videos, learning checks, and writing circles with my students in the fall after my dissertation proposal was approved by my dissertation committee and the university institutional review board. The procedures for the five phases of the study can be found in Table 3.7.

At the start of Phase I, in preparation for the study, approval from SSD and the University of South Carolina Institutional Review Board (see Appendix B) was obtained.

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Table 3.7. *Action Research Timeline*

Phase	Researcher Activities
Phase 1 August- December 2019 (pilot semester)	• Obtained district and university approval • Began researcher's journal • Piloted student groupings • Piloted lectures • Piloted learning checks
Phase 2 December 2019	• Received rosters • Gathered demographic data • Began creating student groupings • Used pilot to design video lectures, learning checks, and collaborative activities
Phase 3 January 2020	• Disseminated assent and consent forms • Finalized student groupings and classroom physical space
Phase 4 February- March 2020	• Implemented Flipped Classroom Model intervention • Conducted observations
Phase 5 March 2020	• Analyzed data
Phase 6 August 2020- November 2020	• Shared findings

Phase 1 of my research took place the semester prior to the intervention. Next, I established the norms and criteria for my researcher's journal. This journal was a narrative of my intellectual and research decision processes and was hosted on a Google Doc making it easier to share with an external auditor. During this semester I piloted the student groupings, lecture videos, learning checks, and collaborative activities including PI and writer's circles. This phase served as an informal pilot, and I took careful notes in my researcher's journal to inform my practices throughout the spring 2020 intervention.

Phase 2 of the study took place in December of 2019 when I received the student rosters for my spring 2020 classes. During the winter break before spring classes started, I began gathering student demographics. Although the rosters changed before and even

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after the first day of class, this gave me some idea of the numbers and ability levels of the students. Since I hoped to utilize triads as my student groupings, I worked toward building those. Each grouping was made up of one student at the high achievement level, one at the low achievement level, and one or two at the medium achievement level. I also began to design my physical space. Each triad should have room to work collaboratively, and the room should also have collaborative spaces. I investigated the use of the hallways and lower commons areas as additional collaborative spaces by contacting the school librarian and administration. I used feedback from the pilot semester to inform these processes.

Additionally, in Phase 2 I designed and created my instructional videos. I utilized my slideshow lectures from previous years by paring them down to match the needs of each of the five lecture topics: (a) Overview and Beginning Frame, (b) Freytag's Pyramid, (c) Meaningful Dialogue, (d) Writer's Craft, and (d) End Frame. I wrote specific and clear scripts, followed the scripts when narrating, and used these scripts to transcribe each video. I created a unit on the school's learning management system, Schoology, and posted them there for student access. After creating the lecture videos, I used the key concepts of each video to create a learning check. Each learning check consisted of five questions, which students accessed via Schoology. As with the groupings, I used feedback and reflections from the pilot semester to inform these processes. During this phase, I also designed the collaborative activities themselves. Each day as students arrived and finished the learning check, they were expected to work collaboratively on the writing of a narrative. I outlined the expectations of this activity

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not only for each student and for each group, but for the class as a whole using feedback from the pilot semester.

Phase 3 began on the first day of class during which I disseminated the assent/ consent forms along with the syllabus. Since student rosters change greatly during the first week of school, I waited until the second week to begin creating student groupings and finalizing the classroom space for the intervention.

Phase 4 was the implementation of the intervention. Within the first week of the students' arrival I had them complete the preintervention narrative writing task. During these five weeks, students viewed the lecture videos, completed the learning checks, and worked on the collaborative narrative writing task. While students did this, I conducted the observations and took extensive notes in my researcher's journal. Upon the completion of the collaborative narrative, I had students complete the postintervention narrative writing task and the survey consisting of CEI survey items along with open-ended question. Upon the completion of Phase 4, I began Phase 5, the analysis of data.

Phase 5, in order to answer RQ1 regarding the effect of the intervention on student writing achievement, I used descriptive analysis to investigate the findings of the preintervention and postintervention writing pieces. I answered RQ2 regarding student engagement by transcribing, coding, and analyzing all the qualitative data from the observations and open-ended survey questions. Additionally, I analyzed the 21 items from the CEI survey using descriptive statistics to report the mean and standard deviation of student responses. I merged the results of all three data sources to reveal overarching themes. To answer RQ3, I transcribed and coded the responses to the open-ended survey items looking for emerging themes.

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Phase 6 was the sharing phase during which I shared my findings on both the local and national level. In August of 2020 I shared my findings with my peers at PHS through our face-to-face, weekly professional development sessions. In the spring of 2021 my district will have a district-wide day of development during which I will also share my findings with teachers of various content areas and high schools. On the national level, I hope to virtually share my findings at the Association for Educational Communications and Technology convention in early November of 2020. Later that month, I will also share my findings at the National Council of Teachers of English conference in Louisville, KY. For all of these venues, I will present the findings using presentation software with video clips and audio.

Rigor & Trustworthiness

The quantitative data collection in this study followed the validity and reliability discussed in previous sections. However, according to Krefting (1991), I expected variability in my qualitative research; therefore, I defined consistency in terms of dependability. Rigor and trustworthiness methods ensured this dependability and that the results of my study were accurate, believable, and consistent with the collected data (Merriam, 2009; Shenton, 2004). Creswell and Plano-Clark (2018), recommended researchers use a minimum of three strategies to ensure rigor and trustworthiness. Throughout my study of the use of the FCM for teaching and learning as an intervention, I used four strategies: (a) methodological triangulation, (b) peer debriefing, (c) audit trail, and d) rich, thick description.

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Methodological Triangulation

Triangulation is a method of combining the results of the analyses of both qualitative and quantitative data to justify emerging themes and to enhance understanding (Creswell, 2014; Creswell & Plano-Clark, 2018; Guba, 1981; Shenton, 2004). Triangulation also allows qualitative methods to compensate for the limitations of and supports the findings of quantitative methods, and vice versa (Mertler, 2017; Shenton, 2004). This process allows the researcher to justify themes, validate the study, and ensures reliability (Creswell, 2014; Merriam, 2009). I triangulated data by converging the results of the observations, CEI surveys with open-ended questions, and preintervention and postintervention results.

In order to achieve triangulation, I gathered and analyzed the observations, CEI survey responses along with the added open-ended questions, and preintervention and postintervention writings separately (Creswell & Plano-Clark, 2018). Next, I reached what Creswell and Plano-Clark (2018) refer to as the point of *interface* during which I began to merge these data sources.

First, I investigated engagement through observations. I carefully recorded instances of student engagement, specifically student contribution to the task, discussion, and movements. However, it is widely known that a student may appear engaged but not be, especially when writing on a collaborative document. Therefore, observed levels of student engagement were confirmed through the CEI surveys with open-ended questions. In short, the CEI surveys supported observation data. These examples of triangulation helped to answer the research questions and, in turn, helped find a solution to the problem of practice.

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Peer Debriefing

According to Mertler (2017), peer debriefing is the act of utilizing fellow professionals to review and " [critique] your processes of data collection, analysis, and interpretation" (p. 143). Peer debriefing was important to my study because it added to the trustworthiness (Creswell, 2014). The questions and input that I received during peer debriefing sessions allowed me to ensure outsiders understand my research, as well as allowed me to separate from my own biases (Guba, 1981; Mertler, 2017; Shenton, 2004). Peer debriefing occurred with my dissertation chair to ensure all data analysis was exhausted. These debriefings with my dissertation chair helped me to correct any flaws or answer critical questions (Shenton, 2004). I utilized critical friends, specifically in the collaboration with peers in the creation of narrative indicators and evidence of errors lists Foulger (2010). These conversations strengthened my research by addressing the possible issues of isolation, accounting for tacit knowledge, and data overload (Foulger, 2010). Critical friends were both colleagues and peers outside my school setting who could offer feedback since they were detached from my study (Shenton, 2004). Specifically, I asked these critical friends to review data and determine the plausibility of my findings, as well as review emerging themes regarding the use of the FCM.

Audit Trail/ Researcher's Journal

An audit trail is a type of documentation a researcher uses to create a path of evidence detailing how the research was conducted and how data were analyzed and interpreted (Guba, 1981; Mertler, 2017; Shenton, 2004). This method allowed me to retrace the steps I made throughout the study process (Shenton, 2004). I accomplished an audit trail by keeping a researcher's journal. In my journal, I kept a running account of

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my actions including detailed descriptions of data collection, data analysis, and interpretations, as well as my reflections, thoughts, questions, fears, frustrations, victories, and decisions (Guba, 1981; Hatch, 2002; Merriam, 2009). I combined two types of entries in my journal: the intellectual audit reflecting on my thinking processes and the physical research audit reflecting key research decisions (Carcary, 2009).

Rich, Thick Description

Throughout the observations and research journaling processes, I recorded information regarding the setting, activities, and participants while going through great lengths to provide numerous and precise details. Creswell (2014) calls this process "rich, thick description" (p. 202) and asserts that it allows the reader to share the experience with the researcher. Such careful and detailed descriptions created trustworthiness by showing the situations as they were investigated, by making the results more realistic, and by allowing the readers to experience a sense of verisimilitude (Creswell, 2014; Lincoln & Guba, 1985; Ponterotto, 2006; Shenton, 2004). According to Ponterotto (2006), verisimilitude is when the researcher provides enough detail to allow readers to visualize the interactions between the researcher and student. In addition, rich, thick description contextualized the study and allowed readers to connect their own situations to those of the study (Merriam, 2009). I accomplished this during observations by drawing detailed maps, noting body language, vocal intonation, and student setting. I also included numerous, specific quotes from the students in these observations.

Plan for Sharing & Communicating Findings

Once the study implementing the FCM was completed, regardless of positive or negative results, it was important that I shared my findings with stakeholders in my

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school, community and beyond for the purpose of not only bridging the gap between research and the classroom but as a means of celebration (Mertler, 2017). In this section I discuss (a) how I wrote up my findings, and how I shared those findings (b) on the local level and (c) on the national level.

According to McAteer (2013), it is important for researchers to know their audience and purpose prior to writing up the research findings. Since I wrote from the perspective of an action researcher for the sake of a dissertation, I used first-person pronouns and wrote in a narrative format that indicated a personal response and assumed the reader knew nothing of my subject (McAteer, 2013). I also remained authentic by embracing a process that was not linear and by avoiding sanitizing that process in the writing of it (McAteer, 2013). McAteer advises other alternatives to this type of academic writing including oral presentations, posters, pieces suitable for academic journals, and conference presentations. As a result, I created an oral presentation utilizing video clips and a stand-alone video highlighting my findings in addition to my dissertation. I ensured my students' ideas were shared by beginning each presentation with a few quotes from the surveys highlighting their thoughts. This served as an interesting hook for the audience.

One venue through which I shared findings with local teachers and administrators was during our weekly face-to-face professional development. For this venue, I gave an oral presentation using Google Slides and video clips. Since the audience at this level knew me, it was not be necessary to change the actual name of my school. Also, the quantitative data I presented was in the aggregate format and did not tie to any specific student. This protected the identity of individual students (Mertler, 2014). However, since

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this presentation also utilized qualitative data, any specific information that might identify a student was used with caution; I assigned pseudonyms to any student data of this type. It is commonly known that teachers value their planning time, so I e-mailed a Google form asking for feedback rather than concluding with a Q&A session, and I offered optional sessions for teachers with any questions. A second local venue for which an oral presentation will be appropriate is the SSD yearly, district-wide professional development. This outlet will provide a means through which to share my findings with teachers in all content areas at the other four high schools in the district. The district-level department coordinators attend and facilitate sessions at this function and might find the results of the study especially valuable since they make decisions regarding curriculum and approve budget money. This might impact possible licensing of technology critical for FCM video lectures and the learning platform on which they are shared. At both of these venues, I will share a link to my video with the presentation and encourage attendees to share the information with colleagues who might be interested.

Finally, there are two opportunities to share my findings on the national level. First, the National Council of English Teachers holds an annual conference providing opportunities for researchers to share ideas and tools to improve student achievement (National Council of English Teachers, 2018). This conference will be held virtually due to the COVID- 19 pandemic. Additionally, the Association for Educational Communications and Technology will hold their 2020 convention virtually due to the COVID-19 pandemic. For both of these opportunities, a video presentation would be appropriate. To protect the identity of my school and students, I will anonymize my

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school in these video presentations along with using pseudonyms for any qualitative data that might identify my students.

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CHAPTER 4

ANALYSIS AND FINDINGS

The purpose of this action research study was to evaluate the implementation of a FCM of learning with senior-level English students at PHS. Data were collected from preintervention writing tasks, postintervention writing tasks, and CEI survey responses to answer the following questions:

(1) How and in what ways does implementing a FCM in a high school writing course affect students' writing quality?

(2) How and in what ways does implementing a FCM in a high school writing course affect students' engagement?

(3) How and in what ways does the FCM affect students' perceptions and experiences?

This analysis includes (a) quantitative data sources and (b) qualitative data sources.

Quantitative Analysis and Findings

This study has three quantitative data sources from each of the 54 students who participated: (a) a preintervention writing task, (b) a postintervention writing task, and (c) a response to the CEI survey and additional, open-ended questions (see Table 4.1). In this section, I will analyze these three quantitative data sources with descriptive statistics and provide levels of significance.

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Table 4.1. *Summary of Quantitative Data Sources*

Types of Quantitative Data Sources	Number
Preintervention Writing Tasks	54
Postintervention Writing Tasks	54
Student Survey Responses	54
Total	216

Pre and Postintervention Writing Tasks

To measure if and how the FCM affected writing, students composed two narratives: a preintervention piece before any writing instruction occurred, and a postintervention piece upon the completion of the FCM unit. In order to better understand the impact, data were collected in six areas from both writing pieces: (a) word count, (b) dialogue attempts, (c) dialogue formatting errors, (d) tag errors, (e) narrative craft errors, and (f) general errors. I manually recorded responses using a color-coding system, where each mark reflected one frequency count. In order to analyze these data and condense them into meaningful numbers, it was appropriate to use descriptive statistics (Gissane, 1998). The results of each area are expanded upon in this section.

Word count. Using descriptive statistical analysis, I discovered that students wrote more words (78.20%) on the postintervention writing task ($M = 823.91$, $SD = 257.82$) than they did on the preintervention writing task ($M = 462.35$, $SD = 184.87$) (see Table 4.2). For example, Jesse had an increase from 414 to 1,544 words (272.95%), and Ansley had an increase from 414 to 1,256 words (+203.38%). Of the 54 students in the study, 50 93%) wrote more words on the postintervention, and 22 (41%) of those students increased their word count 100% or more. These results supported the hypothesis that the implementation of a FCM increased students' writing quality.

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Dialogue attempts. Using descriptive statistical analysis, I discovered that students had 86.49% more dialogue attempts on the postintervention writing task (*M* = 20.44, *SD* = 9.19) than they did on the preintervention writing task (*M* = 10.96, *SD* = 6.56) (see Table 4.2). For example, Tanner had an increase from two to 39 dialogue attempts (+1,850.00%), and Billie had an increase from three to 31 attempts (+933.33%). In fact, 44 of the 54 students in the study (82%) increased their dialogue formatting attempts, and 26 of those students (48%) increased their attempts 100% or more. These results supported the hypothesis that the implementation of a FCM increased students' writing quality.

Table 4.2. *Descriptive Statistics for Pre and Postintervention Writing Tasks*

Data Source	Pre		Post		Total Mean Change
	M	*SD*	*M*	*SD*	
Word Count	462.35	184.87	823.91	257.82	+361.56 (78.20%)
Dialogue Attempts	10.96	6.56	20.44	9.19	+9.44 (85.82%)
Dialogue Formatting Errors	8.44	9.42	8.17	7.79	-.27 (3.20%)
Tag Errors	2.39	3.57	0.93	1.91	-1.46 (61.09%)
Narrative Craft Errors	7.53	15.87	2.61	3.66	-4.93 (78.65%)
General Errors	7.52	6.32	4.80	6.46	-2.72 (36.17%)

Note: Pre = preintervention; Post= postintervention; *SD*= standard deviation; N=54

Dialogue formatting errors. Using descriptive statistical analysis, I discovered that students had 3.20% fewer dialogue formatting errors on the postintervention writing task (*M* = 8.17, *SD* = 7.79) than they did on the preintervention writing task (*M* = 8.44, *SD* = 9.42) (see Table 4.2). This is especially important given the large increase in dialogue attempts (+86.49%). For example, Jan had a decrease from 44 to eight dialogue formatting errors (-81.82%). This is especially important considering Jan's increase in

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dialogue attempts grew from 19 to 41 (+115.79%). Also take for instance Chris who had a decrease from 42 to 15 dialogue-formatting errors (-64.29%). This is especially important considering Chris's increase in dialogue attempts grew from 19 to 41 (+115.79%). Another student, Maggie had a decrease from eight to two dialogue - formatting errors (-75.00%). This is especially important considering Maggie's increase in dialogue attempts grew from 13 to 36 (+176.92%). In fact, 17 of the 54 students (32%) experienced a decrease in errors while increasing their attempts. These results supported the hypothesis that the implementation of a FCM increased students' writing quality.

Tag errors. Using descriptive statistical analysis, I discovered that students had fewer tag errors (-61.09%) on the postintervention writing task (M = .93, SD = 1.91) than the preintervention writing task (M = 2.39, SD = 3.57) (see Table 4.2). For example, Jan had a decrease from four to two tag errors (-50%) from the pre to postintervention writing task. This is especially important in light of the fact that Jan's dialogue attempts increased 115.79%. In all, 35 of the 54 (65%) students in this study experienced a decrease in tag errors while increasing their dialogue attempts. These results supported the hypothesis that the implementation of a FCM increased students' writing quality.

Narrative craft. Using descriptive statistical analysis, I discovered that students had fewer narrative craft errors (-78.65%) on the postintervention writing task (M = 2.61, SD = 3.66) than they did on the preintervention writing task (M = 7.53, SD = 15.87) (see Table 4.2). For example, Shannon had a decrease from 53 to 0 narrative craft errors (100%). This is even more important when one considers that at the same time Shannon also had a 152.94% increase in word count from pre to post intervention. In fact, 24 of the 54 students (44%) experienced fewer narrative craft errors while experiencing an

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increase in word count. These results supported the hypothesis that the implementation of a FCM increased students' writing quality.

General errors. Using descriptive statistical analysis, I discovered that students had fewer general errors (-36.17%) on the postintervention writing task ($M = 4.80$, $SD = 6.46$) than they did on the preintervention writing task ($M = 7.52$, $SD = 6.32$) (see Table 4.2). For example, Harry had a decrease from 25 to zero errors, and Ana had a decrease from 24 to zero errors. This is especially important since both students also experienced an increased word count (Harry +100.36% and Ana +39.50%). As a matter of fact, 29 of the 54 of students (54%) in this study experienced an increase in word count at the same time as they experienced a decrease in general errors. These results supported the hypothesis that the implementation of a FCM increased students' writing quality.

The FCM intervention increased the student writing quality in several ways. First, students increased their number of words used in their postintervention writing piece. This is noteworthy especially when one considers students simultaneously experienced fewer narrative craft and general errors. Additionally, students increased their dialogue attempts. This is noteworthy especially when one considers students simultaneously experienced fewer formatting and tag errors. In short, students experienced an increase in both quantity and quality of narrative writing after completing of the FCM unit.

Classroom Engagement Instrument

To better understand my students' experiences and perceptions of the FCM unit, I administered Wang et al.'s (2014) CEI survey specifically focusing on four subscales: (a) affective engagement (five questions), (b) behavioral compliance- effortful class (five questions), (c) disengagement (three questions), and (d) cognitive engagement (eight

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questions). In order to analyze these data and condense them into meaningful numbers, it was appropriate to use descriptive statistics (Gissane, 1998). The descriptive statistics for each subscale was determined using Excel (see Table 4.3). In order to assess the reliability, or internal consistency, of this instrument items, I calculated the Cronbach's alpha of each subscale separately (Tavakol & Dennick, 2011). The results of each subscale are expanded upon in this section.

Table 4.3. *Descriptive Statistics for Each Instrument Subscale*

	Affective Engagement Subscale	Behavioral Engagement Subscale	Disengagement Subscale	Cognitive Engagement Subscale
Mean	3.66	4.01	3.72	4.85
Standard Deviation	1.00	1.03	1.12	1.66

Note. N=54

Affective engagement. Conducting the Cronbach's alpha (Tavakol & Dennick, 2011) test revealed there to be good reliability, or internal consistency, of the affective engagement subscale items (a = .86). In this subscale, students were provided five items and asked to rate themselves on the following scale: 1 (n*ever*), 2 (*rarely*), 3 (*occasionally*), 4 (*frequently*), and 5 (*always*). The collective mean for this subscale was 3.66 (*SD* = 1.00) (see Table 4.3). The highest scoring item for this subscale was item 5, *I felt amused* (*M* = 3.85) for which 20 students (37%) rated themselves a 5 (*always*) and 18 students (33%) rated themselves a 4 (*frequently*) (see Table 4.4 for individual subscale item analysis). The second highest scoring item for this subscale was item 1, *I felt interested* (*M* = 3.82) for which 13 students (24%) rated themselves a 5 (*always*) and 22 students (41%) rated themselves a 4 (*frequently*) (see Table 4.4 for individual subscale

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item analysis). These results supported the hypothesis that the implementation of a FCM increased students' engagement.

Table 4.4. *Descriptive Statistics for Each Affective Engagement Subscale Item*

	Item 1	Item 2	Item 3	Item 4	Item 5
Mean	3.82	3.57	3.44	3.63	3.85
Standard Deviation	0.89	1.00	0.98	0.996	1.11

Note. N=54

Behavioral engagement- effortful class participation. Conducting the Cronbach's alpha (Tavakol & Dennick, 2011) test revealed there to be good reliability, or internal consistency, of the behavioral engagement subscale items (a = .73). In the subscale for behavioral engagement, students were provided five items and asked to rate themselves on the following scale: 1 (n*ever*), 2 (*rarely*), 3 (*occasionally*), 4 (*frequently*), and 5 (*always*). The collective mean for this subscale was 4.01 (SD = 1.03) (see Table 4.3). The highest scoring item for this subscale was item 10, *I worked with other students and we learned from each other* (M = 4.19) for which 27 students (50%) rated themselves a 5 (*always*) and 23 students (43%) rated themselves a 4 (*frequently*) (see Table 4.5). These results supported the hypothesis that the implementation of a FCM increased students' engagement.

Table 4.5. *Descriptive Statistics for Each Behavioral Engagement Subscale Item*

	Item 6	Item 7	Item 8	Item 9	Item 10
Mean	4.06	4.03	3.63	4.11	4.19
Standard Deviation	0.88	0.896	1.22	1.09	0.99

Note. N=54

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Disengagement. Conducting the Cronbach's alpha (Tavakol & Dennick, 2011) test revealed there to be good reliability, or internal consistency, of the affective engagement subscale items (a = .80). In the subscale for disengagement, students were provided three items and asked to rate themselves on the following scale: 1 (*always*), 2 (*frequently)* 3 (*occasionally*), 4 (*rarely*), and 5 (*never*). Because these items measured disengagement, they were reverse coded. The collective mean for this subscale was 3.72 (SD = 1.12) (see Table 4.3). The highest scoring item for this subscale was item 13, *I just pretended like I was working* (M = 4.19), for which 31 students (57%) rated themselves a 5 (*never*) and 16 students (30%) rated themselves a 4 (rarely) (see Table 4.6). These results supported the hypothesis that the implementation of a FCM decreased students' disengagement.

Table 4.6. *Descriptive Statistics for Each Disengagement Item*

	Item 11	Item 12	Item 13
Mean	3.67	3.30	4.19
Standard Deviation	1.099	1.13	0.97

Note. N=54

Cognitive engagement. Conducting the Cronbach's alpha (Tavakol & Dennick, 2011) test revealed there to be excellent reliability, or internal consistency, of the cognitive engagement subscale items (a = .95). In the subscale for cognitive engagement, students were provided eight items and asked to rate themselves on a range scale from 1 (*not at all true*) to 7 (*very true*). The collective mean for this subscale was 4.85 (SD = 1.66) (refer back to Table 4.3).

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The highest scoring item for this subscale was item 15, *I went back over things I didn't understand* (*M* = 4.85), for which 6 students (11%) rated themselves a 7 (*very true*), and 42 students (69%) rated themselves between 5 and 7 (see Table 4.7). Another high scoring item for this subscale was item 16, *I asked myself some questions as I went along to make sure the work made sense to me* (*M* = 4.30), for which 12 students (22%) rated themselves a 7 (*very true*), and 42 students (69%) rated themselves between 5 and 7 (see Table 4.7). Another third high scoring item for this subscale was item 21, *I judged the quality of my ideas or work during class* (*M* = 5.19), for which 11 students (20%) rated themselves a 7 (*very true*), and 36 students (67%) rated themselves between 5 and 7 (see Table 4.7). These results supported the hypothesis that the implementation of a FCM increased students' engagement.

Table 4.7. *Descriptive Statistics for Each Cognitive Engagement Subscale Item*

	Item 14	Item 15	Item 16	Item 17	Item 18	Item 19	Item 20	Item 21
Mean	4.78	5.57	5.30	4.94	4.80	3.91	4.32	5.19
Std. Dev	1.59	1.44	1.54	1.58	1.55	1.89	1.66	1.44

Note. N=54

The outcomes of the CEI survey revealed student engagement. First, students indicated a lack of disengagement on the Disengagement subscale (*M* = 3.72 [out of a possible 5]). Also, students indicated an emotional engagement on the Affective subscale (*M* = 3.66 [out of a possible 5]). Students also indicated actionable engagement on the Behavioral subscale (*M* = 4.01 [out of a possible 5]). Finally, students indicated

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engagement in thought processes on the Cognitive subscale ($M = 4.85$ [out of a possible 7]).

Qualitative Analysis and Findings

To better understand my students' experiences and perceptions of the FCM unit, I conducted 15 classroom observations and gathered responses to open-ended survey questions from 54 students (see Table 4.8).

Table 4.8. *Summary of Qualitative Data Sources*

Types of Qualitative Data Sources	Number	Number of Codes Applied
Observations	15	112
Open-Ended Survey Responses	54	107
Total	69	119

I transcribed and analyzed observations along with the open-ended questions from CEI surveys. Prior to analysis, I read through the entire corpus of qualitative data in order to familiarize myself with the content. After this initial reading, I imported transcriptions of both data sources into Delve software (n.d.) and conducted four rounds of coding producing a total of 219 codes (see Table 4.9). For each round of coding, I moved through the entire corpus of qualitative data, sentence by sentence. These data were analyzed and three themes emerged: (a) proactive and sustained use of resources and collaborative opportunities, (b) space and time for collective decision making and learning, and (c) enjoyable, relaxed, personalized learning.

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Table 4.9. *Summary of Coding by Lens*

Code Lens	Number
Descriptive	64
In Vivo	86
Descriptive	21
Process	48
Total Codes	219

First Cycle Coding

I began with *Descriptive Coding* and moved through each line of data looking for what was occurring in that moment and labeling those occurrences using nouns and noun phrases (Saldaña, 2016; Strauss & Corbin, 1990) (see Figure 4.1). For example, during an observation I overheard Sam ask Hal, "What can we do for the falling action?" In that moment I realized these students were debating how to best finalize their collective narratives, so this piece of data was assigned the code *plot debate*. This first round of coding produced 64 codes including *personalization*, *relief,* and *turnaround*.

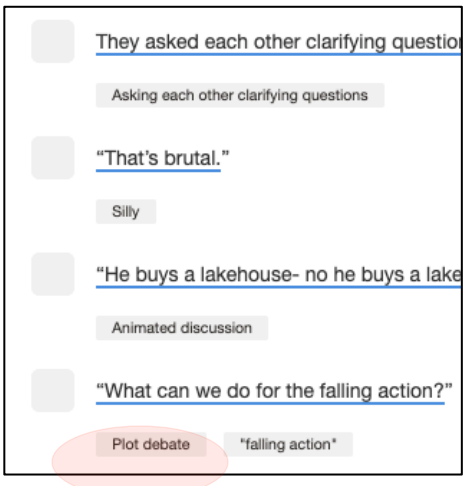

Figure 4.1. Descriptive coding examples in Delve.

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Next, I coded through the *In Vivo Coding* lens looking for students' words capturing their experiences (Saldaña, 2016) (see Figure 4.2). For example, when asked their thoughts on the FCM, in their CEI open-ended survey response Jan said, "I enjoyed the flipped unit since I was able to go back to videos and correct what all I missed." Of this response, I identified the words *correct what I missed* as key to this student's experience and thus created this code. This second round produced 86 verbatim codes including *learn valuable things*, *learning is quick*, and *go at your own pace*.

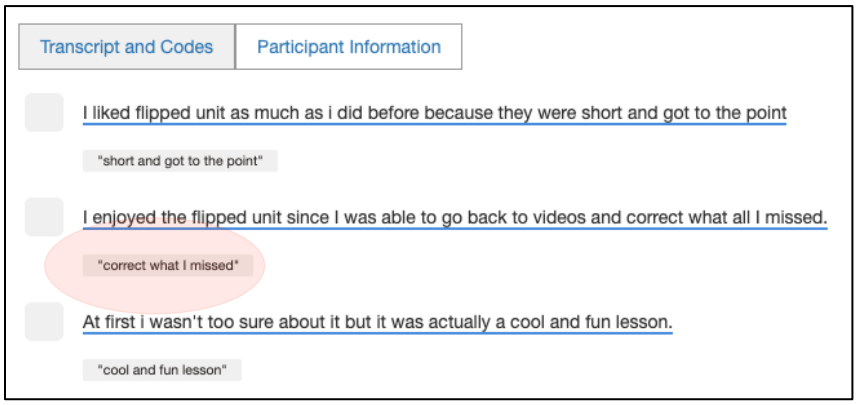

Figure 4.2. *In Vivo Coding* examples in Delve.

The third coding lens was another round of *Descriptive Coding*, which focused on video lecture terms from student conversations or survey responses. These data were labeled with nouns or noun phrases (see Figure 4.3). For example, I noted on the observation protocol form that Emerson said to Andy, "We need to do dialogue, or this will sound choppy." Since this exchange took place after an assigned lecture on dialogue

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formatting, I coded this data *dialogue.* In total, this third round produced 21 codes including *resolution*, *climax*, and *inner frame*.

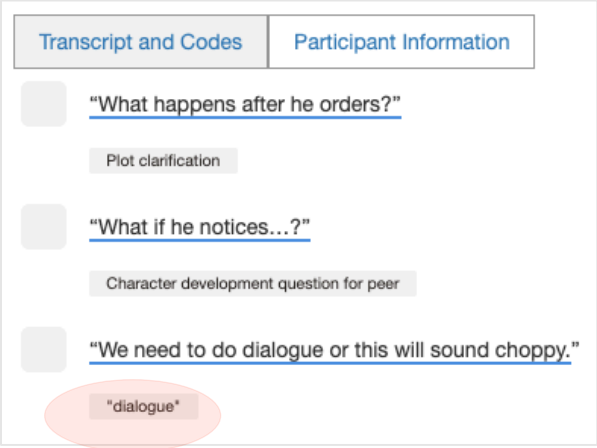

Figure 4.3. *Descriptive Coding* examples in Delve.

The fourth coding lens was *Process Coding* focusing on students' actions and routines, which I labeled with gerunds (Saldaña, 2016) (see Figure 4.4). For example, I noted on the observation protocol form, "Group is comfy- sitting on the floor or lying on their stomachs" and assigned this data the action code *lying comfortably on the floor.* This round of coding produced 48 total codes including *helping*, *tapping on paper*, and *asking high-level questions*.

Transitional Strategy

After the first cycle of coding, the codes were condensed into manageable groups or categories for analysis (Saldaña, 2016) (see Table 4.10). Some of the categories were a preexisting code into which other codes could be subsumed (e.g. *Enjoyment*) and others entirely new categories representing and subsuming multiple codes (e.g. Engagement). This transitional process produced eight total categories: (a) Advice, (b) Collective

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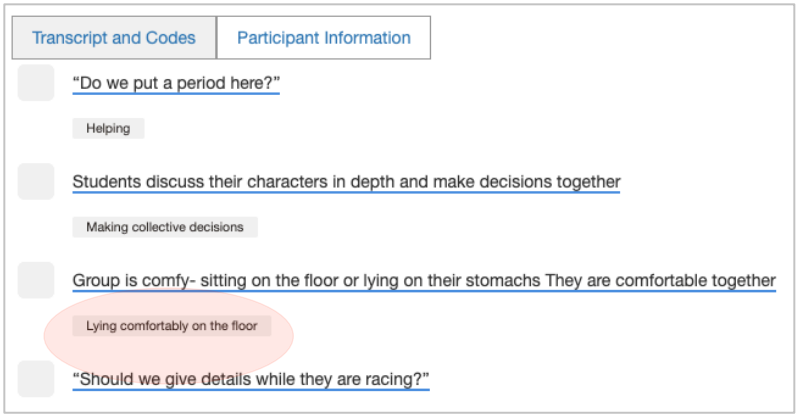

Figure 4.4. *Process Coding* examples in Delve.

Decision- making, (c) Engagement, (d) Enjoyment, (e) Lecture Terms, (f) Negative Perception, (g) Peer Instruction, and (h) Positive Perception.

Table 4.10. *Summary of Categories and Subsumed Codes*

Category	Number of Subsumed Codes
Advice	18
Collective Decision-Making	34
Engagement	22
Peer Instruction	31
Enjoyment	22
Lecture Terms	26
Negative Perception	10
Positive Perception	56
Total Codes	219

The first category, Advice, began as a code. In their CEI open-ended survey response, Deana remarked that any student completing a FCM unit should make sure to "charge [their] MacBook." I gave this data the code *advice*. I realized that numerous *In Vivo* codes such as *take a few notes*, *communicate with your group*, and *set reminders on your phone* were also pieces of advice for both teachers and students attempting the

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FCM. I created an Advice category subsuming each of these codes regarding best practices for the FCM. This category subsumed a total of 18 codes (see Figure 4.5).

make sure to watch the video's and ask questions if you didn't understand something	"ask questions"	ADVICE
Be ready for anything	"be ready for anything"	ADVICE
Be patient and communicate with your group and use the videos to your advantage.	"communicate with your group"	ADVICE
charge your macbook and get in a good group	"Get in good group"	ADVICE
I would say give it a chance and take your time on your work.	"give it a chance"	ADVICE
go with it	"go with it"	ADVICE
Make sure you watch the video because if you are absent you wont fall behind	"if you are absent, you won't fall behind"	ADVICE
Keeping up with the lecture videos is gonna be the key to succeeding.	"keeping up with the lecture videos is goi	ADVICE
make sure you listen to the videos	"listen to videos"	ADVICE
Participate in discussions and really listen to other people ideas	"really listen to other people's ideas"	ADVICE
Make sure to set reminders on your phone or something so you don't have the chance of forgetti	"set reminders on your phone (to watch	ADVICE
Watch the videos daily and take a few notes.	"take a few notes"	ADVICE
Watch the videos, trust the process, and try to do your part.	"trust the process"	ADVICE
Make sure to look at a book or novel for clues and ideas about dialogue and how to incorporate it	"use books for ideas about dialogue"	ADVICE
WATCH THE VIDEOS	"WATCH THE VIDEOS"	ADVICE
pay attention and watch all the lectures and write about something you enjoy	"write about something you enjoy"	ADVICE
charge your macbook and get in a good group	Advice	ADVICE
Have good time management.	Time management	ADVICE

Figure 4.5. Data to codes to Advice category.

During one observation, I noted on the protocol that Sam asked, "What can we do for the falling action?" I discerned these students were making collective decisions about their collaboratively written narrative plot and labeled this piece of data with the code *collaboration*. Looking further, I noticed similar *In Vivo* codes such as *what can we do for the falling action* as well as *process* codes such as *asking* that also displayed students working together to make writing decisions. I created the category of Collective Decision-Making to subsume a total of 34 total, similar codes (see Figure 4.6).

The third category, Engagement, was not a code. Rather it sprung from three *Process Coding* codes pulled from observation data: *all contributing to creation of pyramid, all contributing to discussion*, and *all typing*. The word *all* indicated complete student engagement. To reflect this, I created the category Engagement and subsumed

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Delegating is occurring- one types while the others talk	Delegating- one types while others talk	COLLECTIVE DECISION MAKING
Does Hope know she is the side girl?	Discussing characters	COLLECTIVE DECISION MAKING
Students discussed how to bring narrative back around to frame.	Discussing how to bring narrative back to	COLLECTIVE DECISION MAKING
Students are having discussions about punctuation and dialogue.	Discussing punctuation in dialogue	COLLECTIVE DECISION MAKING
Students are editing as a group and creating as a group.	Editing as a group	COLLECTIVE DECISION MAKING
You said something about scratches.	Encouraging ideas of others	COLLECTIVE DECISION MAKING
What if we made the intruder one of their friends?	Group character development	COLLECTIVE DECISION MAKING
Can we use bullet points?	Group decision	COLLECTIVE DECISION MAKING
Should we change he to I?	Group decision on pronoun use	COLLECTIVE DECISION MAKING
So, it should be?	Group decisions	COLLECTIVE DECISION MAKING
Do we want to do what the other groups are doing?	Group direction question	COLLECTIVE DECISION MAKING
So, what's next?	Group plot mapping	COLLECTIVE DECISION MAKING
So, the climax would be?	Identifying climax together	COLLECTIVE DECISION MAKING
Perfect! OK!	Peer Affirmation	COLLECTIVE DECISION MAKING
What can we do for the falling action?	Plot debate	COLLECTIVE DECISION MAKING
You said something about scratches.	Providing each other warm feedback	COLLECTIVE DECISION MAKING
One typing while all contributing at different times	Taking turns typing	COLLECTIVE DECISION MAKING
Should it be like this? (Student types and asks as they type)	Using Docs to ask questions	COLLECTIVE DECISION MAKING
You think wafting would be a good word?	Word choice discussion	COLLECTIVE DECISION MAKING
i thought it was going to be weird to work with a group to write an essay but i liked it.	"thought it was going to be weird, but..."	COLLECTIVE DECISION MAKING
I thought it was going to be hard working with a group but it turn out to be really easy.	Relief	COLLECTIVE DECISION MAKING

Figure 4.6. Data to codes to Collective Decision-Making category.

these codes along with others such as *having healthy debates* and *remaining together*. This category subsumed a total of 22 codes (see Figure 4.7).

you have more time to ask question and they are short and your mind doesn't wander around	"mind doesn't wander"	ENGAGEMENT
Writes on paper Freytags Pyramid on butcher paper	Writing on paper	ENGAGEMENT
When my creative juices get going, I can't stop.	"I can't stop"	ENGAGEMENT
They asked each other higher-level questions revealing a deep understanding of the task.	Asking higher-level questions	ENGAGEMENT
Taps paper	Tapping on paper	ENGAGEMENT
Students were able to sustain focus for the 30 minutes using the time to ask each other clarifying	Sustaining focus during collaborative acti	ENGAGEMENT
Students turn to each other for clarification and apply terms learned from the lecture video to the	Applying terms from lecture	ENGAGEMENT
Students remained together	Remaining together	ENGAGEMENT
Students had healthy debates about the content	Having healthy debates	ENGAGEMENT
Students discuss their characters in depth and make decisions together	Making collective decisions	ENGAGEMENT
Students are utilizing teacher feedback revise.	Utilizing teacher feedback	ENGAGEMENT
Pointing to chart	Pointing to chart	ENGAGEMENT
It's more interesting than reading through a text book, i felt as if it was more intresting	"more interesting"	ENGAGEMENT
All students had laptops open, Docs open, typing.	All had Docs open	ENGAGEMENT
All students had laptops open, Docs open, typing.	All had laptops open	ENGAGEMENT
All students had laptops open, Docs open, typing.	All typing	ENGAGEMENT
All students contributing to the creation of the pyramid	All contributing to creation of pyramid	ENGAGEMENT
All students contributing to the creation of the pyramid	All contributing to creation of the pyrami	ENGAGEMENT
All contributing to discussion and typing on doc.	All contributing to discussion	ENGAGEMENT
Made me learn something new	"Made me learn something new"	ENGAGEMENT
I liked flipped unit as much as i did before because they were short and got to the point	"short and got to the point"	ENGAGEMENT
I enjoyed the flipped unit since I was able to go back to videos and correct what all I missed.	"correct what I missed"	ENGAGEMENT

Figure 4.7. Data to codes to Engagement category.

The fourth category, Peer Instruction, was also created organically from existing codes. I noted during the *In Vivo Coding* cycle, I generated the code *how do we show a character is interrupting someone.* I realized this code, along with several others (i.e. the

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Process Coding codes *teaching peers* and *helping*), reflected the act of students helping each other understand either the content or the task and therefore best aligned with Peer Instruction. This category subsumed a total of 31 total codes (see Figure 4.8).

How do we show a character is interrupting someone?	"How do we show..."	PEER INSTRUCTION
Isn't our sin envy?	"Isn't our sin envy?"	PEER INSTRUCTION
They asked each other clarifying questions	Asking each other clarifying questions	PEER INSTRUCTION
How do we show a character is interrupting someone?	Asking partner about narrative formattin	PEER INSTRUCTION
Is he winning or losing?	Character development question	PEER INSTRUCTION
What if he notices?	Character development question for pee	PEER INSTRUCTION
At the bottom where it says ...is that supposed to be there	Clarifying question: Peer	PEER INSTRUCTION
Do we put a period here?	Helping	PEER INSTRUCTION
Is this supposed to be indented?	Indentation question	PEER INSTRUCTION
Isnt our sin envy?	Peer-directed Question: task	PEER INSTRUCTION
What happens after he orders?	Plot clarification	PEER INSTRUCTION
What were swords made of back then?	Plot development question	PEER INSTRUCTION
Is this like Titanic?	Plot question	PEER INSTRUCTION
What time is this?	Plot question	PEER INSTRUCTION
What do you call the phone in a plane?	Plot question for peer	PEER INSTRUCTION
Students were providing each other with warm feedback while learning from each other.	Providing each other warm feedback	PEER INSTRUCTION
Students provide each other feedback and encouragement in real time.	Providing encouragement in real time	PEER INSTRUCTION
If there is an exclamation point, we dont put a period?	Punctuation question	PEER INSTRUCTION

Figure 4.8. Data to codes to Peer Instruction category.

The fifth category, Enjoyment, stemmed from one observation during which I noted on the observation protocol form students discussing the group narrative. After a debate on plot development, Carey offered a solution with delight: “They go to the prom! Boom!” Since this student was enjoying the process, I used *Descriptive Coding* to identify this data as *enjoyment*. Other codes reflected students experiencing enjoyment such as the *Descriptive Codes animated discussion* and *laughter* along with the *In Vivo Coding* codes *I enjoyed being able to learn in a short video* and *I enjoyed the entire unit*. This category subsumed a total of 19 codes (see Figure 4.9).

The sixth category, Lecture Terms, emerged out of observation data. During one observation, I noted on the observation protocol form that students “used the language of the mini lecture and Freytag’s Pyramid when planning their narratives”. During the *Process Coding* cycle, this data was coded as *using the language of the video lessons*. In

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you will like it.	"you will like it"	ENJOYMENT
They go to the prom! BOOM!	Enjoyment	ENJOYMENT
That's brutal.	Silly	ENJOYMENT
Students are laughing but not off task.	Laughing	ENJOYMENT
its fun	Fun	ENJOYMENT
Its coming together, boys!	Excitement	ENJOYMENT
I wish it was longer and we worked more on it.	Excitement	ENJOYMENT
I feel like this looks wonky.	"this looks wonky"	ENJOYMENT
I enjoyed the entire unit.	"I enjoyed the entire unit"	ENJOYMENT
I enjoyed being able to learn the content in a short video.	"I enjoyed being able to learn in a short v	ENJOYMENT
He is the epitome of greed!	"He is the epitome of greed!"	ENJOYMENT
He buys a lakehouse- no he buys a lake!	Animated discussion	ENJOYMENT
Group is comfy- sitting on the floor or lying on their stomachs They are comfortable together	Lying comfortably on the floor	ENJOYMENT
don't be scared	"don't be scared"	ENJOYMENT
BOOM!	"Boom"	ENJOYMENT
(Laughter)	(Laughter)	ENJOYMENT
Yes, beacuase Mrs. Florence made it fun	"made it fun"	ENJOYMENT
I originally thought that it would be boring, but i had a lot of fun working with my group and creat	"I had a lot of fun"	ENJOYMENT
At first i wasn't too sure about it but it was actually a cool and fun lesson.	"cool and fun lesson"	ENJOYMENT
I always liked writing narratives so my perception didn't change much, but it was fun writing a dif	"it was fun"	ENJOYMENT

Figure 4.9. Data to codes to Enjoyment category.

reviewing the other codes, I quickly realized there were numerous *In Vivo Coding* codes using lecture terminology such as *climax*, *narrator*, and *frame story* and thus I created the category Lecture Terms serving as a sixth category and subsuming a total of 26 codes (see Figure 4.10).

So, the climax would be?	"climax"	LECTURE TERMS
We need to do dialogue or this will sound choppy.	"dialogue"	LECTURE TERMS
Exposition is introducing the strongman	"exposition"	LECTURE TERMS
Do we start this in past tense?	"past tense"	LECTURE TERMS
The resolution is basically	"The resolution is basically..."	LECTURE TERMS
The rising action would be	"The rising action would be"	LECTURE TERMS
The climax is Chris confronts Jackson.	climax	LECTURE TERMS
This needs to be our climax- Student 38	climax	LECTURE TERMS
It can be dialogue or actionâ€¦?	dialogue	LECTURE TERMS
You have to start with dialogue.	Dialogue	LECTURE TERMS
Isn't our sin envy?	envy	LECTURE TERMS
So basically the exposition would be	exposition	LECTURE TERMS
What can we do for the falling action?	Falling action	LECTURE TERMS
This is the inciting incident.	Inciting incident	LECTURE TERMS
But, you have to indent every time there is a new speaker.	indent	LECTURE TERMS
Is this supposed to be indented?	indent	LECTURE TERMS
How do I show the inner frame?	Inner frame	LECTURE TERMS
Does the narrator have to be famous?	Narrator	LECTURE TERMS
Staying in past tense is difficult.	past tense	LECTURE TERMS
I put them near plugs.	Resolution	LECTURE TERMS
What do students do if device dies?	Resolution	LECTURE TERMS

Figure 4.10. Data to codes to Lecture Terms category.

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The seventh category, Negative Perception, evolved from one specific piece of data from the CEI open-ended survey responses in which Chris said the FCM was "boring" which I labeled *negative perception*. I realized there were other *In Vivo* codes reflecting negative perceptions of FCM including *less feedback* and *no teacher present to ask questions*. The code *negative perception* was changed to the category Negative Perception to subsume a total of nine codes (see Figure 4.11).

Staying in past tense is difficult.	"Staying in past tense is difficult'	NEGATIVE PERCEPTION
We don't want to "have fun" or work in groups, just get the work done and move on.	"don't want to have fun"	NEGATIVE PERCEPTION
and the people you work with in groups might not always be productive and helpful	"group not productive or helpfu	NEGATIVE PERCEPTION
It gets hard staying in one tense and making sure you follow all the rules.	"hard to follow the rules"	NEGATIVE PERCEPTION
If you don't watch the video youâ€™re not going to do well.	"if you don't watch the video yo	NEGATIVE PERCEPTION
Less instruction and less feedback..	"less feedback"	NEGATIVE PERCEPTION
Flipped narrative tend to take a bit longer due to more detail being used.	"Take a bit longer"	NEGATIVE PERCEPTION
If I forget to watch the video, I'm lost in class	if I forget to watch the video, I'm	NEGATIVE PERCEPTION
its boring	Negative Perceptions	NEGATIVE PERCEPTION
its changed because for me it was alot harder to learn	"harder to learn"	NEGATIVE PERCEPTION

Figure 4.11. Data to codes to Negative Perception category.

The eighth and largest category, Positive Perceptions, also evolved from one specific piece of data found in the CEI open-ended survey responses regarding the FCM. Casey stated, "It helps" which I coded as *positive perception.* I realized there were many other codes reflecting this type of positive experience such as codes *learn at your own speed* and *saves* time generated during *In Vivo* coding, the code *rewatching video* generated during *Process Coding*, and the code *personalization* generated during the *Descriptive Coding* process. The code *positive perception* was changed to the category Positive Perception subsuming a total of 55 codes (see Figure 4.12).

Second Cycle Coding & Theme Development

During second cycle coding, I used *Pattern Coding* during which the eight categories were further examined by constantly comparing the data to identify patterns

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You can watch the videos on your time when you're at your best attention span wise.	"watch videos when you are at your best	POSITIVE PERCEPTION
you can learn at your own speed	"learn at your own speed"	POSITIVE PERCEPTION
You can go at your own pace and if you don't understand something you can just watch the videc	"go at your own pace"	POSITIVE PERCEPTION
You can go at your own pace and if you don't understand something you can just watch the videc	rewatching video	POSITIVE PERCEPTION
When groups have an absent member, they continue to move forward.	Moving forward when missing a member	POSITIVE PERCEPTION
We have more time to work in class and we don't have to just sit and listen for 80 minutes	"don't have to just sit and listen for 80 m	POSITIVE PERCEPTION
We have more time to work in class and we don't have to just sit and listen for 80 minutes	Time Saving	POSITIVE PERCEPTION
We didn't spend as much time sitting and listening to the teacher, but instead we got to experien	"Instead of sitting... we got to experience	POSITIVE PERCEPTION
There is more freedom of choice with class running this way	"freedom of choice"	POSITIVE PERCEPTION
the videos were easy to understand.	"videos were easy"	POSITIVE PERCEPTION
The short video lectures allowed us to study about the topics on our own time.	Personalization	POSITIVE PERCEPTION
The lectures are short and to the point and therefore, can keep attention span longer.	Video Access	POSITIVE PERCEPTION
The information is easier to take in because it is in a short video.	"information is easier to take in"	POSITIVE PERCEPTION
The fact that I can self pace and already have an idea about the material before I even got to class	"already had an idea about the material	POSITIVE PERCEPTION
The fact that I can self pace and already have an idea about the material before I even got to class	Self-pacing	POSITIVE PERCEPTION
The advantage of the videos was always having something to refer back to and the ability to use t	"always refer back to videos"	POSITIVE PERCEPTION
The advantage of the videos was always having something to refer back to and the ability to use t	Personalization	POSITIVE PERCEPTION
The advantage of the videos was always having something to refer back to and the ability to use t	Self-pacing	POSITIVE PERCEPTION
sometimes i had questions, but they never went unanswered, no none.	Personalization	POSITIVE PERCEPTION
some videos gave me the information that I needed	Video Access	POSITIVE PERCEPTION
Saves time & keeps it fun	"saves time"	POSITIVE PERCEPTION
quick and easy learning experience that we as a class can check anytime we need	Personalization	POSITIVE PERCEPTION
more time to work on things or go over things you dont understand more in class	Self-Pacing	POSITIVE PERCEPTION
more time to work on things or go over things you dont understand more in class	Time Saving	POSITIVE PERCEPTION

Figure 4.12. Data to codes to Positive Perception category.

and explanations (Creswell, 2014; Glaser & Strauss, 1967; Saldaña, 2016). The data were exported from Delve into Excel for further analysis. Three themes emerged from the data including (a) Proactive and sustained use of resources and collaborative opportunities, (b) Space and time for collective decision-making and learning, and (c) Enjoyable, relaxed, personalized learning. Students' comments used in these findings represent their voices verbatim; however, pseudonyms were used. The themes are expanded upon in detail below.

Theme 1: To do well in a FCM, student should be proactive and have a sustained use of resources and collaborative opportunities. As I began to examine the codes in each category more closely, I noticed common ideas emerging. In the Advice category, students' comments and actions revealed a perceived significance in being engaged during a FCM unit. Research indicates that students in a FCM can experience an increase in engagement with peers (Clark, 2015), with the course (Chyr et al., 2017), and in general (Moore et al., 2014). In the Engagement category, students' comments and

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actions revealed students sustaining their engagement with the group tasks. In the Lecture Terms category, students' comments revealed a consistent use of the video lecture and peers as resources. From these elements, I developed the Theme 1: To do well in a FCM, student should be proactive and have a sustained use of resources and collaborative opportunities. Studies indicate that students in a FCM experience higher cognitive level activities during a FCM class (Saterbak, et al., 2016) and prefer to work with peers in a FCM (Peterson, 2016). This theme subsumed three out of the eight categories, over one fourth of the coded data. In this section, I further discuss the subsumed categories a) Advice, b) Engagement, and c) Lecture Terms.

Advice. The teacher shift from instructor to facilitator in the FCM gives students an opportunity to take responsibility for learning (Maquivar & Ahmadzadeh, 2016). In this study, students asserted to do well in a FCM unit one must be proactive. Specifically, Andy said, "Be ready", Mary said, "[Keep] up", and Harley said, "Set reminders." Nine students indicated specifically that to do well in a FCM they must capitalize on the video lecture resources. Dan even put his response in all capital letters to emphasize the significance (i.e. "WATCH THE VIDEOS"). Students also indicated the importance of being active in collaborative activities. Eliza said, "Communicate with your group" and Carey said, "Really listen to other people's ideas". Since students perceived significance in taking an active part in their learning while taking full advantage of the resources provided, the category of Advice was subsumed by Theme 1: To do well in a FCM, student should be proactive and have a sustained use of resources and collaborative opportunities. (see Figure 4.13).

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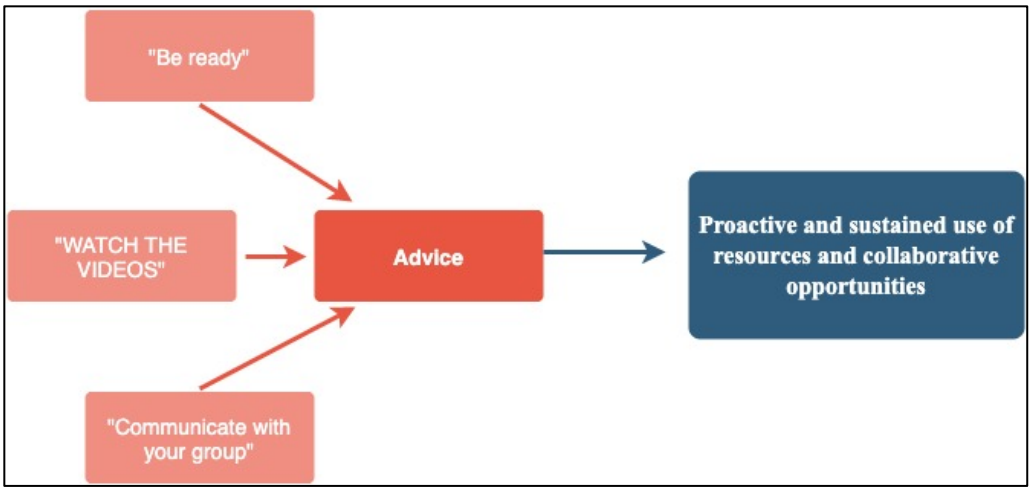

Figure 4.13. Theme 1 development: Advice.

Engagement. When students take an active role in learning with their peers, they are engaged, and the FCM has been shown to increase this student engagement (Chyr et al., 2017; Clark, 2015; Moore et al., 2014). During this study, students created collaborative plot diagrams. As they did, I observed students to be *tapping on the paper*, *pointing at the chart*, and *remaining together*. The physical component of this activity acted as an anchor for engagement. During another activity during which students created a collaborative narrative, I observed *all had laptops open*, *all had Docs open*, and *all were typing*. Word processing software also served as a physical anchor for engagement. In the open-ended survey, Campbell said their, "mind doesn't wander" in the FCM, and during an observation I observed Elliot say, "I can't stop". These student comments, in addition to the observation note of *sustaining focus,* indicated they remained on task. Since peers, laptops, and word processing software are all resources, I subsumed the Engagement category under Theme 1: To do well in a FCM, student should be proactive and have a sustained use of resources and collaborative opportunities (see Figure 4.14).

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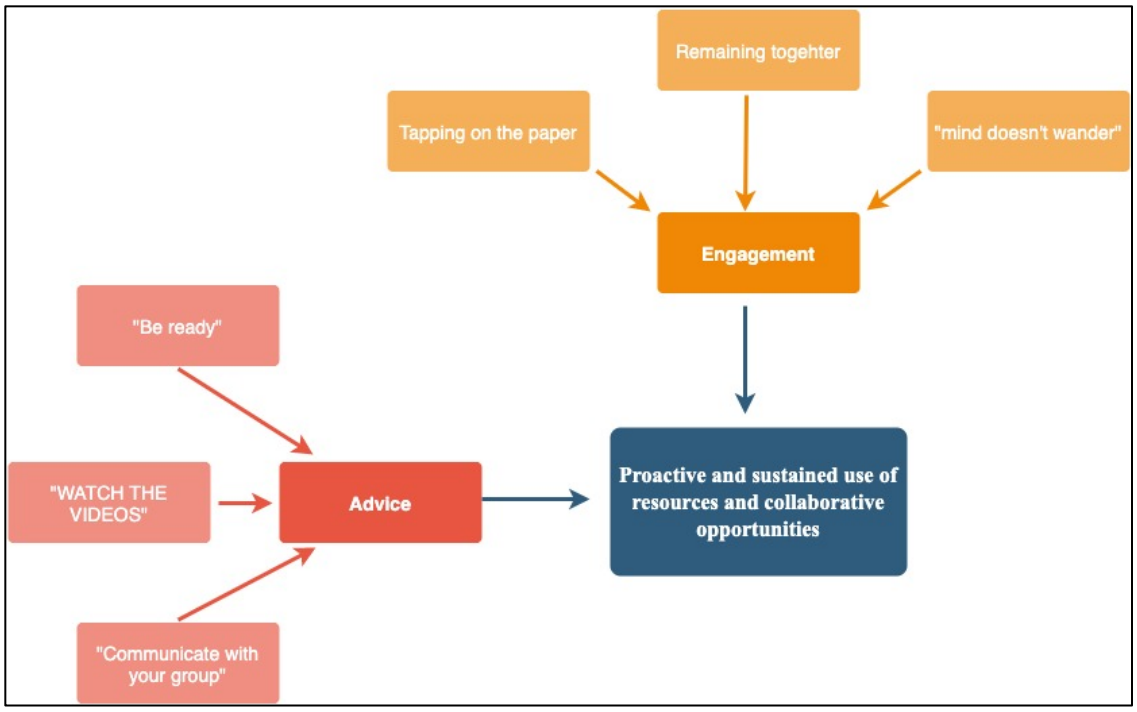

Figure 4.14. Theme 1 development: Engagement.

Lecture terms. Students who do well in the FCM tend to be active consumers of materials (Berrett, 2012). Concepts taught in the FCM lecture videos are unique (e.g. framed narrative, falling action, etc.) and as such would not be common teenage verbiage. Therefore, one indication of student interface with these lecture videos would be the appearance of lecture-specific terminology in student conversation. For example, after watching a lecture on Freytag's Pyramid, students were observed using the exact language of the lesson (e.g. *inciting incident*, *exposition*, and *climax*). Additionally, after watching a video on dialogue formatting, students were overheard using the language of that lesson (e.g. *speaker*, *indent*, and *narrator*). This supported the findings of Zhou (2004) that indicated students benefit from constructivist models like the FCM that promote learner-initiated and controlled technology use. Since the lecture videos were a

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resource and the utilization of terms from those lectures indicated proactive use, the category of Lecture Terms was subsumed under Theme 1: To do well in a FCM, student should be proactive and have a sustained use of resources and collaborative opportunities (see Figure 4.15).

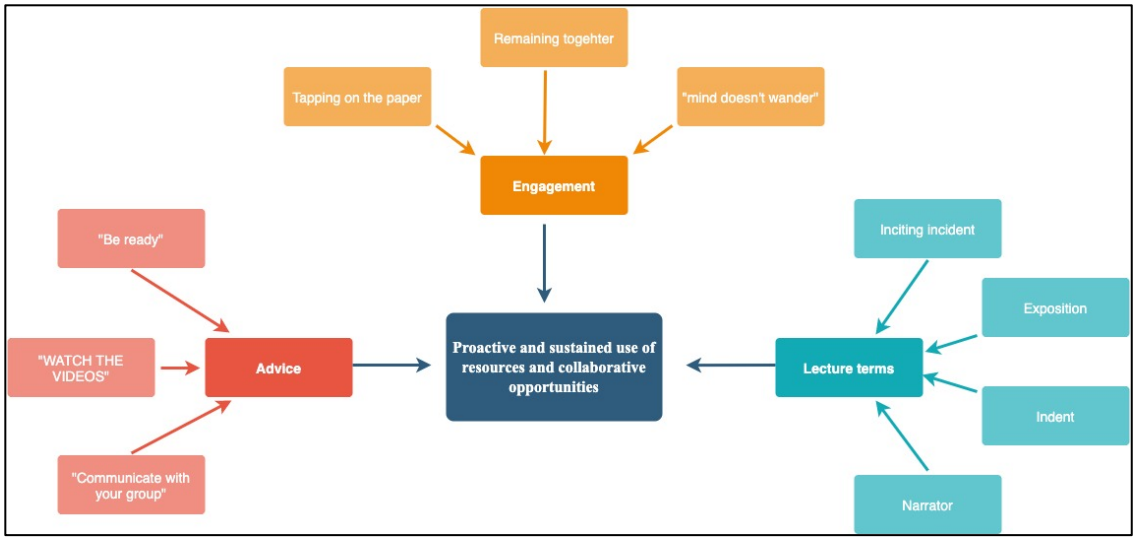

Figure 4.15. Theme 1 development: Lecture terms.

Throughout this FCM unit, students indicated that to do well they should be proactive learners, come to class prepared to learn with charged devices, and interface with the lecture videos before class. Students also indicated on the CEI open-ended survey responses that to do well, one should take full advantage of the collaborative opportunities and the knowledge of their peers. When students followed these guidelines, they experienced sustained focus, which was evidenced by their physical engagement with charts and computer software along with their diction during peer-to-peer conversations.

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Theme 2: Students found value in the space and time for collective decision-making and learning. As I continued to examine the data in other categories more closely, I noticed additional common ideas emerging. In the Collective Decision-Making category, students' comments and actions revealed them utilizing the space and time provided by the FCM to work together to make decisions regarding their collaborative writing task. For example, in the CEI open-ended survey response, Sawyer said, "Working in groups is always an advantage, more minds create more ideas." This supported Danker's (2015) findings that students find value in the peer feedback received in the FCM. In the Peer Instruction category, students' comments revealed they were using the space and time provided by the FCM to teach and learn from each other. For example, in the CEI open-ended survey response, Jorge shared, "An advantage of working in groups was the ability to learn from our classmates." This supported finding by Clark (2015) that students perceive an increase in communication with peers in the FCM. From these elements, Theme 2 emerged: Students found value in the space and time for collective decision-making and learning. This theme subsumed two out of the eight categories and nearly one-third of the coded data. Whereas Theme 1 focused primarily on students' personal responsibility and agency, Theme 2 focused on students capitalizing on interactions with others. In this section, I will discuss the subsumed categories a) Collective Decision-Making, and b) Peer Instruction.

Collective decision-making. Students participating in a FCM unit tend to experience more peer-to-peer communication than in a traditional unit (Clark, 2015). This is due to the fact that in a FCM, the traditional face-to-face lecture is replaced with active, collaborative activities (Abeysekera & Dawson, 2015). One such activity during

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this study was the creation of a collaborative narrative. During this activity, students were observed asking each other questions. For example, Gordon asked their group, “Should we change he to I”, Noel asked their group, "Should we name the narrator”, and Eli asked their group, “What if we make the intruder one of their friends?” This supported the finding of Saterbak et al. (2016) that found small group activities provide a deeper learning experience through collaboration. These types of questions reflected students working collectively to make decisions thus making this category an ideal fit for this theme (see Figure 4.16).

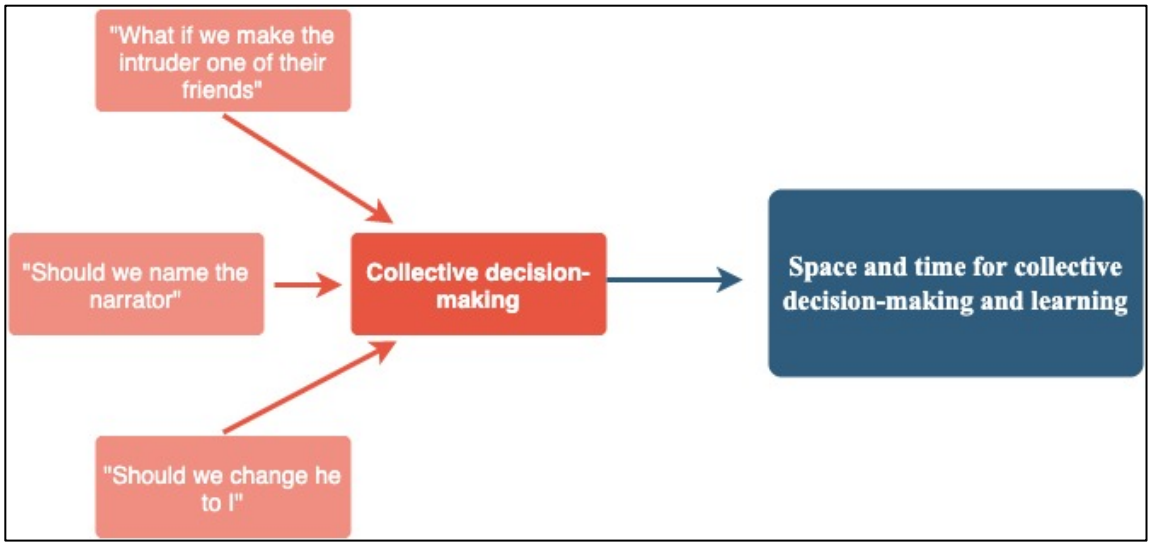

Figure 4.16. Theme 2 development: Collective decision-making.

Peer instruction. Not all valuable learning experiences come from direct teacher instruction because peers can serve as a More Knowledgeable Other in a FCM (Chan et al., 2012). Moreover, students perceive value in the feedback they receive from their peers during collaborative activities in FCM (Danker, 2015). During this study, students were observed asking each other questions regarding formatting. For example, Chris

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asked their group, “Do we need a period here?,” Marley asked their group, “Is this supposed to be indented?,” and Chris asked their group, “How do I show the inner frame?” Each of these students was missing a skill needed to write an effective framed narrative and was seeking that skill from a fellow student. Since students learned from their peers, the data in this category were subsumed by Theme 2: Students found value in the space and time for collective decision-making and learning (see Figure 4.17).

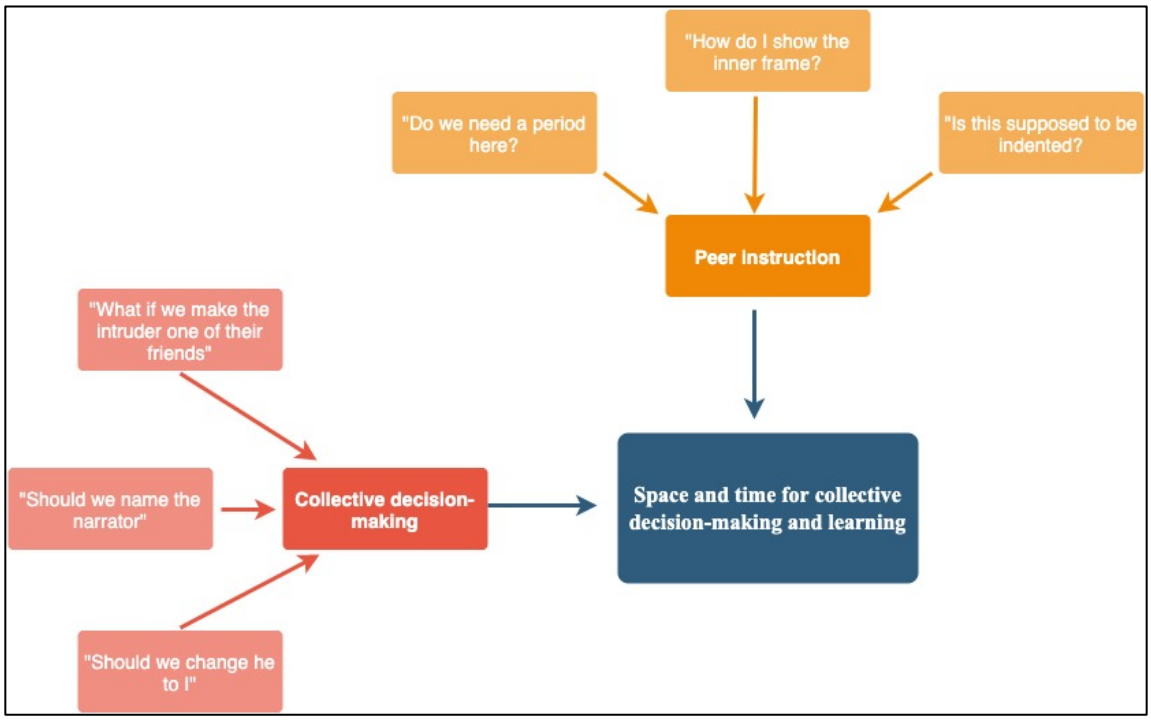

Figure 4.17. Theme 2 development: Peer instruction.

Throughout this FCM unit, students were provided the space (i.e. small groups and quiet space in the classroom, hallway, or lower commons) and time to participate in collective decision-making when writing their collaborative narrative, in which they perceived value. For example, in the CEI open-ended survey response, Jerry shared, “The

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collaborative work allowed me to learn the content with peers to help interpret the ideas and new ways to implement them." During this space and time, they provided each other with peer instruction when one student had a gap in their writing skills or content knowledge. For example, in the CEI open-ended survey response, Delta shared, "The advantages would be working in a group and being able to share ideas. Then once it came to writing our own I could think about how we had worked as a group." In doing so, they capitalized on the time and space provided for collective decision-making and learning.

Theme 3: Students found the FCM enjoyable, relaxed, personalized. As I continued to examine the data in the remaining categories more closely, I noticed another set of common ideas emerging. In the Enjoyment category, students' comments and actions revealed students were enjoying themselves and were comfortable during the FCM unit. This supports Moran and Young's (2014) findings that students enjoy the FCM. In the Positive Perception category, students' comments on the open-ended survey items revealed they appreciated the personalized nature of the unit. For example, in the CEI open-ended survey, Jimmy said, "There is more freedom of choice with class running this way", and Tanner appreciated being able to "self pace and already have an idea about the material before [coming] to class." A closer look at the Negative Perceptions category also revealed the personalized nature of the FCM, which some students did not like. For example in the CEI open-ended survey, Brett said, "Maybe some people prefer actually engaging with a teacher and asking questions while learning." From these elements, the abstract concepts emerged for Theme 3: Students found the FCM enjoyable, relaxed, personalized. This theme subsumed three of the eight categories and more than one-third of the coded data. Whereas Theme 1 covered student

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responsibility and agency and Theme 2 with capitalizing on resources, this final theme is concerned with what motivates students and what they value. Motivation is when an individual is moved or energized toward an end (Ryan & Deci, 2000). In this section I will discuss the subsumed categories a) enjoyment, b) positive perception, and b) negative perception.

Enjoyment. Teachers want their students to enjoy the learning process, and students participating in a FCM tend to find the experience enjoyable (Masland & Gizdarska, 2018; Moran & Young, 2015). During this study, I noted on the observation protocol form students laughing on multiple occasions. Additionally, students shared their joy in the CEI open-ended survey items where Jerry shared, "I enjoyed being able to learn the content in a short video", and Andy expressed, "I enjoyed writing about the prompt the teacher gave us". During one observation, I also noted on the observation protocol form the body language of students who were *lying comfortably on the floor*, and three students directly stated on the CEI open-ended survey items the FCM unit was "fun". Because students were having a good time and were comfortable, I subsumed the category of Enjoyment into Theme 3: Students found the FCM enjoyable, relaxed, personalized (see Figure 4.18).

Positive perception. Students have positive perceptions of various components of the FCM, specifically the flexibility of its personalized format (Isaias et al., 2017; Nouri, 2016). In this study, students reported on the CEI open-ended survey items as having positive perceptions about the FCM specifically regarding how it worked well with their personal schedules. On the CEI open-ended survey items, John said they liked the FCM because it allowed them to "go at [their] own pace". Morgan remarked the FCM allowed

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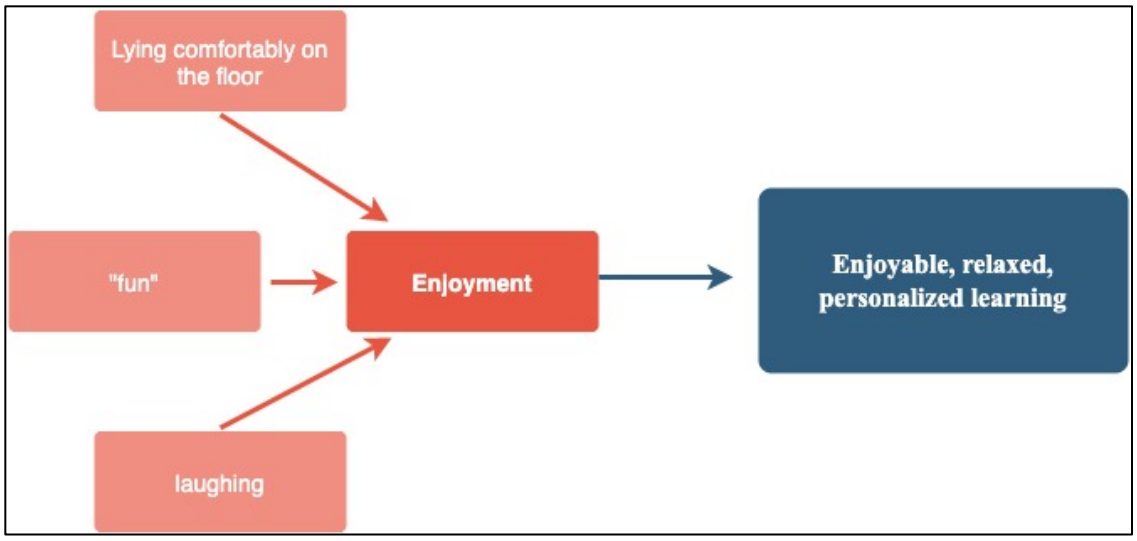

Figure 4.18. Theme 3 development: Enjoyment.

them to "watch videos when [they were] at [their] best." Additionally, Jorge said they liked the FCM because they had videos "they could always refer back to". These comments revealed that many students appreciated the personalized nature of the FCM unit. As a result, I subsumed the category of Positive Perception into Theme 3: Students found the FCM enjoyable, relaxed, personalized (see Figure 4.19).

Negative perception. Although many students shared on the CEI open-ended survey items that they appreciated the flexible nature of the FCM, some students expressed needing more structure. There are students who perceive negative aspects of the FCM, specifically dealing with time and task management (Saulnier, 2015) and the consequences of not completing homework (Wiley, 2015). First, I noticed in reviewing the codes that there were only nine in this category, and two dealt with consequences of not watching the lecture video. This supported Wiley's findings that indicated students can be frustrated by the self-management aspect of the FCM. However, these students had the opportunity to watch the video on the bus on the way to school, in the car, at

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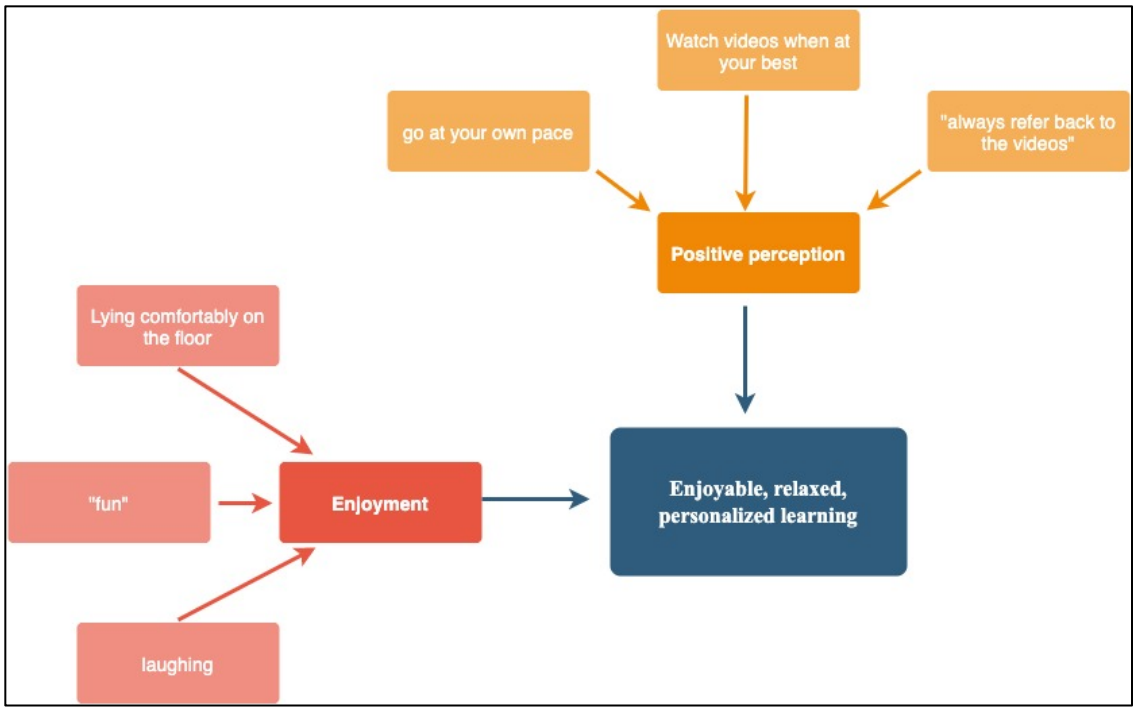

Figure 4.19. Theme 3 development: Positive perception.

home during breakfast, during their individual learning time, and even at the beginning of class. Therefore, this is a personal responsibility issue rather than being a FCM design concern and lended itself to the personalization of the model. Next, I noticed the code *take a bit longer* and inferred this student was potentially confused because this unit is the exact same length as it would have been in a traditional setting. I also saw the *In Vivo* code *less feedback* and inferred this student was also confused because students in the FCM were provided the exact same number of feedback opportunities as those in a traditional writing unit. I then looked at the code *group not productive or helpful* and Ana's comment, "We don't want to have fun" and decided a small handful of students simply prefer traditional, direct instruction with individualized learning compared to the FCM. This still supports the idea that the FCM is, in fact, personalized. So, I decided to

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keep this category under Theme 3: Students found the FCM enjoyable, relaxed, personalized (see Figure 4.20).

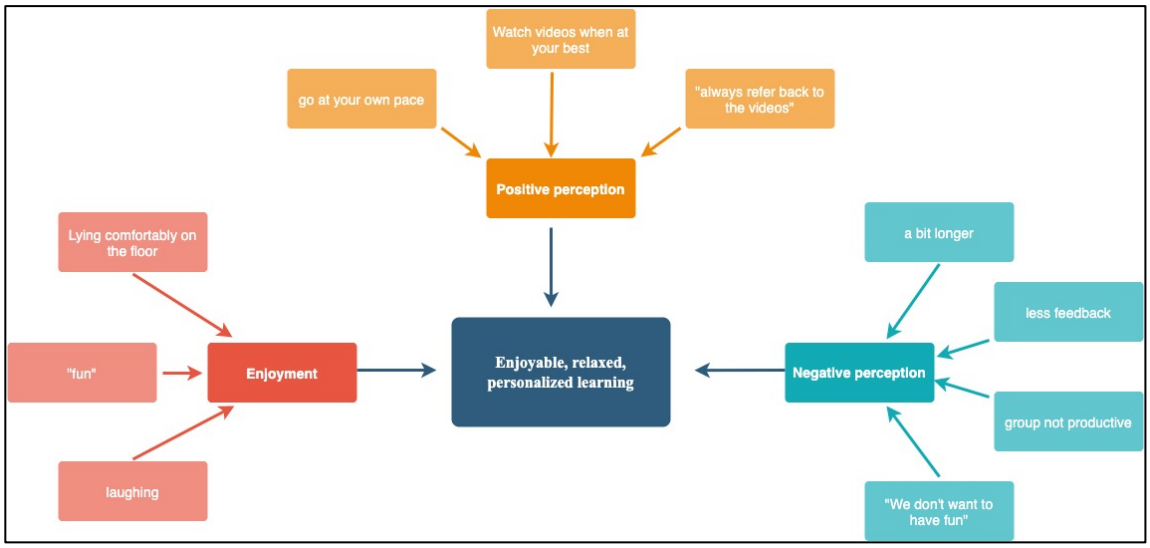

Figure 4.20. Theme 3 development: Negative perception.

Throughout this FCM unit, students indicated they enjoyed the many components of the FCM and even said it was fun. Students reflected this joy by their laughter and by working comfortably within their groups. A small number of students shared negative perceptions of the video lectures, but even this negative perception supported the idea that the FCM is personalized. A large majority found the videos incorporated into the FCM to be helpful, flexible, personalized tools.

Chapter Summary

The analysis of the data from this study provided numerous takeaways. The results of the preintervention and postintervention writing tasks revealed a notable increase in both quantity and quality of student writing. This included an increase in narrative word-count and student attempts at dialogue with a decrease in student errors.

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The CEI survey revealed affective, behavioral, and cognitive engagement while indicating a lack of disengagement. Additionally, the qualitative data revealed three themes. One, students perceived that to do well in a FCM, one must be proactive by taking full advantage of the resources and learning opportunities provided. Two, students indicated they made collective decisions and helped each other during the FCM. Three, students indicated through words and actions that the FCM was an enjoyable and beneficial alternative to a traditional model of learning. All of these outcomes point toward the FCM affecting writing quality and quantity, student engagement, and their perceptions.

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CHAPTER 5

DISCUSSION, IMPLICATIONS, AND LIMITATIONS

This chapter positions the findings within the existing literature on the impact of the FCM on achievement, engagement, and student perceptions and experiences. The purpose of this action research study was to evaluate the implementation of a FCM of teaching and learning with senior-level English students at PHS. Both quantitative (i.e., pre and post intervention writing task; CEI survey) and qualitative methods (i.e., observations; open ended CEI survey questions) were utilized for data collection and analysis. This chapter presents (a) a discussion, (b) implications, and (c) limitations.

Discussion

It is important to situate the findings of this research within the larger context of research on the FCM. To answer each research question, the data were combined and considered through the lenses of FCM achievement, engagement, and student perceptions and experiences. The discussion is organized by (a) RQ 1, (b) RQ 2, and (c) RQ3.

Research Question 1: How and in what ways does implementing a FCM in a high school writing course affect students' writing quality?

For this research question, I wanted to know if flipping a high school writing unit would increase student-writing achievement. In this study, the FCM had a positive impact on student writing both through an increased output of words and dialogue attempts and an increased quality as shown through a decrease in writing errors. A review of literature revealed a paucity of research on the effects of FCM on writing achievement and even

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less within the writing achievement of high school students. The majority of research, however, revealed that FCM leads to increased achievement college math courses (Albalawi, 2018; Elakovich, 2018; Peterson, 2016; Anaeto et al., 2012; Van Sickle, 2016) and college science courses (Cormier & Voisard, 2018; Day, 2018; El-Senousy & Alquda, 2017; Missildine, Fountain, Summers, & Gosselin, 2013; Mortensen & Nicholson, 2015; Sun & Wu, 2016). The few studies of FCM in college writing courses focused on student's perceptions toward the videos (Engin & Donanci, 2014), perceptions in general (Nouri, 2016), or on student perceptions of the instructor of the course (Shaffer, 2016). On the high school level, studies concluded FCM increased achievement in chemistry (Olakanmi, 2017), health (Chen, 2016), and math (Bhagat et al., 2016), but none in a writing course. The only research on FCM with high school writing focused instead on engagement (Moran & Young, 2014). This study is unique in attempting to identify a connection between FCM and high school writing achievement. The research findings suggest that student writing was positively impacted by the FCM intervention, specifically (a) an increase in writing output and (b) a decrease in writing errors.

Increase in writing output. One way the FCM intervention affected student writing is through an increase in output. First, a great majority of students (78%) had a higher word count on their postintervention writing piece than on their preintervention writing piece. In fact, many students (41%) increased their word count by 100% or more. Additionally, a great majority of students (87%) had more dialogue attempts on their postintervention writing piece than on their preintervention writing piece. In fact, many students (48%) increased their attempts at dialogue by 100% or more.

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Decrease in writing errors. Another way the FCM intervention affected student writing is through a decrease in errors. In spite of the aforementioned increase in word count and attempts at dialogue, many students (32%) experienced a decrease in dialogue formatting errors. Additionally, these same students even decreased the number of their dialogue formatting errors while increasing their dialogue attempts. Furthermore, in spite of this increase in words and dialogue attempts, a majority of students (61%) experienced a decrease in tag errors. Many students (41%) even decreased their tag errors while increasing their dialogue attempts. Additionally, in spite of this increase in words, a majority of students (79%) experienced a decrease in narrative craft errors. Many students (44%) even decreased their narrative craft errors while increasing their word count. Finally, in spite of this increase in words, many students (36%) experienced a decrease in general errors. Many students (54%) even decreased their general errors while increasing their word count.

Research Question 2: How and in what ways does implementing a FCM in a high school writing course affect students' engagement?

For this research question, I wanted to know if flipping a high school writing unit would increase student engagement. The FCM had a positive impact on varied facets of engagement including affective, behavioral, and cognitive as shown through CEI survey and open-ended items as well as the observations. A review of the literature of other FCM studies and their effects on engagement revealed that FCM is based on constructivism due to its self-directed learning (Xu & Shi, 2018) and shift away from traditional lecture-driven models (Sankey & Hunt, 2013). Additionally, FCM is

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underpinned by social learning theory through which students observe, exchange thought with, and learn from their peers (Williams, 2017).

In order to better understand if the FCM intervention in this study impacted student engagement, I conducted observations and a study survey made up in part of items from Wang et al.'s (2014) CEI survey as well as four open-ended questions I added. The research findings suggest that student engagement was positively impacted by the FCM intervention, specifically (a) affective engagement, (b) behavioral engagement, (c) lack of disengagement, and (d) cognitive engagement.

Affective engagement. Studies have indicated that FCM has a positive effect on student engagement. For example, college students experienced increased focus (Saulnier, 2015) and increased attendance (Smallhorn, 2017). In this study, the affective scale on the CEI survey asked students to rate themselves on five items such as *I felt amused* and *I felt interested.* The collective mean for this subscale was 3.66 (out of 5) showing students to have found the FCM to be a pleasurable experience. Additionally, the three qualitative analysis themes derived from the CEI open-ended survey responses support this idea of affective engagement. In fact, 20 out of 218 coded pieces of qualitative data were categorized as Enjoyment as indicated by Shannon's open-ended CEI survey response "It was fun" and Billie's response "You will like it". These findings support the outcomes of Fryling et al. (2016) that the majority of students agree they like the FCM.

Behavioral engagement. Studies have indicated that FCM has a positive effect on student engagement. For example, both middle and high school students experienced increased student interaction with peers (Clark, 2015; Moore, et al., 2014). In this study,

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the behavioral scale on the CEI survey asked students to rate themselves on five items such as *I worked with other students and we learned from each other.* The collective mean for this subscale was 4.01 (out of 5) showing students to be in agreement that the FCM encouraged collaborative learning. Additionally, the three qualitative analysis themes derived from the CEI open-ended survey responses and observations support this idea of behavioral engagement. In all, 31 out of 218 coded pieces of qualitative data were categorized as Peer Instruction as indicated by Jorge's open-ended CEI survey response "An advantage of working in groups was the ability to learn from our classmates" and Jerry's response "The collaborative work allowed me to learn the content with peers to help interpret the ideas and new ways to implement them". These findings support the conclusions of Moore et al. (2014) that the FCM leads to increased student interactions.

Lack of disengagement. Studies have indicated that FCM has a positive effect on student engagement. For example, college students experienced increased involvement (Chyr et al., 2017). In this study, the disengagement scale on the CEI survey asked students to rate themselves on three items such as *I just pretended like I was working,* which were reverse-coded. The collective mean for this subscale was 3.72 (out of 5) showing students have a lack of disengagement while participating in the FCM. Additionally, the three qualitative analysis themes derived from the CEI open-ended survey responses and observations support this idea of a lack of disengagement. In fact, 22 out of 218 coded pieces of qualitative data were categorized as Engagement including *all students contributing to the creation of the pyramid* and *all contributing to discussion and typing* which were coded from the observation data. These findings support the outcomes of Smallhorn (2017) that the FCM leads to decreased student disengagement.

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Cognitive engagement. Studies have indicated that FCM has a positive effect on student engagement. For example, college students experienced increased focus (Saulnier, 2015). In this study, the cognitive scale on the CEI survey asked students to rate themselves on eight items such as *I went back over things I didn't understand* and *I judged the quality of my ideas or work during class.* The collective mean for this subscale was 4.85 (out of 7) showing the students to be intellectually challenged during their participation in the FCM. Additionally, the three qualitative analysis themes derived from the CEI open-ended survey responses and observations support this idea of cognitive disengagement. In fact, 22 out of 218 coded pieces of qualitative data were categorized as Engagement as indicated by Campbell's open-ended CEI survey response "mind doesn't wander" and Elliot's response "more interesting". These findings support the outcomes of Galway, Corbett, Takaro, Tairyan and Frank (2014) that the FCM leads to increased cognitive engagement through active, in-class learning activities.

Research Question 3: How and in what ways does the FCM affect my students' perceptions and experiences?

For this research question, I wanted to know if flipping a high school writing unit would impact students' perceptions and experiences. A review of the literature of other FCM studies and their effects on perceptions and experiences revealed that high school English students have positive perceptions of the FCM (Moran & Young, 2014). In order to better understand if the FCM intervention in this study impacted student perceptions, I conducted observations and a student survey made up in part of items from the CEI survey (Wang et al., 2014), and the addition of four self-designed, open-ended questions. These research findings suggest that student perception was positively impacted by the

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FCM intervention, specifically they found the model (a) enjoyable, (b) flexible, and (c) valuable.

Flipped Classroom Model is enjoyable. The results from the CEI survey open-ended questions and the observation data indicate that students in this study found the FCM enjoyable. Studies have indicated that students have positive perceptions of the FCM. Specifically, college computer science students (Fryling et al., 2016) and college psychology students (Masland & Gizdarska, 2018) find it enjoyable. One qualitative category, Enjoyment was made up of 19 out of 218 subsumed codes including observed joy expressed through laughter and animated conversation (e.g. "Boom!"). Students experienced joy during the FCM as indicated by Jerry's open-ended CEI survey response "I enjoyed being able to learn in a short video" and Eliza's response "I enjoyed the entire unit". These findings support the outcomes of Hung (2015) that students in a FCM experience higher levels of overall learning satisfaction.

Flipped Classroom Model is flexible. According to the CEI survey open-ended questions and the observation data, students in this study appreciated the flexibility in when, where, and how they engaged with the FCM. Studies have indicated that students have positive perceptions of the FCM. Specifically, college research students appreciate being able to learn at their own pace (Nouri, 2016), and college psychology students like the flexibility of being able to manage their own time (Isaias et al., 2017). In this study, one qualitative category, Positive Perception, was made up of 56 out of 218 subsumed codes illustrating a perceived value in the personalization of the FCM model (e.g., from Eliza "I can do the work at any time"), the self-pacing of the model (e.g., from Jan "I can get a head start on the project"), and the time-saving nature of the model (e.g., from Ana

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"Learning is quick, so we can spend more time on the work"). These findings support the outcomes of Guggisberg (2015) that students like being able to set their own schedules and working at their own pace in the FCM.

Flipped Classroom Model is valuable. According to the CEI survey open-ended questions and the observation data, students in this study found the FCM to be of value in regards to it helping them understand and apply key writing concepts. Studies have indicated that students have positive perceptions of the FCM. Specifically, college students find the FCM valuable in terms of helpful video lectures (Muir & Geiger, 2016) increased critical thinking (Mortensen & Nicholson, 2015), and increased communication (Clark, 2015). In this study, one qualitative category, Positive Perception was made up of 56 out of 218 subsumed codes illustrating a perceived value in the FCM. Student's indicated a general perceived value in FCM as reflected by Elliot's response (e.g. "I felt I had learned something valuable"), Megan's open-ended CEI survey response revealed a perceived value in the videos (e.g. "videos gave me the information I needed"). Student responses also revealed a perceived general preference for FCM over traditional learning (e.g., Chris's response "It's better than a regular unit") and (e.g., Sam's response "It's what I prefer"). These findings support the outcomes of McLaughlin et al. (2014) that students in the FCM find that the model is helpful and promotes understanding of and application of key concept.

Implications

This research has personal implications as well as implications for other teachers, scholarly practitioners, and researchers. Three types of implications are considered: (a)

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personal implications, (b) implications for teachers considering the FCM in writing, (c) implications for future research on the FCM.

Personal Implications

As a result of this study, I have had many experiences that will shape the way I teach and lead others. These implications include (a) promoting student-centered teaching, (b) capitalizing on technology, and (c) building relationships.

Promoting student-centered teaching. During this study I learned that when teachers no longer treat students like passive vessels, there are many positive side effects (Berrett, 2012). I also learned that flipping a course and allowing students to apply what they learn while in the classroom opens up the doors for more hands-on activities (Berrett, 2012; Schmidt & Ralph, 2016). Additionally, I discovered that flipping a course makes it easier for students to stay on task (McLean et al., 2016) and to be involved Chyr et al., 2017). Finally, I learned that one of the many results of a student-centered teaching model such as FCM is that it creates an opportunity for students to increase achievement (Bhagat et al., 2016; Chen, 2016; Olakanmi, 2017).

Capitalizing on technology. During this study, I learned that the creation of meaningful lecture videos can be extremely time consuming due to logistical and organizational issues (Hunley, 2016; Largo, 2017), and perhaps using premade videos might be a wise alternative (Timcenko et al., 2015). I also learned that by allowing technology to deliver content, students could apply what they learned during higher-level cognitive activities and have a deeper learning experience as in the collaborative narrative task (Brame, 2013; Engin & Donanci, 2014; Saterbak et al., 2016). Finally, I learned that

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although some students struggle with time and task management (Saulnier, 2015), by utilizing technology, I was able to cover more content (Isaias et al., 2017).

Building relationships. I learned that the FCM gave students more opportunities to build relationships with each other through small groups while allowing me more opportunities to build relationships with my students both through more one-on-one time and more time with small groups (Hunley, 2016). As shared in their survey responses, students worked together and found their peer feedback to be helpful (Danker, 2015). Because I was able to build better relationships with students, I was able to be more helpful by answering questions that were relevant to either the student or the group in which the student participated (Peterson, 2016).

Implications for Teachers Considering the Flipped Classroom Model in Writing

As a result of this study, I have discovered a few implications that are significant for other teachers considering the FCM. These implications include a careful consideration of (a) initial assessment of learning, (b) in-class activities, and (c) out-of-class activities.

Carefully consider initial assessment of learning. Teachers considering the FCM should keep in mind the initial assessment of learning. In this model, students access the content at home but must be held accountable; otherwise, teachers risk a class of students who arrive unprepared (Bishop & Vergler, 2013; Boevé et al., 2017; Clark, 2015, Persky & McLaughlin, 2017; Shih & Tsai, 2017). Furthermore, this initial assessment should vary (e.g. discussion posts [Moran & Young, 2014], text polling software [Shon & Smith, 2011], or a rough draft [Elliot, 2014], etc.).

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Carefully consider in-class activities. Teachers considering the FCM should also carefully contemplate their in-class activities. For this study, I chose to group the students in low-medium-high achievement triads to align with Vygotsky's (1934) idea of the MKO. This placed a more knowledgeable student with each who was less knowledgeable to serve as their mentor or tutor. However, there are other appropriate ways to group students including by areas of interest (Saterbak et al., 2016) or randomly (Peterson, 2016). Teachers should also carefully consider the product they wish students to create in class allowing them to construct a personal model of information (Vogel-Walcutt et al., 2010) under teacher guidance (Xu & Shi, 2018). For this study, I chose to have students create a collaborative narrative. However, other studies suggest student groups could complete what would have been homework (Moore et al., 2014), complete active pair and share activities (McLaughlin et al., 2017), or simply work through problems that test knowledge of the video lecture content (Smallhorn, 2017).

Carefully consider out-of class activities. Teachers considering the FCM should carefully consider their out-of-class activities. First, ensure the video lectures are of good quality including the use of interesting pictures along with voice-overs (Engin & Donanci, 2014). Even better, they could keep their video lectures short and have a talking head rather than just a slide presentation (Guo et al., 2014). Additionally, teachers should consider possible digital inequality issues. Since not all students have internet or appropriate connectivity, teachers could consider downloading the lecture videos onto school-issued devices or student-owned devices before students leave school (McCrea, 2016).

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Implications for Future Research on the FCM in Writing

This study and its findings offer implications for future research, specifically for teachers looking to implement the FCM in their classrooms or researchers looking to learn more about the effectiveness of the FCM. There is a paucity of research on the effects of FCM on high school writing achievement, and this study is the start toward filling that gap. In this section I discuss implications regarding (a) adjustments to the survey, (b) adjustments to the writing choice, and (c) expansions to the current study.

Caution is offered in utilizing the CEI instrument (Wang et al., 2014) as an evaluation of engagement if this study were to be replicated. While the internal reliability of this instrument was reported to be good (Cronbach's alpha of .87), self-designing an instrument that would align the Likert scale questions with the open-ended questions would be suggested for greater uniformity in high school student responses. Also, designing an instrument that could be administered both before and after the writing task intervention would allow for inferential statistical analysis and more purposeful significance of the results by relating the two variables (Creswell, 2012).

Another change I would make is to choose a different type of writing. Narrative writing is subject to many individual writing style choices. Even Earnest Hemingway, a notable novelist and narrative writer, flouts what one might consider the rules of voice, audience, and main character identity (Jahn, 2005). That is one reason this study relied so heavily on dialogue formatting, which has specific parameters. For example, writers of dialogue must use double quotation marks and place a period inside the quotation mark at the end of the dialogue (see Appendix G for Narrative Indicators). These two particular

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formatting rules, among others, are accepted by most American universities (Middle Tennessee State, 2020; Purdue University, 2020; University of Illinois, 2013).

I would suggest that to more accurately assess gains in achievement, researchers might incorporate a more scientific model with a control group in addition to the experimental group. Because generalization occurs only when a qualitative researcher studies additional cases, I would also suggest replicating this study across all English 4 classes to gain a broader view of the effects of the FCM on student writing over a larger population (Creswell, 2014). Finally, expanding this study by introducing the FCM for a writing task to HS freshman (or English 1) and following those students throughout their high school career until they take English 4, would assess in greater depth the lasting impact of the FCM on students' writing achievements.

The lack of research on high school student writing achievement, coupled with the use of the FCM, situates this research in more of an exploratory manner. There are facets to the FCM (i.e. engagement, effect on achievement, and student perceptions) that this study has touched upon in an elementary manner. Additional research breaking down the elements of the FCM (i.e., pre and post achievement and specific perceptions of video quality and activity quality) in teaching HS writing can further identify both the strengths as well as the challenges of using such a model. As these findings hinted, the students found individual and academic reward in using the FCM. Not to say there were not challenges, as seen in a quote by Billie, "Sometime it is harder to concentrate and really think about the material when it is on an online lecture".

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Limitations

There are limitations to this action research study. These limitations include (a) observation limitations, (b) limitations due to student number, and (c) limitations due to study design.

One limitation to this study was the observation data source. I observed my own students completing a writing task that I assigned. My presence, with the observation protocol form in hand, could have affected student behavior. Students might say or even do things differently while being watched by their teacher (Mertler, 2014). Another limitation of observations is a researcher's inability to catch every nuance of the situation. Often, so much occurs during an observation, it can be difficult to record everything with a single observer (Mertler, 2014). Although research suggests that video recording observation sessions allow content to be reviewed and may be less obtrusive than a human note taker in some instances (Patton, 2002), this was not a realistic option for this study as I remained flexible in the utilization of hallways and other spaces where students felt most comfortable to work in small groups.

A second limitation involves several items from Wang et al.'s (2014) CEI instrument. Thirteen of the items asked students to rate themselves as a 1 (*never*), a 2 (*rarely*), a 3 (*occasionally*), a 4 (*frequently*), or a 5 (*always*). However, eight items asked students to rate themselves on a range scale from 1 (*not at all true*) to 7 (*very true*). Not only is there ambiguity on the meaning of ratings 2 through 6, survey items providing seven choice options provides data of lower quality than survey items providing five choice options (Revilla, Saris, & Krosnick, 2014).

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A third limitation is the student groupings. When students are randomly assigned to group, the group represents the population and thus represents a true experiment (Creswell, 2014). The students in this study were chosen due to convenience; they were all assigned to me and placed into my classes by school administration. Another grouping limitation was the lack of a control group. A control group receiving traditional instruction could have allowed me to better determine the influence the intervention or independent variable had on the outcome or dependent variable (Creswell, 2014).

One final possible limitation is the cognitive phenomenon of the novelty effect, which asserts that student performance tends to improve initially when new technology is implemented as a response to increased interest rather than actual achievement gains (Clarke & Sugrue, 1988). Other studies investigating the FCM also note this as a possible limitation (Clark, 2015; Van Alten, Phielix, Janssen, & Kester, 2019). The students in this study were comfortable using their computers; however, watching a lecture in video format rather than receiving the content via traditional lecture, was new to them. A longer study could possibly lead to different results once students became more accustomed to using the FCM.

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APPENDIX A

CONSENT AND ASSENT FORMS

UNIVERSITY OF SOUTH CAROLINA
CONSENT TO BE A RESEARCH SUBJECT
Study Title: Investigating the Flipped Classroom Model in a High School Writing Course:

An Action Research Study

If participants include those under 18 years of age: 1) The subject's parent or legal guardian will be present when the informed consent form is provided. 2) The subject will be able to participate only if the parent or legal guardian provides permission and the adolescent (age 13-17) provides his/her assent. 3) In statements below, the word "you" refers to your child or adolescent who is being asked to participate in the study.

KEY INFORMATION ABOUT THIS RESEARCH STUDY:

You are invited for your child to volunteer for a research study conducted by Elizabeth Florence, a Curriculum and Instruction doctoral student with a concentration in Educational Technology, at the University of South Carolina under the direction of Dr. Michael M. Grant (michaelmgrant@sc.edu; 803-777-6176) in the department of Educational Studies. The purpose of this action research study is to evaluate the implementation of a flipped classroom model of learning with senior-level English students at LHS. You are being asked to consent to participate in this study because you attend LHS. This study is being done at LHS and will involve approximately 100 students.

The following is a short summary of this study to help you decide whether to participate. More detailed information is listed later in this form.

Recent studies have shown that a flipped classroom model not only increases student engagement, but also increases achievement in writing. I am conducting this research to examine how this model affects my students' engagement and achievement in narrative writing. Activities student will experience will allow them to work collaboratively to apply their knowledge of writing in an active, hands-on classroom.

If you grant permission and if your child indicates to us a willingness to participate your student will be invited to share experiences to help inform our research.

PROCEDURES:

If you agree for your child to participate in this study, he/she will do the following:

1. At various points in the semester, I will observe as your student engage in the course/classroom activities. I am interested in understanding how students approach the flipped classroom design.
2. Students will be asked to complete a short survey.
3. Students will be asked to write a summative narrative assignment. Students who choose not to participate must also complete this task.

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DURATION:
Participation in the study involves only two weeks.

RISKS/DISCOMFORTS:
The activities in the study are intended to be engaging for all students, and I foresee no risks to subjects beyond those that are normally encountered when completing activities in a classroom.

BENEFITS:

This study may contribute to a better understanding of best practices in teaching writing. Your student may benefit from participating in this study by increasing his/her narrative writing skills and for helping students who study this topic in the future.

COSTS:
There will be no costs to you for participating in this study.

PAYMENT TO PARTICIPANTS:
You will not be paid for participating in this study.

VOLUNTARY PARTICIPATION:

Participation in this research study is voluntary. Your student is free not to participate by excluding her data or declining to participate in the data collections. He/she may also stop participating at any time, for any reason without negative consequences. In the event that you do withdraw from this study, the information you have already provided will be kept in a confidential manner. If you wish to withdraw from the study, please call or email the principal investigator listed on this form.

I have been given a chance to ask questions about this research study. These questions have been answered to my satisfaction. If I have any more questions about my participation in this study, or a study related injury, I am to contact Dr. Michael M. Grant at 803-777-6176 or by email at michaelmgrant@sc.edu.

Questions about your rights as a research subject are to be directed to, Lisa Johnson, Assistant Director, Office of Research Compliance, University of South Carolina, 1600 Hampton Street, Suite 414D, Columbia, SC 29208, phone: (803) 777-6670 or email: LisaJ@mailbox.sc.edu.

I agree for my child to participate in this study. I have been given a copy of this form for my own records.

If you wish to participate, you should sign below.

_____ _____

Parent/Guardian's Signature Date

_____ _____

Researcher's Signature Date

My participation has been explained to me, and all my questions have been answered. I am willing to participate.

_____ _____

Print Name of Minor Age of Minor

_____ _____

Signature of Minor Date

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UNIVERSITY OF SOUTH CAROLINA
CONSENT TO BE A RESEARCH SUBJECT
Study Title: Investigating the Flipped Classroom Model in a High School Writing Course:

An Action Research Study

KEY INFORMATION ABOUT THIS RESEARCH STUDY:

You are invited to volunteer for a research study conducted by Elizabeth Florence, a Curriculum and Instruction doctoral student with a concentration in Educational Technology, at the University of South Carolina under the direction of Dr. Michael M. Grant (michaelmgrant@sc.edu; 803-777-6176) in the department of Educational Studies. The purpose of this action research study is to evaluate the implementation of a flipped classroom model of learning with senior-level English students at LHS. You are being asked to consent to participate in this study because you attend LHS. This study is being done at LHS and will involve approximately 100 students.

Recent studies have shown that a flipped classroom model not only increases student engagement, but also increases achievement in writing. I am conducting this research to examine how this model affects my students' engagement and achievement in narrative writing. Activities you will experience will allow you to work collaboratively to apply your knowledge of writing in an active, hands-on classroom.

If you agree to participate, you will be invited to share your experiences to help inform this research.

PROCEDURES:

If you agree to participate in this study, you will do the following:

4. At various points in the semester, I will observe as you engage in the course/classroom activities. I am interested in understanding how students approach the flipped classroom design.
5. Students will be asked to complete a short survey.
6. Students will be asked to write a summative narrative assignment. Students who choose not to participate must also complete this task.

DURATION:
Participation in the study involves only 2 weeks.

RISKS/DISCOMFORTS:
The activities in the study are intended to be engaging for all students, and I foresee no risks to subjects beyond those that are normally encountered when completing activities in a classroom.

BENEFITS:

This study may contribute to a better understanding of best practices in teaching writing. You may benefit from participating in this study by increasing your narrative writing skills and for helping students who study this topic in the future.

COSTS:
There will be no costs to you for participating in this study.

PAYMENT TO PARTICIPANTS:
You will not be paid for participating in this study.

VOLUNTARY PARTICIPATION:

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Participation in this research study is voluntary. You are free not to participate by excluding your data or declining to participate in the data collections. You may also stop participating at any time, for any reason without negative consequences and your grade in the class will not be affected. In the event that you do withdraw from this study, the information you have already provided will be kept in a confidential manner. If you wish to withdraw from the study, please call or email Elizabeth Florence at eflorence@lexington1.net.

I have been given a chance to ask questions about this research study. These questions have been answered to my satisfaction. If I have any more questions about my participation in this study, or a study related injury, I am to contact Dr. Michael M. Grant at 803-777-6176 or by email at michaelmgrant@sc.edu.

Questions about your rights as a research subject are to be directed to, Lisa Johnson, Assistant Director, Office of Research Compliance, University of South Carolina, 1600 Hampton Street, Suite 414D, Columbia, SC 29208, phone: (803) 777-6670 or email: LisaJ@mailbox.sc.edu.

I agree to participate in this study. I have been given a copy of this form for my own records.

If you wish to participate, you should sign below.

Signature of Subject / Participant Date

Researcher's Signature

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APPENDIX B

INSTITUTIONAL REVIEW BOARD APPROVAL

EMPOWER ONE
LEXINGTON COUNTY SCHOOL DISTRICT ONE

October 7, 2019

Ms. Elizabeth Florence

Dear Ms. Florence:

Members of the Research Committee of Lexington County School District One have considered your proposal to conduct research in Lexington One for your project titled: *"Investigating the Flipped Classroom Model in a High School Writing Course: Action Research to Impact Student Writing Skills and Engagement."* That recommendation has been supported at the Senior Leadership level.

Lexington County School District One receives many requests from researchers who want to collect data here. Each proposal is considered carefully. The district approves only those requests that are determined to be of value to the district, that do not interfere with the educational programs of the district, and that respect the privacy and due process rights of students and employees.

Your interest in this topic is commendable, and I have been notified that your request has been approved. Please remember that the principal at the school(s) involved in the research must give approval before you begin your study. Administrators in Lexington County School District One recognize the value of your research, and we wish you success with your project.

Best regards,

Shane M. Phillips, Ph.D.
Chair, Research Committee

Enclosure

C: Dr. Gloria Talley

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UNIVERSITY OF
SOUTH CAROLINA

OFFICE OF RESEARCH COMPLIANCE

INSTITUTIONAL REVIEW BOARD FOR HUMAN RESEARCH
DECLARATION of NOT RESEARCH

Elizabeth Florence
100 Tarrar Springs Road
[redacted]

Re: **Pro00091627**

Dear Mrs. Elizabeth Florence:

This is to certify that research study entitled ***Investigating the Flipped Classroom Model in a High School Writing Course: An Action Research Study*** was reviewed on **7/31/2019** by the Office of Research Compliance, which is an administrative office that supports the University of South Carolina Institutional Review Board (USC IRB). The Office of Research Compliance, on behalf of the Institutional Review Board, has determined that the referenced research study is not subject to the Protection of Human Subject Regulations in accordance with the Code of Federal Regulations 45 CFR 46 et. seq.

No further oversight by the USC IRB is required. However, the investigator should inform the Office of Research Compliance prior to making any substantive changes in the research methods, as this may alter the status of the project and require another review.

If you have questions, contact Lisa M. Johnson at lisaj@mailbox.sc.edu or (803) 777-6670.

Sincerely,

Lisa M. Johnson
ORC Assistant Director and IRB Manager

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APPENDIX C

PREINTERVENTION WRITING TASK

Narrative Writing Assignment & Rubric- English 4

Tyrik has the strangest dream about two fish. The next day at school he tells his friend all about it. Write a one-page story of the conversation.

The story will be scored on a scale from 0 (Not Evident) to 4 (Exceeds) in the following categories:

a) Narrative Focus (clear setting, narrator and/or characters, and one or multiple point(s) of view)
b) Lead (effective, engaging lead addressing audience and purpose)
c) Sequence and Transitions (organized, consistent sequence of events, a variety of transitional strategies)
d) Elaboration (detailed descriptions, dialogue, pacing)
e) Diction and Craft (consistent tone and mood through precise words, sensory & figurative language, voice/reflection)
f) Conclusion (a unifying, reflective conclusion)
g) Conventions and Format (few, if any, errors in usage and sentence formation**,** punctuation, capitalization, and spelling)

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APPENDIX D

POST INTERVENTION WRITING TASK

Narrative Writing Assignment A & Rubric- English 4

Kyla's friend Jade always wanted to be prom queen. Kyla decides Jade needs to hear the story about the frog who always wanted to be a prince. Write a one-page story of the conversation.

1) Write your story using Google Docs- make sure you do NOT put your name on it.
2) Download your finished narrative to your desktop as a pdf.
3) Submit to Schoology before the bell rings.
4) Your narrative will be scored using the following guidelines:

Narratives are scored on a scale from 0 (Not Evident) to 4 (Exceeds) in the following categories:

a) Narrative Focus (clear setting, narrator and/or characters, and one or multiple point(s) of view)
b) Lead (effective, engaging lead addressing audience and purpose)
c) Sequence and Transitions (organized, consistent sequence of events, a variety of transitional strategies)
d) Elaboration (detailed descriptions, dialogue, pacing)
e) Diction and Craft (consistent tone and mood through precise words, sensory & figurative language, voice/reflection)
f) Conclusion (a unifying, reflective conclusion)
g) Conventions and Format (few, if any, errors in usage and sentence formation, punctuation, capitalization, and spelling)

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APPENDIX E

CLASSROOM ENGAGEMENT INVENTORY WITH OPEN-ENDED QUESTIONS

Part A. Rate yourself on each of the following statements by clicking on the statement that best represents you.

Statement *During this narrative unit…*					
1. I felt interested.	Never	Rarely	Occasionally	Frequently	Always
2. I felt proud.	Never	Rarely	Occasionally	Frequently	Always
3. I felt excited.	Never	Rarely	Occasionally	Frequently	Always
4. I felt happy.	Never	Rarely	Occasionally	Frequently	Always
5. I felt amused (smile, laugh, have fun).	Never	Rarely	Occasionally	Frequently	Always
6. I got really involved in collaborative activities	Never	Rarely	Occasionally	Frequently	Always
7. I formed new questions in my mind as I worked.	Never	Rarely	Occasionally	Frequently	Always
8. I did not want to stop working with my group.	Never	Rarely	Occasionally	Frequently	Always
9. I actively participated in class discussion posts.	Never	Rarely	Occasionally	Frequently	Always
10. I worked with other students and we learned from each other.	Never	Rarely	Occasionally	Frequently	Always
11. I "zoned out," not really thinking or doing class work	Never	Rarely	Occasionally	Frequently	Always
12. I let my mind wander	Never	Rarely	Occasionally	Frequently	Always
13. I just pretended like I was working.	Never	Rarely	Occasionally	Frequently	Always

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Part B. Rate yourself on each of the statements below on a scale from 1 (Not at all true) to 7 (Very true) by clicking on the response that best fits you.

Statement *During this narrative unit…*	**Not at all true**						**Very true**
14. I went back over things I didn't understand.	1	2	3	4	5	6	7
15. If I made a mistake, I tried to figure out where I went wrong.	1	2	3	4	5	6	7
16. I asked myself some questions as I went along to make sure the work makes sense to me.	1	2	3	4	5	6	7
17. I thought deeply when I took learning checks in this class.	1	2	3	4	5	6	7
18. I searched for information from different places and thought about how to put it together	1	2	3	4	5	6	7
19. If I'm not sure about things, I referred to the lecture videos.	1	2	3	4	5	6	7
20. I tried to figure out the hard parts on my own.	1	2	3	4	5	6	7
21. I judged the quality of my ideas or work during class.	1	2	3	4	5	6	7

Part C. Answer the following questions.

22. Now that you've experienced a flipped narrative writing unit (short video lectures and working collaboratively in class to apply what you learned), what do you perceive to be its advantages?

23. What do you perceive to be the disadvantages of the flipped narrative unit?

24. Has your perception of a flipped unit changed since it was initially introduced? If so, how?

25. What advice would you give to another student whose teacher was going to flip a unit like this?

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APPENDIX F

OBSERVATION PROTOCOL

Flipped Classroom- Collaborative Activity Classroom Observation Protocol

Collaborative Topic _____

Date _____ Time_____ Block _____

Role of Observer_____ Length of Activity: _____ Minutes

Sketch of Room

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Group Name _____

Activity	Description	Reflections (emerging themes, hunches, insights, etc.)
Contribution to Task		
Discussion		
Movement		

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APPENDIX G

NARRATIVE INDICATORS

Category	**Indicators** *Narrative writers should…*	**Example/Explanation**
Dialogue Punctuation	• Use double quotation marks. • Use one set of quotes for back-to-back dialogue. • Put a period inside the quotation mark at the end of dialogue. • Put a comma inside quotation mark with parenthetical tag. • Put a comma after an introductory tag.	• She said, **"**Yes.**"** • She said, **"**Yes. I mean it.**"** • She said, **"**Yes**.**" • **"**Yes**,**" she said. • She said**, "**Yes.**"**
Tags	• Include a clear, unambiguous tag. • Capitalize first word of parenthetical tag if a proper noun.	• (e.g. avoiding pronoun *she* if many girls in the scene) • "Yes," **Joy** said.
General Narrative Craft	• Remain in one tense. • Choose an appropriate narrator. • Break the story into digestible sections • Give each new speaker a new, indented paragraph	• She **sat** and **said**, "Yes." • (e.g. avoiding 1st person if narrator not a character) • (e.g. using paragraphs to indicate shifts in scene and time) • ➔She said, "Yes." Then, she walked to the door. ➔"Really?" he said.

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APPENDIX H

DESCRIPTIVE STATISTICS FOR CLASSROOM ENGAGEMENT INVENTORY

(Item Number) Statement	**M**	**SD**
(1) I felt interested.	3.79	.88
(2) I felt proud	3.60	1.00
(3) I felt excited.	3.41	.96
(4) I felt happy.	3.57	.97
(5) I felt amused (smiled, laughed, had fun).	3.80	1.09
(6) I got really involved in the collaborative activities.	4.07	.89
(7) I formed new questions in my mind as I worked.	4.05	.88
(8) I did not want to stop working with my group.	3.64	1.25
(9) I actively participated in class discussion posts.	4.07	1.11
(10) I worked with other students and we learned from each other.	4.15	1.01
(11) I "zoned out" not really thinking or doing class work.	3.67	1.12
(12) I let my mind wander.	3.33	1.15
(13) I just pretended like I was working.	4.23	.94
(14) I went back over things I didn't understand.	4.85	1.56
(15) If I made a mistake I tried to figure out where I went wrong.	5.52	1.46
(16) I asked myself some questions as I went along to make sure the work made sense to me.	5.23	1.50
(17) I thought deeply when I took the learning checks.	4.82	1.60
(18) I searched for information from different places and thought about how to put it together.	4.85	1.49
(19) If I was not sure about things I referred to the lecture.	4.07	1.96
(20) I tried to figure out the hard parts on my own.	4.41	1.61
(21) I judged the quality of my ideas or work during class.	5.18	1.44

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