TALKING THROUGH WALLS: A QUALITATIVE CASE STUDY OF HIGH SCHOOL TEACHERS' USES OF ONLINE DISCUSSIONS IN THEIR ELA CLASSROOMS

by

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ABSTRACT

ANDREW WILLIAM CATHER. Talking through walls: A qualitative case study of high school teachers' uses of online discussions in their ELA classrooms. (Under the direction of DR. BRIAN KISSEL)

As the availability of digital technology in public schools spreads, teachers are tasked with implementing new technologies in their classroom. One of these technologies is online discussion forums. This qualitative multiple case study focused on how three teachers used online discussions to facilitate collaboration and student development in their high school English Language Arts (ELA) classrooms. Specifically, this research focused on how teachers facilitated text-centered online discussions, how teachers modified instruction based on analysis of the written responses in the online discussions, and how students interacted in online discussions and how these interactions impacted student writing. Data collection included a teacher questionnaire given to teachers at the beginning of the data collection period, individual teacher interviews conducted at the beginning and end of data collection, a series of three focus group interviews, the transcripts of six online discussions, and an anonymous survey given to the teachers' students. Findings revealed three major themes: the design of the prompt and rubric for the discussions shaped students' responses, the absence of the teachers' voices in the online discussions impacted how students viewed the discussions, and embedding the discussions in larger instructional units gave teachers a preview of the students' writing and reading needs.

DEDICATION

This work is dedicated to Anna, Brady, and Finn. Thank you for supporting me every step of the way.

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I must first praise God who has allowed me the gift of completing this work. You have not only seen me through this season, but you have carried me so often. I am forever blessed! Your love and mercy never cease to amaze me!

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CHAPTER 1: INTRODUCTION

Advancements in technology are rapidly transforming every facet of life in the United States today, including education (Friedman, 2007). English Language Arts (ELA) teachers, once at the forefront of the technological wave in the 1980s, are now struggling to adapt to the ever-changing digital landscape (DeVos, Eidman-Aadahl, Hicks, & National Writing Project, 2010). Even the definition of what constitutes a "text", one of the essential foundations of ELA, has transformed from solely referring to the written word to incorporating analysis of images, gestures, movements, music, speech, and sound effects (Brown, 2016). However, Young, Hicks, and Kajder (2008) note the following:

> [I]n this time of flux, English educators are positioned to explore what it means to be literate in a flat world, engage in teacher education and professional development that skilfully integrates technology and literacy practices, and define a research agenda for the field drawing on the rich traditions of experimental, ethnographic, and action research. (p. 68)

During this exciting time, ELA educators are being given the opportunity to facilitate literacy instruction through diverse mediums made possible through recent advancements in technology.

The implementation of digital technology has impacted virtually every classroom in the nation. According to the National Center for Education Statistics (2013), from

1995 to 2008, the average number of computers per school increased from 72 to 189 shrinking the ratio of students to computers from 6.6 in 2000 to 3.1 in 2008. The same study found that 81.6% of high school students use the Internet. To increase internet connectivity, in 2014 the FCC overhauled the e-rate program that paved the way for the modernization of broadband infrastructure in America's public education system leading to a shift from 30% of the nation's schools being prepared for digital learning to 94% of schools being prepared in just four years (Education Superhighway, 2017). Furthermore, as costs of computing devices have dropped so more schools are implementing 1:1 initiatives, ensuring each student and teacher in a school has dedicated use of a computer (Harper & Milman, 2016). In fact, the number of computing devices shipped to U.S. schools has jumped from roughly three million devices in 2010 to over 14 million in 2017 (Bushweller, 2017).

Statement of Issue

With access to computing devices and the interconnectivity the Internet offers, teachers are able to use an array of technology, not only to deliver instruction to students but for students to use in the consumption and production of texts which are meaningful to themselves (Gee & Hayes, 2011). However, the process of reading digital texts requires additional skills compared to traditional modes of reading. Hyperlinks can connect many different texts at once forcing readers to maintain mental connections between and among various texts. As Cho and Afflerbach (2017) explain, digital texts "very often exis[t] with other texts or pieces of information interconnected through electronic links, both hierarchically and horizontally" (p. 113). Likewise, the creation of digital texts does not fully mirror traditional writing modes. Hicks (2015) notes teachers

"understand that both the processes and the products of writing continue to undergo change in the digital age" (p. 2) as students move away from paper and pencil as the primary means of text creation and towards multimodal products which often include hyperlinks, images, audio, and video.

Unfortunately, the excitement students often feel in producing texts with digital technology is not always shared by their teachers. While Dornisch (2013) found students are becoming increasingly comfortable using technology and expect their instructors to use technology efficiently and often, Prensky (2001) notes many educators are digital immigrants who entered the teaching profession before the emphasis on digital learning. Often, even educators who entered the teaching profession in the past decade have difficulty integrating technology into their classrooms. Ertmer and Ottenbreit-Leftwich (2013) found many teachers do not fully integrate technology in their pedagogical decisions but merely use it as a substitute for previous modes of learning with which they had previous experience. In doing so, educators negate the transformative potential of technology (Lindsay, 2016). As Prestridge (2017) advocates, "Teachers need to acknowledge that their students will be more technologically capable than they are and that the teacher's role is to facilitate learning and utilise their children's competencies" (p. 378).

One digital technology some high school teachers are choosing to implement in their classrooms is asynchronous online discussion forums (hereafter called online discussions). Typically, "the discourse that takes place within [online discussions] is not real time" making it convenient for both the educator and students since neither are forced to be in a particular place at a particular time in order to participate (Hew &

Cheung, 2012). In addition, Sherry (2017) explains, "In online forums, teacher questions can encourage participation from multiple students when those questions invite higher order thinking; teachers' discussion prompts can likewise discourage and limit student participation in online discussions" (Sherry, 2017). This flexibility and potential to tap into students' higher order thinking skills has made online discussions a staple in college distance learning programs, but with the increase in digital technology available to schools, it is only recently being implemented with more frequency in traditional public high schools (Ruday, 2011).

While online discussions may be relatively new, their theoretical underpinnings are not. As the name implies, online discussions attempt to move academic conversations from the classroom into the digital realm. However, discussions have always been a part of learning. For the Russian theorist Mikhail Bakhtin, our very utterances are impacted by the social contexts in which we find ourselves. Bakhtin noted the intra-textual relationship between a speaker (or writer) and his/her addressee(s). Every utterance is in response to a previous thought and anticipates a response, even personal writing not specifically directed to an outside audience. In this way, all language is dialogic. By analyzing the speech or writing of an individual, one is able to see this intertextuality at play (Ball & Freedman, 2004).

It is this very intertextuality that Gee (2011) explores in his discourse analysis. Gee, like Bakhtin, believes discourse takes place in nuanced ways that cannot be divorced from the social situations in which they occur. However, Gee (2011) makes the distinction between language in use (discourse) and socially situated language (Discourse). By building Discourse communities, individuals find themselves privileged

by understanding the social and linguistics norms of the group. Unfortunately, this also means individuals who find themselves outside the Discourse community are at a disadvantage in comparison to those within the community.

However, there are subtle differences between face-to-face discussions and online discussions. As Ruday (2011) notes, "The asynchronous nature of online discussion boards allows for students to comment without being interrupted, to have responses accumulate over time, and to read and respond to others' comments" (p. 351) giving online discussions the interactivity of face-to-face discussions but also giving students the time to thoughtfully respond without the pressure of time. This gives students the opportunity to support their thinking without fear of being interrupted and to develop their thoughts more carefully and thoroughly (Hew & Cheung, 2012).

Yet, online discussions are not fail-safe. Hew and Cheung (2012) have noted limited student contributions in online discussions for various reasons including lack of engagement by the instructor, difficulty following the flow of the discussions, or not seeing the value in the content of the online discussions. Furthermore, Woods and Bliss (2016) noted online participants tended to procrastinate with large numbers of posts being submitted on or near the submission deadline resulting in a less than open exchange of ideas and more of a logjam of disconnected thoughts.

As more high schools incorporate technology into the classroom, teachers are searching for digital means to move learning beyond the confines of the physical classroom itself. Online discussions offer high school teachers a way to engage students in discussions outside of the classroom environment. This is especially appealing to English Language Arts (ELA) teachers who see opportunities to use online discussions as

a means to facilitate discussion around particular texts. However, many high school teachers have not had the training to design online discussions (Ruday, 2011). This study examined ELA teachers' perceptions on the use of online discussions centered around a text and how students interacted in these online discussions.

Purpose of the Study

The use of digital technology in the classroom has exploded in the last two decades and the use of online discussions, though not universal, is growing in popularity (Bushweller, 2017). The purpose of this research was to explore how both teachers and students at a suburban high school viewed the role of online discussions in their ELA classrooms. This case study used qualitative methods to explore teachers' perceptions of the online discussions as a means to foster student engagement and extend student learning beyond the confines of the classroom walls. Furthermore, this study investigated students' perceptions of their interactions via online discussions and their impact on student learning.

This case study aimed to understand the use of online discussions centered on texts to extend the learning environment beyond the classroom. The following research questions guided this study:

1. In what ways do teachers facilitate online discussions?
2. In what ways do teachers modify instruction based on analysis of online writing responses?
3. How do students interact in online discussions and how do these interactions impact student writing?

The perceptions of educators who are both fluent in the development of online discussions and those who are still evaluating its merits were examined so that a rounded view of the use of the technology was more clearly understood. Furthermore, students were also interviewed and their online interactions analyzed to ascertain how students engaged with one another and the content in the online discussion space. From these analyses, a clearer understanding of how and why teachers chose to use online discussions emerged as well as a richer view of student discussions in the online environment.

Theoretical Framework

This research springs from the constructivist paradigm. Constructivism was born out of a belief that objective, scientific measurement cannot capture the full scope of the human experience (Mertens, 2015). Cobern (1993) explains two limitations to scientific inquiry: first, science choses to focus solely on what it can measure to the exclusion of phenomenon it cannot; second, one can only perceive something that one already has foreknowledge about. In other words, "A scientist only constructs knowledge to fit experience" (Cobern, 1993, p. 107). In contrast, constructivists believe reality is a social construction and researchers should attempt to understand the world through the lived experiences of its inhabitants. Therefore, constructivist researchers and the participants of their studies are "interlocked in an interactive process" (Mertens, 2015, p. 19) thus making meaning a co-constructive process.

This study relied on the experiences of the teachers and their students to help tell the story of how teachers facilitated online discussions in their ELA classrooms. While the teachers may have assigned the prompts in the online discussions to the students, the

students created the discussion themselves. In addition, by asking students to engage with one another in the online environment, students had an opportunity to bring their own lived experiences into the conversation. In this way, each student brought his or her unique history into the conversations surrounding the texts.

Furthermore, from the constructivist paradigm springs both phenomenological and case study methodologies (Mertens, 2015). Phenomenology is "distinctly existential, emotive, enactive, embodied, situational, and nontheoretic; a powerful phenomenological text thrives on a certain irrevocable tension between what is unique and what is shared" (van Manen, 1997, p345). Because phenomenological research emphasizes the individual's lived experiences (Wertz, 2005), it is vital for the participant to be a co-constructor of knowledge alongside the researcher (Mertens, 2015).

Significance

This study was designed to help us better understand both teacher and student perceptions of the use of online discussion forums in the high school ELA classroom. While online discussions have been present for more than two decades in college courses, the availability of digital technology in high schools across the nation is making this digital technology more widely available to teachers and students across the nation. Though research has highlighted the collaborative nature of online discussions as a key benefit, other researchers have noted the lack of student participation in online discussions as a possible drawback (Hew & Cheung, 2012). However, little published research has been done that looks at how online discussions are implemented and perceived by both teachers and students in a high school ELA classroom. Specifically, this research highlighted the perceptions of high school ELA teachers as they used this

digital technology in their classrooms and examined how these teachers used these online interactions to modify instruction. Furthermore, this research observed how students interacted with their teachers and peers in the online environment and sought to understand how students viewed the value of their participation in these discussions.

By gaining a better understanding of how and why teachers used online discussions and how students interacted with not only their peers but their instructors, I sought to inform the larger body of research surrounding online discussions and the digital production of texts and to influence future teacher professional development. As the use of online discussions continues to spread into the high school classroom, teachers need additional support to both develop and maintain constructive online discussions. Through this study, additional insights into how teachers perceive online discussions and their role in their classrooms can be used to influence how districts approach the use of online discussions in the classroom. Furthermore, districts can better understand how teachers use these online discussions to modify instruction in an effort to develop specific professional development targeted to the facilitation of online discussions. Finally, by understanding how students interact in online discussions, teachers can develop strategies targeted to increase student engagement in these discussions.

Definition of Terms

- Discussion post: A submission of a digital text, whether written, audio, visual, or a combination of textual formats, to the online discussion environment. A forum post is visible to all participants in the online discussion and is time stamped.
- Thread: In an online discussion, the learning management system software aids the user by visually grouping messages with their replies. This grouping, or

"thread," often subsumes the replies in chronological order under the "parent" post.

- Initial post: To spur their writing in an online discussion, often students are given a prompt by their teacher. Students' initial response directed specifically at the teacher's prompt is considered the initial post.
- Reply: A reply is written in direct response to a student or teacher's original post, not the prompt.
- Follow up reply: A follow up reply is written in response to a reply.

Summary

Chapter one created the foundation for the case study of online discussions in a high school ELA environment. As technology has revolutionized industry, schools have found it necessary to build students' digital literacy. The rapid rise in internet connectivity and the ability for schools to purchase digital devices for students has also fueled the implementation of digital technology in classrooms. While not all teachers are comfortable with using technology in the classroom, many are excited to learn. One form of digital technology which is being integrated in many classrooms is online discussion forums. While research highlights the use of online discussions, especially at the post-secondary level, what is lacking is information about how high school educators, specifically in the ELA classroom, facilitate online discussions and how high school students interact with one another and their teachers in the online discussion environment. The next chapter describes the impact technology has had on literacy and highlights particular issues teachers have faced in the implementation of technology in the ELA classroom.

CHAPTER 2: REVIEW OF THE LITERATURE

As technology has evolved, it has fundamentally changed the way ELA educators must approach their curricula and students. The purpose of this literature review is to explore the impact technologies have made on ELA classrooms over the last two decades focusing specifically on the integration of online discussions in classrooms. This review begins with a look at the explosion of digital technology use in the United States and moves into a description of the impact of digital technology on both reading and writing. It then traces the emergence of digital literacies with special attention paid to online discussions. Finally, this review ends by examining some of the digital dilemmas facing teachers and schools today.

Proliferation of Technology in the U.S.

World War II helped to spark the computer revolution with the advent of ENIAC, the first computer, in 1943 ("Programming ENIAC," 2013). Since then, digital technology has become a fixture in businesses across the nation. However, the value of digital technology moved from the board room to the living room when the first home computer hit store shelves in 1981 with the unveiling of the first PC by IBM (Domingo, 2011). According to Olmstead (2017), more than 80% of households in the U.S. report owning at least one computer or laptop and 84% report owning at least one smartphone, with one-third of U.S. households owning three or more smartphones. In addition, 68% reported owning a tablet and 39% report owning a streaming device such as Apple TV or

ROKU. Collectively, 90% of U.S. households report owning at least one of these digital devices with the average U.S. household containing five of them. As technology has spread through the workplace and the home, both businesses and parents have put pressure on schools to equip students with the technological skills needed to compete in an ever-more digitized world. The Partnership for 21st Century Learning (2015), a coalition of business, education, and political leaders, developed a framework of skills needed to compete in the 21st century marketplace that has been adopted in 20 states. Nearly one third of their framework focuses on information, media, and technology skills. Yet, this emphasis on technology in schools is not limited to these 20 states. In 2010, then president Barack Obama requested an additional $4 billion to help students prepare for computer science specific fields (Smith, 2016). This emphasis on technology impacts students today. In fact, public schools now boast a minimum of one computer to every five students, and in 2015, for the first time in history, more students took state standardized tests via computer than with paper and pencil (Herold, 2015). The ever-increasing emphasis on technology skills has caused thousands of schools to adopt a 1:1 initiative where every student in a school is assigned a digital device to be used at school and at home on which the majority of their coursework is completed (Weston and Bain, 2010).

The omnipresence of digital technology is fundamentally changing the definition of literacy in schools today. According to Snyder and the National Center for Education Statistics (1993), in 1940 nearly 3% of the U.S. population were functionally illiterate compared to under 1% today. However, this was determined by using functional literacy,

or the ability to complete simple, everyday tasks, as the determiner of literacy. In comparison, Snyder (2002) states the following:

> We need an expanded definition which recognizes that reading and writing, considered as print-based and logocentric, are only part of what people have to learn to be literate. Now, for the first time in history, the written, oral and audiovisual modalities of communication are integrated into multimodal hypertext systems made accessible via the Internet and the World Wide Web. (p. 3)

In other words, today's students need new skills to move beyond a simple understanding of the signs and phonics of language and must move towards more robust critical literacy skills.

Out of this changing definition of literacy has emerged digital literacy, whose definition is as mobile as its technology. For this literature review, digital literacy will be defined as follows: "[T]he ability to locate, organize, understand, evaluate, and create information using digital technology. It involves both an understanding of the technology and how that technology can be used to communicate and work more effectively" (Williamson & Education Partnerships, 2011). Whereas only a decade ago technology education was relegated to stand-alone computer classes, today technology is embedded into every class. This change has been particularly felt in ELA classrooms since the acquisition of texts and the production of composition have largely shifted from a paper and pencil format to digital formats (DeVoss et al., 2010).

Impact of Digital Literacy on Reading

As computers have been integrated into the workforce, home, and school, students are being exposed to increasing amounts of digital texts. However, these digital words

are much more dynamic than flat texts found in standard books. Digital texts can assist the reader through digitized pronunciations, simplified texts, instant second-language translations, hyperlinked information, graphics and animations, audio commentary, and online glossaries (McKenna & Simkin, 2008). Yet, technology is moving beyond assisting students with what they read and is actually enabling students to learn to read. Through the use of virtual manipulatives, students are able to participate in such digital activities as sorting words into groups, completing phoneme-grapheme matching, and engaging in listening stations (McKenna & Simkin, 2008). Furthermore, educators can now assess students' reading through diagnostic cycles that give teachers almost instant feedback on students' academic progress (McKenna & Simkin, 2008).

Additionally, digital literacy has also been shown to increase student engagement. Thoermer and Williams (2012) explain that digital texts can be viewed across multiple platforms and from the convenience of multiple locations, making it easier for students to engage with the texts. Furthermore, since digital texts are more malleable and versatile, students can control more of the learning process, which also increases their engagement with the texts (Larson, 2010).

However, there is conflicting data regarding the impact of digital reading on comprehension. Larson (2010) explains that students are often excited to read digital texts when they are first presented but worries that the infatuation soon wanes and can result in digital distraction. This sentiment is echoed by Baird and Henninger (2011) who believe that when young children, especially struggling readers, encounter challenging text on a digital device, the children tended to focus on the technology in front of them and not the text itself. Furthermore, Mangen (2008) worries that digital reading forces

students to read in a shallower, less focused way. She argues that digital reading even changes the physicality of the reading process by limiting physical interactions with the text (such as tracking with fingers) and decreases the immersive effect of the text.

Impact of Digital Literacy on Writing

Gee and Hayes (2011) note that while oral language is mankind's primary language vehicle, its ephemeral nature leaves no permanent record. In contrast, they explain that written language enables the transmission of information outside of time and space. Gee (2015) further explains that writing allowed humans to investigate language itself and increase their depth of reasoning. However, while Plato feared writing as a platform would "implant forgetfulness" in the souls of mankind and destroy the give and take of thought inherent in dialogue (Plato & Rowe, 1986, p. 275), Bakhtin asserted the dialogic nature of written language explaining every statement is written in response to previous experiences and anticipates a form of response (Renfrew, 2015). Newkirk (2014) expands the notion of the dialogic nature of writing by asserting all writers attempt to create an alternate version of themselves that is "more confident, more knowledgeable, more caring, more assured, more upbeat, better humored" (p. 37) than their actual selves. In this way, writing is as much a process of self-creation as it is knowledge creation.

However, the need to create texts has never been more important than today. As Dragland (2013) has noted, 90% of the world's cumulative amount of data was produced during the last two years. This staggering statistic indicates not only the sheer volume of written material being generated today but the need for students to move beyond a text-consumption mentality and become text producers as well. This technological boom has

had an extraordinary impact on how students learn to write. No longer are students restricted to the use of pencil and paper as their sole medium to construct texts; they are now able to construct their texts digitally from anywhere in the world. This global transition in the writing landscape has necessitated rethinking what it means to compose text.

In its analysis of the importance of digital writing, the National Council of Teachers of English (2016) notes the following:

> Because students will, in the wider world, be using word processing for drafting, revision, and editing, incorporating visual components in some compositions, and including links where appropriate, definitions of composing should include these practices; definitions that exclude them are out-of-date and inappropriate.

Consequently, today's students are forced to consider a wide range of compositional decisions that their predecessors did not. Unfortunately, teens are finding it increasingly difficult to discuss writing with technology because, to them, the two processes are too closely intertwined. These students do not see their construction of text messages, blogs, and social media posts as "real writing" and give the production of digital media less value than traditional methods of text production (Lenhart, Arafeh, & Smith, 2008). However, Yu (2014) found students view the use of digital formats to compose texts as beneficial to their learning, noting that the construction of digital texts tapped into higher order thinking skills in powerful ways that an analog medium did not. These increased skills include rhetorical knowledge, application of knowledge of conventions, creativity, and collaboration. With the increase in students' reliance on digital technology to produce texts and exposure to digital media, it is imperative for educators to "support

students in discovering strategies they can use to analyze resources related to the topics on which they are writing." This can include such skills as finding information, determining its validity, and applying it effectively to an ever widening range of tasks including "the use and reuse of images, text, music, and sound" (DeVoss et al., 2010, p. 54).

However, it is not only the use of digital technology that draws the attention of students; it is the collaborative community encouraged by digital writing that increases engagement for many students. The participatory culture that has evolved around digital writing has redirected the focus of literacy from one focused on the thought of an individual to one of building community (DeVoss et al., 2010). In an action research study at an elementary school writing camp, Zoch, Langston-DeMott, and Adams-Budde (2014) found that students learned the most through peer interactions instead of the direct instruction of the teacher. Yet, the collaborative nature is not relegated to elementary school. In a study of postgraduate students, Sinclair (2015) notes when digital discussions have revealed new opportunities for interanimation, or the process that students use language to help one another understand a concept. Undoubtedly, students at all educational levels are engaged in the collaborative nature of digital writing.

Emerging Trends in Digital Literacy

Changes in students' consumption and production of texts brought on by increased digital interactions have necessitated a change in how literacy itself is viewed. In reaction to the changing dynamics of literacy, the New London Group (1996) developed a pedagogy of multiliteracies that attempts to broaden the concept of literacy by incorporating the variety of textual forms individuals need in order to be viable in an

increasingly globalized society that relies on communication with others, primarily in digital spaces. Multiliteracies recognizes the inherent need to maintain intellectual flexibility in order to adapt to the changing literacy needs of the world. As such, multiliteracies includes the "study of both linguistic variation and semiotic modes (such as visual, aural, and gestural) to create texts" (Young, Hicks, & Kajder, 2008, p. 70). Multiliteracies focus on four main components: situated practice, overt instruction, critical framing, and transformed practice (New London Group, 1996). Situated practice brings together experts and novices working together in a real world context. As such, it introduces the novice students to the norms and expectations of the expert group (New London Group, 1996; Olthouse, 2013). Overt instruction "includes all those active interventions on the part of the teacher and other experts that scaffold learning activities" and help them build specific understanding of new concepts and connections with previous learning (New London Group, 1996). Critical framing asks students to constructively critique an idea by examining its historical, cultural, and social connections (New London Group, 1996). Finally, transformed practice allows students to take their new knowledge and apply it to different contexts of their own choosing and for their own purposes (Olthouse, 2013). In application, students would use digital communication to build relationships with experts via the internet to gain understanding of a topic (situated practice) that was introduced through digital means by their teacher (overt instruction). The students would then research via the web the various social impacts of the topic (critical framing) and transform that knowledge into a blog connecting the topic to a different subject (transformed practice).

New literacies is another emerging trend in literacy. New literacies recognize two dominant ideologies that are simultaneously at play: one mindset believes that the contemporary world remains the same and that digital technology has merely been added to it, while the other mindset believes that the world has fundamentally changed because of recent technological innovations and these innovations necessitate a change in the way literacy is viewed (Knobel and Lankshear, 2006). New literacies focuses on this evolution of meaning making, including those changes brought about through the explosion of technology in the last two decades (Knobel & Lankshear, 2014). This shift in how literacy is viewed hinges on two kinds of "stuff": technical and ethical (Young, Hicks, & Kajder, 2008). The technical stuff focuses on new forms of software programs and hardware designs as well as changes in interconnectivity that allow users to creatively express their ideas in dynamic ways and to diverse audiences (Young, Hicks, & Kajder, 2008). While the technical stuff focuses on the "how" students use technology to display their literacy, the ethical stuff focuses on the "why" students choose their literacy in specific ways. Knobel & Lankshear (2014) note that as technology has increased, so has the participatory nature of composition. No longer is composition an author focused, largely solitary endeavor, but it has become participatory and collaborative endeavor focusing on the distribution to texts to "real" audiences.

Discussions

The need to discuss ideas is ever-present in human society. The classroom is no different. Discussions have had a large space in classrooms around the world. In fact, for theorist Mikhail Bakhtin "general language" does not exist; instead, he hypothesized language is always directed towards someone else, even if it is our own inner-self (1981,

p. 22). Gee and Hayes (2011) further this notion when they explain, "Other people's language is inside my head whether I know it or not. Looked at this way, language is a communal resource from which we all beg, borrow, and steal. People talk like others and still each of us has our own unique style" (p. 7). As such, our discussions with others help us develop not only our "own unique style" but our own unique understanding of topics.

Like Bakhtin, Vygotsky saw the value of discussion in literacy. According to Vygotsky (1986), literacy is a socially mediated process in which discourse becomes pivotal to both the acquisition and transfer of meaning. As a socially mediated process, a student's development cannot be fully understood simply by studying the individual. Instead, the individual is an entity within a larger social world, and, as such, this social world must be studied in order to understand its impact on the individual. In this way, a student's understanding of a text can be viewed through a constructivist lens.

For students to understand a text, they must connect the text with elements in their prior knowledge, including their past experiences, thoughts, and interactions with others. In this way, the author and reader share in what Louise Rosenblatt called a "transactional experience" (Bressler, 2007, p. 79). However, rather than being alone on an island, students learn best when this process is scaffolded though interactions with both teachers and peers (Roskos & Newman, 2001). This way, students can gain the benefit of the experiences of their peers and teacher as they engage a text.

It is this social mediation which teachers hope to capitalize on as they facilitate classroom discussions with their students. However, though classroom discussions are common, they are never simple. As Michaels and O'Connor (2015) explain,

> Orchestrating academically productive discussion—that is, discussion that supports robust learning for each student—involves a multidimensional blend of human interaction mediated by language, often about a complex topic, with an ambitious goal of human learning. It involves social, cultural, psychological, and cognitive dimensions, all within the context of an academic domain. (p. 334).

This blend of social, cognitive, and linguistic interactions challenge students, as well as their teachers, to interact with one another to inform their learning. However, the interactions between teacher and student are often unbalanced with the teacher carrying the heavier linguistic load (Cazden, 2001). Specifically, classroom discussions often take the Initiate-Respond-Evaluate pattern in which the teacher initiates a questions, a student responds, and the teacher evaluates the student response (Cazden, 2001). While this method may allow teachers to evaluate student factual recall, it does little to develop student analytical thinking. It is in opposition to these types of teacher-centered face-to-face discussions that online discussions often position themselves.

Online Discussions

Probst (2007) uses a scene from Mark Twain's *The Adventures of Tom Sawyer* when Tom Sawyer was tasked with painting a fence to reinforce the need for students to work together to develop meaning. Instead of doing all the work alone, Tom rounds up his friends to help him enticing them by making the act of painting a fence appear enjoyable and meaningful. Probst notes:

> [Tom] didn't do it by reducing the task to its basic elements and drilling them for months on it … Nor did he do it by threatening them with high-stakes standardized tests, or by promising them advanced placement when they returned

> to school in the fall. In fact, he didn't promise them anything at all, except the intrinsic reward of doing the task well and a comfortably sociable setting, surrounded by friends, in which to do it. (p. 44)

For Probst, sharing digital writing has increased student interest in writing and literacy. As student fluency in the use of online media has grown, so has teacher interest in harnessing that fluency in order to help students succeed in the classroom.

One area of digital communication emerging in the high school classroom is online discussions. Hew and Cheung (2012) note the key feature of most online discussion forums is their asynchronous format wherein the discourse takes place not in real time but at the convenience of the participants. These asynchronous forums allow students to openly discuss various topics both assigned by a facilitator and developed by individual students in the class (Lin & Overbaugh, 2009). Nahachewsky and Ward (2007) found that online writing is multilayered and offers multiple perspectives on a given topic, which further complicate the notion of critical literacy. Similarly, in a study of high school students, Bowers-Campbell (2011) found that asynchronous online literature discussions allowed students to have sophisticated discussions focused on texts while preserving their thinking in a way that supports students' metacognition. Rovai and Jordan (2004) additionally noted this collaborative medium gave students the space for "reflective interaction often lacking in face-to-face, teacher centered classrooms" (p. 3).

However, for students to enjoy the full benefit of online discussions, they must actively participate. Yukselturk (2010) found the number of posts a student makes in an online discussion significantly correlates to the student's achievement. Unfortunately, this is not always the case. Hew and Cheung (2012) found limited student contributions

in online discussions where students demonstrated “superficial or surface-level critical thinking, or students exhibit[ed] low-level knowledge constructions” in addition to few posts to the discussion forum (p. 9). Furthermore, Lee, Kim, and Hackney (2011) found reluctance among students to participate because of fear of “knowledge parasites” who would benefit from the shared knowledge of the discussion posts but contribute very little resulting in “knowledge hoarding” (p. 1432).

Furthermore, researchers have uncovered differences in how male and female students interact online. In their study of the online interactions of college psychology students, Guiller and Durndell (2006) note that male students tend to be more authoritative than female students as indicated by the increased use of qualifiers and personal opinions by females. They also found that female students were more likely to be positive in their posts than their male counterparts who often included challenging statements of disagreement in their posts. Likewise, in a study of undergraduate students enrolled in a teaching practicum that utilized asynchronous discussion posts, Gibbs (2009) found that male students used more expository statements that focused on the transmission of information and minimized personal connectedness, whereas female students tended to utilize epistolary formats that incorporated introductions and scaffolding to build community with their audience.

However, differences in male and female online interaction are not limited to diction and tone. In a quantitative study of undergraduate college students, Bostock and Lizhi (2005) indicate that the frequency and content of online interactions are impacted by the gender composition of the group. The researchers noted that mixed gender online discussion groups increased the participation of male participants while it had the

opposite effect on females. Though this trade off poses a dilemma for facilitators, the same research indicates a positive correlation for both genders between the participation in the online discussions and the final grade in the course.

Complicating matters further, teachers themselves often struggle with the facilitation of online discussions. Teachers often spend hours developing and facilitating the online discussions (Bedford, 2014). Yet, these hours are necessary for the success of the online discussion. Teacher facilitation of online discussions have important impacts on student learning as they guide not only the topics discussed but what is valued in the discussions (McKinney, 2018). However, the assessment of these discussions can be a source of frustration for both teacher and student if the assessment rubrics do not clearly define the expectations for the discussions (McKinney, 2018).

Digital Dilemmas

Unfortunately, the excitement students often feel in producing texts with digital technology is not always shared by their teachers. While Dornisch (2013) found students are becoming increasingly comfortable using technology and expect their instructors to use technology efficiently and often, Prensky (2001) notes many educators are digital immigrants who entered the teaching profession before the emphasis on digital learning. Often, educators who entered the teaching profession in the past decade have difficulty integrating technology into their classrooms. Furthermore, Mundy, Kupczynski, and Kee (2012) explain many teachers operate more under traditional roles of job obligations than under specific job descriptions making pedagogical changes to the profession slower to integrate. One entrenched teaching role is that of the provider of information. In a study of 2,462 Advanced Placement and National Writing Project

educators, the Pew Institute found 92% of teachers said the internet had a "major impact" on their abilities to access information and resources for their classes (Purcell, Heaps, Buchannan, & Friedrich, 2013). However, the same study found only 52% of the same educators felt the internet had a "major impact" on how they interacted with students. This study suggests many educators cling to the role of information provider instead of equipping students with skills necessary to acquire and interpret information both independently and collaboratively.

Yet, this same study signaled a potential reason for some educators' reluctance to fully embrace technology: 32% of teachers believed their school districts do a poor job of providing teachers with formal training in how to incorporate digital tools in the classroom (Purcell, Heaps, Buchannan, & Friedrich, 2013). Similarly, Hsu (2010) revealed teacher computer proficiency differed from teachers' abilities to integrate technology for their students. In other words, a teacher's use of technology in his/her classroom does not directly correlate into students' mastery of the coursework which highlights a need for specific training to ensure that teachers utilize technology in ways that support students' critical abilities. The need for further state and locally driven professional development is heralded by Darling-Hammond (2009) who suggest professional development needs to be a process whereby educators are challenged to meet as part of collaborative learning communities to examine student performance and construct ambitious goals to foster instructional change.

Unfortunately, professional development is often relegated to individual teachers. DeVoss et al. (2010) encourages individual educators to explore digital learning opportunities on their own and note that individuals who become fluent in their

own digital learning can relay those practical strategies to their students. Turner and Hicks (2012) further emphasize this need for self-education with writing teachers and argue "that teachers, regardless of their facility with technology or their personal writing practices or past academic experiences, must engage as digital writers" (p. 57) in order to act as models for their students. However, the need to develop the digital skills of all educators falls largely on state and local initiatives.

Furthermore, not all students are equally engaged by digital technology. Gallardo-Echinique, Marques-Mollas, Bullen, and Strijbos (2015) found that even though today's students may be considered "digital natives" because they were born in an era with daily access to technology in a number of forms, they lack the digital competence of their teachers. In fact, the authors lobby for a change in terminology from "digital natives" to "digital learners" when referring to students. This draws a distinction between young individuals as consumers of technology (digital natives) and students engaged in complex interactions with technology for academic gains (Gallardo-Echinique et al., 2015). Similarly, in a study of middle school students, Martin and Lambert (2015) labeled students as digital passengers, digital navigators, or digital drivers. Though digital passengers had at least some access to technology in their environments, they relied less on technology and more on interactions with their instructors. Furthermore, they preferred hard copies to electronic versions of texts and preferred to compose in a linear process that revealed limited word-processing skills. Digital navigators had more interactions with technology both inside and outside of the school environment and for both academic and social purposes. These students relied less on the instructors and were able to explore technologies on their own. Rather than write linearly, these students

wrote recursively with editing occurring during all phases of composition. Finally, digital drivers felt comfortable using technology independently and had little need for interactions with instructors. They managed their projects independent of the instructors and integrated multiple digital genres into their compositions (Martin & Lambert, 2015). Clearly, educators must be aware that just because a student was born in the last twenty years does not guarantee that he/she will have had the same interest or skill in technology that his/her peers have had.

The Digital Divide

Sadly, today many students experience the digital divide, or inequitable access to and use of technology (Wilhelm, Carmen, & Reynolds, 2002). In the early 1990s researchers began to understand the value of information acquisition in the emerging global economy. Sweetland (1993) notes a person not only needs to possess adequate economic resources to ensure information access, but also intellectual capital for information retrieval and evaluation. As high-speed fiber optic cable spread across the country and sales of personal computers capable of internet access skyrocketed, the National Telecommunications and Information Administration (1995) began to identify gaps between those with internet access and those without. Researchers have found that there is significantly disproportionate access to technology based on an individual's socio-economic status (SES), gender, and ethnicity (Ritzhaupt, Liu, Dawson, & Barron, 2013). Students who lack access to technology inherently have fewer opportunities to practice with technology in their personal lives and to express themselves in personally meaningful ways (Attewell & Battle, 1999). As such, those without digital access are left without the skills necessary to compete in a globalizing economy marked by increasingly

interconnected economies, political alliances, and cultures brought together through the development of new technologies (Wiggan, 2011).

Yet, as Stevenson (2009) notes, the digital divide is more complicated than just a division between those with internet access and those without. Reinhart, Thomas, & Toriskie (2011) believe a new digital divide has emerged not between those who do and do not have internet access but between those who know how to effectively use technology and those who do not. Jung (2008) found that along with internet access, an individual's goals for internet usage largely depended on socioeconomic status. In other words, students from poverty used the internet in different ways, such as for socialization and information finding, than those from financially stable households, who also used the internet for these same purposes but added in the creation of texts and media as well as increased intellectual property rights. This second level digital divide greatly impacts the way individuals are willing to pursue digital opportunities. Horrigan (2016) notes Americans who are hesitant to use technology are more likely to have attained lower levels of education and have lower levels of household income compared to those more comfortable with technology who are more likely to have attained postsecondary education and have higher household incomes.

Because digital literacy is so closely tied to social and economic mobility, it is vital for schools to engage students in the creation of digital texts. Furthermore, digital media reaches across cultural barriers in ways traditional, stagnant language cannot. For Hines and Kersulov (2015), the implementation of digital technology and media creation in ELA classrooms is a form of culturally relevant pedagogy, which challenges educators to move beyond the teaching of literacy for employment skills and focus on the

sociopolitical structures that drive student achievement and engagement (Ladson-Billings, 1995). While studying students in an alternative high school, Hines and Kersulov (2015) found the introduction of digital writing gave voice to disruptive students and helped redirect their energies by giving them an outlet to express their beliefs. As they validated the students' digital awareness, the students responded with increased engagement on their academic tasks.

In addition, Morrell, Duenas, Garcia, and Lopez (2013) advocate for the creation of a critical media pedagogy which encourages the production of media that empowers students to find and publish digital content in their own writing style instead of merely being "consumers of state-sanctioned knowledge" (p. 17). This pedagogy is aimed primarily at impoverished, marginalized youth in an effort to combat the hegemonic forces that have historically marginalized the cultures of the urban youth in their participating schools. Through the creation of counternarratives in diverse social media, marginalized youth reclaim their unique voices and reflect their understanding of their own cultures.

Summary

Just as digital technology has revolutionized the workplace and the home, it is also revolutionizing the classroom. The implementation of digital technology has started to change the very nature of literacy by impacting how students both consume and produce texts. However, this digital revolution is not without its difficulties. While the proliferation of technology has placed a smart device in the hands of a vast majority of students, not all students understand how to best use the technology for their own education. This research examines one such new technology: online discussions. The

goal of this qualitative case study is to understand the use of online discussions to extend the learning environment beyond the classroom. To do this, I seek to answer the following research questions:

1. In what ways do teachers facilitate online discussions?
2. In what ways do teachers modify instruction based on analysis of online writing responses?
3. How do students interact in online discussions and how do these interactions impact student writing?

CHAPTER 3: METHODOLOGY

As the integration of technology spreads throughout U.S. schools, educators are seeking new ways to engage students in efforts to help them develop 21st Century skills (Bushweller, 2017; Harper & Milman, 2016; Leu et al., 2011; Penuel, 2006). High school ELA teachers are increasingly turning to online discussions both as a means to facilitate dialogue and as opportunities for student writing. In an effort to add to the body of research and improve teacher knowledge on how to implement online discussions in their classrooms, I explored the role of online discussions in three high school ELA classrooms.

Through this study, I explored how teachers develop online discussions and how students interacted on these online environments. However, the process teachers use to foster online writing in their students and the motivations of students as they write online can be difficult to quantify. While rubrics and surveys can start to quantify writing, the reasons for the students' stylistic choices often remain hidden. For this reason, I used a qualitative research methodology to collect data about the perceptions of teachers regarding online discussions and their motivations for implementing and using this digital technology. Furthermore, my data collection helped me understand how students chose to interact with each other and their teachers in the online environment. Through interviews, I gained a better understanding of how teachers facilitate writing and student

writing choices from the students' perspectives. Furthermore, document analysis was vital to gain insight into both teacher facilitations of writing and student writing itself. Documents from online discussions were gathered and analyzed in order to track the progression of students' ideas and stylistic choices and the impact of peer and teacher interactions on those developing ideas.

Overview of the Chapter

This multiple-case study used qualitative methods to understand the use of online discussions to extend the learning environment beyond the classroom. The following are the research questions that guided this study:

1. How do teachers facilitate online discussions?
2. How do teachers modify instruction based on analysis of online writing responses?
3. How do students interact in online discussions and how do these interactions impact student writing?

This chapter begins with an overview of case study design. It then moves to a description of the site and participants who participated in this study as well as a description of my positionality. Next, I describe the data collection methods I used to understand the research questions and the methods of analysis I implemented to make sense of the data. Finally, the chapter ends with a discussion of the steps I used to increase the trustworthiness of this research and highlights the limitations as well as possible risks and benefits of the research.

Multiple-Case Study Design

Baxter and Jack (2008) describe case study methodology as "an approach to research that facilitates exploration of a phenomenon within its context using a variety of data sources" (p. 544). Case studies are best implemented to answer how or why a phenomenon occurred in situations where the researcher is unable to manipulate the specific conditions (Mertens, 2015). Qualitative data is privileged since the case study itself attempts to recreate the circumstances under investigation for the reader (Hammersley & Gomm, 2000). To understand a particular phenomenon, case study researchers gather a wealth of data using multiple data collection methods and sources to produce a rich description about a large number of elements in each case (Dooley, 2002). Because of the depth of description and amount of data needed for this methodology, most case studies limit their scope to less than five cases and often only include one case.

However, the term "case" itself is often troubling as many assume it refers to a single object or person. In this methodology, a case is the entity, event, activity, process, or program under investigation (Cousin, 2005). To case study researchers, it is vital that the boundaries of each case are clearly delineated in terms of proximity, time, and relationship to the specified phenomenon and that the set boundaries are strictly maintained (Baxter & Jack, 2008). Some case studies use propositions or explanations of what a researcher anticipates observing based on the prevailing literature or personal experience (Mertens, 2015).

Stake (1995) highlights three forms of case studies: intrinsic, instrumental, and collective. Intrinsic case studies focus solely on the phenomenon observed. The researcher is "intrinsically" interested in learning about the phenomenon (Cousin,

2005). Instrumental case studies use the information collected from the study of a particular phenomenon to inform a larger issue. In this instance, the larger issue is paramount to the case itself (Baxter & Jack, 2008). In collective case studies, multiple cases are analyzed in order to inform an issue. This allows the cases to be compared on multiple levels to provide insight into a central issue (Cousin, 2005). For this research, a multiple-case study design was implemented allowing analysis both within the individual cases of the teachers' online discussions and across the cases as well.

As researchers analyze their data, they must remember that case study methodology is rooted in the constructivist paradigm which states that there is a symbiotic link between the researcher and participants meaning there can be no one finite reality; instead, each individual constructs his/her own reality based on his/her lived experiences (Mertens, 2015). As such, case study researchers are encouraged to analyze their data in multiple ways such as uncovering patterns in the data, connecting data with propositions, and making comparisons across cases to allow the phenomenon to be viewed from multiple perspectives (Baxter & Jack, 2008). From these multiple perspectives, the researcher develops the rich, detailed description of the data that allows the reader to determine the credibility of the research and to "determine whether or not the study findings could be applied to their own situation" (Baxter & Jack, 2008, p. 554).

It is this multidirectional, rich description of the data which made the case study approach appropriate for studying online discussions. As Dyson and Genishi (2005), explain, a case "is just that—a case. It is not the phenomenon itself" (p. 4). In other words, the phenomenon will look different in different contexts. However, qualitative case studies highlight the interplay between "the production of meaning and its

dependence on context" (Dyson & Genishi, 2005, p. 4). Research such as Forest and Kimmel's (2016) examination of critical literacy performances and Louwrens and Hartnett's (2015) study of student motivation in online discussions highlight the value of context in understanding phenomenon. It is from qualitative case studies such as these that this research study drew its genesis.

However, while there were similarities between the teacher (including the school, subject taught, and grade level), there were a number of differences as well. At CBHS, each teacher was given the freedom to select texts of her choosing. Furthermore, each teacher was able to independently select her approach to teaching these texts, within the bounds of the state's standard course of study. With this much freedom, each teacher's online discussions were very different. As such, a single case methodology was insufficient to truly investigate the phenomenon of the use of online discussions in a high school ELA classroom.

However, instead of only examining the case of one teacher's use of online discussions in her ELA classroom, I wanted to investigate the similarities and differences across the three cases. To do this, I employed a multiple-case method. Yin (2014) encourages multiple-case studies in order to increase the validity of the results. After doing within-case analysis of each teacher's use of online discussions in her class and her students' interactions throughout the discussions, I did a cross-case analysis of the three cases to uncover themes which would better inform my research questions (Smith, Flowers, & Larkin, 2009).

Research Context

Population and Sample

Site Selection. Cedar Bluff High School (pseudonym) is a large rural high school in the southeastern United States with a 15:1 student to teacher ratio. Enrollment at Cedar Bluff High School (CBHS) topped 2,000 in 2017 with student demographics including 80% White, 10% Black, 4% Hispanic, 2% Asian, and 3% who identify as two or more ethnicities. Fifty-two percent of the student population are male and 48% are female. In addition, 26% of the student population qualify for free or reduced lunch. Furthermore, CBHS is divided into two campuses, with one campus solely dedicated to freshmen (9th grade) students. This Ninth Grade Campus (NGC) was the primary site of this research.

The Cedar Bluff School District has invested heavily in technology, believing digital access facilitates creativity, collaboration, and problem solving as well as creating better digital citizens, all of which are skills today's workforce demands (Freedman, 2007). Part of this investment included instituting a 1:1 initiative to equip all students with a digital device to be used both at school and at home. Students in grades 3-8 are assigned iPads while students in grades 9-12 are assigned MacBooks. Furthermore, each teacher and student is given access to a learning management system (LMS) which allows teachers to both communicate with students and create assignments for students. One feature of this LMS, and typical of LMSs in general, is the ability for teachers to create and facilitate online discussions between and among students in a given course. It was the use of the online discussion feature which was the focus of this research.

Participants. Because this research entailed interactions with both teachers and students, IRB approval was attained both from the supervising university and from the local school administration before implementation. As a teacher at CBHS, I had a strong relationship with the staff and students of the school. Three teacher participants were purposefully selected from among the ELA teachers at the NGC who agreed to participate in this study. Since I also used student work samples, I also requested assent to use data from the online discussion posts from all students and consent from their parents. These participants and their guardians were informed that participation or non-participation in the research would not impact their grades or standing in the class. In addition, to help ensure anonymity, I replaced all real names with pseudonyms during the transcription and coding processes. This guarantee of anonymity and the right to withdraw from the study extended through the duration of the research allowed no negative consequences for dropping out of the research before its completion. Participation was contingent upon both participant assent and guardian consent.

I also conducted three focus groups. Participants in these focus groups were selected from a maximum-variation convenience sampling from each of the three participating teachers' classes. I purposefully selected five students between the ages of 14 and 15 who were taking English for the first time from each teacher's class; however, I selected individuals who represented diverse experiences within the confines of the case boundaries including at least one male and one female participant as well as diversified the ethnicities of the participants to the extent possible. Because these focus groups were audio recorded, further consent and assent was attained from these student participants

and their parents. Assent from all groups of students and consent from their parents were obtained before data collection began.

Researcher Positionality. As an English Language Arts educator with more than 18 years of teaching experience, the full integration of this technology has transformed my classroom from paper and pencil dependent to fully immersed in the digital realm. As an advocate for this change, I see the value in exposing students to new digital literacies as a way to value their experiences as digital learners and to engage them in a discourse format they understand and are comfortable with. Furthermore, I see the value in producing writing that has real-world relevance including writing for a real audience, which online discussions provide.

As a "digital immigrant" I can understand the difficulty of having to master not just the required content of a class but the medium in which to deliver content. Furthermore, some students lack internet connections at home to fully use the technology. As a child who grew up in an impoverished town in rural West Virginia, I sympathize with students who lack the material assets that allow for the streamlined production of learning. Without internet connectivity, they are as distanced from the learning materials they need as many of my friends were because they could not get to the town library because of a lack of transportation.

This research study was born out of my interest in incorporating digital technology in my curriculum and my sympathy towards those students who do not fully benefit from this technology. While I understand the value of objectivist epistemology, I believe that statistical data often overlooks the value of human narrative in shaping the realities of the world. As a constructivist, I believe there is no objective truth; instead,

truth is constructed through the interactions between researcher and the object of research. As such, it is vital to allow my participants to co-construct knowledge with me. By analyzing the data created through this study, I better understand how both teachers and students view the role online discussions play in today's classrooms.

Data Collection Methods

In order to triangulate my research, I collected the following forms of data: a questionnaire of participating teachers (Appendix D), semi-structured interviews of participating teachers conducted at the beginning of the data collection period (Appendix A), semi-structured interviews of participating teachers conducted at the end of the data collection period (Appendix B), a survey of participating students (Appendix E), semi-structured student focus group interviews (Appendix C), document analysis of both student and teacher online discussion posts as well as teacher handouts and lesson plans, and the analysis of memos created during the data collection period. Transcriptions of both teacher and focus group interviews occurred as soon as possible after the events.

Teacher Questionnaires

At the beginning of the data collection period, participating teachers were given a questionnaire to determine their attitudes towards the integration of technology into their classrooms (Appendix D). To do this, I used a modified version of the TPACK survey (Schmidt et al., 2009). The TPACK survey examines the interplay between teachers' technological, pedagogical, and content knowledge. To do this, the survey divides the teacher's perceptions into six categories of questions: technology knowledge, content knowledge, pedagogical knowledge, pedagogical content knowledge, technological content knowledge, technological pedagogical knowledge, and technological,

pedagogical, and content knowledge (Schmidt et al., 2009). Through the thoughtful division of questions, the TPACK allowed me to begin to understand how teachers viewed the interplay of technology, pedagogy, and content knowledge in their own practice. Using this instrument not only helped me better understand the teachers' perception of technology but their perception of their own implementation of technology in their classrooms to enhance student learning as well.

Teacher Interviews

Each of the three selected teachers underwent a series of two interviews: one at the beginning of the research period (Appendix A) and one at the end of the research period (Appendix B). Each interview, which took approximately 30 minutes, was recorded using a digital voice recorder and transcribed. Initial interview questions were designed to understand the teachers' comfort with using technology in general and with using technology in their instruction specifically. Furthermore, this initial interview asked the teachers to explain what constituted quality online discussion responses and whether or not they used their analysis of student posts to inform their teaching. Post interview questions were designed to understand how teachers made decisions about prompt creation and how they decided to interact with students in the online discussions as well as how they chose to assess those interactions.

Student Surveys

All participating students were given an anonymous survey to uncover their attitudes towards the implementation of online discussions in their class at the end of the data collection period (Appendix E). Specifically, the survey I developed asked students about their self-perception of digital proficiency, impressions of participating in the

online discussions, their evaluation of peers' interactions in the online discussions, and the evaluation of their teacher's participation in the online discussion. The survey began with questions designed to elicit information on students' access and background with digital technology in order to understand the students' level of comfort before the class began. The survey then moved to questions centered around their perceptions of the online discussion as a whole and their participation in those online discussions in an effort to understand how the students viewed the importance of online discussions. From there, the survey asked about student perceptions of peer interactions on the discussions and ended with their perception of teacher interactions in the discussions, two key components to the success of online discussions (Louwrens & Hartnett, 2015). This survey was valuable in gathering an overview of student perceptions of the online discussions.

Student Focus Groups

To gather specific information on student perceptions of the online discussions, I conducted the student focus groups at the end of the data collection period. For these focus groups, I implemented a semi-structured interview protocol (Appendix C). The questions began by asking students about their history with digital technology and moved into questions about their digital reading and writing habits. These questions were designed to elicit information on the students' background and previous connections with digital reading and writing. From there, the questions focused on highlighting the students' thoughts on the class's online discussions moving from the content of the discussions to the student's interactions with peers. All questions in the protocol were

asked of each focus group; however, as the discussions led me, I asked additional questions to deepen my understanding of each participant's thinking.

Document Analysis

Student participants engaged in online discussion posts along with all other students in my classes. Throughout the semester, I collected two online discussions from each teacher's class: one discussion centered around a piece of fiction and one centered on a piece of nonfiction. These online discussions were collected and analyzed on a weekly basis for the duration of the research.

Furthermore, I asked participating teachers for copies of any instructional handouts, rubrics, and lesson plans associated with the implementation of online discussions in their classrooms. These data allowed me to further understand how teachers conceptualized the role online discussions played in their classrooms and how they viewed students' knowledge of those online discussions.

Memos

Qualitative research is an act of interpretation. However, as the volume of data expanded, it became increasingly difficult to organize the data. To help with my ability to both organize my thoughts and monitor my interpretations of the data as they emerged, I created memos during the collection of each data artifact. Ezzy (2002) explains memos as "a systematic attempt to facilitate the interpretive process that is at the heart of qualitative research" (p. 71). These memos served as part of the audit trail which documented my evolving thoughts throughout the data collection period.

Schedule

This research took place during the Fall 2018 semester once IRB approval was obtained in August. All data collection took place during the first half of the Fall semester with data analysis running concurrently and following data acquisition. The majority of the writing and editing was completed during the Winter of 2018-2019 with the defense occurring in March of 2019.

Data Analysis

My data analysis began with the TPACK questionnaire data from the teachers. Before interviewing the teachers, they were asked to complete the TPACK survey. Though the sample size was small, the information provided in this questionnaire helped inform me of the teachers' perception of their own digital cognizance. I individually analyzed each questionnaire, looking for the teacher's perception of her technological, pedagogical, and content knowledge. After my initial analysis, I revisited the data looking for patterns in the teachers' survey specifically at which teachers felt the most comfortable implementing technology in their classrooms and which felt the least comfortable. These data allowed me to further develop my interview protocol for the semi-structured interviews.

The transcripts from the semi-structured interviews, focus groups, and the students' discussion responses were analyzed using Atlas.TI software. This software allowed me to use similar coding nomenclature across data sets and allowed for cross data set analysis. Data was coded each week using open coding techniques to reveal emerging categories and themes in the data. The data was analyzed using Glaser's (1965) constant comparative method of data analysis both within individual data sets and

across the data sets. Though the running thread of online discussions ran throughout the three cases, each teacher designed her online discussions in very different ways. This meant that the themes developed over time as I cycled through the data. From one set of coded data often emerged categories which were applied to other sets of data. As such, this method encouraged me to develop themes that remained "close to the data" (Glaser, 1965, p. 437).

This data coding procedure began with the initial teacher interviews. These interviews were designed to elicit teacher perceptions on the online discussions and to better understand both how teachers planned to design their online discussion prompts as well as facilitate the online discussions. After each interview was completed, I transcribed the conversation and completed an initial coding of the data. In this initial coding, I began by highlighting phrases and sentences which connected to my research question and which gave me a better understanding of how the teachers viewed online discussions in their classrooms. I then assigned codes to patterns I began to see in the data. Using the Atlas TI software allowed me to use similar codes among the interview data which allowed for more codes to be developed as further patterns emerged.

After the initial round of interviews, teachers assigned their online discussion prompts throughout the next two months. After each online discussion was completed, I transferred the data into Atlas TI and began to analyze it. I began this analysis by reading the discussions and highlighting segments which I felt intersected with my research questions in any way. I followed this by searching for patterns and assigning them codes. After the first discussion was initially coded, I began to analyze the second online discussion in the same way. However, I was able to use the codes initially developed

during the analysis of the first online discussion as well as develop new codes and additional patterns emerged in that data. As these new codes emerged, I returned to the first online discussion and applied them as applicable. This process of analyzing new data using the codes previously developed through the analysis of earlier online discussions while allowing new codes to emerge from the new data continued throughout the data collection period.

Following the collection and analysis of the online discussions, I began the focus group interviews. In each of the three focus group interviews, I chose a maximum variation selection of students. After each focus group, I transcribed the interview and placed the data in Atlas TI. I used the same constant comparative method employed in the analysis of the online discussions. However, as new themes began to emerge through these student interviews, I also went back into the online discussions to add codes. In this way, the coding process not only highlighted how the focus groups intersected with one another but how the data intersected with the online discussions as well.

After completing the focus group interviews and analyses, I began the second round of teacher interviews. The data from both the online discussions and the focus group interviews informed my interview protocol for this final round of interviews. After each interview was completed, I coded the data looking first for patterns within the individual data sets and then across the interviews. Finally, I looked for patterns across all previous sources of data. In this way, my codes remained constantly evolving but also grounded to the data (Charmaz, 2014).

Finally, at the end of the data collection period, I administered the Online Discussion Student Survey to all participating students (Appendix E). The data from this

survey was then analyzed using simple statistical methods to understand overall patterns in student responses as well as to compare responses from the classes of individual teachers. This data was then compared both to the teachers' TPACK surveys as well as the themes which emerged from the interviews, focus groups, and document analyses. This triangulation of the data allowed for a richer description and analysis of the data in order to better understand the impact discussions had on the participants. The connection between the research questions, data types, and data analysis can be seen in Figure 1.

Research Question	*Types of Collected Data*	*Data Analysis Procedure*
1. How do teachers facilitate online writing groups?	• Modified TPACK Survey (Appendix D) • Teacher Interview Pre (Appendix A) • Teacher Interview Post (Appendix B) • Student Focus Groups (Appendix C) • Online discussions	• Statistical analysis of survey responses • Coding of transcripts • Document analysis
2. How do teachers modify instruction based on analysis of online writing responses?	• Teacher Interview Post (Appendix B) • Online discussions	• Coding of transcripts • Document analysis
3. How do students interact in online writing groups and how do these interactions impact student writing?	• Student Focus Groups (Appendix C) • Student Survey (Appendix E) • Teacher Interview Post (Appendix B) • Online Discussions	• Coding of transcripts • Survey analysis • Document analysis

Figure 1: Connections between research questions, types of data collected and data analysis procedures

After this initial coding of all data was complete, I looked across the codes for larger patterns. From these larger patterns, I was able to collapse my initial codes into categories. Finally, I narrowed these categories into overarching themes which helped me better understand the research questions. Atlas.TI software was then used to construct a codebook, tracing the development of the themes from initial coding, through axial coding, and finally to thematic coding.

Trustworthiness

Several factors were implemented in this research to increase the trustworthiness of the data. A variety of data were collected using multiple methods over the research period. This data was collected from multiple participants in the case study which increased triangulation of the data as well as allowed for a richer description of the data. The participants also member checked the transcripts of the interview to ensure accuracy. To ensure a clear logical progression, the audit trail was peer reviewed. Finally, a subjectivity statement is provided in this dissertation to ensure the reader is aware of my beliefs as I analyzed the data. This is intended to help the reader understand my decisions and thought process as detailed in the thick description generated from the data and increase credibility.

Limitations and Implications

This study focused on one rural high school in the South Carolina. It documented the experiences of three classroom teachers and their students use of online discussion posts. As such, the study provided a nuanced glimpse of the use of online discussion posts by these teachers and their students in just one high school in the southeastern United States over a specific timeframe. As a result, transferability may be limited.

The findings of this study provide valuable insights to direct classroom pedagogical decisions related to the use of online discussion posts. As schools increasingly implement more digital content into their curriculums, it is vital to understand the impact of those curricular changes on all students. Gaining a better understanding of the effects of using online discussions could also better inform policymakers who must make not only the availability of technology equitable but who must also strive for the equitable use of such technology in the classroom.

Risks/Benefits

There were both risks and benefits associated with participation in this study. Because of the dual role I play in the teachers' lives, as both researcher and colleague, the line between the two roles may have been confused by the participants. In this way, the teachers may have felt unduly pressured to answer interview questions a particular way in order to align with what they believe are my feelings towards the value of online discussion posts. To assuage this fear, I explained that my research focused on capturing their lived experiences and that their honest input would greatly impact the outcome of the research.

The outcome of this research has the potential to benefit not only students, who, as learners in an age of technological expansion as well as in a school which has invested heavily in technology, will continue to experience the intersectionality of technology and education. Also, a wide range of teachers and administrators may be able to read this research and find applications to their specific circumstances.

CHAPTER 4: SUMMARY OF FINDINGS

The purpose of this qualitative case study was to describe how teachers used online discussions to extend the learning environment beyond the classroom and how students interacted within the online discussion environment. To understand these phenomena, I engaged three high school educators with experience teaching with technology. These teachers allowed me to read the online discussions of their classes and interview their students over the course of three months. Data collected for the study included teacher questionnaires, teacher interviews, student focus group interviews, student online digital discussions, and student surveys as well as the researcher's observational memos.

The following research questions guided this study:

1. How do teachers facilitate online discussions?
2. How do teachers modify instruction based on analysis of online writing responses?
3. How do students interact in online writing groups and how do these interactions influence student writing?

In Chapter Four, I begin with an overview of the setting for this research study. I then describe the cases of the individual teachers. Within each teacher's classroom case, I describe the teacher and then the themes which emerged from the online discussions within the context of the research questions. I end each case with a summary and

comparison to the previous cases. This chapter concludes with a cross-case analysis of all three cases with a discussion of the emergent themes.

Cedar Bluff High School: Responding to Technological Advancements

Cedar Bluff High School (CBHS) consists of two campuses: the main campus which houses students in grades 10-12 and a ninth grade campus (NGC) solely dedicated to freshmen. While the campuses are side by side and share athletic facilities, the schools are largely separate with full administrative staffs and faculty dedicated to each of the campuses. Realizing the strong relationship between success in ninth grade and graduation rates, the school district designed the NGC, now in its second year, to help students transition from middle school to high school life. While the curriculum aligns with the academic rigors of high school, the smaller class sizes and easier access to services such as dedicated guidance counselors gives the NGC the feel of a smaller school.

Yet the students are not the only ones finding themselves in transition. The school system finds itself in the middle of a technological revolution. In 2015, spurred by the technological revolution omnipresent in the global marketplace, the school system fully funded the implementation of a 1:1 initiative in its middle and high schools. This put iPads in the hands of each middle school student and MacBooks in the hands of each high school student. While the integration of technology in the classroom has placed the power of digital platforms in the hands of each teacher and student, the transition has not always been smooth. To acclimate teachers to this new digital environment, the district held day-long training sessions throughout the first two years of implementation. Now, the facilitation of technology training is done by on-campus technology coaches.

Teachers' Experiences with New Technologies

The three teachers chosen to participate in this study all taught an honors level English II course during the data collection period. While English II is typically a sophomore level course, honors students at CBHS were given access to this course if they pass the English I honors course during their eighth grade year. All three teachers had experience teaching the course and all three had used online discussions in the past. Their expertise with the content and the technology made them excellent participants for this study.

Case #1: Ms. Jones

Ms. Jones had more than 15 years of teaching experience with 10 of those years at CBHS. Ms. Jones witnessed firsthand the change in technology in education. Early in her teaching career, Ms. Jones noted that in her pre-service training, "we may have had a rudimentary computer course. But it wasn't anything about using it in the classroom because computers were not used in the classroom." However, after taking time off to raise her children, Ms. Jones returned to a very different school environment. She recalled this transition:

> [W]hen I came to Cedar Bluff High School, all of a sudden all of our grades were on the computer and I had *no clue* how to use it. I remember Mr. Broward getting *really* mad at me because I didn't have my grades in because I didn't know how to use it. And they had given us, you know, the cursory training. But it wasn't enough. And I didn't know.

However, this lack of support changed as the 1:1 initiative phased in giving her opportunities to work with "these really nice tech coaches who would come around and spend lots of time with me."

The time paid off. When asked to assess her proficiency with technology, Ms. Jones rated herself a four on a five-point scale and agreed that she could combine content, technologies, and teaching approaches in her classroom. Yet, she also acknowledged she had room to grow: "So I offer them the opportunity to make an iMovie, create an iBook, but I have no way to teach them. Because I don't know how to do it. I mean, I would spend more time trying to teach myself to teach them than I would to teach English." Ms. Jones, like so many other teachers, found herself caught between her desire to incorporate more digital literacies into her classes and the time she needed to teach the ELA curriculum.

Ms. Jones's Facilitation of Online Discussions

Teachers must make numerous decisions as they prepare to implement online discussions in their classrooms. They must decide on the topic and format of the discussion as well as how to get students to engage in conversation. The following section addresses how Ms. Jones facilitated her online discussion groups. The following themes will be addressed in this section: Ms. Jones positioned her discussions as summaries, Ms. Jones positioned her discussions as peer critiques, Ms. Jones incorporated the use of signposts in her discussions, and Ms. Jones positioned herself as a mediator in the online discussions.

Ms. Jones positioned discussion as summaries. During the data collection period, Ms. Jones conducted two online discussions. The first online discussion focused

on “Texas v Johnson,” an excerpt from the court ruling upholding citizens’ right to burn the American flag as a form of protest (Figure 2).

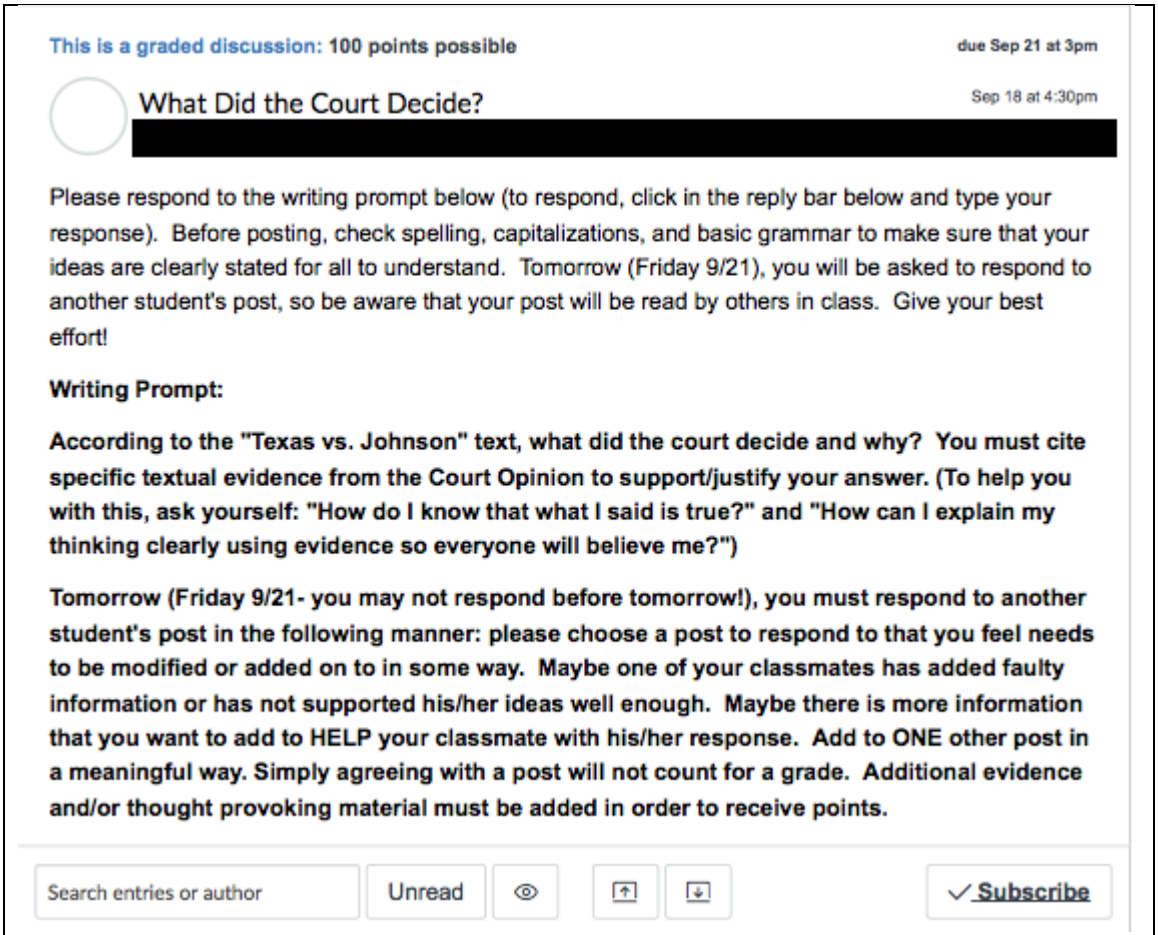


Figure 2. Ms. Jones’s discussion prompt 1

Essentially, the prompt asked students to answer two questions in their initial posts: 1) What did the court decide, and 2) Why was the decision made? The first question asked students to identify the stand the Supreme Court took in the case. This limited student response to the court upheld flag burning as legal or it did not uphold it as legal. The second question asked students to identify the reasons the Supreme Court gave for its decision. This question limited student perspectives to the text itself. The teacher did not

ask students to give their own ideas; instead, they were asked to concentrate on the analysis provided by the court. As such, students were not asked to analyze the text, but, instead, were asked to summarize the ruling of the court. This left very little room for the students to infer meaning on their own.

Because the prompt itself asked students to summarize the ruling, most students did just that. For example, Ronald wrote:

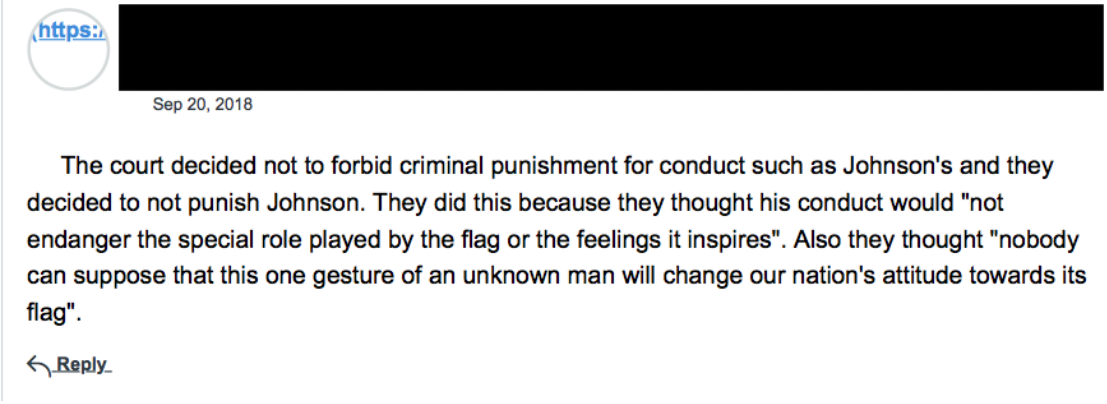


Figure 3. Ronald's initial post to Ms. Jones's discussion prompt 1.

Ronald identified the court's ruling not to punish Johnson for burning the flag. He then used two direct quotes from the text which he felt highlighted the reasoning behind the court's decision. In this initial post, Ronald offered no insights of his own. Instead, he relied almost exclusively on the two direct quotes to provide the rationale for the court's decision.

However, other students, such as Brenda, did include some of their own language in their summary of the court ruling (Figure 4).

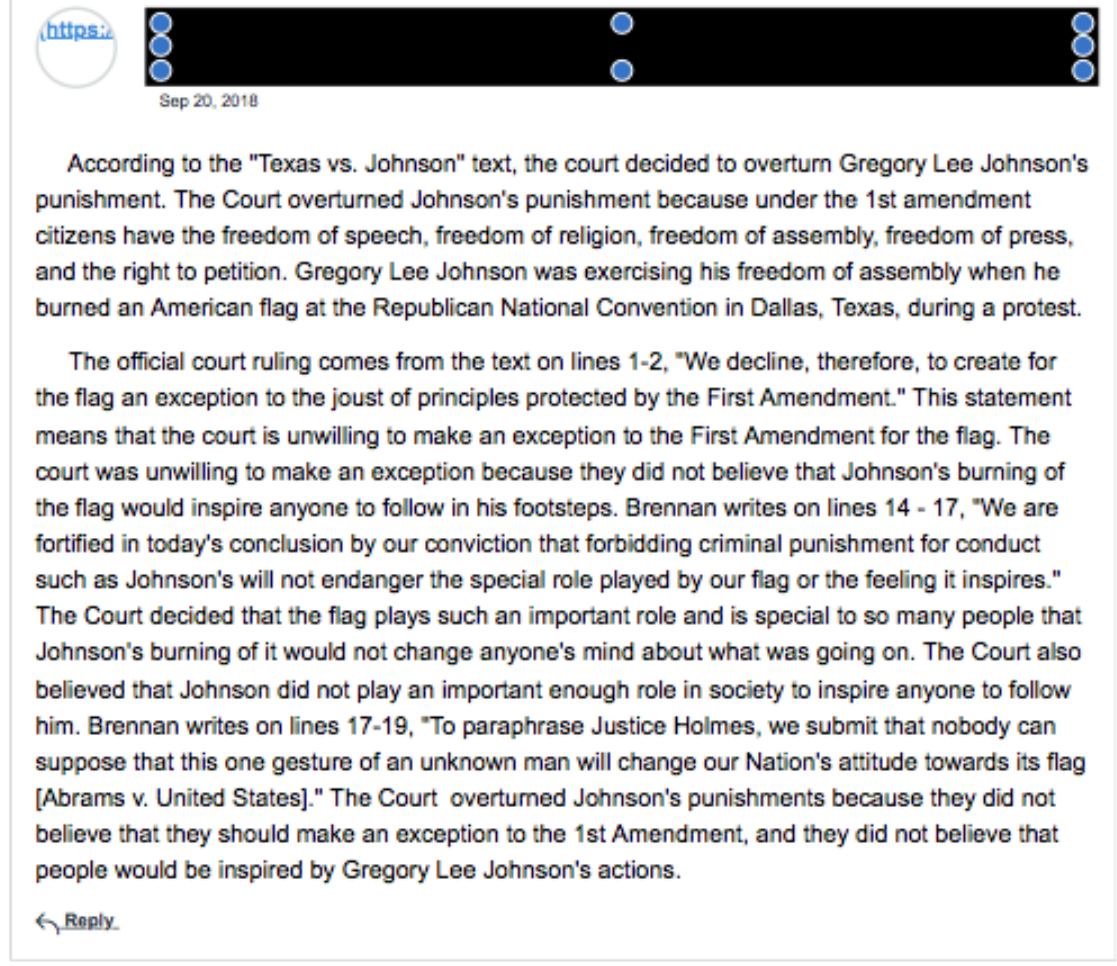


Figure 4. Brenda's initial post to Ms. Jones's discussion prompt 1.

Brenda began by clearly announcing "the court decided to overturn Gregory Lee Johnson's punishment." This satisfied the requirement of the question of the prompt. To address the second question, Brenda, like Ronald, used a number of direct quotes from the text. However, unlike Ronald, Brenda also included her analysis of the quotes she chose. For example, after Brenda noted, "Brennan writes on lines 14 17, 'We are fortified in today's conclusion by our conviction that forbidding criminal punishment for conduct such as Johnson's will not endanger the special role played by our flag or the

feeling it inspires','" she included her own restatement of the quote: "The Court decided that the flag plays such an important role and is special to so many people that Johnson's burning of it would not change anyone's mind about what was going on. The Court also believed that Johnson did not play an important enough role in society to inspire anyone to follow him." Yet, though she added her own language after quoting the text, she did not move past summary. She did not include her own thoughts on the ruling or on the validity of the ruling. But then, the prompt did not ask her to do these things.

Ms. Jones positioned discussion as peer critiques. Because the prompt did not open up avenues for students to use their inferential skills, few pathways for discussion were available for students. Instead of discussing ideas, students were directed to "choose a post to respond to that you feel needs to be modified or added on to in some way. Maybe one of your classmates has added faulty information or has not supported his/her ideas well enough." In other words, students were instructed to be critical of their peers' writing.

As students responded to one another through this critical lens, their replies, instead of fostering discussion, were more closely related to a peer review of one another's paragraphs. The following was an exchange between three students (Figure 5). Maddie made the initial post with Roland making the first reply and Sharon making the second reply.

Figure 5. Discussion thread for Ms. Jones's discussion prompt 1.

Maddie, like the previous examples, addressed both questions in the prompt. Roland's reply began by complimenting Maddie by writing "I love your evidence so far" but then suggested "you [add] more reasoning" to her analysis. In particular, Roland suggested adding "details on the 1st Amendment" to bolster her argument. Here, Roland suggested she look outside the text itself to add to her analysis. Similarly, Sharon began with the compliment "you did great" before moving into her critique. However, instead of just

offering advice to Maddie, Sharon pointed to a particular piece of the text she could use to improve her analysis.

While these may have been warranted pieces of advice, they did not invite replies by Maddie. Roland's suggestion to add "details from the 1st Amendment" and Sharon's suggestion to add a particular quote into initial post both left Maddie with only two directions: agree or disagree. However, it was not what Roland or Sharon wrote that dissuaded Maddie from replying: rather, it was the design of the prompt itself which impeded further replies. Since the prompt asked Maddie to write an analysis of the text itself, the audience of the initial post was just the teacher and not the class as a whole. Because Maddie saw Roland's and Sharon's replies as suggestions for improving her initial post, there was no reason to reply to them. She merely accepted or rejected their feedback. For her, as well as all the other students in the class, there was no reason to create a follow up reply since receiving the feedback was the purpose of the prompt.

Ms. Jones incorporated the use of signposts in her discussions. Ms. Jones's second online discussion focused on Anton Chekov's short story "The Bet." In addition, she used this online discussion to help her students develop ideas for signposts which Ms. Jones described as "these really cool moments in stories that Kylene Beers and Bob Propst came up with after doing years and years and years of research. They really are just moments in a story that should make you stop and think." Beers and Probst (2013) designed signposts as a close reading strategy. Beers and Probst argue giving students "signposts," or specific textual patterns, to look for will "help students read passages closely so they might better understand the text" (p. 64). According to Ms. Jones, these

signposts help students to focus on how authors develop meaning throughout a text (Figure 6).

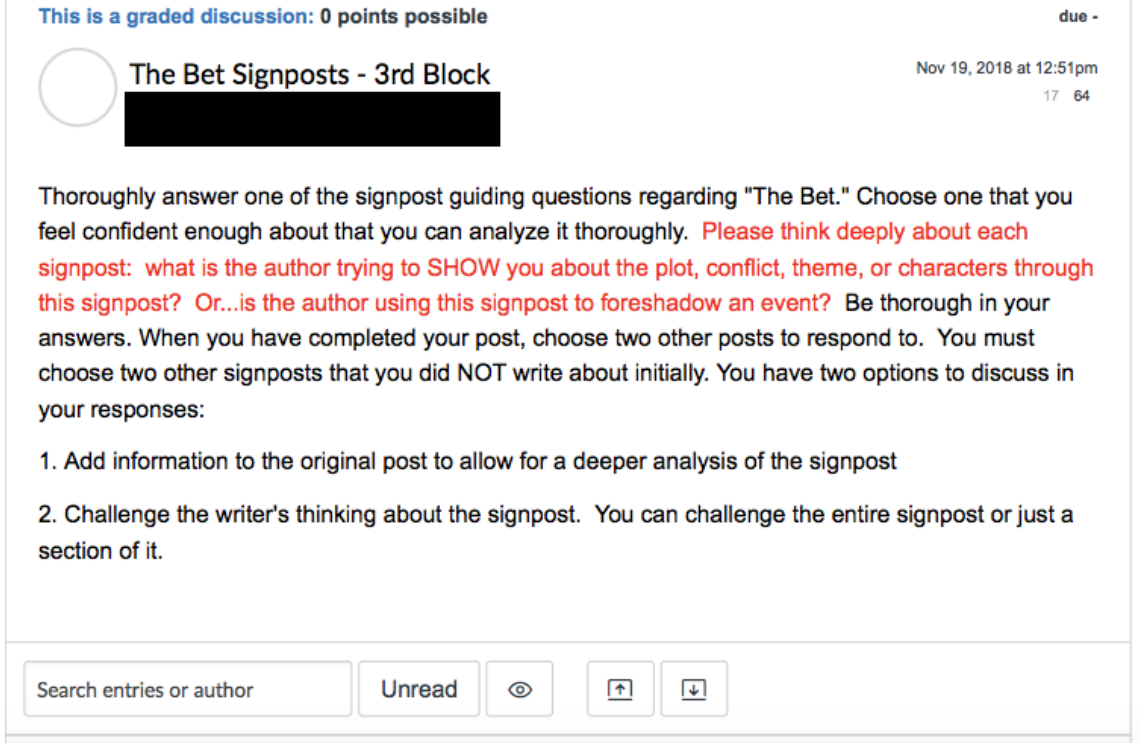


Figure 6. Ms. Jones's discussion prompt 2.

Similar to Ms. Jones's first online discussion prompt, this post asked the students to respond to a text. However, unlike her first prompt, this online discussion gave students some flexibility as Ms. Jones asked them to focus on one of six possible signposts. Each of the signposts had three specific questions which the student would need to answer in order to gain a deeper understanding of the text. In addition, the prompt gave students two different ways to reply: 1) agreeing with the author's analysis and adding information to further develop the topic, and 2) "challeng[ing] the writer's thinking about the signpost." All of the 23 initial posts connected to one of the six signposts. The following image (Figure 7) captured Cam's description of what Ms. Jones

called an “Ah-Ha” moment signpost which is the point in a narrative piece where a character has a life-altering realization.

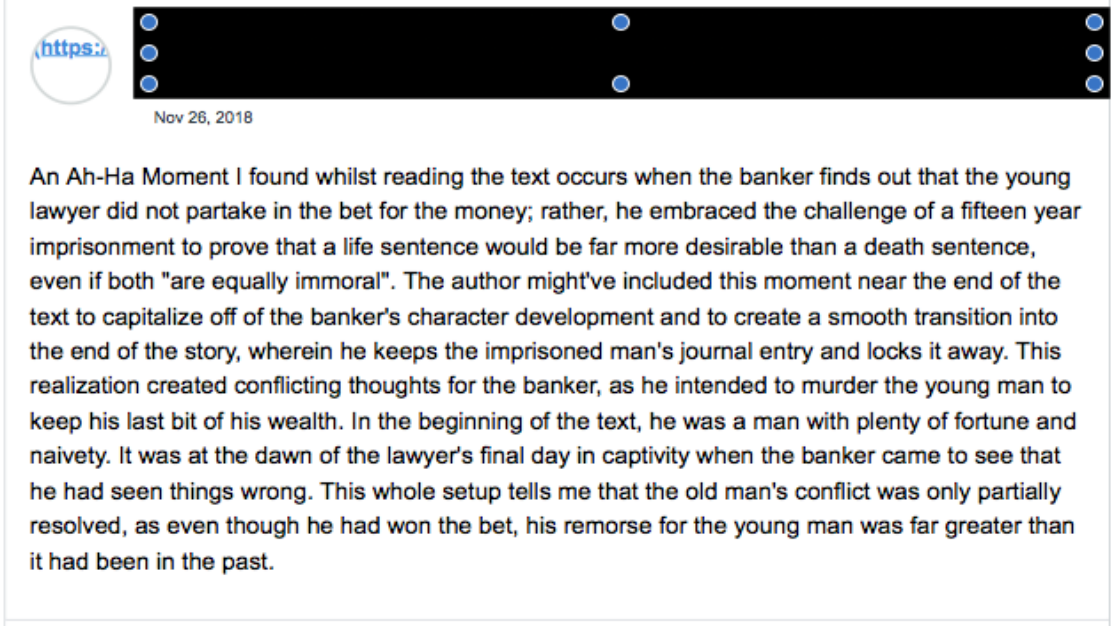


Figure 7. Cam’s initial post to Ms. Jones discussion 2.

Cam described the moment in the text where the greedy banker discovered a letter from the lawyer renouncing the millions of dollars he should have won in a bet over the morality of the death penalty. However, he moved beyond mere summary of the text to analysis. In his response, Cam wrote,

> The author might've included this moment near the end of the text to capitalize off of the banker's character development and to create a smooth transition into the end of the story, wherein he keeps the imprisoned man's journal entry and locks it away. This realization created conflicting thoughts for the banker, as he intended to murder the young man to keep his last bit of his wealth.

Cam inferred the author's purpose in allowing the banker to uncover the lawyer's plan to leave his voluntary incarceration five hours early in order to break the bet and intentionally lose out on the money. More importantly, Cam noted the banker keeps the lawyer's note renouncing the money and "locks it away" which Cam explained "creat[es] conflicting thoughts for the banker, as he intended to murder the young man to keep his last bit of his wealth." Cam realized the value of the letter, not just as proof of the lawyer's renouncing the money, but as a precaution should the lawyer try to claim the money. Furthermore, he acknowledged the conflicting feelings the banker must have because he reads the letter just before he planned to murder the lawyer to save his fortune.

Though some (8) of the replies did contain critique much like the replies found in Ms. Jones's first online discussion, most (32) moved beyond simply restating points of agreement to add additional information to the ideas presented in the original post. The following example (Figure 8) came from Michael's reply to Cam.

Figure 8. Michael's reply to Cam's initial post

While Michael effectively agreed with Cam's central premise, he added an additional layer to the analysis by offering bravery as an element of the Ah-Ha moment

signpost. Instead of the banker only realizing his own moral failure, Michael inferred the banker also acknowledges the lawyer's bravery at having stayed in voluntary solitary confinement for almost 15 years, only to give up the money at the last possible moment in order to prove how much money no longer means to him. For Michael, since the banker "underestimated the young lawyer," the banker must realize his mistake and recognize the bravery in the lawyer.

However, not all replies agreed with the initial post. Six replies provided a dissenting view and offered alternate interpretations of the text with five including specific references to the text to support the different interpretation. Aaron's was one such reply. Aaron wrote his reply (Figure 9) in reaction to Cam's initial post.

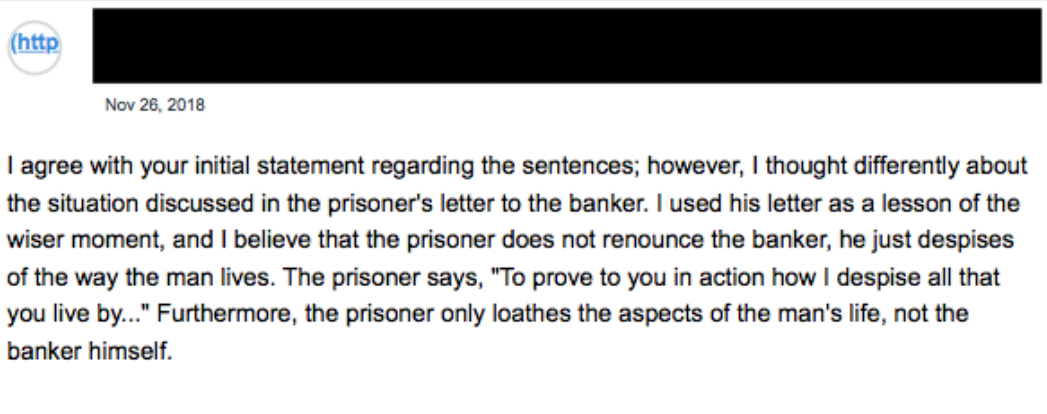


Figure 9. Aaron's reply to Cam's initial post

Aaron thought not only about his own interpretation of the text but about the interpretation presented in the original post. Instead of viewing the banker reading the letter as an Ah-Ha moment signpost, he believed it more closely adhered to the Lesson of the Wiser signpost in which a wiser figure teaches a lesson to another character. In order to write this post, Aaron evaluated both arguments and had the confidence to present his

interpretation as an alternative to the one posted in the original. Furthermore, Aaron used evidence he pulled directly from the text to support his alternate claim.

Ms. Jones's second prompt did increase the number of initial posts to 23, the full number of students in the class, compared to the first prompt which only produced 20. In addition, replies increased from 20 during the first online discussion to 41 in the second. While this marked a tremendous jump in the number of replies, it is not necessarily due to increased student engagement. Instead, the first prompt asked for one reply from each student whereas Ms. Jones's second prompt asked for two. In this way, it can be seen that not every student completed the required number of replies for either discussion. Furthermore, no student replied to more than two other students. Though the students worked to meet the expectations set forth in the discussion, no student moved beyond the them.

Ms. Jones positioned herself as a mediator in the online discussion. In her interview at the beginning of the data collection period, Ms. Jones described her role in the discussion this way: "I'm just a moderator, I guess." For Ms. Jones, her role was to develop the discussion post and allow the students to facilitate it themselves. In fact, in her interview at the end of the data collection period, when I specifically asked her what her role in the online discussions was, she replied, "I just created them and threw them out there for the kids to do."

Her students also viewed her as an overseer of the discussion. Cayden, a student in Ms. Jones class, described her role this way:

> [S]o there would be a prompt or like a question or questions you would have to answer, and then she would say, in the header, be sure to respond

> to other students. She'll list how and in what ways you should do that. That's kind of the extent of it. Obviously, she's not going to be going in and replying to any of the students. I'm not even sure if the teachers can even do that [reply to students].

For Cayden, Ms. Jones was so divorced from the discussion that he questioned if she even had the capability to respond in any way (which she did). George, another student in Ms. Jones's class, expressed a similar sentiment in the focus group interview when he said, "I think we've done three discussions in the class, and I've yet to see her reply to anyone in the discussion." Ms. Jones did not comment in either discussion, and both of these students felt the absence of their teacher in these discussions.

For her students, this absence seemed the antithesis of her presence both in classroom discussion and in her correspondence with them in feedback on their writing. Once again, George noted, "[E]ven when we do peer to peer discussions in our class sometimes and she walks around and gets involved in our discussions." In her in-class dialogue with students, she was actively engaged and facilitating discussions. She asked questions and became a voice in the conversation. However, in the online discussions, she was silent.

Furthermore, Jasmine explained, "That's kind of what Ms. J does when she looks at our writing. She asks questions and that leaves room for more explanation and more improvement." For Ms. Jones, the feedback cycle with her students included asking them questions which "leaves room for more explanation" from her students. What Jasmine indicated is the questions Ms. Jones asked on a piece of writing allowed students to consider more possibilities and truly opened up space for their thinking to expand.

Aaron brought up a similar point when he said, “I mean, she makes really good comments and her feedback is awesome like on papers, assignments, things like that. But the discussion, maybe where teachers could kinda come and go ‘Hey, I really like what you guys are thinking about. Maybe think about this.’” Aaron indicated his desire for Ms. Jones to play a more active role in the discussion in two ways. First, he indicated a need for Ms. Jones to encourage and support student thinking. This would allow students to understand when they are moving in a good direction and receive positive feedback for their thinking. Secondly, by offering different insights, students would be encouraged to explore different lines of thinking both in their own writing and in that of their peers. For Aaron, increased teacher participation would open up space in the dialogue for additional interaction.

Even Ms. Jones felt a missed opportunity. In her interview at the end of the data collection period, she noted,

> [M]aybe I'll be part of that discussion too. I haven't ever really done that before. But there were some things as I was reading today, looking over the responses, I was like, that was worthy of a reply. Some good, some maybe more critical. But I'm not going to call them out in front of their peers, but I might ask more thoughtful questions.

Ms. Jones felt some of the posts were “worthy of a reply” from her. There was something inside of her which felt the need to interact with her students. With her teaching experience, Ms. Jones understood the value of a well-timed question to open up students’ thinking. Questions can not only ask students to recall information but can help lead students down new paths of inquiry. In this way, her comments would serve not to

dictate student thinking but to guide it. However, she chose not to comment on either discussion. In her absence, the conversations stagnated.

Ms. Jones's Students' Interactions in Online Discussions and Their Influence on Student Writing

While Ms. Jones designed her online discussions and took an inactive role in their facilitation, her students became active participants in those discussions. The students had to decide not only what to write in their initial post but also how to respond to their peers in the online discussion. The following section addresses how Ms. Jones's students interacted in the online discussions and how these online discussions influenced their writing. The following themes will be addressed in this section: the students incorporated textual evidence in their responses, the students did not engage in dialogic conversations, and the students felt limited by the number of replies expected.

The students incorporated textual evidence in their responses. Both Ms. Jones and her students expressed the need for textual support in the discussion posts. In her final interview, when I asked Ms. Jones to describe what made a good student post, she explained,

> For me, it's evidence. Are you supporting what you're saying. Are you supporting your *idea* with evidence from the text? So there were some folks, a lot of kids actually, who, even in their response posts (which I was really impressed by) were providing pieces of text. You know, quotes from the text. Which I thought was great.

For her, the use of textual evidence "even in their response posts" was impressive and needed since tying argument to specific proof from a text is part of the state standards. This emphasis on textual evidence was also evident in the prompts Ms. Jones

developed for the online discussions. Ms. Jones's first discussion prompt (Figure 2) explicitly stated, "You must cite specific textual evidence from the Court Opinion to support/justify your answer." However, the need for textual support was also implicit in her second discussion prompt (Figure 6) as she specifically asked students in class to focus on a signpost and had given directions to use textual evidence in those signposts.

Furthermore, in the focus group interview George noted,

> [T]here are times where someone will catch something about the text you weren't thinking about and then you read, just by chance, a post that someone else wrote and have identified something you haven't seen, and you thought, "Oh, well I never thought about it that way." So then you can go back into the text and you can identify more examples of whatever you were saying.

This statement highlighted the value of the text for George in two ways. First, George indicated that sometimes while reading an initial post in which a peer "[has] identified something you haven't seen." In order to fully identify the idea, it would be necessary to directly refer to the text. Second, George indicated the new realization made him "go back into the text" to find further examples to support a claim.

This desire to stay grounded in the text was evident throughout both online discussions. For example, both Mark and Jamie used textual evidence in this exchange (Figure 10) captured in Ms. Jones's first discussion:

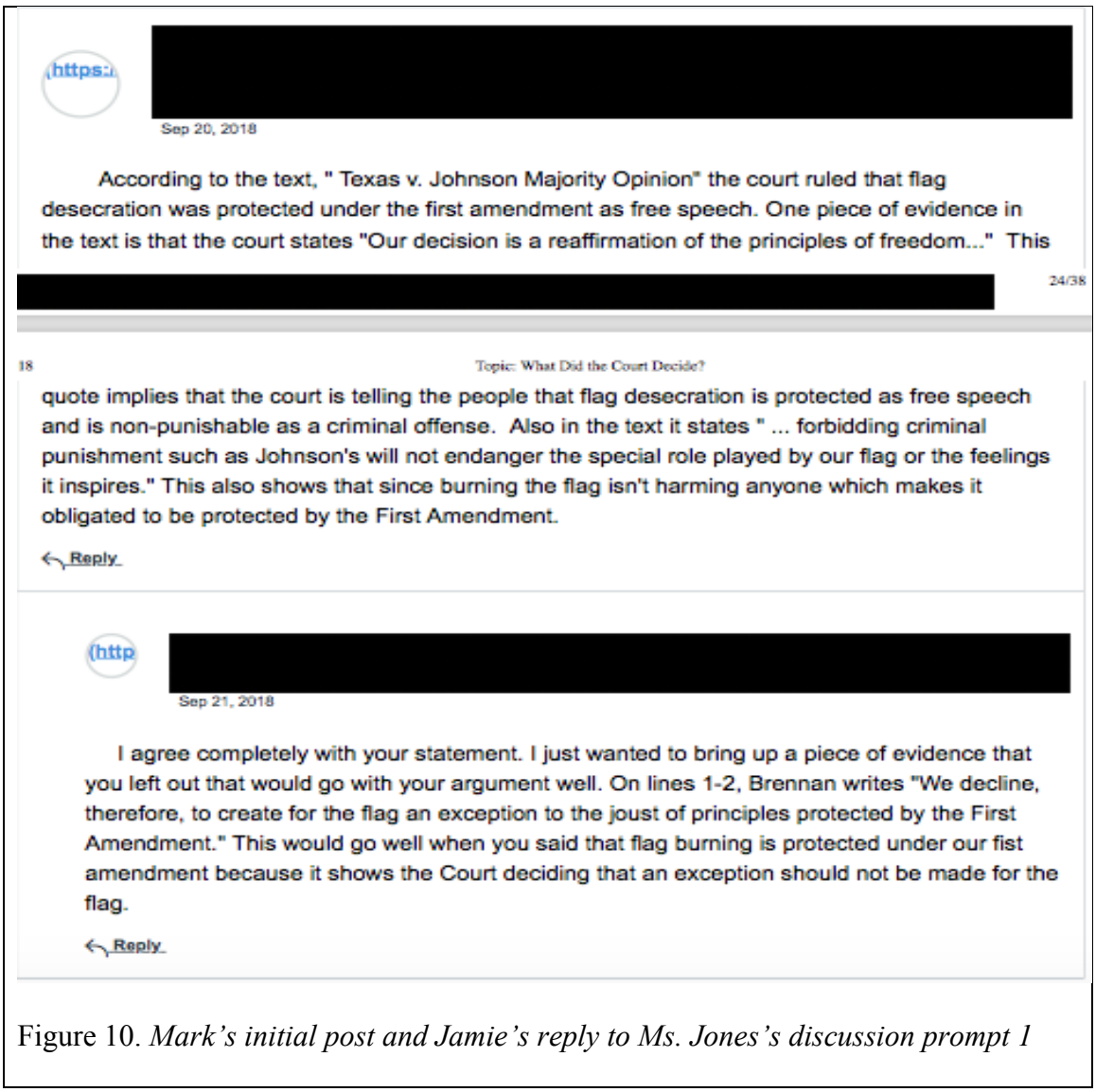


Figure 10. *Mark's initial post and Jamie's reply to Ms. Jones's discussion prompt 1*

In his initial post, Mark made use of two direct quotes: one highlighting the court's decision and one explaining the rationale of the ruling. Jamie then encouraged Mark's thinking by adding an additional piece of textual evidence to support his argument.

This use of textual evidence was evident throughout both discussions. Of the combined 43 initial posts and 61 replies, only six did not include direct reference to the text with a total of more than 120 direct quotes used throughout both discussions.

Because Ms. Jones was clear in her expectations, the students sought out opportunities to use textual evidence in all aspects of the discussion.

The students did not engage in dialogic conversations. In addition to using textual support and clear explanations, Ms. Jones noted student interaction as vital for the success of the online discussions. As she explained, "[I]n the end, I think the value lies not in my grade. The value lies in the discussion they had with each other." This highlighted the belief that students need conversation to help them learn. In fact, one of the reasons Ms. Jones decided to do online discussions was because it "provid[es] that venue for them to discuss, I think that's a huge benefit to them." For Ms. Jones, that venue meant giving students an opportunity to use their "voice" to exchange ideas with their peers.

However, while the students did post initial posts and replies, the students did not engage in dialogic conversations. No conversation lasted beyond the initial post and reply cycle. In other words, a student made an initial post and received a set of replies. However, those replies did not intersect with one another nor were there any follow up replies. Figure 11 illustrates a typical cycle of initial post and reply found in Ms. Jones's first online discussion.

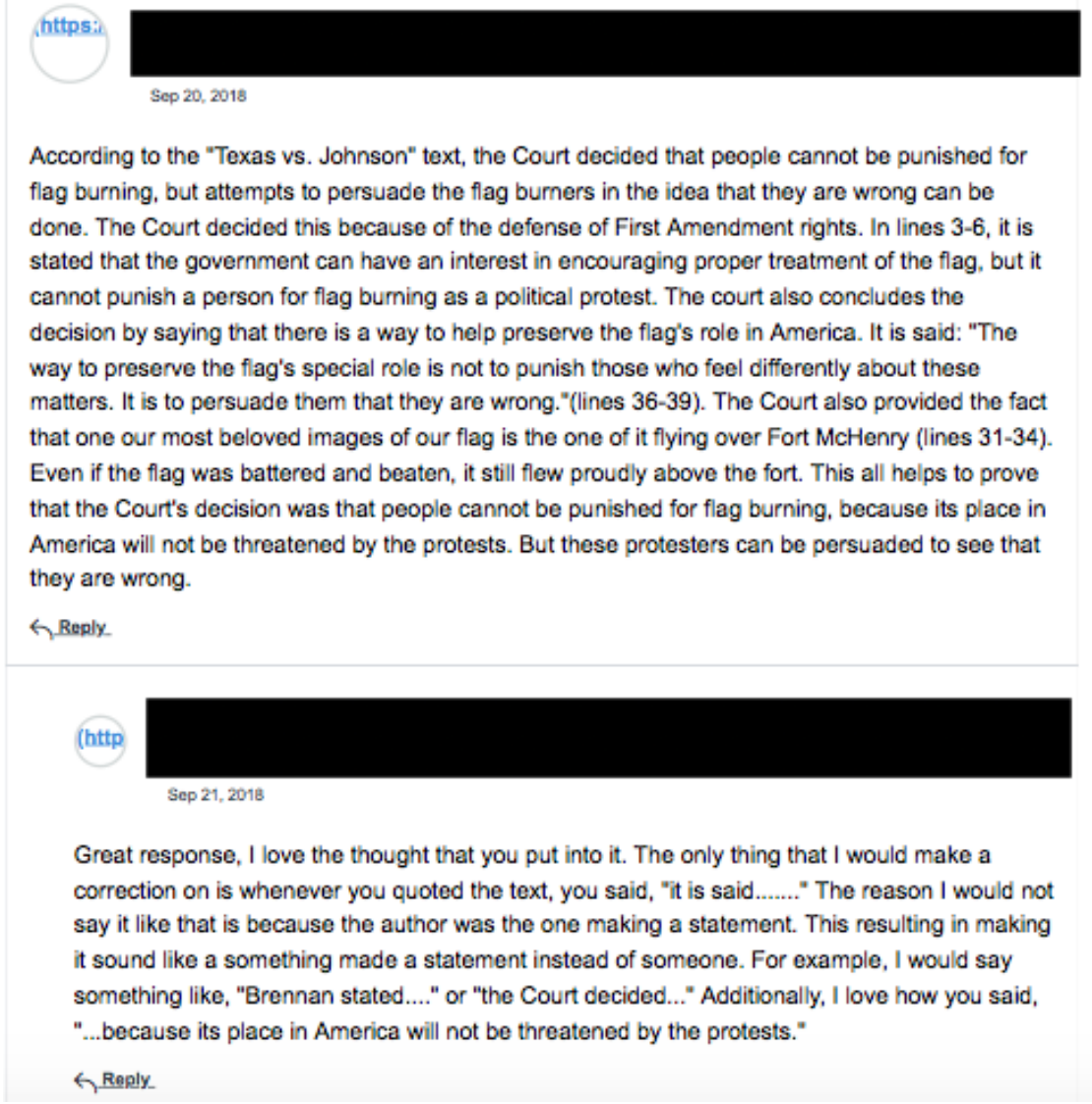


Figure 11. Mary's initial post and Glen's reply to Ms. Jones discussion prompt 1

As with previous examples, Mary's initial post included summary and textual evidence. Glen then added a critique and a suggestion for improvement. This was the extent of the discussion with Mary not offering any follow up commentary. Essentially, there was no discussion at all. Mary merely offered what was, in effect, a draft of a textual analysis paragraph and Glen provided feedback. There did not seem to be any expectation for further communication.

While Ms. Jones's first discussion prompt left little room for student discussion because it was largely designed as a way for students to get feedback, her second discussion prompt allowed students to be more inferential in their interpretation of a piece of literature which might have opened more possibilities for dialogic conversations in the online discussions. However, these posts followed the same pattern as Ms. Jones's first online discussion. Figure 12, an online discussion thread involving Abbie's initial post with replies by Jasmine and Britt, typified the cycle in Ms. Jones's second online discussion.

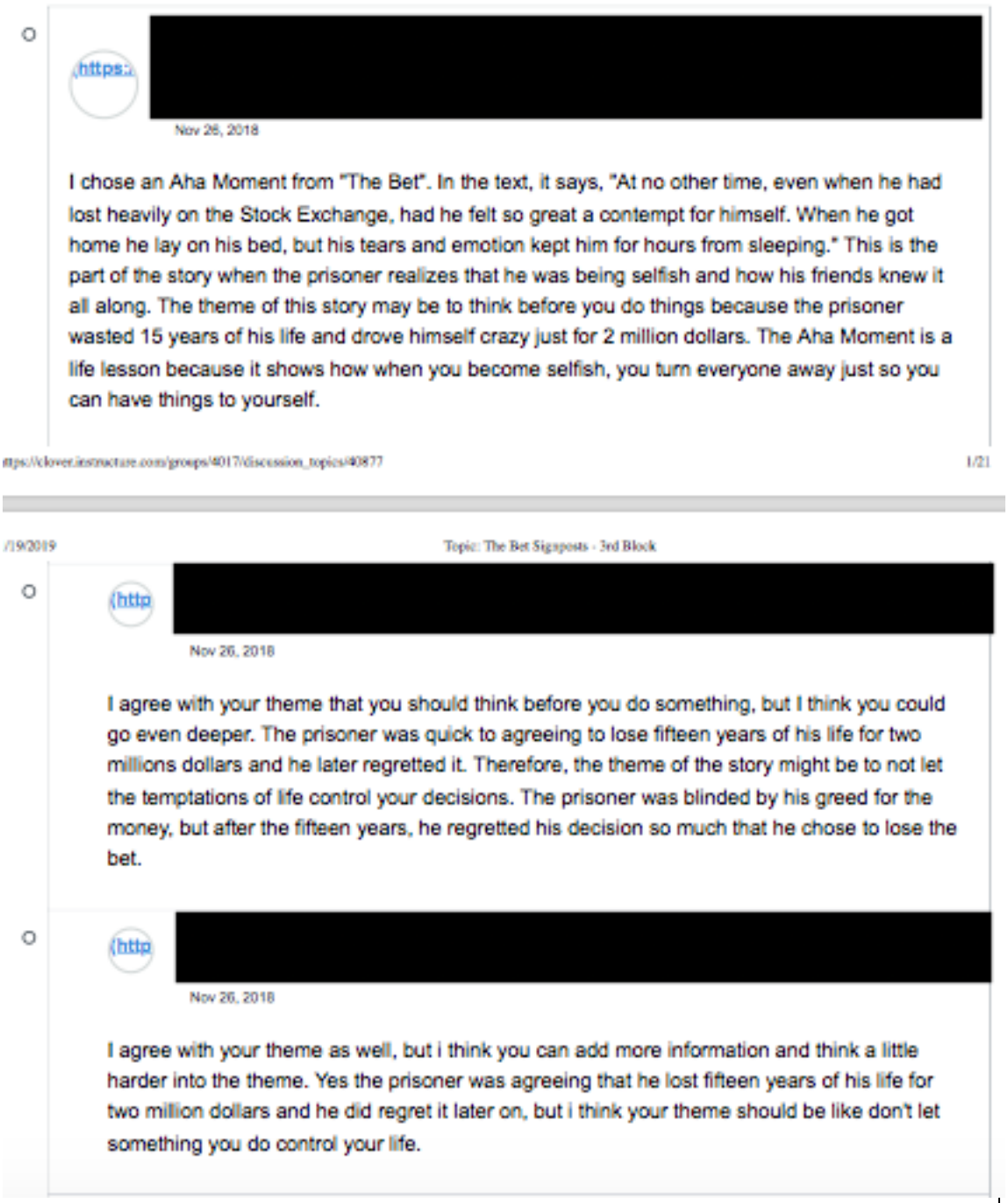


Figure 12. Discussion thread involving Abbie's initial post with replies by Jasmine and Britt

Abbie chose the Ah-Ha moment signpost in her initial post and used textual evidence to support her claims. Jasmine began her reply to by agreeing with Abbie's claim but

encouraged her to “go even deeper” and offered her own version of the theme of the text. Britt began his reply by both agreeing with Abbie and acknowledging the contribution of Jasmine when he wrote “I agree with your theme as well.” However, that is the extent of his interaction with Jasmine. He then offered his own version of the theme: “[I] think your theme should be like don't let something you do control your life.” The conversation stopped there. Abbie was not compelled to acknowledge the contributions of either Jasmine or Britt nor was she compelled to defend her initial interpretation of the text. She received feedback, and that was the extent of the assignment.

The students felt limited by the number of replies expected. One possible reason for this lack of dialogic conversation was raised by the students in Ms. Jones’s focus group. George observed,

> [S]ince we're only supposed to, or only told to reply on one level, like someone post something, other people reply to it. No one replies to ANY of those comments that are made on someone else's post. No one asks any questions because they know they’re not going to get answers.

For George and the other students in the focus group, tying the number of replies to their grade meant the students were not going to go beyond the required number of replies. They saw the emphasis not on the content of the discussion, but rather on the number of replies. George further noted,

> There was no interaction at all because you can't really follow up with them. I mean, they can comment on what you said, but if you can't talk back to them, it's really hard to build an idea in one iteration, I guess, of posting.

Without the interaction so necessary for a successful discussion, the online discussion became less a discussion of ideas and more an academic hurdle to overcome.

Furthermore, the limited number of replies caused the audience to shrink. One of the benefits of online discussion is their ability to allow all students to have an equal voice in a discussion. However, unlike whole group discussions in class, the audience in the online discussions became significantly smaller. There were no more than three replies to a single initial post. This meant no more than three individuals read and responded to a single initial post. Had a member of the class spoken his/her initial post aloud, 23 students would have heard it and been given an opportunity to respond. However, each initial post only generated an average of 1.4 replies, meaning many students only received one reply and a few received none at all. For these students, this was less like a whole group discussion and more like a peer review session.

Ms. Jones Modified Instruction Based on an Analysis of the Online Discussions

Ms. Jones embedded her online discussions into her daily classroom life. In other words, they were not meant to be stand-alone units; instead, they were designed to facilitate discussion on topics relevant to the students as well as to herself as the teacher. Ms. Jones first online discussion took place during a nonfiction unit where the focus was having students begin to understand the structures writers use to convince their readers. The second online discussion focused on understanding how fiction writers develop themes in their writing. As such, students were asked to write about their understanding of their reading. In this way, Ms. Jones hoped to use her online discussions to be better informed about her students' abilities to both read deeply and write convincingly. The following themes will be addressed in this section: the online

discussion informed Ms. Jones about her students' reading needs and the online discussion informed Ms. Jones about her students' writing needs.

Informing student reading needs. Ms. Jones viewed the online discussions as a way to evaluate students' ability to read a text deeply. In our final interview, Ms. Jones spoke almost exclusively about her second online discussion which focused on the development of signposts. Ms. Jones noted,

> There were a lot of [initial posts] that were really good. They had a lot of in-depth thinking. They didn't always answer the signpost questions completely, and there were some of them I had to read and think "What are they talking about?" but I tried not to get bogged down in the weeds that way. I tried to see overall, overall what they were trying to get at. And there were many, many posts where the kids just really had some good insight. There were moments where I was like, "Oh, that's neat! Wow, look at that!" You know? And... the initial posts I found, for the majority, put a good amount of time into writing.

Ms. Jones expressed her satisfaction in the students' ability to take a complex text and analyze it through the lens of signposts. In her analysis, Ms. Jones was looking for how students were able to analyze the text and not "get bogged down in the weeds" of looking at the fluency of how students expressed their thoughts. For Ms. Jones, the online discussions represented a checkpoint in student understanding and not the final goal. She noted, "[A]s far as the signpost discussion, that's all about reading comprehension and it relates to them being able to talk to each other about a piece of literature to get them to have a deeper understanding about that piece of literature."

Informing student writing needs. Though Ms. Jones was less concerned about how students wrote, the online discussions did offer her a window into their writing struggles. As Ms. Jones explained,

> But I do feel like there's some limitation in that kids struggle with how to get what's up here [in their heads] on paper. You know, some kids really do well speaking. Some kids really do well writing. So, the writing piece is going to be the harder piece for the online discussions, whereas the speaking piece is going to be, you know, easier for kids who like to talk. So, I think it provides variety for students in that way.

In this dialogue, Ms. Jones acknowledged two different writing processes taking place: one more formal, the "writing piece," and one less formal, "the speaking piece." Ms. Jones explained her observation that "kids struggle with how to get what's up here [in their heads] on paper." In her experience, students struggle to get their ideas organized and on paper. This was the function of formal writing and seemed to roughly translate into the initial post. For Ms. Jones, the initial post is the formal laying out of an idea. However, she also observed another element, what she terms "the speaking piece." The speaking piece was less formal and was marked by language patterns more closely related to informal speech. These most closely resembled replies. The replies were directed not at the teacher but at their peers. As such, the replies were shorter and more conversational. Ms. Jones viewed the initial posts as indicative of how students could write in a formal setting while the replies were there to help improve the argument and style presented in the initial post.

Summary of Case #1

Ms. Jones positioned her online discussions as summaries and emphasized student understanding of the text. Furthermore, she positioned student replies as peer critiques by asking students to evaluate the initial posts of their peers. While this may have benefitted student writing in the future, it did little to foster discussion in the online environment as there was little impetus for students to respond to a reply. They simply took the offered advice or rejected it. Because students did not feel the need to continue their conversations, they did not move beyond the stated requirement for replies. Once they had replied twice, they stopped. However, because Ms. Jones positioned the discussions as springboards for future topics, it did give her insight into both her students' ability to comprehend complex texts and write about them.

Case #2: Ms. Smith

Like Ms. Jones, Ms. Smith had more than 15 years of teaching experience. However, her experience ranged from the high school classroom to the college classroom to the private sector. In fact, this was the second year Ms. Smith was back at CBHS after working for a number of years at a local university. From an early age, Ms. Smith's education career was intertwined with digital technology. As she explained, in "eighth grade, we had Macintosh computers at our school and I took a class. Dad wanted me to be part of computer technology. He felt like that was the future." Throughout high school and college, Ms. Smith continued to develop her knowledge of technology and eventually "somehow always ended up being the technology person at my jobs." Even as she pursued her advanced degree, her connection to digital technology remained strong: "An interesting thing about technology and education is that even though I don't like to

read for pleasure online, my whole degree was online. And I found that to be a fascinating thing because as a learner, I liked the online learning environment."

Today, she agrees she could teach lessons which appropriately combine literacy, technologies, and teaching approaches in her classroom. However, like Ms. Jones, Ms. Smith conceded that in the past she had very little school-based training on integrating technology. However, since her return to CBHS, she noted there has been "a concerted effort to teach teachers how to use their technology" to facilitate student learning.

For Ms. Smith, online discussions offered students an opportunity to use language to interact with their peers on important subjects. As she explained:

> And you learn more when you have to write about it because you have to use the words and use them correctly to make a cohesive statement, an argument, that other people are going to read and respond to. So you have to have something in there that's important and legible or, not necessarily legible, that's more written, but, you know, it demonstrates that you understood the topic. And to me, that's where some really deep learning can occur.

It was the emphasis on deep learning through the process of writing and interacting with peers that Ms. Smith saw as one of the primary benefit of online discussions. Furthermore, as with Ms. Jones, Ms. Smith saw value in helping students find their voice in the online discussion space. Ms. Smith described it this way: "[Online discussion] value is they had a voice and you listened to their voice. If they don't feel that value, then they won't do the discussions deeply."

Also like Ms. Jones, Ms. Smith struggled to assess the online discussions. Ms. Jones stated she valued having clear expectations for both student initial posts (300 word

minimum) and replies (100 word minimum). Furthermore, she stated her expectation that students would have strong thoughts and be "curious" about one another's posts and "Don't just say, 'I like your response' or 'I don't like your response.' Be curious and then use whatever the material is to prove you have an understanding." However, she noted the difficulty in assessing the students:

> That's what I don't like about it. I don't, I like, I think there's such value in just writing and using the words and phrases that you are supposed to be learning. But then, if you don't grade it, they know you don't grade it, and they are not going to put their effort into it.

Here, Ms. Smith expressed her perceived trouble in needing to quantify the value of the posts through word counts and number of replies but truly valuing the experience of student writing interaction.

Ms. Smith's Facilitation of Online Discussions

Though Ms. Smith taught the same subject as Ms. Jones and did make some similar pedagogical decisions, she made some unique choices in the design of her online discussions. The following section addresses how Ms. Smith facilitated her online discussions. The following themes will be addressed in this section: Ms. Smith positioned her discussions as textual analysis, Ms. Smith positioned her discussions as peer critiques, Ms. Smith positioned herself as a mediator in the online discussions.

Ms. Smith positioned discussions as textual analysis. During the data collection period, Ms. Smith conducted two online discussions. The first online discussion focused on an excerpt from "My So-Called Enemy," a film about two groups of girls on both

sides of the Palestinian and Israeli conflict who were asked come together to form lasting bonds of friendship (Figure 13).

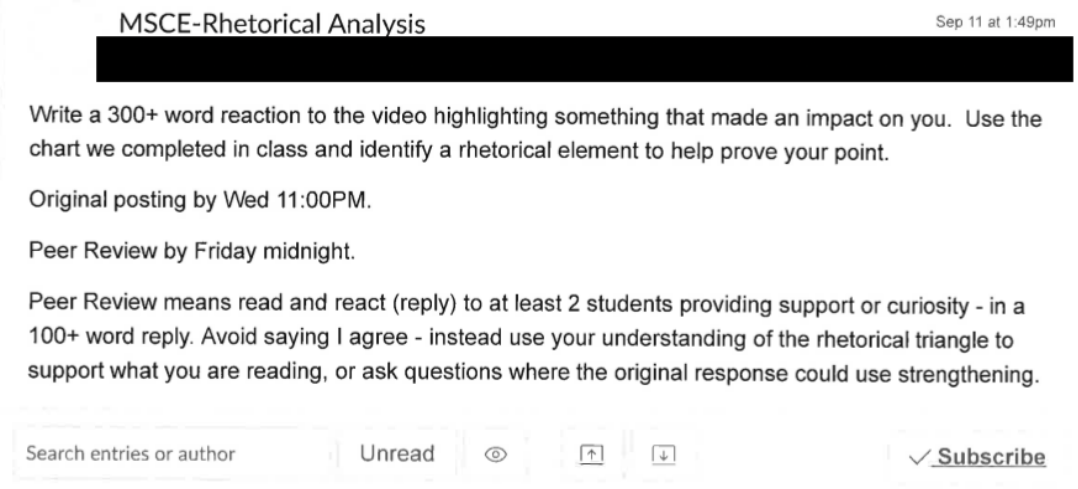


Figure 13. Ms. Smith's discussion prompt 1

Unlike the texts in other discussions in this study, Ms. Smith asked students to analyze a video for her first discussion. Like a written text, the video allowed students to review the scenes multiple times since the video was available to each of the students on their MacBooks. However, unlike the written texts, students needed to analyze both the spoken words as well as the images on the screen. Furthermore, Ms. Smith's first online discussion asked students to analyze the content of the video and "highlight something that made an impact on you" in their original posts. While the focus of the initial post was still the text, this prompt asked students to explain an "impact on you" leaving the topic almost completely up to the student. Furthermore, the prompt asked students to incorporate their knowledge of Aristotle's rhetorical triangle in their initial posts to develop their analysis by "identify[ing] a rhetorical element" which gave students a lens through which to analyze the text.

All initial posts were able to identify at least one impactful scene from the video and most were able to use the rhetorical triangle to enhance their analysis. Tony's initial post (Figure 14) typified student responses:

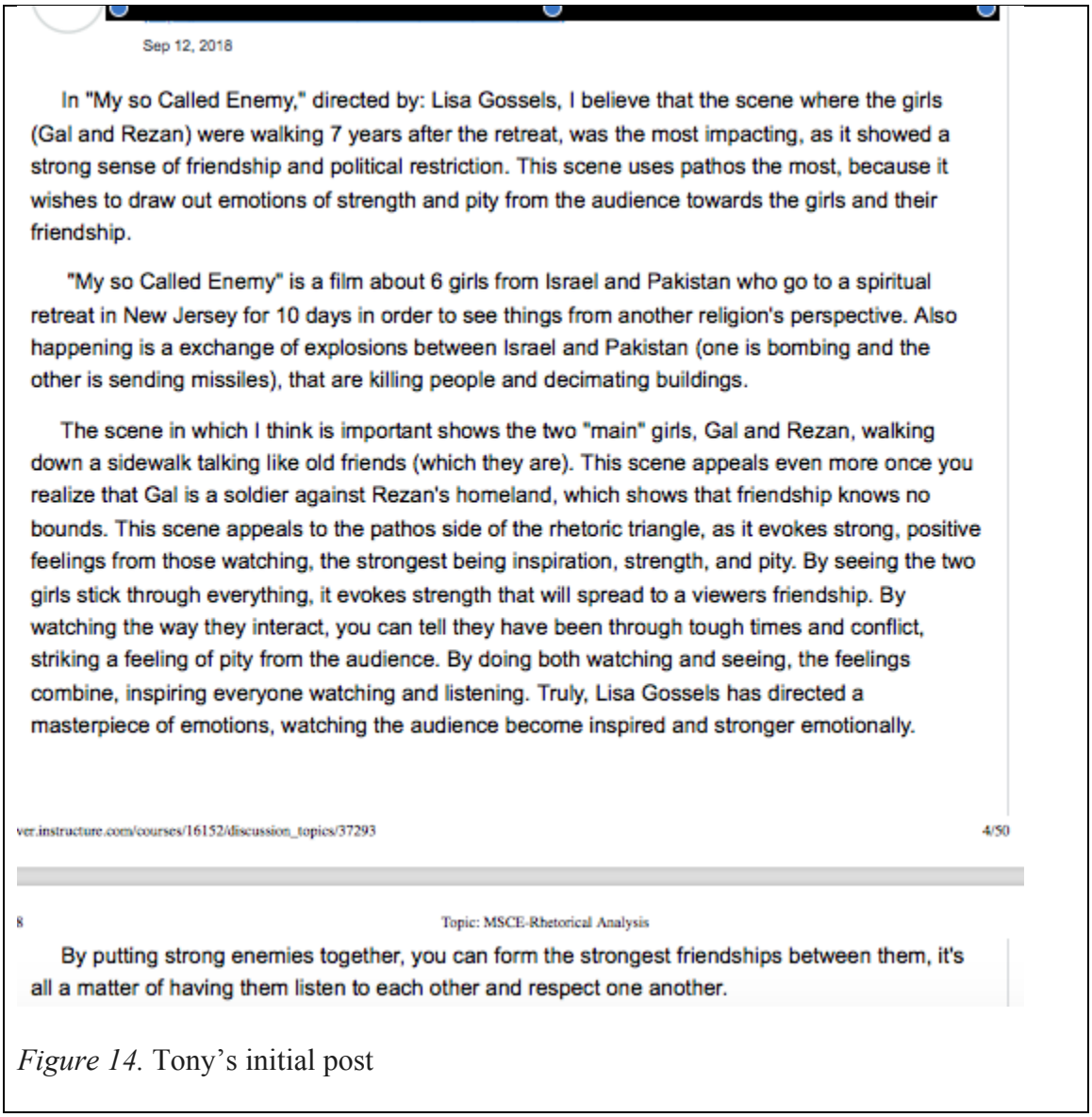


Figure 14. Tony's initial post

In his first paragraph, Tony identified the scene he felt was the most impactful and named pathos as the rhetorical device being used the most. While his second paragraph was almost entirely summary, his third paragraph moves into analysis. Tony explained the two girls "have been through tough times and conflict, striking a feeling of pity from the

audience." It is this "pity" he used to highlight the pathos of the piece. He understood the author put these two diverse girls together to emphasize their friendship in the light of global circumstances which attempted to pull them apart.

Similarly, Ms. Smith's second prompt also asked students to analyze a text; this time it was Shakespeare's *Macbeth* (Figure 15):

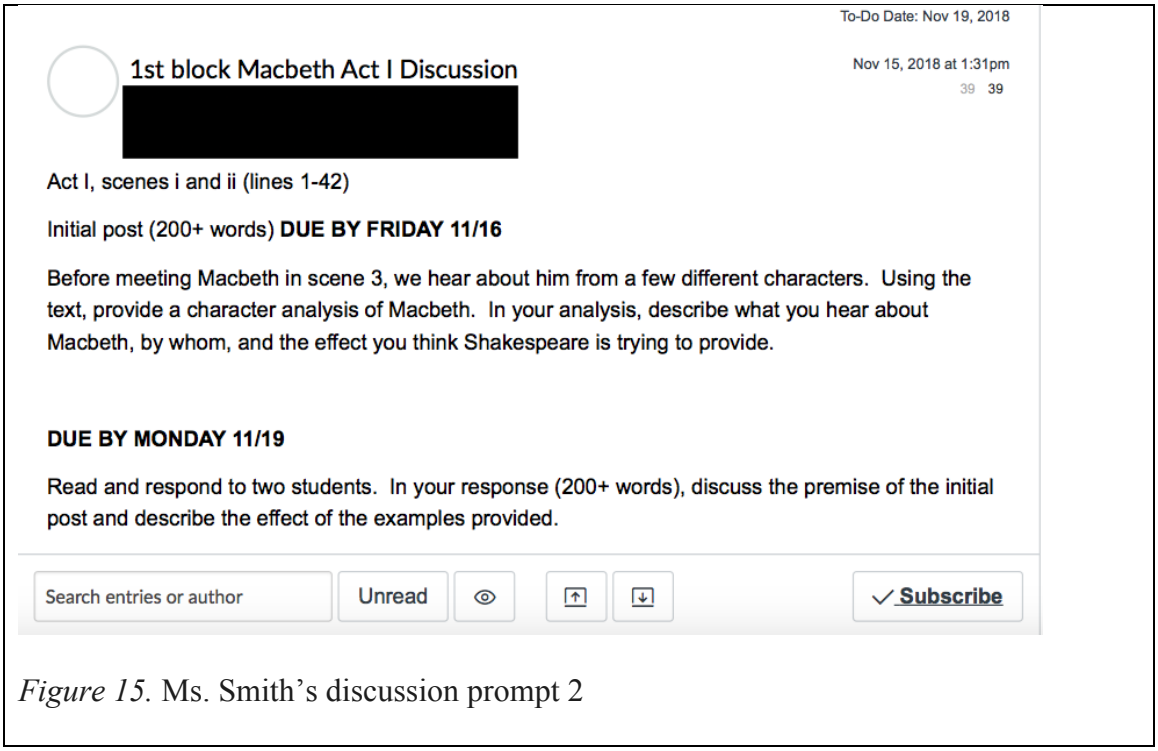


Figure 15. Ms. Smith's discussion prompt 2

This online discussion took place during the introductory phase of a unit on *Macbeth* and was meant as an opportunity to help students discuss their initial impressions of the character Macbeth before he comes on stage in Act I, Scene 3. Because Macbeth has not been seen in the text but has been discussed by other characters, the students' character analyses must focus on Shakespeare's use of indirect characterization to highlight how Macbeth was perceived by other characters.

Brenna's initial post (Figure 16) highlighted the features of many initial posts to this discussion.

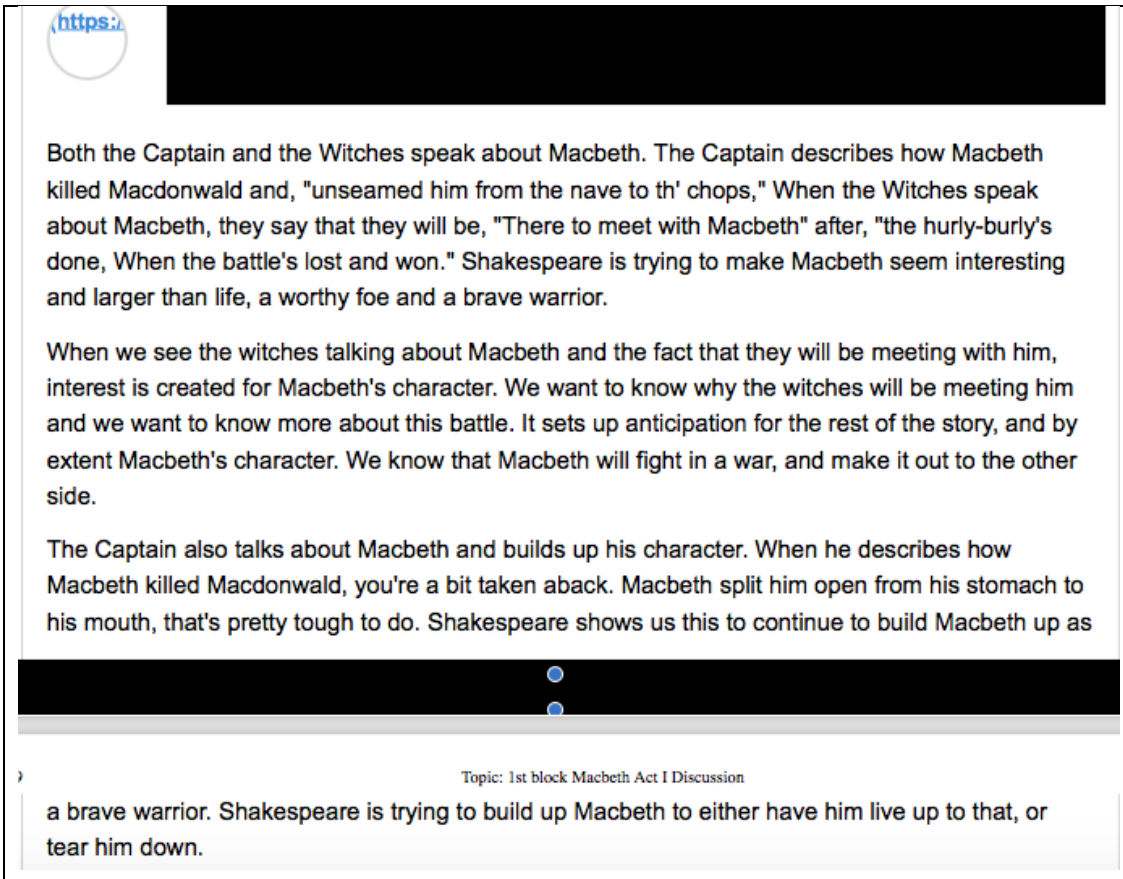


Figure 16. Brenna's initial post

Brenna began by announcing the focus on the witches and the captain followed by a quote from the witches and a quote from the captain. She then focused on the author's purpose "to make Macbeth seem interesting and larger than life, a worthy foe and a brave warrior." Brenna determined the violence depicted in the captain's quote and the witches' determination to meet Macbeth "after the battle's lost and won" showed Macbeth as "a worthy foe and brave warrior." This analysis continued into the next paragraph where Brenna noted, "interest is created for Macbeth's character. We want to

know why the witches will be meeting him and we want to know more about this battle. It sets up anticipation for the rest of the story." Brenna highlighted the author's purpose in generating "interest" in "Macbeth's character" which created "anticipation" in the audience for the remainder of the play. Brenna ended her initial post with the insightful observation, "Shakespeare is trying to build up Macbeth to either have him live up to that, or tear him down." In this, Brenna noted the dilemma Shakespeare creates in the audience: should they believe Macbeth is a hero or will they be witness to his downfall? Brenna's final statement recognized this dichotomy in Shakespeare's characterization.

Ms. Smith positioned discussion as peer critiques. Through her instructions on how to reply to their peers, Ms. Smith, much like Ms. Jones, positioned the discussion as peer critiques. In her first online discussion prompt (Figure 13), Ms. Smith asked students to make an initial post and create "peer reviews" in response to the initial posts of two of their classmates. Often, the term "peer review" would mean to appraise the writing of classmates, making these replies evaluations instead of dialogues. However, Ms. Smith defined the term in her prompt as "read and react (reply) to at least 2 students providing support or curiosity." By providing additional support or "curiosity" about the initial post of other students, Ms. Smith's students were directed to focus on the argumentative development of the initial post. Furthermore, Ms. Smith asked students to "Avoid saying I agree," but "instead use your understanding of the rhetorical triangle to support what you are reading, or ask questions where the original response could use strengthening." Instead of instructing students to simply "ask questions," Ms. Smith added "where the original response could use strengthening." This implied the students

were to find fault in the argument of the original post and offer suggestions where "the original response could use strengthening."

Critiques were present in almost every reply. Of the 22 replies, 19 contained critiques of the original post. Figure 17 is Andrew's response to Lee's original post.

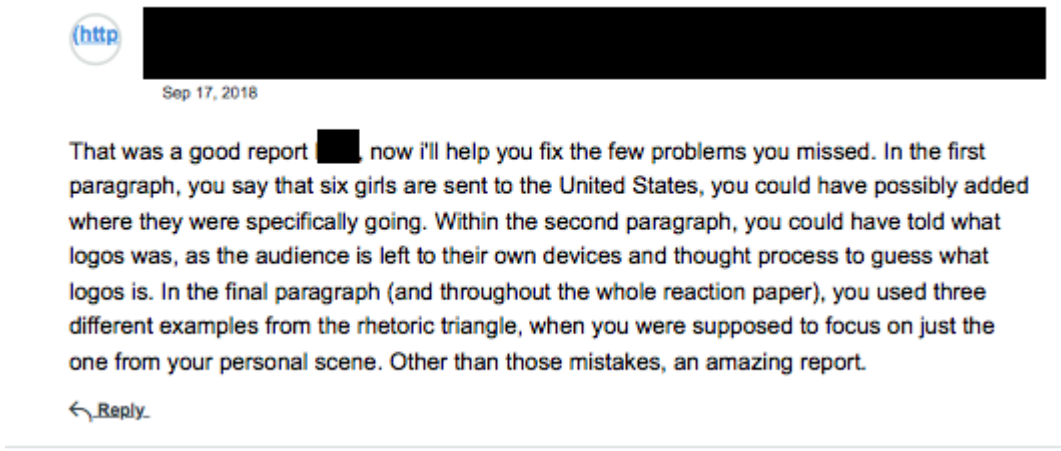


Figure 17. Andrew's reply

The reply began by generally complimenting Lee's original post but immediately announced the critique by stating "i'll help you fix the few problems you missed." Andrew then advised Lee, "You could have told what logos was" and explained his reasoning with "as the audience is left of their own devices and thought process to guess what logos is." Andrew, cognizant that a reader may be unaware of the definition of the Latin term, wanted Lee to define the "logos." Andrew's final critique focused on Lee's adherence to the prompt itself. Andrew noted Lee's use of "three different examples" when "you were supposed to focus on just the one." This critique was less about Lee's writing and more about following directions.

Ms. Smith's second prompt (Figure 14) also positioned the discussion as peer critique with much the same results. Ms. Smith's directions asked her students to, "Read and respond to two students. In your response (200+ words), discuss the premise of the initial post and describe the effect of the examples provided." Ms. Smith's direction for replies were twofold: 1) it asked students to "discuss the premise of the initial post," which pointed students to summarize the thoughts in the original post, and 2) it asked students to "describe the effects of the examples provided," which led to evaluative claims of the original post's use of textual evidence.

Once again, critique was heavily present with 12 of the 19 replies containing some form of critique of the argumentative development and writing in the initial posts. Figure 18 is Allison's reply to Margot's initial post.

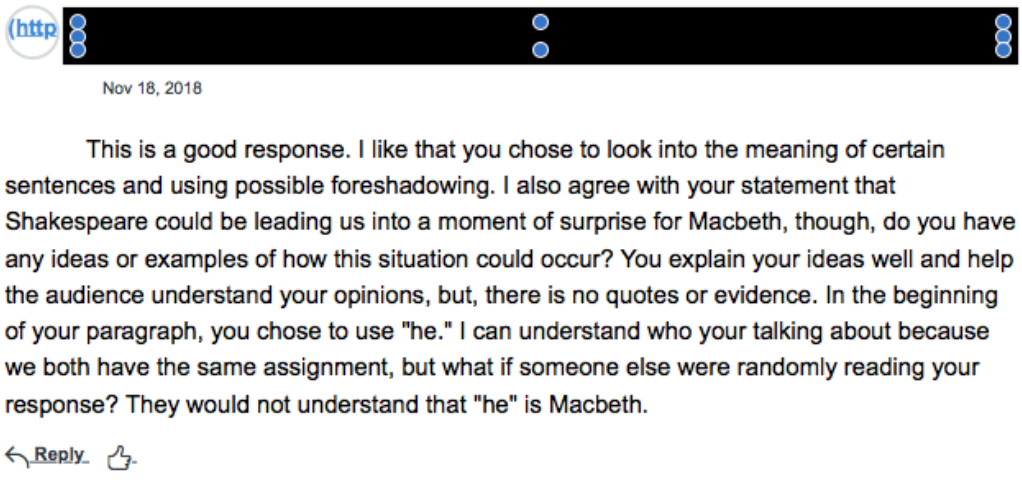


Figure 18. Allison's reply

This reply began with Allison's evaluation that Margot's post was "a good response" and agreed with Margot's analysis that the author "could be leading us into a moment of surprise." However, Allison soon critiqued Margot's post by noting "there is no quotes

or evidence." While this critique spoke of the argument Margot was trying to create, Allison's second critique, using the pronoun "he" as an undefined pronoun, was simply a grammatical oversight.

In fact, in Ms. Smith's focus group interview, Brie believed the critical nature of the replies may have stunted student responses. Brie noted, "as long as you can see what they thought, it's fine." For Brie, the value of the discussion is not in the syntactic choices but in the interplay of ideas between students. However, as she explained, "the responses may be criticizing them for not doing it right or things like that. So, I think the responses were kind of hurting the entire discussion." Because the replies often centered around students critiquing the writing, and not the ideas of their peers, Brie felt the discussion missed the value of the exchange of ideas in favor of criticism. As such, Brie found the discussions less discursive and more akin to peer editing.

Ms. Smith positioned herself as a mediator in the online discussion. Much like Ms. Jones, Ms. Smith believed her role in the online discussion was that of a mediator. Ms. Smith developed the discussion post and allowed the students to facilitate it themselves with no interaction from her. When I asked about her absence from the discussions, Ms. Smith said,

> I wanted to be absent. I didn't want a role. I wanted them to drive the conversations. and so I did not have a role, other than reading them. I didn't want to put a big response in there and have people responding to my response.

Ms. Smith chose "to be absent" in the online environment out of fear of contaminating the student discussion. She believed if she interacted with the students in the online

environment, they would look for her comments and just "respon[d] to my response" instead of interacting with one another.

Her students also viewed her as simply the originator and assessor of the discussion. In the focus group interview with Ms. Smith's students, Kyle said, "She just presented information and told us to like respond to it. And she just kind of facilitated it," while Brie described Ms. Smith's role as, "She doesn't really respond to anyone, really. She is just the one to give us the question that we need to answer. Or like the subject that we need to do it on, and then all we really know is that she just grades it." For both Kyle and Brie, Ms. Smith's interactions seemed minimalistic. They both noted she "just presented information," "just kind of facilitated it," and she was "just the one to give us the question."

For the students, this lack of interaction seemed incongruous to Ms. Smith's normally active role in the class. Sue explained, "Like if we are talking about [a text] in class, she'll ask us to elaborate more or she'll ask [us] to say more." In the classroom environment, Ms. Smith took an active role and asked her students "to elaborate more" on ideas. With her years of experience, Ms. Smith understood when questions were needed to help draw out thinking from her students. She encouraged her students to make connections and to fully express themselves. However, Ms. Smith admitted, "I didn't check [the online discussions] until the end. I didn't pay attention throughout." This absence was certainly felt throughout the online discussions. As Sue once again reiterated, "[Ms. Smith] just kind of explains what [the discussion] means... and then grades it." For both the students and the teacher, the online discussions seemed like "just" another assignment.

Ms. Smith's Students' Interactions in Online Discussions and Their Influence on Student Writing

Like the students in Ms. Jones's class, the students in Ms. Smith's class actively participated in her online discussions through the creation of both initial posts and replies to their classmates. Though there were similarities in how the students interacted in Ms. Smith's class with those of Ms. Jones's students, there was also a difference in the amount of participation. The following themes will be addressed in this section: Ms. Smith's students used textual evidence and elaborated on their thinking in their responses, Ms. Smith's students did not engage in dialogic conversations, and there was limited student participation in Ms. Smith's online discussions.

The students used textual evidence and elaboration in their responses. Though Ms. Smith asked students to use textual evidence like Ms. Jones, Ms. Smith focused more on student elaboration. In our final interview, Ms. Smith noted online discussions "allow [students] to elaborate and let them think about what they want to say." Furthermore, as she analyzed the discussions in her class, Ms. Jones noticed, "[Students] had to really actually elaborate and think about why they agreed and why they would disagree." It was this thoughtfulness that drove the creation of her prompts. In discussion prompt one (Figure 13), Ms. Smith asked students to "identify a rhetorical element to help prove your point." By asking students to focus on the author's use of a rhetorical element, students were forced to both identify specific textual evidence but also explain how the evidence pointed to a rhetorical device. Furthermore, the instructions for the replies included "use your understanding of the rhetorical triangle to support what you are reading." In this way, Ms. Smith wanted students to elaborate on their choice of text through the lens of the rhetorical device they felt the author used. Likewise, the

second discussion prompt (Figure 15) asked students to use both textual evidence and elaboration in their responses. The second sentence of the prompt read, "Using the text, provide a character analysis of Macbeth." The students were asked to both analyze the indirect characterization of Macbeth and provide textual proof of their analysis to elaborate on their ideas.

This desire to stay grounded in the text was evident in both online discussions. Figure 19 is Macee's initial post to Ms. Smith's second discussion prompt.

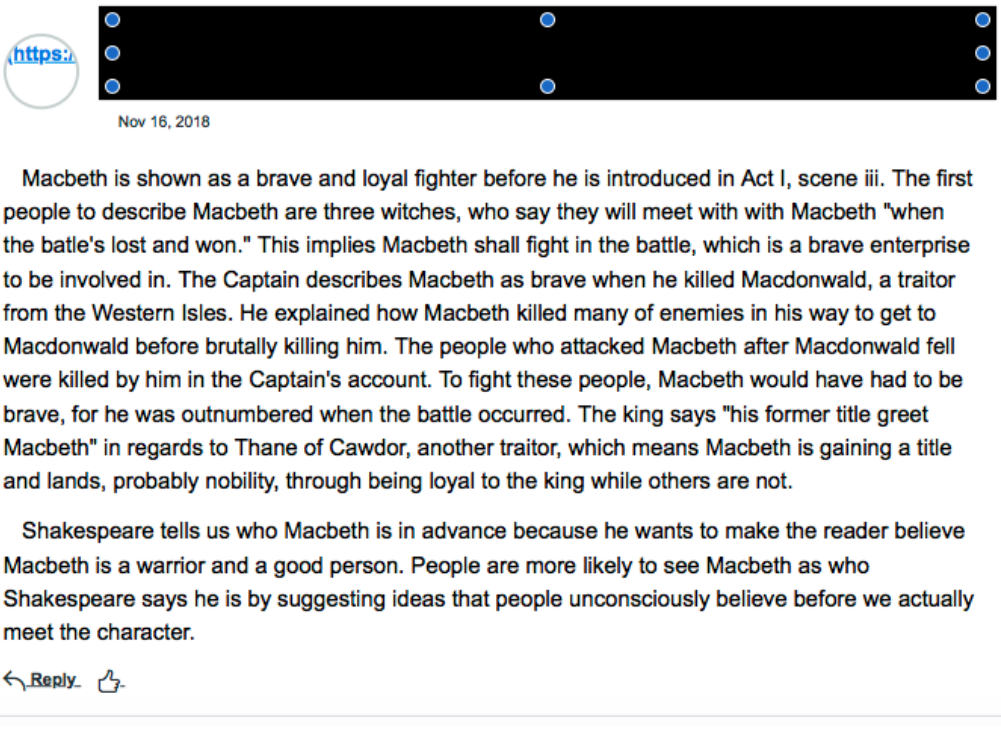


Figure 19. Macee's initial post to Ms. Smith's second discussion prompt

Macee used two direct quotes to highlight the characterization of Macbeth. The first quote indicated the witches planned to meet Macbeth "when the battle's lost and won" and was followed by her explanation, "This implies Macbeth shall fight in the battle, which is a brave enterprise." The second piece of textual evidence came from King

Duncan who ordered his servants to greet Macbeth with Macdonwald's "former title" for defeating the traitor. Macee added her explanation that, "Macbeth is gaining a title and lands, probably nobility, through being loyal to the king." Macee displayed her understanding of feudal loyalty and identified Macbeth's loyalty as an important character trait.

However, textual evidence looked differently when the text changed from written format to a video. Discussion prompt one presented students with a textual challenge: the text was a video. Though they did have access to the video on their own devices, it proved difficult for students to directly quote from the video. However, students used vivid description of the scenes as textual support. Figure 20 is Maria initial post for Ms. Smith's first discussion prompt.

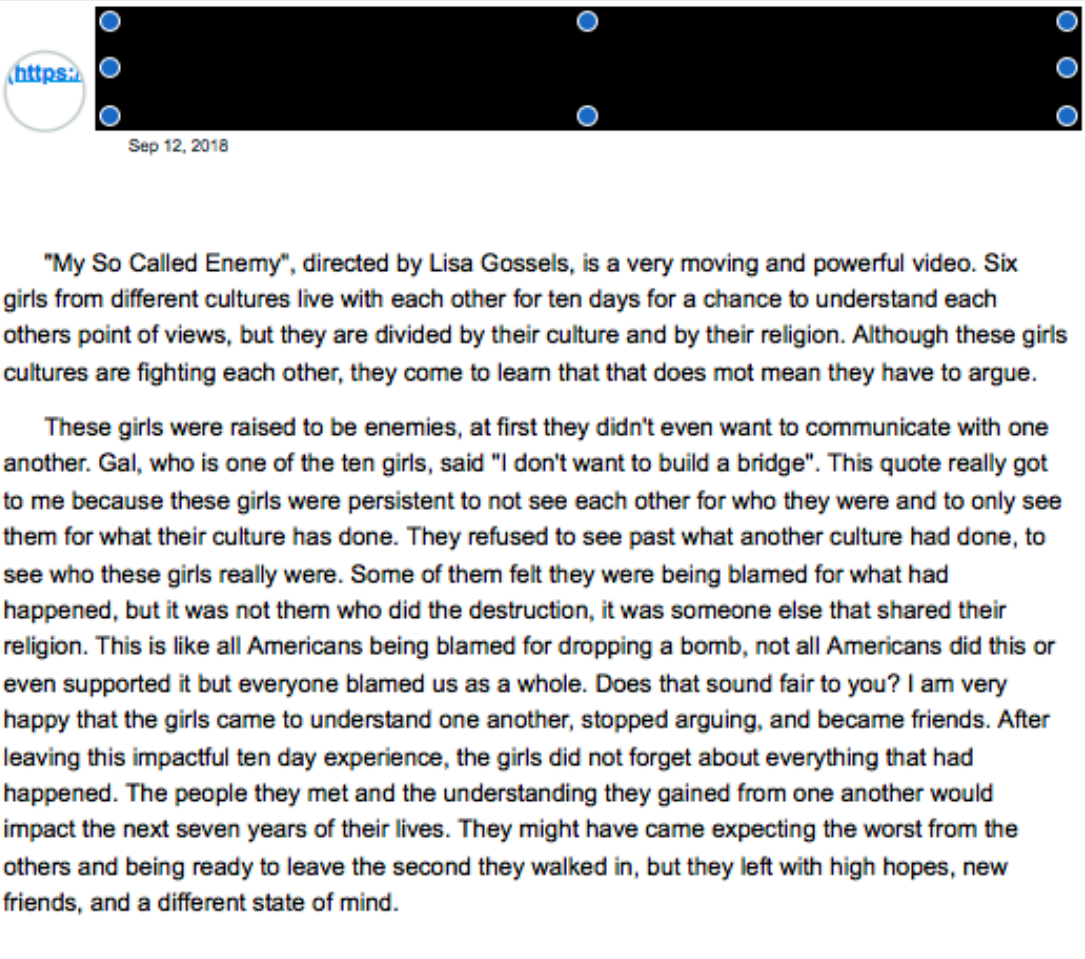


Figure 20. Maria's initial post to Ms. Smith's first discussion prompt

Maria was able to capture some of the dialogue in the video with "I don't want to build a bridge" and followed the quote immediately with her explanation of its importance: "This quote really got to me because these girls were persistent to not see each other for who they were and to only see them for what their culture has done." Maria explained her perception that the girls in the video at first did not want to see each other as individuals but rather held the other girls to the stereotypes they had always known. However, Maria not only used quotes but also described the scene as well:

> After leaving this impactful ten day experience, the girls did not forget about everything that had happened. The people they met and the understanding they gained from one another would impact the next seven years of their lives.

Maria was describing the end of the clip which hinted that the experience would continue to "impact the next seven years of their lives." This statement was followed by the explanation of the importance of the overall clip when Maria wrote, "They might have came expecting the worst from the others and being ready to leave the second they walked in, but they left with high hopes, new friends, and a different state of mind."

The students did not engage in dialogic conversations. Ms. Smith also noted student interaction as an essential quality for the success of online discussions. As she explained, "[I]n the end, I think the value lies not in my grade. The value lies in the discussion they had with each other." This highlighted her belief that students need conversation to help them learn. In fact, one of the reasons Ms. Smith decided to do online discussions was because it "provid[es] that venue for them to discuss, I think that's a huge benefit to them." For Ms. Smith, that venue meant giving students an opportunity to use their "voice" to exchange ideas with their peers.

However, while the students did create initial posts and replies, the students in Ms. Smith's class did not engage in dialogic conversations. No conversation lasted beyond the initial post and reply cycle. In other words, a student made an initial post and received a set of replies. However, those replies did not intersect with one another nor were there any follow up replies. Figures 21, 22, and 23 illustrate a typical cycle of initial post and reply found in Ms. Smith's second online discussion.

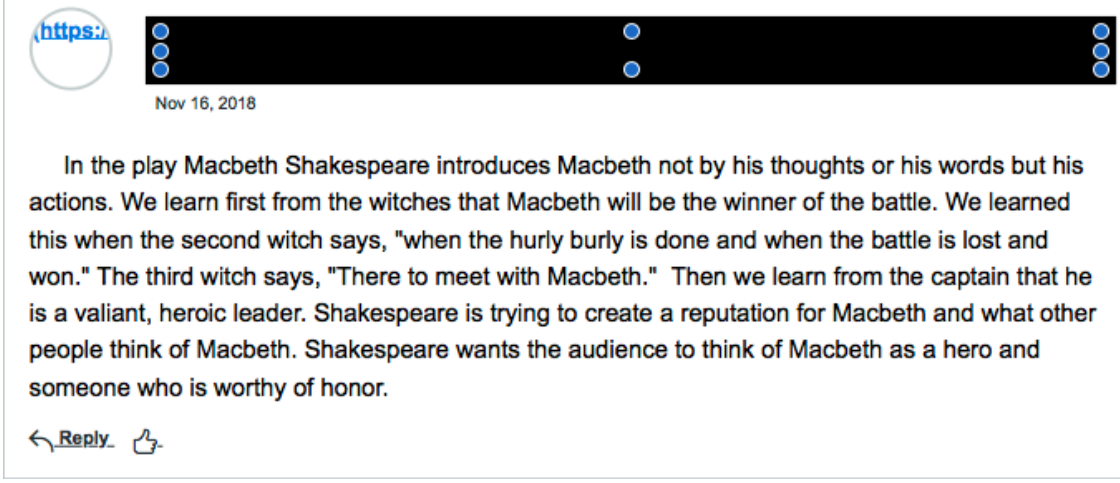


Figure 21. Kyle's initial post to Ms. Smith's second discussion

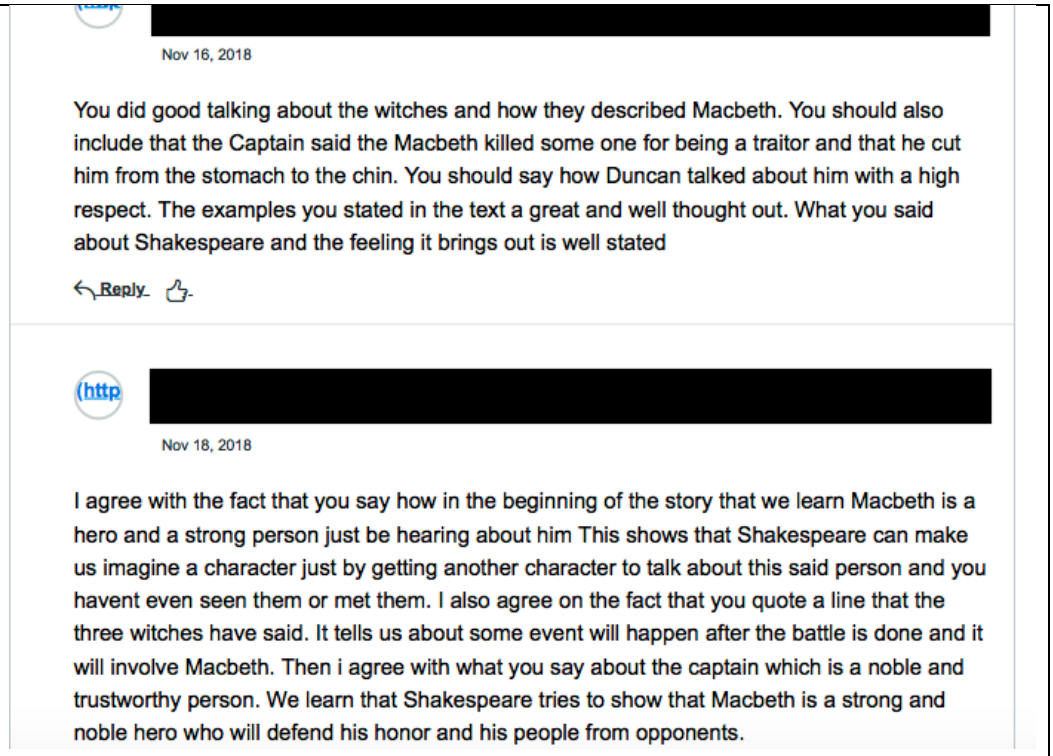


Figure 22. Steve and Austin's replies to Kyle's original post

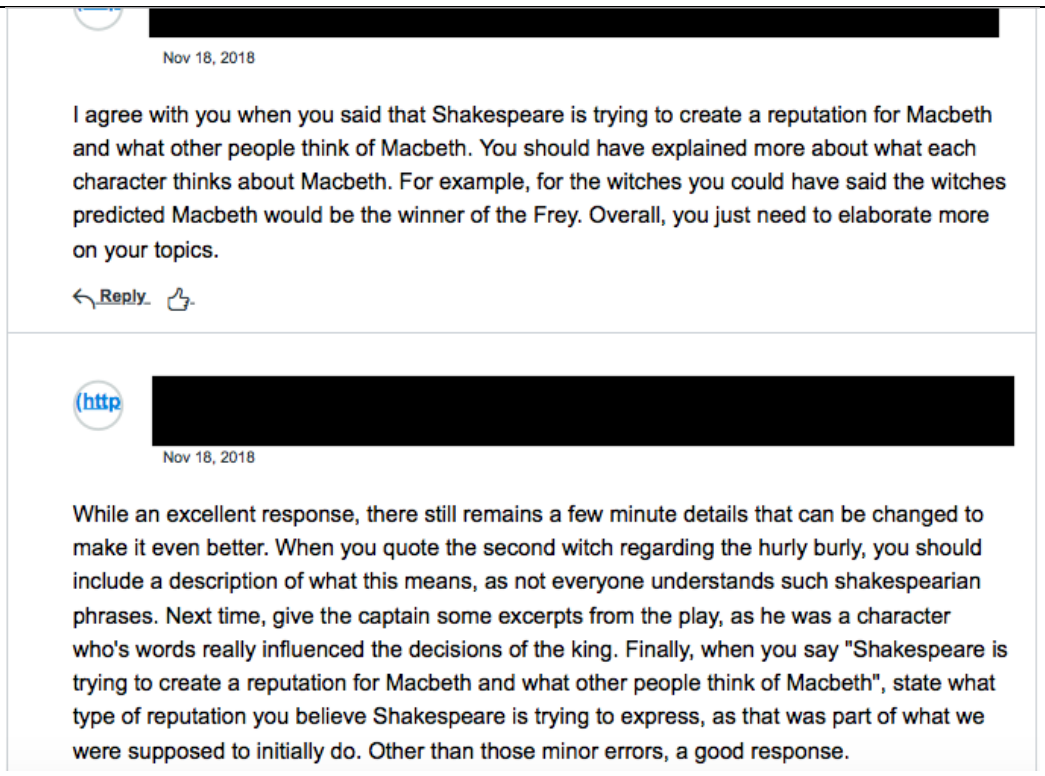


Figure 23. Stan and Tony's replies to Kyle's original post

As with previous examples, Kyle's initial post included textual evidence ("when the hurly burly is done"), summary ("Then we learn from the captain that he is a valiant, heroic leader"), and explanation ("Shakespeare wants the audience to think of Macbeth as a hero and someone who is worthy of honor"). However, while there were four replies to Kyle's initial post, they all focused solely on Kyle's initial post and did not interact with one another in any way. Steve began with a compliment to Kyle, "You did good talking about the witches and how they described Macbeth" followed immediately with his critique in the form of suggestions, "You should also include that the Captain said the Macbeth killed someone for being a traitor and that he cut him from the stomach to the chin. You should say how Duncan talked about him with a high respect." Austin's reply was only slightly different as he only offered "I agree" statements but did not volunteer

any suggestions for change. Stan then returned more to the agree/critique pattern followed by Steve. He began by stating his point of agreement, "I agree with you when you said that Shakespeare is trying to create a reputation for Macbeth and what other people think of Macbeth," followed by his critique and suggestion for improvement, "You should have explained more about what each character thinks about Macbeth. For example, for the witches you could have said the witches predicted Macbeth would be the winner of the [fray]." Finally, Tony ended the series of replies following a very similar pattern. He began with the compliment, "While an excellent response," but announced immediately afterwards the critique: "there still remains a few minute details that can be changed to make it even better." He then moved into his suggestions:

> When you quote the second witch regarding the hurly burly, you should include a description of what this means, as not everyone understands such shakespearian phrases. Next time, give the captain some excerpts from the play, as he was a character who's words really influenced the decisions of the king. Finally, when you say "Shakespeare is trying to create a reputation for Macbeth and what other people think of Macbeth", state what type of reputation you believe Shakespeare is trying to express, as that was part of what we were supposed to initially do.

As part of his final suggestion, Tony made sure to suggest Kyle write "what type of reputation" he believed Shakespeare was trying to give Macbeth because "that was part of what we were supposed to initially do." For Tony, as with the other replies in this thread and most of the replies throughout both of Ms. Smith's discussions, the goal was more to critique the writing of the initial post and offer advice to improve student writing than it was to work together to gain a greater understanding of the text.

Though the advice Kyle received may be warranted, it leaves him little room to reply. If he agreed with the critiques, he would simply remember to include suggestions in his future writing; if he disagreed, there was little reason to reply. He would simply ignore the advice in the future. There was no real impetus to initiate a follow up reply. In this way, the online discussion more closely resembled a peer editing session than a true discussion.

Limited student participation. Unfortunately, there was a lack of participation in Ms. Smith's online discussions. With 22 students in her class, Ms. Smith's first online discussion garnered 18 initial posts while 20 students created initial posts in the second online discussion. While the number of initial posts may not be far from what would be expected, the number of expected replies was significantly lower. The directions for each of Ms. Smith's online discussions asked for each student to make at least two replies to other students. As such, Ms. Smith should have expected to have at least 44 replies in each discussion post. However, in her first online discussion, students only created 22 replies with that number dropping to 19 for her second online discussion. Combined, the mean of both classes was 1.08 replies per initial post.

One reason for this lack of participation seemed come from the students' perception that their teacher did not value the discussions as much as other classroom activities. While Ms. Smith gave directions on how to complete the online discussions during class, Kyle noted, "[W]e started it five minutes before class was ending, and it was kind of just a side note." For Kyle, the little time given during class indicated the little value the teacher placed on the activity. This attitude would have been reinforced by Ms. Smith's lack of involvement during the online discussion. She did not interact at all with

any student in the online discussions and did not read the responses throughout the discussion period. Even after the discussion was over, students looked for specific feedback, but did not receive it. As Maria noted in her focus group interview,

> I feel like we could go over some of the responses in class after the discussion was over. And like she could point out some of the things she liked maybe and some of the things she would like us to work on.

Without this feedback, students were left to wonder about the value of their comments. Sue furthered this notion when she said, "I think maybe like, after you respond to it, then you should discuss it with your classmates. To be honest, it's not interesting unless you actually do something. Like say something or do something." For Sue, the lack of reflection by both the teacher and the student meant the value of the activity as a whole was in question. Because she was not present in the discussions and could not talk about anything happening in the discussions during class since she did not read them until after they were complete and did not facilitate a discussion with students about the discussions after they were finished, students felt Ms. Smith did not value the activity.

Ms. Smith Modified Instruction Based on Her Analysis of the Online Discussions

Like Ms. Jones, Ms. Smith designed her online discussions to complement the content of her course. Ms. Smith's first online discussion occurred during a nonfiction unit where the focus was having students begin to understand the structures writers use to convince their readers. The second online discussion focused on understanding character development in *Macbeth*. As such, students were asked to write about their early understanding of Macbeth's character. In this way, Ms. Smith hoped to use her online discussions to be better informed about her students' abilities to read deeply.

Ms. Smith saw both online discussions, but her second discussion prompt in particular, as a way to assess students' ability to understand complex texts. In our final interview, Ms. Smith explained,

> [E]specially with Macbeth, it works as a great beginner to the tragic heroes. So at the end of the unit, they'll be writing an essay on the tragic hero, so getting them to really understand and see Macbeth as a hero from the start, that that was his reputation and that people, revered him, helps in the definition of a tragic hero. So, that's why I liked doing that one and why I might do that one again.

For Ms. Smith, the online discussion gave students an opportunity to interact with Shakespeare's language and to understand how Shakespeare framed the character of Macbeth as a hero early in the play. As Ms. Smith read through the discussion posts, it would give her an opportunity to see how well students understood the opening of the play. This understanding could then shape how she developed activities to increase student understanding of the rest of the play, especially since the students would write "an essay on the tragic hero" at the end of the unit. Understanding where her students were at the beginning of the Shakespeare unit allowed her to devise opportunities to fill in any perceived weaknesses before the final paper would be due.

Summary of Case #2

In many ways, Ms. Smith's facilitation of online discussions in her class looked very similar to Ms. Jones's class. However, there were subtle differences. Like Ms. Jones, Ms. Smith positioned her online discussions as textual analyses, keeping the texts in the foreground of the students' discussions. Furthermore, she designed the replies to be less concerned with the transaction of ideas and more akin to peer reviews, with

students being instructed to critique the writing of their peers. Further complicating matters was her students' perception that Ms. Smith did not value the online discussions as much as other classroom activities because of her absence in the online forum and lack of follow up of any kind to the students' posts. With few openings for true dialogue and the value of the activity in question in the students' minds, Ms. Smith's online discussions faltered.

Case #3: Ms. Adams

Though Ms. Adams had less classroom experience (five years) than Ms. Jones or Ms. Smith, her academic interactions with technology started at a much earlier age with a personal computer in the home and computers readily available at school. However, Ms. Adams noted that before entering college "I don't really feel like I had teachers ask me to utilize [digital technology] much" though she did acknowledge using her home computer to do basic internet searches and type papers when required. However, Ms. Adams's interactions with digital technology increased in college as she participated in the smartphone revolution and was able to own her own laptop. During this time, "Google was becoming popular, Google drive, and so I remember being taught how to share documents with my classmates." Being a student at this time allowed Ms. Adams to see firsthand the power of social interaction in academic environments.

Similar to both of the other teachers in this study, Ms. Adams felt confident in her ability to combine content, technologies, and teaching approaches with a self-rating of a four out of five on technology proficiency according to the TPACK questionnaire. Though this was her first year teaching in a district which supplied computers to each of

its students, Ms. Adams had experience integrating technology into her classroom. As she explained,

> At my other school, we had Chromebooks that we had to switch on and off. I didn't have computers every day with kids. So it was never really a requirement for them to complete something at home with the computer because we never knew if they had one or not.

Being in a 1:1 school allowed Ms. Adams to utilize technology every day to enhance her classroom.

Unlike Ms. Jones and Ms. Smith, Ms. Adams did have some pre-service training in a digital literacy course which focused on technology in the classroom. Through this course, Ms. Adams recognized "reading online was a lot different skill than reading, you know, a paper copy" and it helped her to see "basically what's going on in their mind cognitively as they are reading online. Because it is a much different atmosphere than reading on paper." When I asked her what some of those differences where, Ms. Adams noted,

> The focus, you can jump around so much. You can click on so many different items, you can scroll. It's not just the words and the paper. There's so many other icons and things that they can kind of play around with. Once they are done with one article, they can jump over to something else. It's just very fast-moving, the digital world.

However, though Ms. Adams recognized the changes digital literacy has brought to the ELA classroom, she acknowledged that she had not always felt supported in her attempts to use more technology. At her previous school, she felt the emphasis was on using

hardware, such as smart boards, and not on developing meaningful student interactions with technology. She explaind “it wasn't until we got Chromebooks for each school that we started to go to trainings to do Chromebooks and different types of apps.” However, she noted that over the last two years, she had multiple opportunities to grow in her understanding of how to meaningfully integrate technology into her classroom.

Ms. Adams recognized the value of technology in her classroom “to prepare our students for the real world…I mean, we're creating 21st Century learners.” Yet, using technology does not automatically guarantee student learning. Ms. Adams explained,

> I do feel like with technology, even though it’s great when it's being used, if you don't plan ahead, and you don't already have a goal in mind and you haven't shared that goal with your students, a lot of thought can get lost, off track. And so that's been something I've had to learn how to make it purposeful and meaningful.

Here, Ms. Adams recognized the value of backward design in developing digital products.

For Ms. Adams, online discussions offered students an opportunity to not only demonstrate their abilities to analyze texts but to be more authentic. She described her how online discussions can benefit students this way:

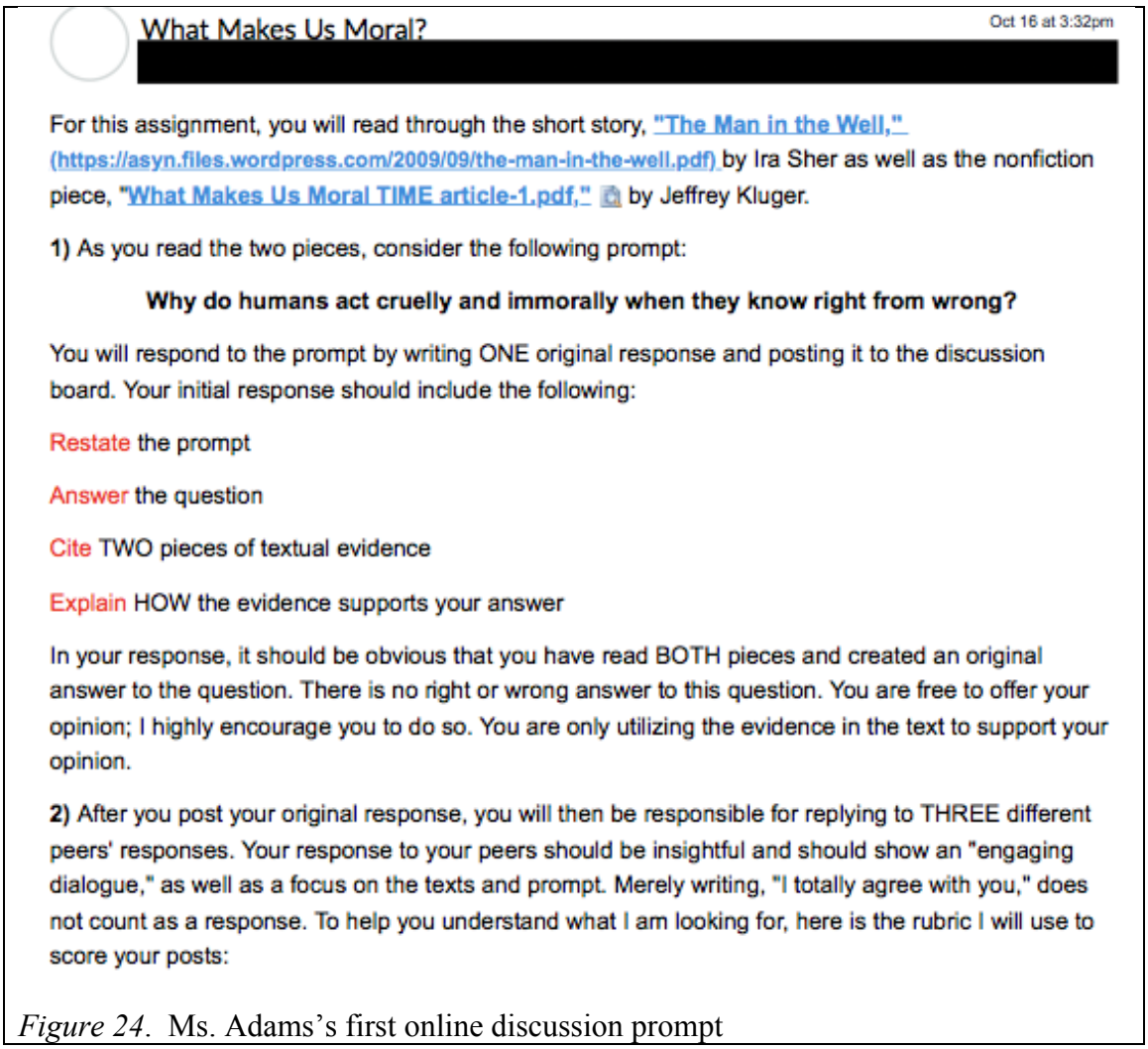
> I think that it gives students an opportunity to be honest because they might be fearful in class to discuss. Especially with 9th graders, I have come to learn that they are very hesitant lately, because I'm used to teaching 11th graders, but I think it gives them time to sit either here, on the computer, or at home and think through what they want to say. And it gives them a little more confidence.

Ms. Adams noted this confidence can allow students to "be way more honest online than on actual paper in class."

Ms. Adams's Facilitation of Online Discussions

While Ms. Adams taught the same subject as both Ms. Smith and Ms. Jones, and did make some of the same pedagogical decisions, the different decisions she did make created different outcomes in her online discussions. The following section addresses how Ms. Adams facilitated her online discussions. The following themes will be addressed in this section: the value of clear student expectations, Ms. Adams decentered the text, Ms. Adams positioned her discussions as transactional experiences, and Ms. Adams positioned herself as a mediator in the online discussions.

The value of clear student expectations. Clear student expectations are vital in all aspects of education. Online discussions are no different. However, the specificity of Ms. Adams's expectations, especially in her first online discussion prompt (Figure 24) and its rubric (Figure 26), allowed her students to hone in on specific skills throughout the discussion, specifically the use of textual evidence and the ability to interact with peers in the online discussion.



What Makes Us Moral? Oct 16 at 3:32pm

[redacted]

For this assignment, you will read through the short story, "The Man in the Well," (https://asyn.files.wordpress.com/2009/09/the-man-in-the-well.pdf) by Ira Sher as well as the nonfiction piece, "What Makes Us Moral TIME article-1.pdf," by Jeffrey Kluger.

1) As you read the two pieces, consider the following prompt:

Why do humans act cruelly and immorally when they know right from wrong?

You will respond to the prompt by writing ONE original response and posting it to the discussion board. Your initial response should include the following:

Restate the prompt

Answer the question

Cite TWO pieces of textual evidence

Explain HOW the evidence supports your answer

In your response, it should be obvious that you have read BOTH pieces and created an original answer to the question. There is no right or wrong answer to this question. You are free to offer your opinion; I highly encourage you to do so. You are only utilizing the evidence in the text to support your opinion.

2) After you post your original response, you will then be responsible for replying to THREE different peers' responses. Your response to your peers should be insightful and should show an "engaging dialogue," as well as a focus on the texts and prompt. Merely writing, "I totally agree with you," does not count as a response. To help you understand what I am looking for, here is the rubric I will use to score your posts:

Figure 24. Ms. Adams's first online discussion prompt

The prompt began by giving students the two assigned texts, one a short story and one a nonfiction article, followed by the central question, "Why do humans act cruelly and immorally when they know right from wrong?" Ms. Adams then gave the students a framework for constructing their initial post. For this framework, Ms. Adams used the acronym RACE: Restate, Answer, Cite, and Explain. Ms. Adams described the strategy this way:

> It's called RACE and they basically know what this means now because I teach it with everything they write. But they have to restate the prompt. So whatever the

prompt was asking in the discussion posting, they have to restate it. They have to answer the prompt. That's what the "A" is. The "C" is they have to cite evidence and my requirement for that specific discussion board was they had to use two pieces of evidence: one preferably from the nonfiction and one from the fiction piece. And then the "E" is they have to explain how that evidence supports their answer and then they have to sum it up.

This framework, which Ms. Adams had employed with previous writing assignments, forced students to focus on gathering textual evidence to support the claim they initially make. Allie's initial post (Figure 25) demonstrated the RACE writing procedure.

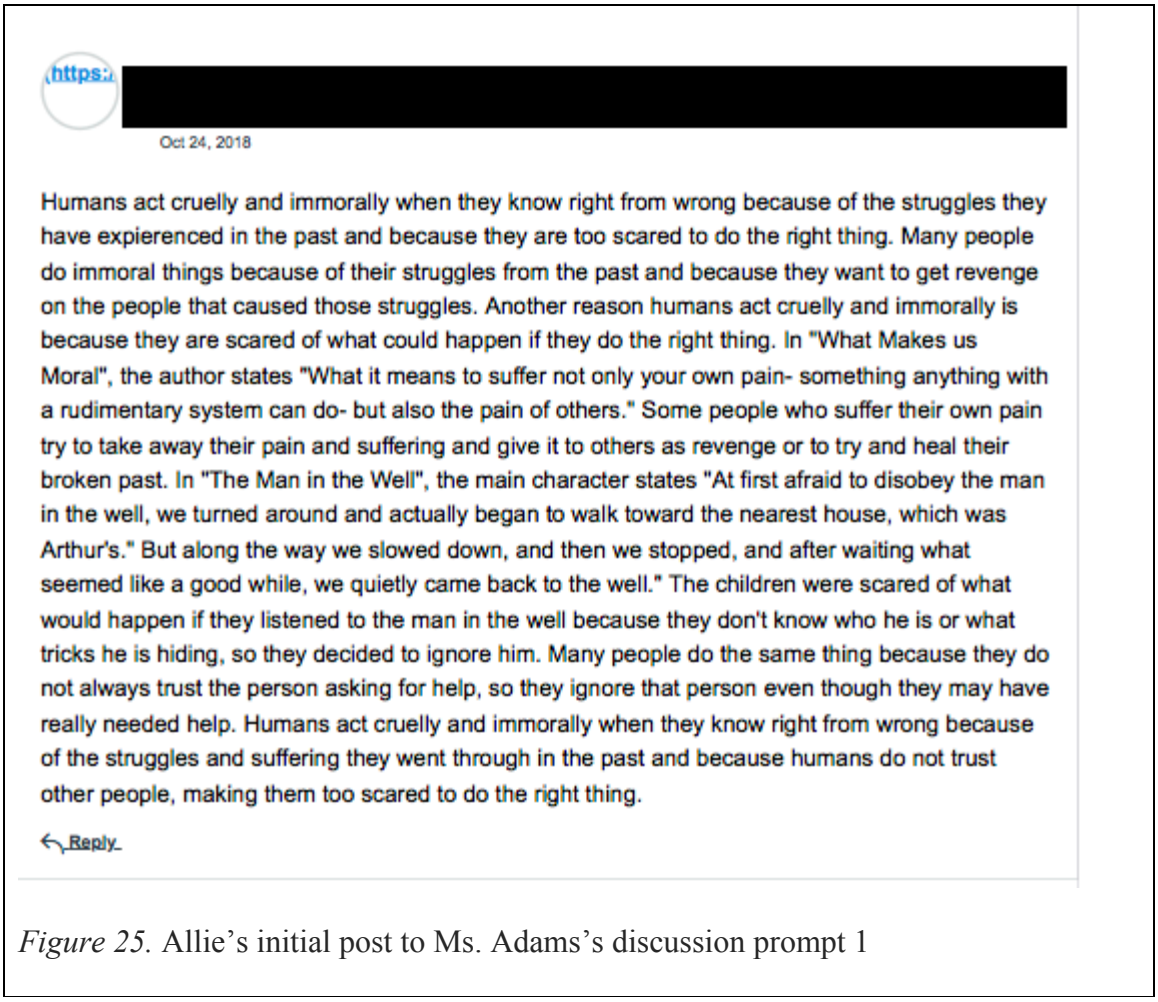
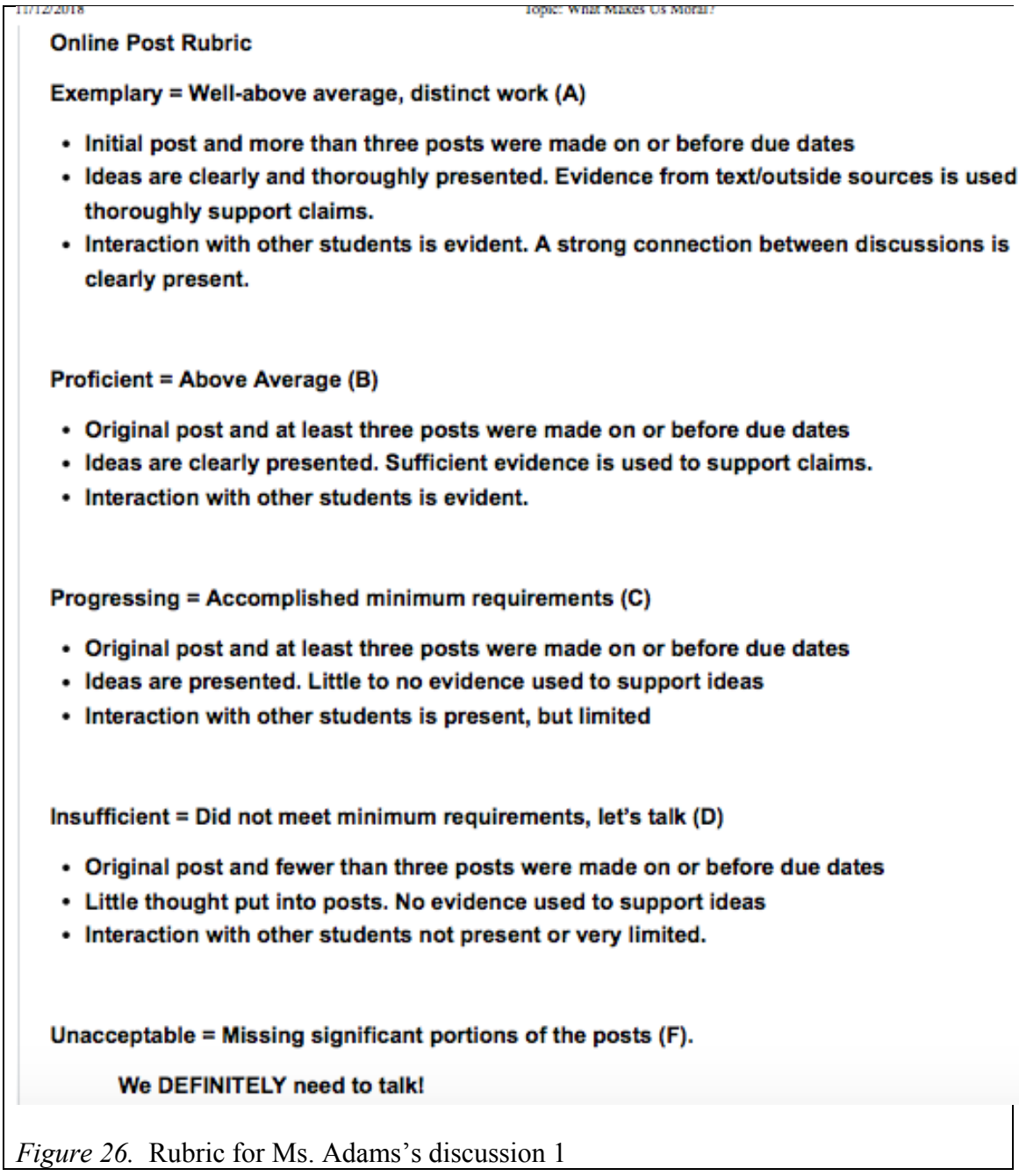


Figure 25. Allie's initial post to Ms. Adams's discussion prompt 1

In her opening sentence, Allie both restated the prompt and began laying the groundwork of her argument that humans act cruelly even when they know better "because they are too scared to do the right thing." After spending two more sentences answering the prompt by explaining her point, she moved into evidence from both the nonfiction article and the short story. Finally, she ended with an explanation of her overall idea that people act cruelly because of "the struggles and suffering they went through in the past and because humans do not trust other people, making them too scared to do the right thing." Using the RACE strategy allowed Allie to fully develop her ideas and support them with textual evidence from both sources.

After students completed their initial post, the prompt instructed students to complete three replies to different peers. Ms. Adams asked that these replies "be insightful and should show an 'engaging dialogue,' as well as a focus on the texts and prompt" and move beyond a simple agreement statement. However, Ms. Adams moved a step beyond what Ms. Jones and Ms. Smith gave to their students. Ms. Adams's prompt stated, "To help you understand what I am looking for, here is the rubric I will use to score your posts." This rubric (Figure 26) was implemented to help students "understand" the qualities she expected to see in the student initial posts and replies.



11/12/2018 Topic: What Makes Us Moral?

Online Post Rubric

Exemplary = Well-above average, distinct work (A)

- Initial post and more than three posts were made on or before due dates
- Ideas are clearly and thoroughly presented. Evidence from text/outside sources is used thoroughly support claims.
- Interaction with other students is evident. A strong connection between discussions is clearly present.

Proficient = Above Average (B)

- Original post and at least three posts were made on or before due dates
- Ideas are clearly presented. Sufficient evidence is used to support claims.
- Interaction with other students is evident.

Progressing = Accomplished minimum requirements (C)

- Original post and at least three posts were made on or before due dates
- Ideas are presented. Little to no evidence used to support ideas
- Interaction with other students is present, but limited

Insufficient = Did not meet minimum requirements, let's talk (D)

- Original post and fewer than three posts were made on or before due dates
- Little thought put into posts. No evidence used to support ideas
- Interaction with other students not present or very limited.

Unacceptable = Missing significant portions of the posts (F).

We DEFINITELY need to talk!

Figure 26. Rubric for Ms. Adams's discussion 1

The rubric (Figure 26) focused on three aspects of the student posts. The first aspect was student participation. The prompt asked students to make one initial post and three replies. The second aspect focused on the quality of student posts, both initial post and replies. The prompt asked for ideas which were "clearly and thoroughly presented" and for evidence which was "used to thoroughly support claims." Finally, the prompt

emphasized student interaction where "A strong connection between discussions is clearly present." By providing students with a clear rubric, they were able to better understand what was expected of them in their online interactions.

However, the expectations set forth in Ms. Adams's second discussion prompt (Figure 27) were not nearly as clear.

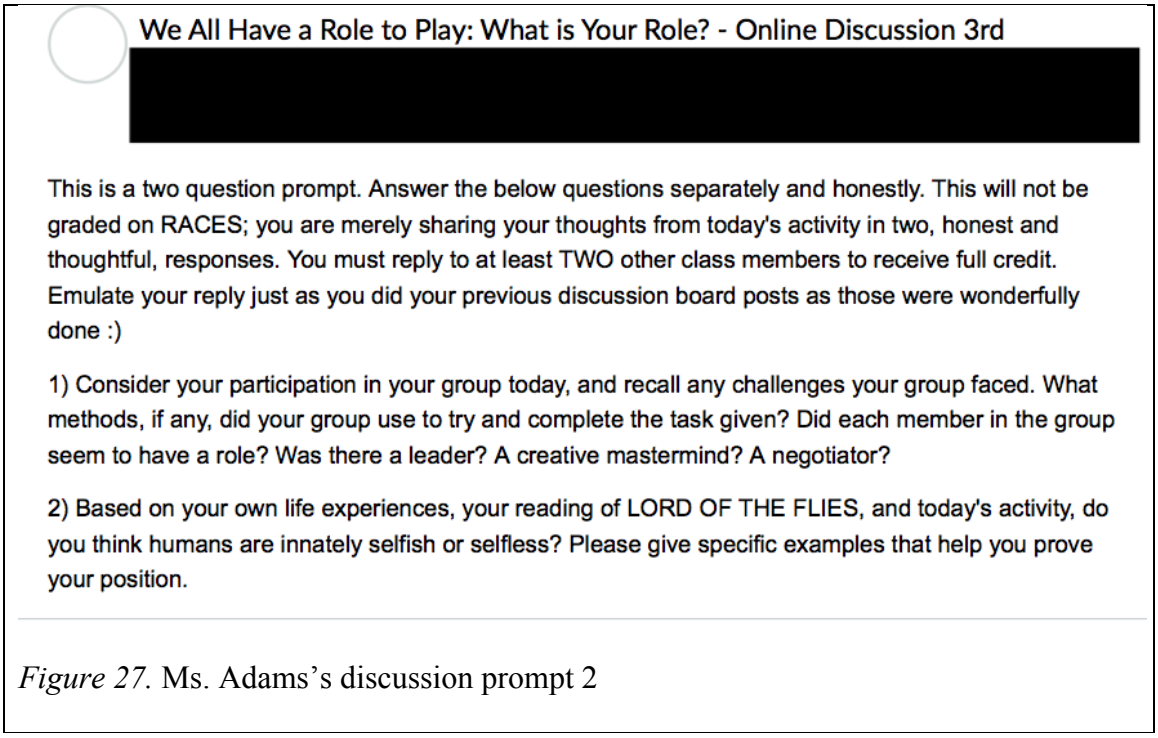


Figure 27. Ms. Adams's discussion prompt 2

Like her first online discussion, Ms. Adams asked the students to move beyond a closed textual analysis and opened the discussion to include their lived experiences. This prompt was divided into two distinct parts. The first asked students to reflect on their experience with a classroom activity which was integrated with their reading of *Lord of the Flies*. Ms. Adams described the classroom activity this way:

> So, they were put into groups that I had chosen and they were given all an envelope with different utensils in the envelop like paper clips, or different sized papers, scissors. But not every group had the same amount of supplies. But they

> all had to do the same task. So they all had the same directions. They had to read the directions, then they had to make something really quickly. And the first group to finish, won. The irony in it is that one group had all the supplies, other groups had various supplies. But, the only thing I told them was you can only use what's in *an* envelope, not *your* envelope. And so, when the first group finished, they sat there and watched everyone else struggling. And they didn't go and help, or barter, or share, or come together to make it as one. And so the idea was "Are we selfish?" Because selfishly that group wanted to win and once they were done, they just sat there. And they just kind of watched everyone else struggle. And so, they didn't even know there was a discussion posting until after the activity because I felt if they would have known that was the discussion posting, they would have, it would have messed up the activity.

For Ms. Adams, the goal of the activity was to engage students in a discussion of group roles both in the class and in *Lord of the Flies.* In particular, she wanted them to identify their role in the group activity and connect it to the group roles in the novel. The second part of the prompt asked students to think more broadly both about their roles in the class activity and the characters' roles in *Lord of the Flies*. In particular, she asked the students whether they felt "humans are innately selfish or selfless" and asked them to base their reactions not just on the activity or the text but on their "life experiences" as well.

Though this discussion was also open-ended just like her first discussion, the number of responses dropped considerably. Of the class of 24, there were 23 initial posts and 38 replies. While part of the drop was surely caused by the reduced number of replies required (the second discussion only required two replies), Ms. Adams still should have

expected at least 46 replies. Furthermore, there were no follow up replies in this discussion. This indicated a drop in engagement by the students as eight of the 24 students did not meet the requirements set forth by Ms. Adams.

When I asked Ms. Adams about this decline, she was able to provide some thoughtful insights. As she explained,

> I definitely think I would spend more time talking about the activity after they did it … and give them just a little more guidance as to what I was wanting from the prompt. Because some of them kind of got what I was asking for, some of them did not.

This lack of clarity in the guidance of expectations for their posts shifted the way students engaged with both the text and each other in the discussion. The focus of the first part of the prompt was the activity they had just completed. It was a reflection piece which asked students to think about their roles in the activity. In this way, the activity, and the roles they took on, became the text for them to analyze and most students were able to do so. However, the second part of the prompt was a little more muddled as it asked students to bring "[their] own life experiences, observations, and today's activity" to bear on the question "do you think humans are innately selfish or selfless?" To students, the three sources of information listed for them to draw from were seen as equivalent. In other words, Ms. Adams did not emphasize the connection to the novel and so neither did the students. In her interview at the end of the data collection period, Ms. Adams reflected, "[T]hey were just telling me what they did in the groups. And that's not really what I wanted. [They wrote] 'I got the paper clip. I cut the paper. I did this. I did that'." Ms. Adams recognized the misalignment of her expectations with her directions.

This misalignment was felt in the online discussion. Of the 38 replies, only two referenced *Lord of the Flies* in any way and only three referenced a life event outside of the activity they had just experienced. In other words, the vast majority of both initial posts and replies centered on the activity they had just participated in, essentially making the discussion a reflection tool. While reflection is valuable, it is also very personal. The vast majority of replies agreed with the initial post with only three disagreeing in any form. The students felt that because the prompt was so highly subjective, they could not argue the reasoning in the initial post. Furthermore, without a firm text, since the text was their memories of the activity, they lacked the ability to review the substance of the interactions and to truly develop a counterargument.

Ms. Adams decentered the text in the online discussion. Ms. Adams's prompt for her first online discussion (Figure 24) marked a shift away from those presented by Ms. Smith and Ms. Jones. Ms. Smith and Ms. Jones focused their prompts on the analysis of specific texts. In these cases, the text became the center of the discussion. However, Ms. Adams shifted the focus to the students themselves. While the prompt began by asking students to read two texts, the focus question was "Why do humans act cruelly and immorally when they know right from wrong?" This question gave students the opportunity for an open-ended response in which the students could draw any number of conclusions. It was up to each individual student to determine the direction of her posts. This idea was reinforced when the prompt stated, "There is no right or wrong answer to this question. You are free to offer your opinion; I highly encourage you to do so. You are only utilizing the evidence in the text to support your opinion." This statement supported open dialogue since "[t]here is no right or wrong

answer" and encouraged students to "offer your opinion." Furthermore, Ms. Adams reinforced the centrality of student voice when she wrote, "You are only utilizing the evidence in the text to support your opinion." Unlike the prompts from the other teachers which advocated seeking the answer through the text, Ms. Adams advocated "utilizing the evidence in the text to support your opinion."

This shift in the prompt produced differences in the way students used evidence in the online environment. While the initial posts used textual evidence to support claims in similar ways to Ms. Jones and Ms. Smith's discussions, many students incorporated details from beyond the given texts in the discussion. Walter, for example, included personal information about his family in his initial post (Figure 28).

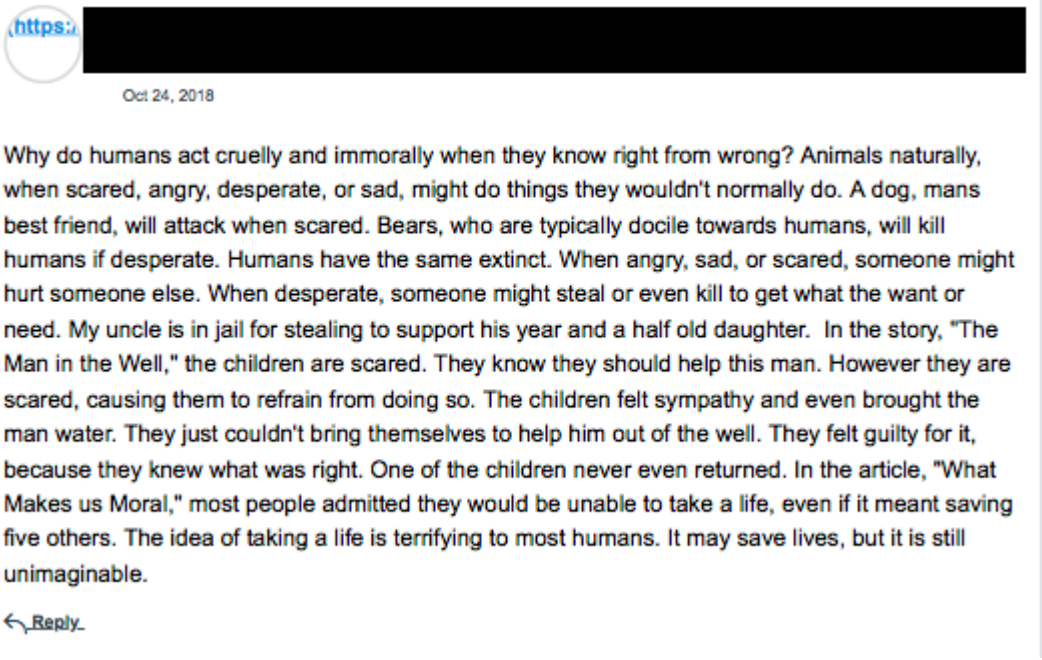


Figure 28. Walter's initial post

In his initial post (Figure 28), Walter wrote,

> When angry, sad, or scared, someone might hurt someone else. When desperate, someone might steal or even kill to get what the want or need. My uncle is in jail for stealing to support his year and a half old daughter.

By sharing an example from his life, Walter broadened the scope of the discussion beyond the confines of the text to envelop his own lived experience. Though the frequency of posts which reached beyond the assigned text was relatively low (six), none of the other discussions from either Ms. Jones or Ms. Smith had any such occurrences.

Ms. Adams positioned discussion as transactional experiences. For Ms. Adams, the value of the online discussion lay largely in the students' ability to exchange ideas with one another. As she noted in her first interview, she was excited to give students "a chance to interact with each other in a different setting." Furthermore, for Ms. Adams, the online setting gave students an opportunity to think before they responded which increased their confidence in their ability to add to the online conversation. As she noted, "[T]hey might have a little more confidence and they have time to sit and think. If they are slow to respond, they don't feel pressured. I'm not looking over their shoulder."

This idea of increased confidence was echoed in the focus group of Ms. Adams's students. In the focus group interview, Olivia noted,

> There's, in class, it's kind of like awkward to, if you were to just be put in front of the class and have to talk about morals and have to make a full discussion. I think online we could write a response and edit it and look back and add different evidence. And we could really think about it. And then when we read other responses, it's always easier to have a conversation with someone or talk behind a

> screen, which is kinda sad. But, it's just how it is and it made it easier for everyone.

Olivia identified an area of importance for the success of online discussions: reducing the pressure of time on communication. She noted she could "really think about it" because the format of the online discussion allowed her to "write a response and edit it and look back and add different evidence" before ever submitting it for others to see. In other words, she could put her best words forward, words which represented her true thinking, not merely those she could come up with on the spur of the moment. This gave her confidence in her ability both to communicate effectively and to be perceived positively by her peers. Even though she said it was "kinda sad" that she felt "it's always easier to have a conversation with someone or talk behind a screen," what she seemed to be indicating was the online discussions, because they were not bound by time, made it easier to clearly articulate her thoughts by taking away much of the fear associated with public speaking and oral discussions.

For the students in Ms. Adams's class, it was this ease of social pressure which allowed them to interact with the texts and one another in new ways. When asked how online discussions impacted how they understood a text, Olivia once again let her voice be heard:

> [S]eeing other people's responses, like I said earlier, you could build off of, kind of look at theirs and then see, and then see the initial text and relate it back to that. That's what I really liked doing when I was reading them.

Immediately after, Ella responded:

> Yeah, like maybe if there was something that you didn't understand, someone could answer it, and you could get a deeper meaning of like the text, a deeper understanding of the text. Like, before if you were confused about something, and then someone would bring it up in the discussion board, then you read through it, then you could understand it better.

Both of these students indicated an ability to build on the knowledge of their peers. While the initial post gave them opportunities to clarify their preliminary thoughts, replies allowed students an opportunity to both read and evaluate the thoughts of others in an effort not to critique but to build their own knowledge. In fact, it was this skill which Ms. Adams found most beneficial. In her final interview, Ms. Adams noted:

> Students are going to be able to use that activity as evidence on their argumentative piece for *Lord of the Flies*. I personally feel like if they want to they can use it. And so, they've already written a discussion posting and what they don't realize is when they get to their actual response on the *Lord of the Flies* test, they can fall back on that. They already have an idea of what they wrote, they've looked at other people's replies, and I hope that's prepared them or given them something they can use on that actual graded piece.

Ms. Adams saw the online discussions as an extension of what was happening in her classroom and a way for her students to interact with diverse texts and each other in order to build needed background knowledge for future assignments.

Furthermore, the multiple perspectives found in the online discussions included students who often did not allow their voices to be heard in class. In their interviews, all teachers saw online discussions as a way for students who are reticent to speak in class to

have their voices heard by their peers. This idea was echoed by Jessica, a student in Ms. Adams class, when she stated, "The good thing was that people who are like shy and stuff would like talk a little bit more and give out their opinions." However, the power lay not in merely allowing their voices to be heard but in transforming their perceptions of their peers. In an exchange between Jessica and Olivia, this perspectival shift of another student in class was documented. The two were discussing what posts they chose to reply to, but the conversation shifted to a change in their perception of one of their classmates:

> **Olivia**: I think that I really liked responding to people that took the ideas of the initial post and kind of went in a new direction with it. Like someone brought up, in one of the posts, like animals and related an animal's way of thinking. I think it was the survival discussion. And, I think it was someone who did that?
>
> **Jessica**: Yeah, but I don't remember who?
>
> **Olivia**: And it was really interesting because I wanted to respond to that because I, I like animals and I thought it was really cool to, I don't know, make an abstract idea like that. And it was cool to add on to that.
>
> **Interviewer**: So did you end up replying to that one?
>
> **Olivia**: Yeah.
>
> **Jessica**: I also replied to that one because I haven't, I didn't really think they were the kind of person to think like that [creatively].
>
> **Interviewer**: Ok, so it was kind of a new realization about a person?
>
> **Jessica**: Yeah.

Both Jessica and Olivia were initially drawn to the creativity displayed in the post. However, Jessica goes on to say "I didn't really think they were the kind of person to think like that" because the person was not vocal in the class. Reading the post not only gave her new insight into the text, it gave her insight into her classmate as well.

Ms. Adams positioned herself as a mediator in the online discussion. Similarly, Olivia, a student in Ms. Adams's class who described the teacher's role as a moderator, explained, "She would, like if things were getting heated, the next day she would be like "Ok everybody. We need to calm down." Though Ms. Adams did not post, she did actively discuss the contents of her first discussion with her class as the discussion progressed.

Yet, Ms. Adams did have an impulse to contribute to the discussion. In her interview, Ms. Adams acknowledged,

> I thought about it. I was like, "I should get in here and respond." But then … I don't know if what I say will shift what everyone else wants to say because you're the teacher and sometimes they almost think you always have the right answer. And then they wouldn't just share what they thought.

Ms. Adams was torn between roles. Had she entered into the conversation, she would be a co-constructor of knowledge with her students. However, like Ms. Smith, she feared the students would not see her as an equal but as a guide, and as such, would concede their thoughts as of lesser value than her own. Yet, though her silence allowed her to shield her students from her biases, they were also bereft of her wisdom and knowledge.

In Ms. Adams class, Olivia wondered, "Maybe if someone asked me a question or said something directly to me, through the post. If they said something like, 'Yeah I

agree with that. Or I disagree with that idea. What do you think about this idea?' I probably would have responded to that just to be respectful and have an opinion." And she's right, there were only 10 questions posed in the replies to initial posts. As part of a typical classroom discussion, the teacher not only asks key questions but she also asks follow up questions to prompt student thinking. This was missing throughout the discussion posts. With so few follow up questions being asked, there was little "room" for more discussion.

Ms. Adams's Students' Interactions in Online Discussions and Their Influence on Student Writing

Like the students in both Ms. Jones's and Ms. Smith's classes, the students in Ms. Adams class actively participated in her online discussions through the creation of both initial posts and replies to their classmates. However, because Ms. Adams developed her online discussions differently, the posts in her online discussions also diverged from those in the other two teachers' discussions in important ways. The following themes will be addressed in this section: Ms. Adams's students did engage in some dialogic conversations, Ms. Adams's students replied more often, and Ms. Adams's students incorporated textual evidence in their responses.

Ms. Adams's students did engage in some dialogic conversations. Though there were similarities in how the students in all three teachers' online discussions responded to one another, it was in the replies that the greatest shift can be seen in Ms. Adams class. While there were five occurrences of replies critiquing the initial post and four occurrences of replies only summarizing the points of the initial post, the vast majority of replies in Ms. Adams first discussion attempted to expand on the ideas

presented in the initial posts. Some of these transactional experiences took the form of simply agreeing with the initial post and adding a few additional ideas such as one student who wrote,

> I agree with you on how people can't help that they are doing the wrong thing. I believe that a small amount of humans suffer from clinical insanity. But I agree with you when people suffer from clinical insanity, its just not likely. I believe that people perform immoral actions for so many reasons like; have had a rough life, maybe they lost a loved one, or maybe even dropped out of school because of bullying.

However, some began to challenge the thinking of their peers such as one student who replied,

> I agree with your point, but did you think about some children grow up in homes filled with cruelty? Maybe a violent parent or sibling, maybe even the people that surround them aren't good influences. Sometimes they do not have a choice with who is around, or what is going on around them.

While this reply agreed with the initial post at the beginning, the reply challenged the author with the question "[D]id you think about some children grow up in homes filled with cruelty?" She then pressed her point by indicating there may be bad influences in the home which the child has no way to escape.

Furthermore, there was evidence some students actually changed what they thought as a result of the discussion. As one student explained in his reply,

> Yes, I agree. Not every immoral situation has an issue with home life, but sometimes it does. By reading other people's opinions and response, my opinion

> has changed. While I still think the main character's home life could have inspired him to do something immoral, I now understand that their decision to not help the man out of the well, was a group decision and not all of the characters, that we know of, had a bad personal life.

By noting his opinion had changed due to the posts of his classmates, this student demonstrated his ability to weigh an opinion different than his and, upon reflection, discovered his original opinion was lacking. This shift in thinking was acknowledged four times in this discussion and no times in the other discussions.

Ms. Adams's students replied more often and differently to one another.

These dialogic conversations were different than those found in the online discussions of Ms. Jones and Ms. Smith. Instead of asking for a critique, which stunted conversations because the initial post was teacher focused, Ms. Adams's first prompt asked students, as a class, to develop their thinking on a larger topic. In this way, the audience became the members of the class and the replies, at times, built on the ideas presented in the initial posts.

These shifts in how students responded to one another can be seen to increase student participation. Though the sheer number of replies, 67, was far higher than any other discussion, that does not necessarily speak to increased engagement, especially since the requirement for the assignment was three replies per student (there were 24 students in the class). However, there were six students who went beyond the required three replies. Furthermore, there were seven instances of follow up replies, or replies posted in response to the replies of others. This pattern of initial post- reply- follow up reply added a layer to the discussion which was completely absent in the previous online

discussions. In this way, this online discussion more closely mirrored what happens during an oral classroom discussion.

Ms. Adams's students incorporated textual evidence in their responses. Like both Ms. Jones and Ms. Smith, Ms. Adams's stressed the use of textual evidence to her students. However, unlike the first two teachers, Ms. Adams stressed the value of textual evidence to support students' claims on their opinion of the topic "Why do humans act cruelly and immorally when they know right from wrong?" instead of analyzing the text itself. Ms. Adams explained the need for textual support this way:

> 9th graders and even with high schoolers in general, and even adults, we can come up with opinions all day, and that wasn't the point of this. The point was, yea, you have your opinion, but how can you work in some evidence to support it? If you really want to have an argument, then you really need to have something to show you're not the only one that thinks this.

Ms. Adams insisted her students use the given texts in support of their own opinions on the topic. This decentering of the text produced different posts by her students.

Sandy's initial post (Figure 29) exemplified the way textual evidence was used by many students in Ms. Adams first online discussion.

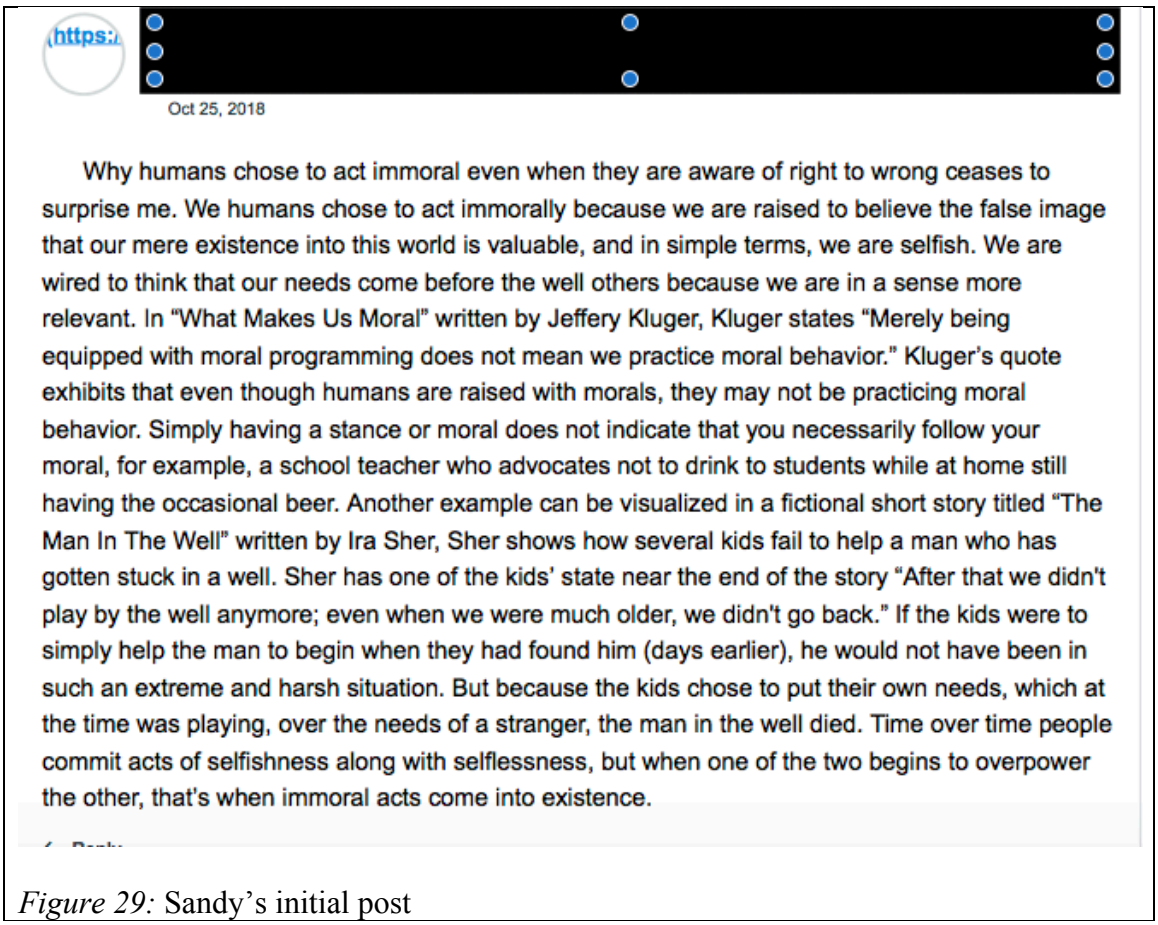


Figure 29: Sandy's initial post

Sandy began her post with her claim that humans act immorally because "in simple terms, we are selfish" followed by a quote from Kluger's nonfiction article. However, after she summarized Kluger's idea "that even though humans are raised with morals, they may not be practicing moral behavior," Sandy moved to use the idea to support her original claim. To highlight the hypocrisy of claiming to value one idea but doing another, Sandy devised an example of her own: "Simply having a stance or moral does not indicate that you necessarily follow your moral, for example, a school teacher who advocates not to drink to students while at home still having the occasional beer." Sandy then moved back to her original claim that people are inherently selfish by using a quote from the short story "The Man in the Well." After the quote, Sandy explained "the kids chose to put their own needs, which at the time was playing, over the needs of a stranger,

the man in the well died." Though Sandy quoted from both of the texts given in the prompt, she was not just analyzing the texts. Instead, she was using the texts to support her original claim that people commit heinous acts out of selfishness. In this way, the text was not the focus but the tool she used to support her own idea.

Ms. Adams Modified Instruction Based on her Analysis of the Online Discussions

Ms. Adams, like both Ms. Jones and Ms. Smith, designed her online discussions to add value to a unit in her course. Both of Ms. Adams's online discussions occurred during a unit focused on *The Lord of the Flies*, a novel centered around the darkness of human behavior. Her first online discussion was designed as an introduction to the theme of the novel through a short story with a similar theme and a nonfiction article which discussed the psychology of moral decisions. The second online discussion focused on the students' reactions to an in-class activity designed to get students thinking about their roles in a group, another central theme of the novel. In this way, Ms. Smith hoped to use her online discussions to be better informed about her students' abilities to read deeply and write effectively. These online discussions informed Ms. Adams about student reading and writing needs.

Informing student reading needs. For Ms. Adams, the online discussions allowed her to assess student critical thinking abilities. In our final interview, Ms. Adams explained how she felt students too often leaned on her to explain a text. As Ms. Adams stated,

> I feel like it makes it so much easier … for them to take the stage for a minute. I mean, I step away, and what are you guys [students] learning without me *telling*

> you? Show me what you're getting from this without me being in the middle and directing you.

The online discussions allowed Ms. Adams to see what students were understanding about a text without fear that her input would lead them towards a particular way of viewing a text.

Furthermore, the online discussions allowed Ms. Adams to set the stage for further investigation of the themes in *Lord of the Flies.* She explained her students' reaction to reading the novel this way:

> [W]hen students started reading *Lord of the Flies*, it was like, "Oh, I see what William Golding is doing here." This isn't just a story about a bunch of boys; he's trying to prove these points about evil, selfishness, [which are] things we've already done, and things we've proved as well.

Because students had background knowledge of some of the practical applications of the theme, Ms. Adams was better equipped to bring those themes to the foreground in later classroom activities. In fact, Ms. Adams, who was teaching the novel for the first time, discovered her students were able to bring up analytical points in the text she had not anticipated. She explained,

> You know, as we read together, a lot of [students] pulled out different points that I didn't even think about, that I was like, "Oh, I didn't think of that." I could maybe use again as a discussion posting, or to get them thinking, or to see real world application.

Ms. Adams saw the ability of students to discuss texts in the online discussions and planned to continue using them to strengthen student reading.

Informing student writing needs. However, Ms. Adams also used the online discussions to analyze student writing needs. She felt "a lot of [students] were surprised at what they thought" once they started writing and found the feedback "not just from their teacher but from their peers" validating. This validation also came because, as Ms. Adams put it, "[T]hey were kind of applying a master-load of skills that we had taught just for this one discussion posting." This "master-load of skills" followed the standards with "the writing expectations and text-dependent analysis." However, it also included, "some argument in there as well. So they were kind of combining both because they had to give their opinion, their argumentative side, but they had to do it with support from the text that they had read."

This argumentative piece would prove to be important for students in the future. As Ms. Adams explained,

> Well, the funny thing is, like, we've been talking about how this is kind of preparing them for argumentative writing and they'll have the argumentative writing piece on their *Lord of the Flies* test. And I was like "Go back to when you think you've written something that is like an argument in here or like your opinion." And they are like, "Oh, our discussion postings!" And I was like "Yes. In those discussion postings, you didn't even know you were pulling certain things for your argument, but you were." And we talked about how examples can be used as evidence for an argument. How generalized facts can be used as evidence for an argument. And I thought they thought that was really cool that they were naturally already doing some of those things without even really knowing that they were.

In this way, the discussion posts allowed not only the students to prepare for an argumentative writing piece, it also allowed Ms. Adams to better understand her students ability to create an argument for themselves and support it using both fiction and nonfiction texts.

Summary of Case #3

Ms. Adams's case also served as an interesting counterpoint to Ms. Smith's case, and to some extent to Ms. Jones's as well. Unlike the other two teachers, Ms. Adams began to facilitate dialogic interactions between her students in her first online discussion. To do this, Ms. Adams designed a prompt which asked her students to focus on a central question: "Why do humans act cruelly and immorally when they know right from wrong?" Whereas Ms. Smith and Ms. Jones asked students to analyze texts, Ms. Adams asked her students to form their own opinions around this central question. While Ms. Adams gave students texts to use in their posts, the focus was not on analyzing the texts; instead, the discussion prompt asked students to use the texts to support their own ideas. This opened up avenues for discussion for students. Furthermore, Ms. Adams provided a rubric to her students with clear guidelines of expectations beyond just the number of replies they were expected to post. In addition, she provided a writing frame, RACES, for students' initial posts and encouraged the use of textual support to bolster the validity of student claims. These elements increased student engagement when compared to the other classes.

Cross-Case Analysis

Though these three teachers taught the same subject at the same school, their online discussions were not identical. Instead, each teacher facilitated the online

discussions to meet their goals for their course. As such, this research study treated each teacher's class as a separate case. To better understand the phenomenon of text-centered online discussions in CBHS's ELA classrooms, it is important to look across these three cases. The following cross-case analysis uses the research questions to organize a discussion of the major themes that emerged across the three cases in this study.

Research Questions 1: How Do Teachers Facilitate Online Discussions?

As I talked to the three teachers throughout the data collection period, a clearer picture began to emerge as to just what they were looking for in the online discussion. Throughout both sets of interviews, the teachers expressed their desire to emphasize the use of textual evidence to support student thinking. Ms. Adams noted, "you have your opinion, but how can you work in some evidence to support it? If you really want to have an argument, then you really need to have something to show you're not the only one that thinks this" while Ms. Jones explained what makes a strong post, "For me, [the difference] is evidence. Are you supporting what you're saying? Are you supporting your idea with evidence from the text?" Additionally, all teachers noted the need for clear explanation in the student posts. Ms. Adams explained it this way: "[The students] have to explain how that evidence supports their answer and then they have to sum it up." These two elements, textual support and elaboration, were described in some form in every prompt. To focus students on textual support and elaboration, Ms. Adams employed a strategy called RACES which stands for "Restate the prompt; Answer the question; Cite TWO pieces of textual evidence; [and] Explain how the evidence supports your answer." Ms. Jones asked her students to think about "How can I explain my thinking clearly using evidence so everyone will believe me?" Ms. Smith's directions

were more subtle. For her discussion on a video clip, she asked students to "highligh[t] something that made an impact on you" in their writing while asking them to "[use] the text" in their analysis of the opening of *Macbeth.*

Because the prompts specified textual support and elaboration as components of the online discussion, students largely included these aspects into their writing. Of the 128 initial posts, 122 referenced the text either directly through quotations or indirectly through summaries of key elements. Furthermore, of the 214 replies and follow up replies, 27 added additional textual support while 121 offered additional explanations.

However, while the teachers were active in the construction of the prompt and the assessment of the discussion posts, all three teachers were completely absent from the discussions themselves. As moderators, these teachers felt their role was to establish the parameters of the discussion and evaluate the students on reaching the specified goals. Furthermore, both Ms. Smith and Ms. Adams explained one purpose of their absence was their fear of contaminating the student discussion itself. For these teachers, the value lay in student interaction with one another and the independence they hoped to foster in their students. However, their students felt quite differently. The students wanted their teachers to be more present, not to do the thinking for them, but to help facilitate the discussion itself. Most of the discussions floundered because they were largely one dimensional with students posting an initial post and receiving feedback on their writing and argumentation and less on the ideas they presented. As such, these online interactions were more monologic than dialogic discussions (Bakhtin, 1981). In other words, students only viewed the discussions from their individual view points without interacting with one another in personally meaningful ways. Because the replies were

simply meant as suggests delivered to a student's initial post without the expectation of any response, few examples of follow up replies were documented throughout the online discussions.

Furthermore, the students missed the questions their teachers often posed during an in-class discussion. Students struggled to fill this questioning gap as there were only 10 questions posed in the replies to initial posts throughout all six discussions. As part of a typical classroom discussion, the teacher not only asks key questions but they also ask follow up questions to prompt student thinking. This lack of dialogism in the online environment led to a feeling of emptiness in the students (Bakhtin, 1981). With these questions largely absent, there was little "room" for more discussion.

Yet, despite the absence of comments in the online posts, the students still felt the presence of the teachers. The student survey revealed similar perceptions of the teachers' level of engagement in the online discussions (Figure 30).

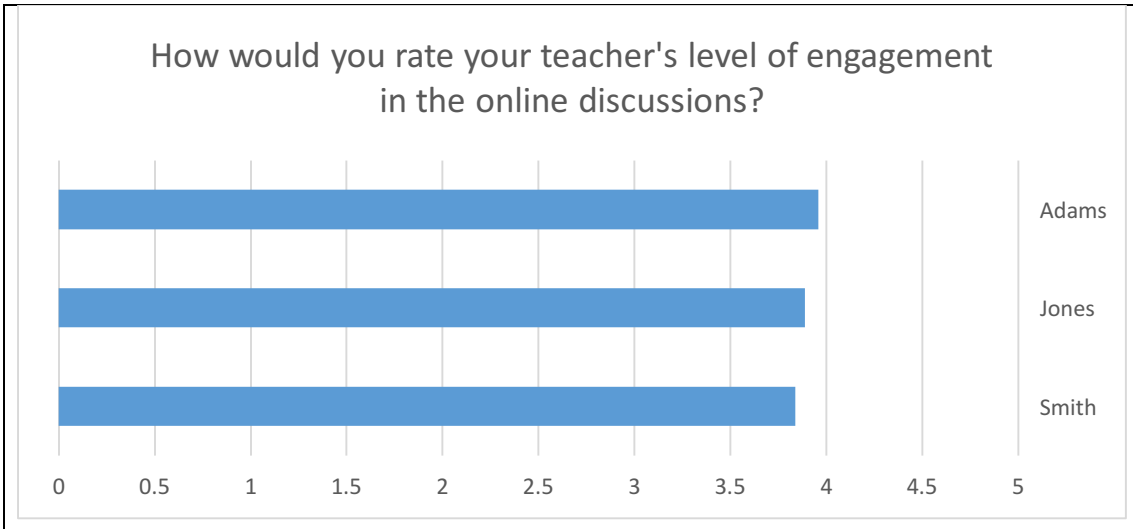


Figure 30. Student rating of teacher's level of engagement

Though no teacher actually wrote a single word in the online discussions, the students still viewed their teachers as a presence in the online discussions. Allen, a student in Ms. Jones class, described her role in the discussion as "she was more of like the sides you bring up at the bowling alley. She keeps everybody within range so we're not throwing gutter balls everywhere. She keeps everybody focused." Allen showed an awareness of Ms. Jones as a guiding presence in the discussion. Similarly, Olivia, a student in Ms. Adams's class who also described the teacher's role as a moderator, explained, "She would, like if things were getting heated, the next day she would be like 'Ok everybody. We need to calm down.'" Though Ms. Adams did not post, she did actively discuss the contents of her first discussion with her class as the discussion progressed.

Research Question 2: How Do Teachers Modify Instruction Based on Analysis of Online Discussions?

As I discussed the role of online discussions with the teachers in this study, it became clear they wanted to create more than just an online discussion. These discussions also served two additional roles: building background knowledge of course topics and informal assessments of student skills.

All of the teachers embedded their online discussions in larger units of study. These discussions were not meant to stand alone; instead, they were designed to spark the interest of the students and build the skills students would need to be successful in the future. As Ms. Smith explained, "I wanted the prompts to connect to what we were discussing in class at the time." This was clearly evident in how Ms. Smith designed her second online discussion which focused on *Macbeth.* This discussion occurred after students had independently read the first three scenes of the play. Ms. Smith understood

her students would have had very limited knowledge of the play and would wrestle with concept of seeing Macbeth as a tragic hero. Their analysis allowed them to see Macbeth's early heroism which serves to blind most of the characters to his role in the murder of King Duncan. Similarly, Ms. Adams's first online discussion was designed to "get their ideas and brains going for *Lord of the Flies*." It took place after a short story unit but before the students had been exposed to the novel *Lord of the Flies*. Because a central theme of the novel is man's inhumanity towards his fellow man, Ms. Adams paired a nonfiction text called "What Makes Us Moral?" which explores the psychology of evil, with the short story "The Man in the Well," which focuses on a group of young children who happen upon a man who has fallen into a well, but, instead of helping, they end up abandoning him. Participating in the online discussion allowed Ms. Adams's students to grapple with complex themes such as human cruelty and evil as a group instead of as individuals and to do so before they were faced with writing about these topics individually.

Furthermore, the discussions allowed the teachers to evaluate their students' ability to both read complex texts and to write convincingly about those texts. Ms. Jones noted, "I'm noticing that they made good connections to theme and conflict and things like that, which was great, but they're still doing a lot of repetition of the text instead of analyzing." Similarly, both Ms. Adams and Ms. Smith also used the discussions as a way to assess student understanding of a text as well as their abilities to write convincingly about difficult texts.

Research Question 3: How Do Students Interact in Online Discussions and How Do These Interactions Impact Student Writing?

For students, the online discussions blurred the line between a normal classroom assignment and social interaction. Cayden, a student in Ms. Jones's class, described the issue this way:

> So, as an assignment, that's something where the teacher gives students questions. You know, maybe it's something with definitive answers, maybe it's an analysis question, maybe it's something you need to evaluate and answer. But a discussion is something more of a student-to-student interaction where the teacher can oversee the connection and the engagement between the students and how they are influencing each other's thoughts and not so much of "Ok, so and so did their assignment" and look over it and grade it and put it in the gradebook.

What Cayden and other students were trying to understand were the expectations for the online discussions. While the teachers' prompts asked students to focus on a text, their directions for what was expected in replies guided students in two very different directions: a discussion similar to their in-class experiences and a peer editing session where students gave feedback on one another's initial post. Where Ms. Adams framed her online discussions as discourses among students including their lived experiences and knowledge of the world, Ms. Jones and Ms. Smith largely framed their discussions as peer edits with the audience for the initial post largely being the teacher herself and the replies used to give feedback on argumentative position and grammatical conventions.

Yet, all three teachers agreed that, in addition to using textual support and clear explanations, student interaction was vital for the success of the online discussions. As

Ms. Jones explained, "[I]n the end, I think the value lies not in my grade. The value lies in the discussion they had with each other." This value was echoed by Ms. Smith who stated part of the value of online discussions was to "continue the conversation" beyond the walls of the classroom. However, evaluating student interaction proved a difficult task. As Ms. Smith noted, "That's what I don't like about it. … I think there's such value in just writing and using the words and phrases that you are supposed to be learning. But then if you don't grade it, they know you don't grade it and they are not going to put their effort into it." In order to assess students, all the teachers required a specific number of replies to other students as an objective indicator of student participation. As such, there were 207 replies to initial posts throughout their discussions. However, it was not merely participation that teachers valued. Instead, they valued student interaction. To interact means an ongoing dialogue. As such, teachers were looking for students to build off the ideas of one another.

However, each original post only generated an average of 1.67 replies which means each student's post was only seen by less than two others. Another indicator of the lack of interaction is the low number of follow up replies. Out of the 214 total replies to an original post, only seven (3.2%) were follow up replies. All the follow up replies came from Ms. Adams's class. This may also explain why students in Ms. Adams's class valued the contributions of their classmates more than the students in either Ms. Jones's or Ms. Smith's classes (Figure 31).

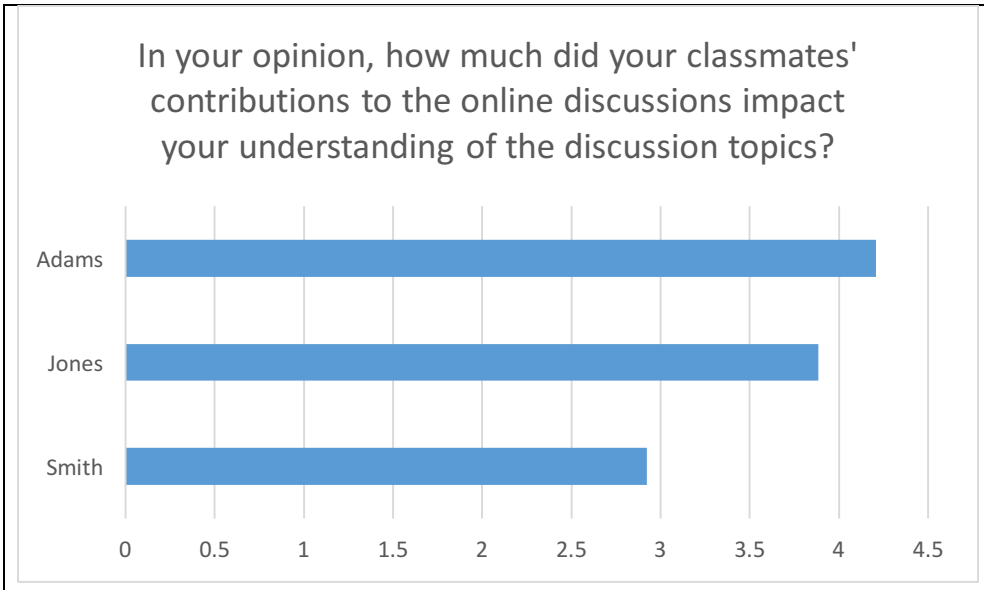


Figure 31. Student rating of their classmate's contributions in the online discussions to their understanding of the discussion topics.

In the survey of all students given at the end of the data collection period, students were asked, "How much did your classmates' contributions to the online discussions impact your understanding of the discussion topics?" The data (Figure 31) collected revealed a sharp contrast between classes. The median score of Ms. Smith's students was 2.923 out of a possible 5, the lowest of the three classes. This seemed to correlate with the low reply frequency of her students (1.08 replies per original post). By contrast, Ms. Jones's median score on the student survey was a 3.885 and Ms. Adams's median score was a 4.208. These higher scores also seemed to correlate with the students increased reply rates of 1.4 replies per initial post in Ms. Jones's class and 2.383 per initial post in Ms. Adams's class. As students engaged more with their peers, they found these new ideas beneficial to their own learning.

Furthermore, many students did not feel they participated in a discussion at all. In fact, of the 10 students interviewed in Ms. Jones and Ms. Smith's class, six mentioned this topic. Kyle, a student in Ms. Smith's class, explained it this way:

> I thought more the discussions were just an assignment that needed to be submitted. Because we've had numerous assignments where we just go in and submit them and the teacher reads it and assesses it...I thought it more like an assignment except with a little add on where you look at some other people's responses and see what they thought.

To Kyle, the discussion was "more like a reading response than an actual interaction with other people," as he later explained. This sentiment is echoed by Gerald, a student in Ms. Jones's class, who observed, "There was no interaction at all because you can't really follow up with them. I mean, they can comment on what you said, but if you can't talk back to them, it's really hard to build an idea in one iteration … of posting." Gerald makes an interesting point: if there is little to no interaction, is it truly a discussion? This focus on the criteria of responding instead of the value of contributing to a discussion had real impacts on Ms. Jones and Ms. Smith's online discussions.

With their teachers largely absent from the discussions making them unavailable as mentors and their peers posting minimally and in ways that did not promote further replies, there were few opportunities for dialogic interactions in their responses. Vygostky (1986) saw literacy development as a socially mediated process. With their teachers being largely absent and their peers providing largely monologic feedback to their initial prompts, students saw no opportunities to develop dialogue between

themselves or the teacher. This curtailment of the dialogic experience limited students' ability to truly engage with the texts presented in the prompts.

For the students in Ms. Smith and Ms. Jones's classes, and for much of Ms. Adams class as well, the fixed number of replies meant they stopped replying once they hit that number. The goal was not to connect with their peers or build their learning; instead, as Kyle, a student in Ms. Smith's class, said, "But when you do discussions online, there's more guidelines. And I feel like you just have to check the boxes just to finish it." This comment was quickly followed by Maria who said, "I mean, since it was graded, and you just needed to get it done, two replies was the minimum." Even in Ms. Adams's class, whose students tended to have a more favorable opinion of the online discussion, the same reticence to go beyond the minimum number of replies was found. As Olivia discussed the feeling of having someone reply and disagree with one of her initial posts, I asked if she had responded back. She said she had not "Because I had already made my three responses." Furthermore, Ms. Smith's word count minimum felt equally stifling. As Brie noted:

> [W]ord count is very restrictive because sometimes people can write in 5 sentences and not meet the guidelines but explain everything they want to explain for the discussion. I had problems with that with the 200-word count goal on one of our discussions. And I found myself making extra sentences that really didn't have any impact for the discussion, but I was just trying get words in.

The students in these discussions focused more on meeting the objective requirements (number of replies or words) in their discussions than in truly interacting with their peers. As Gerald astutely noted, "[Y]ou don't really make the effort to read what other

people have said to you because it doesn't really matter because you won't reply back to them. In other words, the requirement for a specific number of replies, instead of fostering discussion, actually served to stunt it.

Further hindering the exchange of dialogue in the online discussion were prompts which focused on making evaluative claims about another student's initial post rather than fostering an exchange of ideas. Instead of creating what Rosenblatt (Bressler, 2007) termed a "transactional" experience where the author and reader share an interaction and where students built on the ideas of others, which all three teachers claimed they wanted to produce, many of the replies in Ms. Jones and Ms. Smith's classes, and to a lesser extent Ms. Adams class, took on the form of peer editing sessions with students critiquing each other's argument or grammar usage in the initial post (Figure 32). In essence, they became online peer review opportunities.

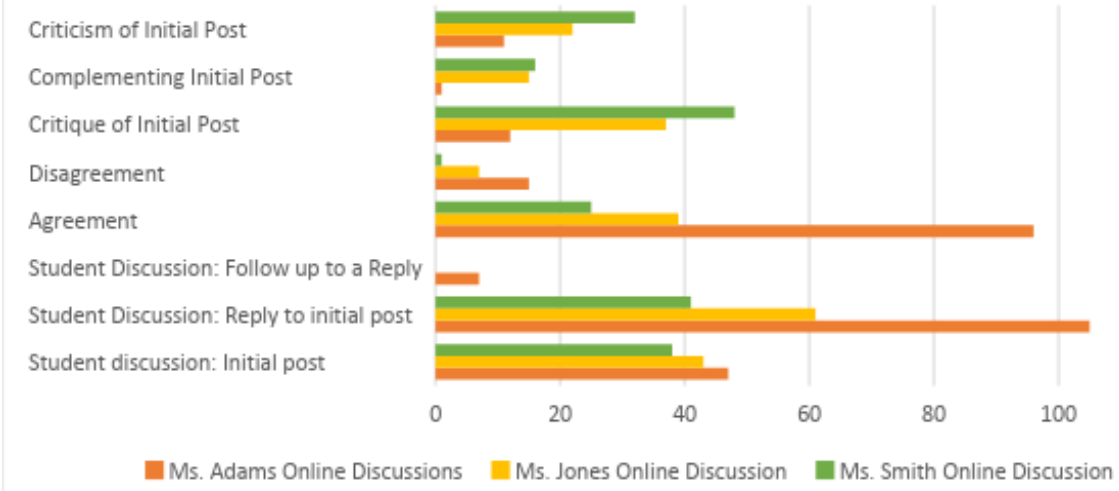


Figure 32. Cross-Case analysis of student initial posts and replies

Of the 207 replies to initial posts, 97 included some type of critique, with 85 of these critiques coming from Ms. Jones and Ms. Smith's classes. Here, critique means a detailed analysis of the initial post. Specifically, I am using the word to mean an analysis of the argument, syntax, or grammar of the original post. Of these critiques, 65 were critical of the original post and 32 were complementary of the original post. These critiques, especially the critical ones, could bring about a sense of judgment such as Maria, a student in Ms. Smith's class, described: "I just need it to be perfect so people don't like judge it." This pressure to write well, not in order to communicate well but to avoid the judgment of peers, was what weighed on Maria's mind.

However, some students found value in the critique. As Jasmin from Ms. Jones's class observed:

> I think that I've gotten better at explaining things. I think a little while ago I would just say, "Here's my answer," and give you like three words why I think this is exactly why. But then like sometimes you see some replies as you're going through to reply to someone else's thing, and you're like, "Hey, let me check up on my thing" just out of curiosity. And then you get that good comment that says, "Hey, you need to work on your explanations a little bit better," and I'm like, "Ok, I'll work on that." And I've gotten so much better with explanations.

Jasmin highlighted the value in peer response to her writing. She is able to take the suggestion from her peer and view it as valuable feedback. However, other students took a different view.

Even when students discussed the critiques in a more positive light, the apprehension of judgment seemed to be present such as when Sue stated "I liked using

discussions because we get people's responses based on our personal submission before like the teacher gets to see it." It is not the value of the feedback to improve her writing skills she chooses to focus on; instead, Sue expressed her true audience as still the teacher. The critique merely serves as a peer review and not an exchange of ideas. This may have explained why there were no follow up replies to any of the critique comments.

However, not all replies were wholly critical. Other replies interacted with the ideas presented in the initial posts and mainly took the form of agreement and/or disagreement. Of the 214 replies to initial posts and parent replies, 160 contained some form of agreement with the initial post while 23 contained some form of disagreement with the ideas presented in the initial post or parent reply (Figure 31). Agreement typically took the form of agreement with additional insight being added such as Benny's statement from Ms. Adams's first discussion,

> I completely agree with this, humans will act immorally if they feel like the won't be caught. Humans think they can just get away with cruel/immoral actions and that is definitely not the case. I feel that humans typically realize what they're doing is wrong after being caught, although that is not the case for all humans.

Benny is overtly agreeing with the initial post but added additional thinking in the form of his opinion. For many students, getting replies which agreed with their thinking gave them a sense of confidence. As Olivia noted, "It kind of felt good to have people agree with you and like validate what you were saying."

Yet, confidence in their writing was not the only benefit students found in the replies of their peers. Students also felt validated through their online discussion experiences. As Ella, a student in Ms. Adams's class, explained, "I kind of liked it

because, since you couldn't really see anyone else's, you couldn't like copy and then, if you had the same ideas as someone, it was cool to see you were thinking the same thing without like, you weren't just copying, you actually were thinking the same thing." Ella is referring to the feature of the LMS at Cedar Bluff High School which allows teachers to force students to post their initial reply before seeing the posts of any of their classmates. After making her initial post, Ella was able to read the other posts of her class. When she saw her analysis was similar to the analysis of other classmates their analytical progress was validated not by the teacher, but by her peers.

Disagreement was also present in the online discussions though not as prevalent as agreement (Figure 31). Disagreement always took place in a non-threatening manner and often looked like this statement from Ms. Smith's second discussion which focused on the opening of *Macbeth*:

> [H]owever, I thought differently about the situation discussed in the prisoner's letter to the banker. I used his letter as a lesson of the wiser moment, and I believe that the prisoner does not renounce the banker, he just despises of the way the man lives. The prisoner says, "To prove to you in action how I despise all that you live by..." Furthermore, the prisoner only loathes the aspects of the man's life, not the banker himself.

However, far from dissuading interaction, many students saw the disagreement as opportunity to engage with other students. As Jessica, a student in Ms. Adams class, observed,

> I saw some people who would respond and be in an argument and those were literally that long [gesture indicated a very lengthy post] and like the original post

was that long [gesture indicated a much shorter post]. So they just took it to, like, a whole other level.

The ability to constructively disagree gave the students the room to explore multiple avenues of thought. As another student in the focus group noted she looked forward to the disagreeing replies more to "try to see their opinion."

However, the discussions went beyond simply agreeing and disagreeing. In fact, the value of multiple perspectives ran through all the focus group interviews as well as the teacher interviews. Allen, a student in Ms. Jones's class, described the value of multiple perspectives this way: "And, you know, if you can write your opinion and look at someone else's opinion … and you can sort of take in all of these things and *learn* more about a topic. Then you can see it through the eyes of a lot of different peers and perspectives." These multiple perspectives allowed students to look at the text through new eyes and appreciate the ideas of their classmates, especially those classmates who are often hesitant to speak in class.

Students also selected initial posts with unique thoughts for reply. In Ms. Smith's class, Brie noted, "I will look at something that I didn't see before. Like someone's response that I didn't really see before in my own and other's, so I can elaborate on that and say how mine are different than theirs." Similarly, in Ms. Jones's focus group, Hailey explained her choice of who to reply to this way: "This is a really good post and I can't really think of anything here that I really thought about differently. There were other ones where I was like 'Oh I thought differently about this.' So that's whenever I replied." Both Brie and Hailey note the need for space for conversation. The students need to feel that something is left unsaid and want to fill that void. As Allen, another

student in Ms. Jones's class, explained, "If you have your reply and someone says, 'I like this. Good job.' It cuts it off there." Though there were only seven follow up replies, the common thread among them is both the parent reply and the initial post created strong enough thoughts to warrant additional replies. Furthermore, the prompt itself was open-ended and asked students to elaborate on their personal thoughts with support from the texts instead of focusing solely on the texts themselves.

Conclusion

Each teacher used their online discussions in different ways and these differences impacted the students in their classes. The following data (Figure 33) highlight the students' opinions of their experiences using online discussions.

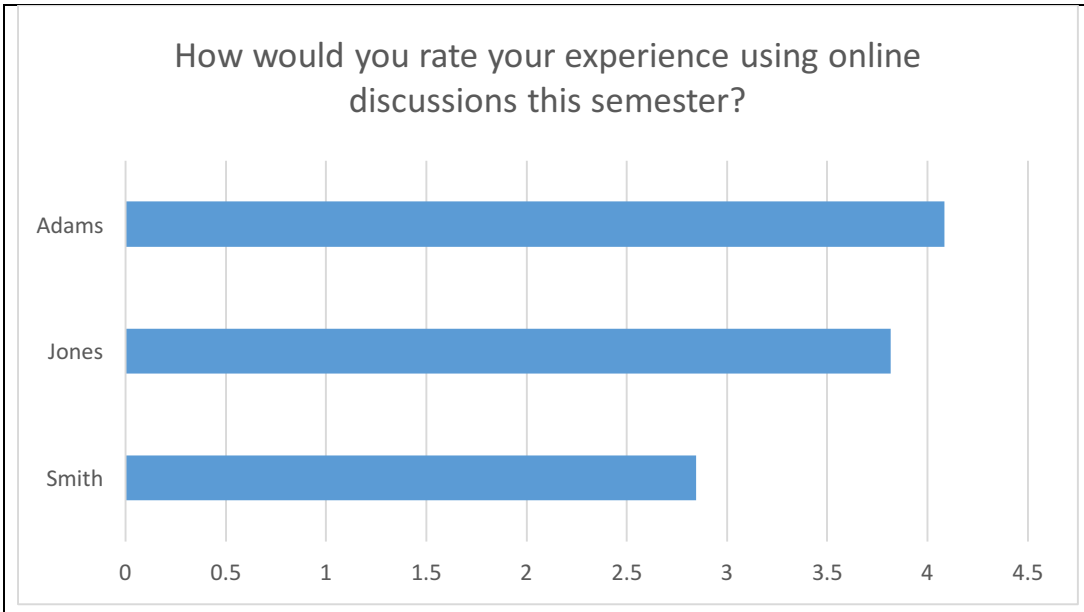


Figure 33. Student rating of their experience using online discussions

For Ms. Smith's students, their experience with online discussions could be considered mediocre at best with an average rating of 2.846 out of a possible 5. However, Ms. Jones's students found the experience more positive with an average rating of 3.815 while Ms. Adams's students rated their experience the highest with an average score of

4.083. These differences may be surprising since all three teachers work at the same school and teach the same subject at the same grade level. However, these differences emphasized the impact an individual teacher can have even in a virtual environment.

Each teacher wanted the online discussions in their classrooms to be dynamic and robust. However, some of their choices in the design of the online discussions impacted how students interacted in the online environment. Ms. Jones and Ms. Smith both created text-centric prompts that asked students to analyze a particular text. In these discussions, the audience for students' initial posts became the teachers themselves. The replies then became exercises in peer editing which focused on critiques of the initial posts and not on gathering new understanding. Because the suggestions given in these replies did not prompt replies, the discussions stagnated and many students felt the discussion lacked a sense of authenticity, particularly in Ms. Smith's class. However, Ms. Adams's prompt for her first online discussion decentered the text and placed students' ideas at the forefront. Though this discussion included two texts, the students were asked to use them to support an opinion that was solely their own. This opened up avenue of discussion unavailable to students in the other classes. This discussion produced more dialogic conversations than the other discussions and allowed students to build on one another's knowledge. By welcoming the myriad ideas of the students, each initial post held the possibility of new, engaging ideas which drew these students into the conversations.

Furthermore, the teachers' lack of involvement in the online discussions also impacted students. None of the three teachers made any posts to the online discussions. While both Ms. Smith and Ms. Adams feared overshadowing their students if they

posted, their students missed the encouragement and the questioning teachers often bring to face-to-face discussions. Unfortunately, for some students their teachers' absence sent another signal: the online discussions were unimportant. This was particularly felt by the students in Ms. Smith's class who gave their experiences with online discussions the lowest overall rating (Figure 32). Not only did Ms. Smith not participate in the online discussions, she also did not read them throughout the discussion period, nor did she facilitate any discussion afterwards. For students, their only feedback was a grade at the end. While neither Ms. Jones nor Ms. Adams wrote in the online discussions, they did emphasize their value to the students. Ms. Jones discussed ideas which stemmed from the online discussions after the discussion ended while Ms. Adams discussed these ideas throughout the discussion period. Because these teachers made it a point to highlight the value of the online discussions with their students, their students rated their experiences with online discussions much higher.

Yet, teachers did find the online discussions gave them insight into their students writing and reading needs. Because all the discussions were focused on a text, be it written or visual, these teachers could evaluate their students' understanding of the texts. Through the online posts, teachers were given a window into their students' abilities to decipher the complex ideas held within the texts. Furthermore, the way students wrote about their understanding gave the teachers an opportunity to evaluate their writing, particularly their ability to use textual evidence to support claims. Because the online discussions often preceded larger units of study, they enabled teachers to gain a better appreciation of their students' literacy were able to anticipate the needs of their students.

The findings in Chapter Four revealed not only how teachers design their online discussions but the ways those design choices affect student interaction in the online discussions themselves. Three major themes emerged from the cross-case analysis: (a) the design of the prompt and rubric for the discussions shaped students' responses, (b) the absence of the teachers' voices in the online discussions impacted how students viewed the discussions, and (c) embedding the discussions in larger instructional units gave teachers a preview of the students' writing and reading needs. In Chapter Five I will revisit these themes as well as discuss their implications and recommendations for further research.

CHAPTER 5: DISCUSSION OF FINDINGS

Technology will continue to dominate the educational landscape for the foreseeable future. As the workforce relies more heavily on technology and individuals become more comfortable using technology in their daily lives, the demand for more digital opportunities for students will only increase. Though the full impact of the newest wave of digital technology on students' abilities to read and write has not yet been felt, and its ramifications are not fully known, educators at all levels must search for ways to implement meaningful technology into their daily instruction.

As this new digital era dawns, high school teachers and students are given tools which allow them to continue content discussions beyond the walls of the classroom through the use of online discussions supported by learning management systems. This multiple-case study was born out of this emergent blend of language and technology. The overarching intent of the study was to better understand the use of online discussions to extend the learning environment beyond the classroom. The guiding research questions for this study were as follows:

1. In what ways do teachers facilitate online discussions?
2. In what ways do teachers modify instruction based on analysis of online writing responses?
3. How do students interact in online writing groups and how do these

interactions impact student writing?

Chapter one described the study and the value for research into online discussions in high schools. Chapter two highlighted the research in the field as it related to the current study. Chapter three described the methodology used in the study while chapter four focused on the findings which emerged from the data. Chapter five discusses the implications of the findings. I begin the chapter with a summary of the findings from my data analysis. Next, I explore the implications for classroom practice. I end this discussion with recommendations for future research.

Findings

While online discussions have had a role in college courses for more than two decades, they are just now beginning to infiltrate the secondary classroom. Online discussions allow students the time to fully articulate their ideas and discuss topics asynchronously giving students the ability to interact with the thinking of their peers not in real time but at the convenience of the student (Hew & Cheung, 2012; Lin & Overbaugh, 2009). Similarly, Rovai and Jordan (2004) found value in the ability of online discussions to give students the space they need in order to fully develop their thinking in ways face-to-face interactions cannot.

However, as Yukselturk (2010) noted, struggling students in online discussions often contribute less frequently and with less rigor than their counterparts. Lee et al. (2011) also found this with high achieving students. They, too, are reluctant to post because they see no personal benefit from the posts. Instead, they feel there is an imbalance in the discussions with some students gaining knowledge while the top students only serve to provide that knowledge with no real reciprocation of benefits.

Current research into online discussions largely focuses on college courses, specifically online or hybrid courses. However, as schools give more students digital access, specifically in the form of 1:1 initiatives where students are given a digital device to use both inside and outside of schools, teachers use of online discussions in high school classrooms is growing (Weston & Bain, 2010). As high school students increasingly demand to interact with digital texts, teachers are learning to adapt their pedagogical decisions to meet the needs of an ever-shifting workforce. Unfortunately, many educators view themselves as providers of information instead of focusing on equipping students with the digital skills necessary to fully participate in the digital landscape (Purcell, Heaps, Buchannan, & Friedrich, 2013).

My investigation into the use of online discussions in high school ELA courses took me into the classrooms of three teachers who have implemented this technology. To understand how the teachers used online discussions and how students interacted in the online environment, I employed qualitative methods in a multiple-case study design to collect data over a four month span. Data collection included a teacher questionnaire given to teachers at the beginning of the data collection period, individual teacher interviews conducted at the beginning and the end of data collection, a series of three focus group interviews, the transcripts of six online discussions, and an anonymous survey given to the teachers' students. I then coded the data looking for themes first within the same class then across the classes. Findings revealed three major themes: (a) the design of the prompt and rubric for the discussions shaped students' responses, (b) the absence of the teachers' voices in the online discussions impacted how students viewed

the discussions, and (c) embedding the discussions in larger instructional units gave teachers a preview of the students' writing and reading needs.

The Online Discussion Prompts Shaped Student Response

The prompts developed by the teachers in this study did more than just give students a topic to write about: instead, these prompts shaped what students posted and how students interacted with one another. In both their first and second interviews, all three teachers highlighted the importance of using textual evidence to support claims in online discussions. As such, all three teachers integrated language into their prompts indicating to students their need to use textual evidence. However, students employed textual evidence into their responses in different ways depending on the prompt. When the prompt asked students to conduct an analysis of a text, the text itself became the focus. As such, all evidence was drawn from the text to support the student's interpretation of the text. This was clearly evident in Ms. Jones's first online discussion which focused on the question, "What did the court decide and why?" This question focused the students almost entirely on the court's decision and left no room for students to include their opinions. Similarly, Ms. Smith's second discussion asked students to "provide a character analysis of Macbeth" after reading the first three scenes of the play. Student responses were limited to an analysis of the opening of the play with no room for their own opinions. In both of these instances, the audience of the initial post can be seen as the teacher herself. However, in Ms. Adams's first online discussion, she asked students for something subtly different. She focused her discussion prompt around a central question: "Why do humans act cruelly and immorally when they know right from wrong?" Though her prompt also reminded students to use two pieces of textual

evidence from the selections, the focus was not centered on the texts. Instead, Ms. Adams included two texts to help students generate ideas to answer the question. Furthermore, while the attached rubric does mention using evidence, it states the evidence can be "from text/outside sources." This gave students more avenues to explore, including their own personal experiences, on their way to explaining their opinions and opened opportunities for others to reply in meaningful ways. These discussions more like Rosenblatt's idea of "transactional experiences" (Bressler, 2007). This freedom to express their own thoughts and interact with the thinking of others in an attempt to create understanding emphasized the socially mediated processes of literacy. In turn, students were able to more clearly see the value of the online discussions which increased student participation.

Furthermore, the number of replies was restricted by the prompt. According to Hsiao et al. (2013), merely counting the number of posts a student submits to a discussion is not a good measure of how well the student understands the content. All teachers defined the acceptable number of replies in their prompts. Invariably, these teachers meant to encourage student participation, but the students noted almost the exact opposite effect. The students completed the number of required replies and stopped, often not returning to their own original posts to read the replies there. Similar to what Acolatse (2016) found, these students did not understand the value of their interactions with their peers in the online discussion and began to view these discussions as busy work. While each teacher stated the importance of social interaction to the success of the online discussions, the emphasis on the number of replies instead of the critical thinking expressed through the replies stagnated the conversations.

The prompts themselves also shaped the types of replies students created. Ms. Jones and Ms. Smith both asked their students to evaluate the writing of their peers' initial posts. Ms. Jones asked her students to "choose a post to respond to that you feel needs to be modified or added on to in some way" while Ms. Smith used "peer reviews" to describe the replies she was looking for in her online discussion. These narrowed the scope of the replies to the argumentative stance and grammatical features of the initial posts, leaving little room for further discussion. These prompts produced no follow up replies. However, Ms. Adams encouraged student discussion by emphasizing student opinion. The prompt explained, "there is no right or wrong answer to this question. You are free to offer your opinion; I highly encourage you to do so. You are only utilizing the evidence in the text to support your opinion." Since the emphasis was on student opinion focused on a question and not a text, students were allowed to explore a range of possible answers and, in turn, build on the knowledge presented by others.

Students Missed the Guidance of Their Teachers

While the teachers all participated in developing the prompts for their individual classes, none of the teachers participated in the online discussions themselves. Both Ms. Smith and Ms. Adams explained their absence was due to their fear of contaminating the discussions of their students. They feared their comments would overshadow the comments of their students. However, their students felt just the opposite. Instead of feeling empowered, they felt abandoned which highlights the need for teachers to be actively present in the online discussions (McKinney, 2018). While each teacher framed a discussion topic in their prompts, the momentum of the discussions faded due to the lack of teacher involvement. Specifically, the discussions missed the follow up questions

teachers so often use to propel student thinking in face-to-face discussions (Michaels & O'Connor, 2015). As a staple of classroom discussions, each teacher had experience asking probing questions in face-to-face discussions and felt the desire to enter into the online discussion environment; however, each refrained from entering the discussion leaving their students wanting and needing their feedback.

Discussions Gave Teachers a Preview of the Students Writing and Reading Needs

While the teachers' voices were absent in the online discussion, the discussions gave the teachers an insightful view of their students as readers and writers. The teachers positioned their online discussions to coincide with other areas of their curriculum. In other words, no discussion was completely an entity by itself. Rather, the discussions largely served as a springboard for future units of study. As such, these discussions offered students an opportunity to wrestle with ideas such as morality in Ms. Adams's first discussion, human greed in Ms. Adams's second discussion, tyrannical power in Ms. Smith's second discussion, and argumentation in the first discussions of both Ms. Jones and Ms. Smith. As such, the teachers were also given glimpses of students' abilities to understand the complex texts and write about these texts in thoughtful ways. Furthermore, the discussions allowed teachers to assess students' abilities to write clearly and coherently and use texts to support claims.

Implications for Practice

These findings suggest a number of implications for practice. This research study highlighted the importance of the prompt as a controlling factor in the discussion. Each of the prompts in this study did far more than just give a general topic. Instead, these prompts shaped students' responses and interactions in the texts. When the text itself was

the center of the discussion, students were limited to an analysis of the text just for the sake of analysis. However, when the prompt asked a larger question and gave texts to help students support their own thinking, the discussions decentered the texts and placed the students' own thinking in the foreground of the conversation allowing the students to critically think about the topic in ways beyond the texts. However, while the prompts addressed critical thinking in the construction of the initial posts, little emphasis was given on the critical thinking needs of the replies. While the students were often asked to be critical of the writing of their classmates, they were less critical of the ideas presented by their classmates. Furthermore, the rubrics for the prompts solely evaluated the interactions of the students based off the number of replies which had the effect of stymying the conversation as students did not post beyond the required number of replies.

To overcome these issues, teachers need to thoughtfully develop rubrics which evaluate the critical thinking displayed in the replies. While all three teachers asked students to go beyond an "I agree" statement in their replies, little attention was given as to what constituted a thoughtful reply beyond a critique of a classmate's writing or the inclusion of textual support. A revised rubric would help the students evaluate the critical thinking in their own responses.

Furthermore, a revised rubric would encourage the dialogical interaction of students. While evaluating the number of replies made assessment as simple as counting the responses, it did not emphasize to students the value of building thinking with their classmates. Adding a reflective piece which asks students to explain how their views on the topic have changed by citing pieces of writing from throughout the online discussion

would help students see the contribution of their classmates to their own progression of thinking.

Finally, the teachers themselves must become active participants in the online discussions. While the teachers feared overshadowing their students by presenting their own ideas, the students felt as though something was missing. Much like a lighthouse guides ships but does not set their destinations, students felt teachers should help guide their conversation through probing follow up questions. These questions do not need to point to a particular end, but need to help propel students to make their own thoughtful discoveries.

Suggestions for Future Research

This study focused on one rural high school in the southern United States. It documented the experiences of three ninth grade classroom teachers and their students' participation in online discussions which may limit the transferability of the data. However, the study provided a detailed analysis of the teachers' development and implementation of the online discussions as well as the students' participation in the online discussions. As the use of online discussions in high school classrooms increase, this research may offer valuable insights to a wide range of teachers and administrators as they implement online discussions in their schools.

Though this study contributed to the field of knowledge, more research is needed on online discussions at the high school level. Since online discussions have had a place in higher education for decades, research exists on the ways professors design and facilitate these discussions as well as how college students interact in the online discussion environment. However, there is less research on online discussions in high

schools, specifically among marginalized and disadvantaged groups. Research questions might include: Do impoverished students interact differently in online discussions than in face-to-face discussions? How do students from a variety of ethnic backgrounds interact with their peers in online discussions?

Furthermore, as schools throughout the nation increasingly invest in technology, teachers are being asked to design opportunities for students to interact in ways unimaginable only two decades ago. As such, research must help teachers develop best practices in the use of online discussions. To do this, future research must explore how best to train high school teachers in the design, implementation, and assessment of online discussions.

Summary

Online discussions have been touted as a way to move academic conversations beyond the walls of the classroom. Yet, while online discussions have been a staple in online and hybrid college courses for decades, they are a relatively new feature in the secondary school landscape, and, as with the integration of any new tool, time, practice, and thoughtful reflection is needed to bring about the best results. Though the teachers may not be in the same physical space as their students, teachers must continue to play an active role in every aspect of the online discussion experience. Yet, for many students, the online discussions felt divorced from the lively discussions they had encountered in their face-to-face interactions with their teachers. This research study highlighted the importance of developing dynamic prompts focusing on complex questions to engage students through multiple avenues of inquiry. Furthermore, there needs to be a recognition of students as co-constructors of knowledge. As such, online discussions

offer students the opportunity to think without the pressures of face-to-face conversation and to express their ideas artfully and fully. By truly connecting with both their peers and their teachers, students using the online discussions have an opportunity to transcend the physical walls of the classroom and begin to embrace the idea that learning can take place at any time, in any space, and at any pace.

REFERENCES

Acolatse, T. W. (2016). Enhancing the online classroom: Transitioning from discussion to engagement. *Online Journal of Distance Learning Administration*, 19(3). Retrieved from https://librarylink.uncc.edu/login?url=http://search.ebscohost.com.librarylink.uncc.edu/login.aspx?direct=true&db=eric&AN=EJ1114066&site=ehost-live&scope=site

Attewell, P., & Battle, J. (1999). Home computers and school performance. *The Information Society*, *15*(1), 1–10.

Baird, C., & Henninger, M. (2011). Serious play, serious problems: Issues with eBook applications. *Cosmopolitan Civil Societies: An Interdisciplinary Journal*, *3*(2), 1–17.

Bakhtin, Mikhail M.. *Dialogic Imagination: Four Essays*, edited by Michael Holquist, University of Texas Press, 1981. ProQuest Ebook Central, https://ebookcentral-proquest-com.librarylink.uncc.edu/lib/uncc-ebooks/detail.action?docID=3443524.

Ball, A. F., & Freedman, S. W. (2004). *Bakhtinian perspectives on language, literacy, and learning*. Cambridge, UK; New York: Cambridge University Press.

Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *Qualitative Report*, *13*(4), 544–559.

Bedford, L. (2014). The REEAL model: A framework for faculty training in online discussion facilitation. *International Journal of Teaching and Learning in Higher Education*, *26*(3), 463–472. Retrieved from https://librarylink.uncc.edu/login?url=http://search.ebscohost.com.librarylink.unc

c.edu/login.aspx?direct=true&db=eric&AN=EJ1061089&site=ehost-live&scope=site

Beers, G. K., & Probst, R. E. (2013). *Notice & note: Strategies for close reading*. Portsmouth, NH: Heinemann.

Bostock, S. J., & Lizhi, W. (2005). Gender in student online discussions. *Innovations in Education and Teaching International*, *42*(1), 73–85.

Bowers-Campbell, J. (2011). Take it out of class: Exploring virtual literature circles. *Journal of Adolescent & Adult Literacy*, *54*(8), 557–567.

Bressler, C. E. (2007). *Literary Criticism: An Introduction to Theory and Practice* (4th ed.). Prentice Hall.

Brown, S. (2016). Young learners' transactions with interactive digital texts using e-readers. *Journal of Research in Childhood Education*, *30*(1), 42–56.

Bushweller, K. C. (Ed.). (2017). Classroom technology: Where schools stand. *Education Week*. Retrieved from https://librarylink.uncc.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED575646&site=ehost-live&scope=site

Cazden, C., & Cazden, C. (2001). *Classroom discourse: The language of teaching and Learning* (2nd ed.). Portsmouth, NH: Heinemann.

Charmaz, K. (2014). *Constructing grounded theory*. London; Thousand Oaks, Calif.: Sage.

Cho, B.-Y., & Afflerbach, P. (2017). An evolving perspective of constructively responsive reading comprehension strategies in multilayered digital text environments. In S. Israel (Ed.), *Handbook of Research on Reading*

Comprehension (Second Edition, pp. 109–134). New York; London: The Guilford Press.

Cobern, W. W. (1993). Constructivism. *Journal of Educational & Psychological Consultation*, *4*(1), 105.

Cousin, G. (2005). Case study research. *Journal of Geography in Higher Education*, *29*(3), 421–427.

Darling-Hammond, L. (2010). *The flat world and education: How America's commitment to equity will determine our future*. New York: Teachers College Press.

DeVoss, D. N., Eidman-Aadahl, E., Hicks, T., & National Writing Project (U.S.). (2010). *Because digital writing matters: Improving student writing in online and multimedia environments*. San Francisco: Jossey-Bass.

Domingo, J. S. (2011, August 12). 30 years of the PC: A timeline. *PCMag*. Retrieved from http://www.pcmag.com/article2/0,2817,2390910,00.asp

Dooley, L. M. (August 01, 2002). Case study research and theory building. *Advances in Developing Human Resources, 4,* 3, 335-354.

Dornisch, M. (2013). The digital divide in classrooms: Teacher technology comfort and evaluations. *Computers in the Schools*, *30*(3), 210–228.

Dragland, Å. (2013, May 22). Big data, for better or worse: 90% of world's data generated over last two years. *Science Daily*. Retrieved from www.sciencedaily.com/releases/2013/05/130522085217.htm

Dyson, A. H., & Genishi, C. (2005). *On the case: Approaches to language and literacy research*. New York: Teachers College Press/NCRLL.

Education Superhighway. (2017). *2017 State of the states: Fulfilling our promise to America's students* (p. 30). Retrieved from https://s3-us-west-1.amazonaws.com/esh-sots-pdfs/educationsuperhighway_2017_state_of_the_states.pdf

Ertmer, P. A., & Ottenbreit-Leftwich, A. (2013). Removing obstacles to the pedagogical changes required by Jonassen's vision of authentic technology-enabled learning. *Computers & Education*, *64*, 175–182.

Ezzy, D. (2002). *Qualitative analysis: Practice and innovation*. London: Routledge.

Forest, D. E., & Kimmel, S. C. (2016). Critical literacy performances in online literature discussions. *Journal of Education for Library & Information Science*, *57*(4), 283–294.

Friedman, T. (2007). *The world is flat, 3.0* (3rd ed.). Picador.

Gallardo-Echenique, E. E., Marqués-Molías, L., Bullen, M., & Strijbos, J.-W. (2015). Let's talk about digital learners in the digital era. *International Review of Research in Open and Distributed Learning*, *16*(3), 156–187.

Gee, James P. (2011). *An introduction to discourse analysis: Theory and method* (3rd ed.). Routledge.

Gee, James Paul., & Hayes, E. (2011). *Language and learning in the digital age*. Abingdon, Oxon. [England]; New York: Routledge.

Gibbs, W. (2009). An exploratory analysis of communication in peer-directed educational discourse. *Journal of Computing in Higher Education*, *21*(2), 110–127. https://doi.org/10.1007/s12528-009-9017-4

Glaser, B. G. (1965). The constant comparative method of qualitative analysis. *Social Problems*, *12*(4), 436–445. https://doi.org/10.2307/798843

Guiller, J., & Durndell, A. (2006). I totally agree with you: Gender interactions in educational online discussion groups. *JCAL Journal of Computer Assisted Learning*, *22*(5), 368–381.

Hammersley, M., & Gomm, R. (2000). Introduction. In R. Gomm, M. Hammersley, & P. Foster (Eds.), *Case study method* (pp. 1–16). Sage Publications.

Harper, B., & Milman, N. B. (2016). One-to-one technology in K-12 classrooms: A review of the literature from 2004 through 2014. *Journal of Research on Technology in Education*, *48*(2), 129–142.

Herold, B. (2015). Technology in education: An overview. *Education Week*. Retrieved from http://www.edweek.org/ew/issues/technology-in-education/

Hew, K. F. (2012). *Student participation in online discussions challenges, solutions, and future research*. New York, NY: Springer New York. https://doi.org/10.1007/978-1-4614-2370-6

Hicks, T. (2015). Introduction: An invitation to look closely at students' work. In *Assessing students' digital writing: Protocols for looking closely* (pp. 1–19). Teachers College Press.

Hines, M. B., & Kersulov, M. (2015). Engagement and resistance at last chance high: A case study of twenty-first-century literacies and identities in one English classroom. *Curriculum Journal*, *26*(2), 224–248.

Horrigan, J. (2016, September 20). Digital readiness gaps. *Pew Research Center*. Retrieved from file:///Users/andrew.cather/Downloads/PI_2016.09.20_Digital-Readiness-Gaps_FINAL.pdf

Hsu, S. (2010). The relationship between teacher's technology integration ability and usage. *Journal of Educational Computing Research*, *43*(3), 309–325.

Jung, J.-Y. (2008). Internet connectedness and its social origins: An ecological approach to postaccess digital divides. *Communication Studies*, *59*(4), 322–339.

Knobel, M., & Lankshear, C. (2014). Studying new literacies. *Journal of Adolescent & Adult Literacy*, *58*(2), 97–101.

Ladson-Billings, G. (2014). Culturally relevant pedagogy 2.0: a.k.a. the remix. *Harvard Educational Review*, *84*(1), 74–84.

Larson, L. C. (2010). Digital readers: The next chapter in e-book reading and response. *Reading Teacher*, *64*(1), 15–22.

Lee, H., Kim, J. W., & Hackney, R. (2011). Knowledge hoarding and user acceptance of online discussion board systems in eLearning: A case study. *Social and Humanistic Computing for the Knowledge Society*, *27*(4), 1431–1437. https://doi.org/10.1016/j.chb.2010.07.047

Lenhart, A., Arafeh, S., & Smith, A. (2008, April). Writing, technology and teens. Pew Internet & American Life Project, with the National Commission on Writing. Retrieved from http://www.pewinternet.org/files/old-media//Files/Reports/2008/PIP_Writing_Report_FINAL3.pdf.pdf

Leu, D. J., McVerry, J. G., O'Byrne, W. I., Kiili, C., Zawilinski, L., Everett-Cacopardo, H., … Forzani, E. (2011). The New literacies of online reading comprehension:

expanding the literacy and learning curriculum. *Journal of Adolescent & Adult Literacy*, *55*(1), 5–14.

Lin, S., & Overbaugh, R. C. (2009). Computer-mediated discussion, self-efficacy and gender. *British Journal of Educational Technology*, *40*(6), 999–1013.

Lindsay, L. (2016). Transformation of teacher practice using mobile technology with one-to-one classes: M-learning pedagogical approaches. *British Journal of Educational Technology*, *47*(5), 883–892.

Louwrens, N., & Hartnett, M. (2015). Student and teacher perceptions of online student engagement in an online middle school. *Journal of Open, Flexible and Distance Learning*, *19*(1), 27–44.

Mangen, A. (2008). Hypertext fiction reading: Haptics and immersion. *Journal of Research in Reading*, *31*(4), 404–419.

Martin, N. M., & Lambert, C. (2015). Differentiating digital writing instruction: The intersection of technology, writing instruction, and digital genre knowledge. *Journal of Adolescent & Adult Literacy*, *59*(2), 217–227.

McKenna, M. C., & Simkin, C. R. (2008). Framing the research on technology and student learning in reading. In L. Bell, L. Schrum, & A. Thompson (Eds.), *Framing research on technology and student learning in the content area: Implications for educators* (pp. 85–99). Information Age Pub.

McKinney, B. K. (2018). The impact of program-wide discussion board grading rubrics on students and faculty satisfaction. *Online Learning*, *22*(2), 289–299. Retrieved from https://librarylink.uncc.edu/login?url=http://search.ebscohost.com.librarylink.unc

c.edu/login.aspx?direct=true&db=eric&AN=EJ1181358&site=ehost-live&scope=site

Mertens, D. (2015). *Research and evaluation in education and psychology* (4th ed.). Sage Publications.

Michaels, S., & O'Connor, C. (2015). Conceptualizing talk moves as tools: Professional development approaches for academically productive discussions. In *Socializing Intelligence Through Academic Talk and Dialogue* (pp. 347–361). https://doi.org/10.3102/978-0-935302-43-1_27

Morrell, E., Duenas, R., Garcia, V., & Lopez, J. (2013). *Critical media pedagogy: Teaching for achievement in city schools*. Teachers College Press.

Mundy, M.-A., Kupczynski, L., & Kee, R. (2012). Teacher's perceptions of technology use in the schools. *SAGE Open*, *2*(1). https://doi.org/10.1177/2158244012440813

Nahachewsky, J., & Ward, A. (2007). Contrapuntal writing: Student discourse in an online literature class. *English Teaching: Practice and Critique*, *6*(1), 50–68.

National Center for Education Statistics (ED). (2013). *The Nation's report card: Trends in academic progress 2012. NCES 2013-456*. National Center for Education Statistics. Retrieved from ERIC. http://nces.ed.gov/

National Council of Teachers of English. (2016, February). NCTE beliefs about the teaching of writing. *National Council of Teachers of English*. Retrieved from http://www.ncte.org/governance/writing

National Telecommunications and Information Administration (DOC), W., DC. (1995). *Falling through the net: A survey of the "have nots" in rural and urban America.* Retrieved from

https://librarylink.uncc.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED399126&site=ehost-live&scope=site

New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, *66*(1), 60–92.

Newkirk, T. (2014). *Minds made for stories: How we really read and write informational and persuasive texts*. New York: Heinemann.

Olmstead, K. (2017, May 25). A third of Americans live in a household with three or more smartphones. Pew Research Center. Retrieved from http://www.pewresearch.org/fact-tank/2017/05/25/a-third-of-americans-live-in-a-household-with-three-or-more-smartphones/

Olthouse, J. M. (2013). Multiliteracies theory and gifted education: Creating "smart spaces" in the language arts classroom. *Gifted Child Today*, *36*(4), 246–253.

Partnership for 21st Century Learning. (2015). P21 Framework Definitions. Partnership for 21st Century Learning. Retrieved from http://www.p21.org/storage/documents/docs/P21_Framework_Definitions_New_Logo_2015.pdf

Penuel, W. R. (2006). Implementation and effects of one-to-one computing initiatives: A research synthesis. *Journal of Research on Technology in Education*, *38*(3), 329–348.

Plato., & Rowe, C. J. (1986). *Phaedrus*. Warminster, Wiltshire, England; Atlantic Highlands, N.J.: Aris & Phillips ; Distributed in the U.S.A. and Canada by Humanities Press.

Prensky, M. (n.d.). Digital natives, digital immigrants - Part I. Retrieved from http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf

Prestridge, S. (2017). Examining the shaping of teachers' pedagogical orientation for the use of technology. *Technology, Pedagogy and Education*, *26*(4), 367–381. https://doi.org/10.1080/1475939X.2016.1258369

Probst, R. (2007). Tom Sawyer, teaching and talking. In Kylene Beers, Robert E. Probst & Linda Rief (Eds.), *Adolescent literacy: Turning promise into practice* (pp. 43-59). Heineman Education Books.

Programming ENIAC. (2013, November). Columbia University. Retrieved from http://www.columbia.edu/cu/computinghistory/eniac.html

Purcell, K., Heaps, A., Buchannan, J., & Friedrich, L. (2013, February 28). How teachers are using technology at home and in their classrooms. Pew Research Center. Retrieved from http://www.pewinternet.org/2013/02/28/how-teachers-are-using-technology-at-home-and-in-their-classrooms/

Reinhart, J. M., Thomas, E., & Torskie, J. M. (2011). K-12 teachers: Technology use and the second level digital divide. *Journal of Instructional Psychology.*, *38*(3/4), 181–193.

Renfrew, A. (2015). *Mikhail Bakhtin* . London ; Routledge, Taylor & Francis Group.

Ritzhaupt, A. D., Liu, F., Dawson, K., & Barron, A. E. (2013). Differences in student information and communication technology literacy based on socio-economic status, ethnicity, and gender: Evidence of a digital divide in Florida schools. *Journal of Research on Technology in Education*, *45*(4), 291–307.

Roskos, K., & Neuman, S. B. (2001). Environment and its influences for early literacy teaching and learning. In S. B. Neuman & D. L. Dickinson (Eds.), Handbook of early literacy research (pp. 281-294). New York, NY: The Guilford Press.

Rovai, A., & Jordan, H. (2004). Blended learning and sense of community: A comparative analysis with traditional and fully online graduate courses. *International Review of Research in Open and Distance Learning*, *5*(2). https://doi.org/10.19173/irrodl.v5i2.192

Ruday, S. (2011). Expanding the possibilities of discussion: A strategic approach to using online discussion boards in the middle and high school English classroom. *Contemporary Issues in Technology and Teacher Education (CITE Journal)*, *11*(4), 350–361.

Schmidt, D. A., Baran, E., Thompson, A. D., Mishra, P., Koehler, M. J., & Shin, T. S. (2009). Technological pedagogical content knowledge (TPACK): The development and validation of an assessment instrument for preservice teachers. *Journal of Research on Technology in Education*, *42*(2), 123–149.

Sherry, M. B. (2017). How the visual rhetoric of online discussions enables and constrains students' participation. *Journal of Adolescent & Adult Literacy*, *61*(3), 299–310.

Sinclair, C. (2015). Students' perspectives on academic writing in the digital age. *TechTrends: Linking Research and Practice to Improve Learning*, *59*(1), 44–49.

Smith, A. (2015, April 1). U.S. smartphone use in 2015. Pew Research Center. Retrieved from http://www.pewinternet.org/2015/04/01/us-smartphone-use-in-2015/

Smith, J., Flowers, P., & Larkin, M. (2009). *Interpretative Phenomenological Analysis: Theory, Method and Research* (Vol. 6).

Snyder, I. (2002). Silicon literacies: Communication, innovation and education in the electronic age. Retrieved from http://site.ebrary.com/id/10016844

Snyder, T. D., & National Center for Education Statistics (ED), W., DC. (1993). *120 years of American education: A statistical portrait.* Retrieved from https://librarylink.uncc.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED355277&site=ehost-live&scope=site

Stake, R. (1995). *The art of case study research.* Thousand Oaks, CA: Sage.

Stevenson, S. (2009). Digital divide: A discursive move away from the real inequities. *The Information Society*, *25*(1), 1–22.

Sweetland, J. H. (1993). Information poverty—let me count the ways. *Database*, *16*(4).

Thoermer, A., & Williams, L. (2012). Using digital texts to promote fluent reading. *Reading Teacher*, *65*(7), 441–445.

Turner, K. H., & Hicks, T. (2012). That's not writing: Exploring the intersection of digital writing, community literacy, and social justice. *Community Literacy Journal Community Literacy Journal*, *6*(1), 55–78.

Van Manen, M., & Adams, C. (2009). The phenomenology of space in writing online. *EPAT Educational Philosophy and Theory*, *41*(1), 10–21.

Wertz, F. J. (2005). Phenomenological research methods for counseling psychology. *Journal of Counseling Psychology*, *52*(2), 167–177. https://doi.org/10.1037/0022-0167.52.2.167

Weston, M. E., & Bain, A. (2010). The end of techno-critique: The naked truth about 1:1 laptop initiatives and educational change. *Journal of Technology, Learning, and Assessment*, *9*(6). Retrieved from https://librarylink.uncc.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ873680&site=ehost-live&scope=site

Wiggan, G. A. (2009). Paying the price, globalization in education: Economics, policies, school practices, and student outcomes. In G. A. Wiggan & C. B. Hutchison (Eds.), *Global issues in education: Pedagogy, policy, practice, and the minority experience*. Lanham, Md.: Rowman & Littlefield Education.

Wilhelm, T., Carmen, D., Reynolds, M., & Annie E. Casey Foundation, B., MD. (2002). *Connecting kids to technology: Challenges and opportunities. KIDS COUNT Snapshot.* Retrieved from https://librarylink.uncc.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED467133&site=ehost-live&scope=site

Williamson, R., & Education Partnerships, I. (EPI). (2011). *Digital literacy. Research Brief*. Education Partnerships, Inc. Retrieved from https://librarylink.uncc.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED538315&site=ehost-live&scope=site

Yin, R. (2014). *Case study research: design and methods* (Fifth edition.). Los Angeles: SAGE.

Young, C. A., Hicks, T., & Kajder, S. B. (2008). Framing research on technology and student learning in English education during an era of changing literacy practices. In L. Bell, L. Schrum, & A. Thompson (Eds.), *Framing research on technology*

and student learning in the content area : implications for educators (pp. 67–84). Charlotte, N.C.: Information Age Pub.

Yu, E. (2014). Let developmental students shine: Digital writing. *Research & Teaching in Developmental Education*, *30*(2), 99–110.

Yukselturk, E. (2010). An investigation of factors affecting student participation level in an online discussion forum. *Turkish Online Journal of Educational Technology - TOJET*, *9*(2), 24–32.

Zoch, M., Langston-DeMott, B., & Adams-Budde, M. (2014). Creating digital authors. *Phi Delta Kappan*, *96*(3), 32–37.

Appendix A:

Teacher Interview Protocol Pre

The following Focus Group Interview protocol is designed to help me understand Research Question 1: In what ways do teachers facilitate online writing groups?

Semi-Structured Interview

Hello _____. I want to begin by thanking you for participating in this study. I really appreciate your willingness to share your experiences as a teacher. This interview will be recorded, but your name will be removed during transcription to maintain your anonymity. If, at any time, you do not feel comfortable answering a question, you do not have to. Once again, thank you for participating in this interview.

Semi-Structured Interview

Personal Experience with Technology

- Can you describe some of your early experiences with technology?
    - How old were you?
    - What technology did you first use?
    - Who taught you to use your first digital device?
    - What did you use technology for at an early age?
    - Did you use technology to read at an early age?
    - Did you use technology to write at an early age?
    - What were your earliest feelings about technology?
- How proficient with technology would you rate yourself today?
    - Why did you give yourself this rating?

    - What life experiences led you to evaluate your proficiency with technology this way?
- Do you use technology in your daily life?
    - What does you daily technology use look like?

Technology Training

Pre-service

- What training did you receive in using digital technology to facilitate instruction during your pre-service experience?
    - Did you have any specifically designed courses for implementing technology in the classroom?
    - Did you have any opportunities to practice application of implementing technology in the classroom?

In-Service

- What opportunities have you had to increase your knowledge of applying technology in the classroom?
    - What elements have you found to be the most beneficial to your classroom instruction?
    - What elements have you found to be the least beneficial to your classroom instruction?
    - Are there any new technologies you would like to learn more about? Why?

Technology in your classroom

- What role do you think technology plays in education today?
    - Are there benefits to using technology in today's classrooms?
    - Are there struggles you face in using technology in today's classrooms?

- What technology do you incorporate most in your classroom?
    - How do you decide which technology to incorporate in your classroom?
    - What technology do you find is the most beneficial to your students? Why?
    - What technology do you find is least beneficial to your students? Why?

Expectations for online discussions

- What made you decide to use online discussions in your classroom? Have you used online discussions in your classroom before?
    - What possible benefits/problems do you see in using online discussions in your classroom?
    - How do you see online discussions functioning in your classroom?
        - What will they look like from the teacher's perspective?
        - What will they look life from the students' perspective?

- What role will online discussions play in your classroom?
    - How will you introduce online discussions to your students?
    - In your opinion, what makes a quality response in an online discussion?
    - How will you assess student activity in online discussions?

Appendix B:

Teacher Interview Protocol Post

The following Focus Group Interview protocol is designed to help me understand the following research questions

1. In what ways do teachers facilitate online writing groups?
2. In what ways do teachers modify instruction based on analysis of online writing responses?

Semi-Structured Interview

Hello _____. I want to begin by thanking you again for participating in this study. I really appreciate your willingness to share your experiences as a teacher. This interview will be recorded, but your name will be removed during transcription to maintain your anonymity. If, at any time, you do not feel comfortable answering a question, you do not have to. Once again, thank you for participating in this interview.

Research Question 1: In what ways do teachers facilitate online discussions?

Decision-Making Process

- How did you develop the prompts you used for the discussion posts?
    - How were they connected to your curriculum?
    - What sources did you use to help develop your prompts?
    - Which prompts did you find were most successful? Why?
    - Which prompts did you find were least successful? Why?

Student Roles

- How did the students interact with one another online?

- Describe their original posts.
- Describe their replies to one another.
- Which students seemed to you to participate more in the discussions?
- Which students seemed to you to participate less in the discussions?
- Do you have any theories about what made some students participate more than others?

- Did you have any feedback from students on their participation in the online discussions?
  - What was their feedback?
  - Did their feedback change anything in how you facilitated their discussions?

Teacher Roles

- What was your role in the online discussions?
  - How did you present the prompt?
  - What was/were your role(s) in the online discussion?
    - How much did you participate in the online discussions?
    - How often did you check the online discussions?
    - How did you decide who to reply to?
- Describe your replies to students.

Research Question 2: In what ways do teachers modify instruction based on analysis of online writing responses?

Assessment

- How did you assess your students' posts?
    - How did you develop your scoring method?
    - How did you decide what was important in their posts?
        - What evidence did you look for to support your assessment?

Analysis

- How did you analyze students' posts?
- Did your analysis of student online responses impact your replies to students?
    - Did your analysis of student online posts impact how you developed other prompts?
    - Did your analysis of student online posts impact how you developed activities throughout your curriculum (outside of discussion posts)?

Closing

- How would you describe your overall experience with online discussions?
- Are online discussions valuable for students?
- Will you continue to use online discussions? Why/Why not?

Appendix C:

Focus Group Interview Protocol

The following Focus Group Interview protocol is designed to help me understand **Research Question 3: In what ways do students interact in online discussions?**

Semi-Structured Interview

I want to begin by thanking all of you for participating in this study. I really appreciate your willingness to share your experiences as students. This interview will be recorded, but your name will be removed during transcription to maintain your anonymity. If, at any time, you do not feel comfortable answering a question, you do not have to. Once again, thank you for participating in this interview

Early Experience with Technology

- Can you describe some of your early experiences with technology?
    - How old were you?
    - What technology did you first use?
    - Who taught you to use your first digital device?
    - What did you use technology for at an early age?
        - Did you use technology to read at an early age?
        - Did you use technology to write at an early age?
    - What were your earliest feelings about technology?
- How proficient with technology would you rate yourself today?
    - Why did you give yourself this rating?
    - What life experiences led you to evaluate your proficiency with technology this way?

Digital Reading History

- Do you read online?
    - What do you read online?
    - How often do you read online?
- Do you read digital texts in any of your classes?
    - What is your experience in reading digital texts online?
        - What was positive?
        - What was negative?

Digital Writing History

- Can you describe your online writing habits? Do you participate in online writing outside of school?
- Have you used digital writing in your classes this year?
    - How would you describe your digital writing experiences this year?
- Have you used online discussions before entering this semester?
    - In what capacity?

Digital Writing in the Course (process)

- Describe your experience of using the online discussions in your class.
- Where do you normally complete your online discussions? Why?
- What are your thoughts on the structure of the online discussions in your class?

Digital Writing in the Course (textual analysis):

- What type of online discussion prompts do you find most engaging? Least engaging?

- Have the online discussions impacted how you read a text?
- Is there a difference in discussing a text online different than face to face?
- Are there particular aspects of the online discussion that have helped or hindered your ability to understand a text?

Digital Writing in the Course (social):

- How do you decide who to reply to in your postings?
- What impacts your participation in the online discussions in this class?
    - What encourages/discourages your posting in the online discussion?
- Have your peers impacted your experience in the online discussions in this class?

Digital Writing in the Course (summary):

- Is there a value to the online discussion in your class?
- Is there something you would change about the online discussions in your class?
- What impacts your participation in the online discussions in the class?

Thank you for interviewing with me today.

Appendix D:

Modified TPACK Questionnaire

Below are the questions on the modified TPACK survey (Schmidt et al., 2009). Category headings will be removed for the distribution of the survey.

Thank you for taking time to complete this questionnaire. Please answer each question to the best of your knowledge. Your thoughtfulness and candid responses will be greatly appreciated. Your responses will be kept completely confidential.

Technology is a broad concept that can mean a lot of different things. For the purpose of this questionnaire, technology is referring to digital technology/technologies. That is, the digital tools we use such as computers, laptops, iPods, handhelds, interactive whiteboards, software programs, etc. Please answer all of the questions and if you are unclear of or neutral about your response you may always select "Neither Agree or Disagree."

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
TK (Technology Knowledge)					
1. I know how to solve my own technical problems.					
2. I can learn technology easily.					
3. I keep up with important new technologies.					
4. I frequently play around with the technology.					

5. I know about a lot of different technologies.					
6. I have the technical skills I need to use technology.					
CK (Content Knowledge)					
7. I have sufficient knowledge about literacy.					
8. I can use a literacy way of thinking.					
9. I have various ways and strategies of developing my understanding of literacy.					
PK (Pedagogical Knowledge)					
10. I know how to assess student performance in a classroom.					
11. I can adapt my teaching based upon what students currently understand or do not understand.					
12. I can adapt my teaching style to different learners.					

13. I can assess student learning in multiple ways.					
14. I can use a wide range of teaching approaches in a classroom setting.					
15. I am familiar with common student understandings and misconceptions.					
16. I know how to organize and maintain classroom management.					
PCK (Pedagogical Content Knowledge)					
17. I can select effective teaching approaches to guide student thinking and learning in literacy.					
TCK (Technological Content Knowledge)					
18. I know about technologies that I can use for understanding and doing literacy.					
TPK (Technological Pedagogical Knowledge)					

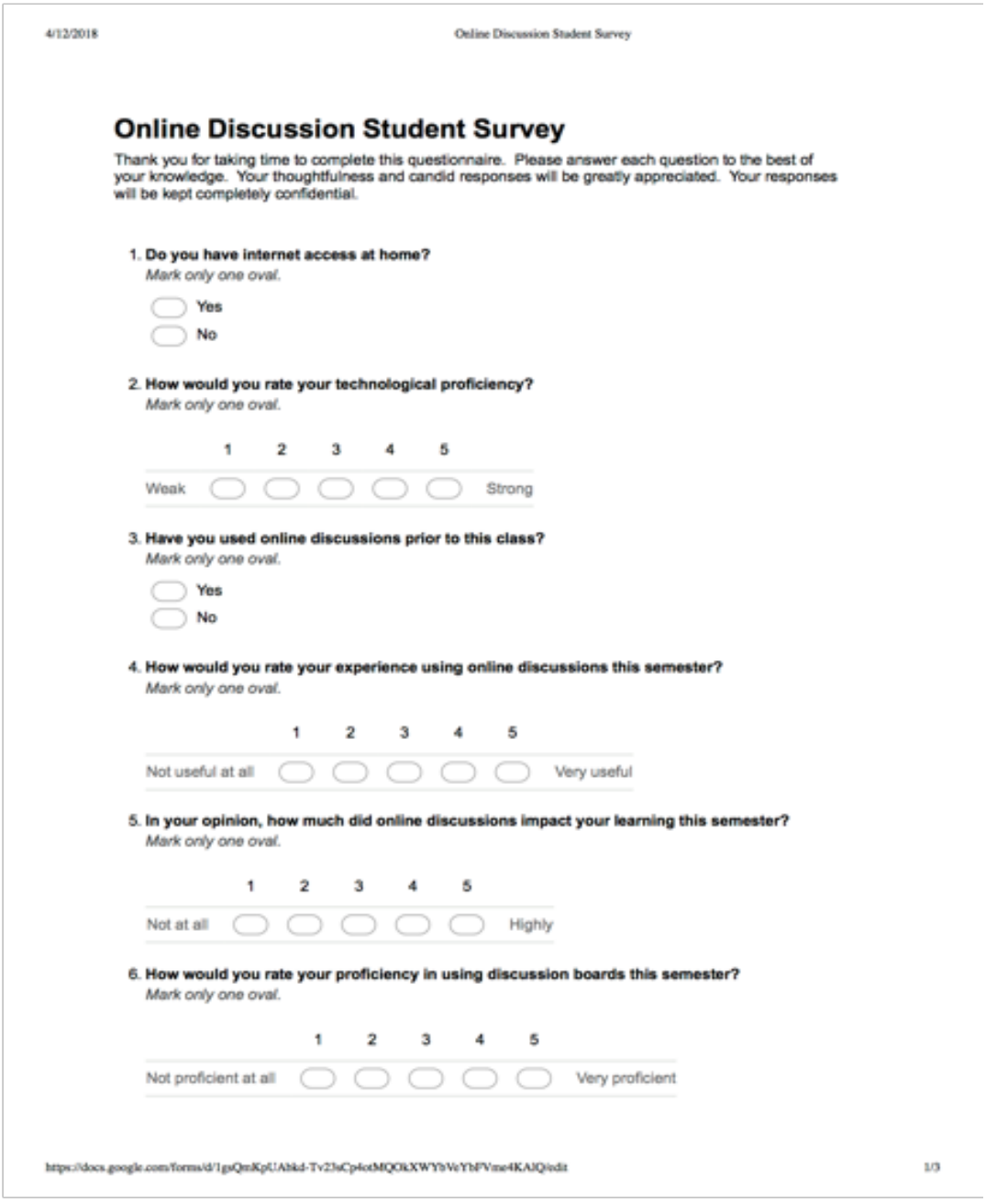
19. I can choose technologies that enhance the teaching approaches for a lesson.					
20. I can choose technologies that enhance students' learning for a lesson.					
21. I am thinking critically about how to use technology in my classroom.					
22. I can adapt the use of the technologies that I am learning about to different teaching activities.					
23. I can select technologies to use in my classroom that enhance what I teach, how I teach, and what students learn.					
24. I can use strategies that combine content, technologies, and teaching approaches in my classroom.					

25. I can provide leadership in helping others to coordinate the use of content, technologies, and teaching approaches at my school and/or district.					
26. I can choose technologies that enhance the content for a lesson.					
TPACK (Technology Pedagogy and Content Knowledge					
27. I can teach lessons that appropriately combine literacy, technologies, and teaching approaches.					

Appendix E:

Student Survey

Student Survey



4/12/2018 Online Discussion Student Survey

Online Discussion Student Survey

Thank you for taking time to complete this questionnaire. Please answer each question to the best of your knowledge. Your thoughtfulness and candid responses will be greatly appreciated. Your responses will be kept completely confidential.

1. **Do you have internet access at home?**
Mark only one oval.
Yes
No

2. **How would you rate your technological proficiency?**
Mark only one oval.

	1	2	3	4	5	
Weak						Strong

3. **Have you used online discussions prior to this class?**
Mark only one oval.
Yes
No

4. **How would you rate your experience using online discussions this semester?**
Mark only one oval.

	1	2	3	4	5	
Not useful at all						Very useful

5. **In your opinion, how much did online discussions impact your learning this semester?**
Mark only one oval.

	1	2	3	4	5	
Not at all						Highly

6. **How would you rate your proficiency in using discussion boards this semester?**
Mark only one oval.

	1	2	3	4	5	
Not proficient at all						Very proficient

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7. **In your opinion, how much did your teacher's contributions to the online discussions impact your understanding of the discussion topics?**
Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Highly

8. **In your opinion, how much did your classmates' contributions to the online discussions impact your understanding of the discussion topics?**
Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Highly

9. **How would you rate your classmates' level of engagement in the online discussions?**
Mark only one oval.

	1	2	3	4	5	
No engagement	◯	◯	◯	◯	◯	Highly engaged

10. **How would you rate your teacher's level of engagement in the online discussions?**
Mark only one oval.

	1	2	3	4	5	
No engagement	◯	◯	◯	◯	◯	Highly engaged

11. **How often did you ask a question to one of your classmates in the online discussions?**
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Very often

12. **How often did you state your opinions in the online discussions?**
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Very often

13. **In your opinion, to what extent do online discussions help you understand course content?**
Mark only one oval.

	1	2	3	4	5	
They do not help me understand course content	◯	◯	◯	◯	◯	They strongly help me understand course content

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