THE LIVED EXPERIENCES OF HIGH SCHOOL HUMANITIES TEACHERS AS THEY UTILIZE AN LMS TO FACILITATE AND SUPPORT STUDENTS' LEARNING: A PHENOMENOLOGICAL STUDY

by

Jamie L. Onorato

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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APPROVED BY:

Dr. Dina Samora, Ed.D., Committee Chair

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Abstract

High school humanity teachers at Big Wave High School utilize the Learning Management System (LMS), Canvas, in their 1:1 program, which this phenomenological study aimed to explore and better understand its role in the blended learning environment. The theories that guided this study are Slavich and Zimbardo's transformational teaching theory and Bandura's social cognitive theory of self-efficacy, which help the understanding of how evolving technology can be used in the field of education and therefore guided this study to explore the central research question: What are the lived experiences of high school teachers as they utilize LMS to facilitate and support learning in a blended learning environment? This transcendental phenomenological study utilized Colaizzi's seven steps of phenomenological research with purposive sampling of participants at a rural high school in New Jersey. Data was collected through interviews, virtual artifact analysis, and focus groups. The data collected was analyzed through coding into themes and insights following Saldaña's method and then applied in response to the central research questions and three sub-questions. The process revealed the themes of learning outcomes, the advantages and disadvantages of the LMS influencing decisions for utilization, the perceived influences of the LMS over teaching and learning, and finally, two outliers of screentime and interpersonal connections. Overall, participants find the LMS to provide a superior organizational tool for themselves, but most of them prefer students to complete assignments on paper, and they wish professional development opportunities would allow them to explore more features with a hands-on approach. So, while teachers utilize the LMS, the utilization does not reflect its full potential.

Keywords: Learning Management Systems, curriculum, instruction, blended learning, study skills, student accountability, educational technology

Copyright Page

Dedication

To my parents, thank you! Thank you! Thank you! Your unwavering support and perpetual love made me who I am today. Thank you for saying, “Go for it!” when I called on that night of my 34th birthday to tell you that I wanted to pursue my doctorate. Thank you for not just supporting my dreams but also inspiring them. Love you both beyond words.

To my husband and co-captain, Matt, thank you for being the calm in every storm. Turning this dream into a goal and then into an accomplishment would not have been possible without your support and encouragement. Thank you for loving me. Here’s to a lifetime of achieving our dreams! I love you more than the milliseconds it took to finish this!

To Jace and Troy, my beautiful boys, thank you for reminding Mommy always to take breaks for snacks, Uno, movies, Mario Kart, and book time. I hope you pursue all your dreams and goals with vivacious determination while always remembering to pause for some fun. Be brave. Be strong. Be smart. Be kind. Never forget how much I love you.

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My methodologist, Dr. Brian Jones, was the first to agree to join my committee. From the onset, he was invested, and with every comment he made on my manuscript, I could feel his encouragement and his positive push to improve it. Thank you, Dr. Jones.

I truly believe I was blessed with the dream team committee.

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Learning Management System (LMS)

Technological Pedagogical Content Knowledge (TPACK)

No Child Left Behind Act (NCLB)

Professional Development (PD)

CHAPTER ONE: INTRODUCTION

Overview

The world of information has always been at the fingertips of Generation Z. This generation now spans from the classrooms of elementary schools through high schools and colleges, and these students have never known a world without smartphones, the internet, social media, smart boards, tablets, and other tools that rely on Wi-Fi (Gradschools, 2020). Teaching this generation of students has brought about unprecedented problems but also innovative solutions. One of the technological advances that have trickled down from the collegiate level to the high schools is the use of Learning Management Systems (LMS). Research exists examining college students' attitudes towards LMS and its effect on the learning experience (Alshorman & Bawaneh, 2018; Bouilheres et al., 2020; Kintu et al., 2017; Machajewski et al., 2019; Tiong-Thye & Yang, 2021); however, very few studies exist on its use in the secondary classroom setting with teenagers and high school teachers (Stockless, 2018). Educators now attempt to balance grading, professional development, district responsibilities, students' emotional learning, content, and curriculum updates, while keeping up with educational technology and technological resources. Additionally, districts implement blended learning styles of instruction, which is the combination of content delivery through the traditional method of face-to-face as well as providing instructional material digitally (Bouilheres et al., 2020; Rottman et al., 2020). Limited research is available regarding the blended learning environment at a high school level; therefore, little is known about the perceived influence of the LMS, especially within a humanities department. This research of this study covers the historical, social, and theoretical context of the LMS before identifying the problem, purpose, and significance of this study. A central research question and three sub-questions will then be determined, followed by essential

terms and definitions listed.

Background

Technology advances rapidly and through various platforms, educators integrate it into their instruction. Many districts and educators now rely on educational technology, specifically LMS, as part of their educational resources. Educators' use of LMS is a piece of the pedagogical puzzle, with the remaining parts consisting of learning theories, content standards, learner outcomes, instruction, curriculum, standardized tests, and teaching style (Brown et al., 2020). The historical influences of educational technology led to the development of LMS. Still, the social demands for its role in a blended learning environment must be balanced with the theoretical concepts of effective practice.

Historical Context

As different instruments and technologies are invented, they eventually make their way into classrooms. The purpose of these technologies varies from convenience, luxuries, and necessities. Since the introduction of the pencil in 1564; education has witnessed technologies including the chalkboard in 1801; the typewriter in 1873; the radio and the film projector, both in 1925; the overhead projector five years later; the photocopier in 1959; the scantron in 1972; personal computers by 1980; compact discs in 1985; online colleges in 1989; the world wide web in 1990; the interactive whiteboard and the laptop with Wi-Fi abilities both in 1999; and finally Moodle in 2002, which is the first LMS (Gradschools, 2020). The teaching machine was first introduced in 1924. The use of computer applications dates to the 1950s, and since then technology has rapidly advanced and become more accessible in 2012 through global digital platforms and clouds (Rottman et al., 2020); therefore, educators and educational institutions must adapt (Chow et al., 2018). Initially, educational technology included computer-based

instruction (CBI), computer-assisted instruction (CAI), and computer-assisted learning (CAL), which are primarily drill-and-practice programs (Kearsley, 1998; Watson & Watson, 2007). The systems eventually became more sophisticated with features for management and tracking and became known as integrated learning systems (ILS). As the programs continued to evolve, the infrastructure centered around the learner, individualized learning activities, and aptitude mapping, which separates the LMS from its predecessors (Watson & Watson, 2007). The challenge for instructional designers became to develop and advance the systems educators use without reinventing the wheel (Cox & Osguthorpe, 2003).

Dubé and Wen (2022) gathered six years' worth (2011-2017) of educational technology reports to analyze the evolution of educational technologies and predict what trends would follow. Mobile devices and apps started influencing technology trends beginning in 2012, and shortly thereafter teachers started using apps for engaging lessons of more convoluted content. Increasing app usage then led to a surge in demand for tablets to offer a larger screen and more range of possibilities. Once mobile met user friendly, districts' one-to-one initiatives expanded in 2013 in an effort to put a device in the hands of all students, which then led to educational apps becoming the second most downloaded category of apps. A slight shift took place when districts started encouraging students to bring their own device to school to allow for consistency in the device and learning. Wearable technology, such as watches and bands, trend followed soon after and while students did own these devices and wear them, they have not made as much of an impact in the actual lessons or instruction yet. In addition to mobile technology impacting educational technology, Maker technology such as 3D printing and robotics, started to also find its place in education for hands-on learning, especially in STEM (science technology engineering and mathematics). The Maker technologies promote 21st-century skill sets such as reasoning,

problem-solving, and collaboration; all of which have a positive influence on student achievement. Game-based learning also enhances the educational experience by combining content within academic tasks and rewards and leveling and started findings its way into education in 2011. Various other technologies also continue to influence education, which include but are not limited to: cloud computing, open content sites such as Kahn Academy, and smart televisions. It is important to understand that these predictions and trends of educational technology mirror societal trends (Dubé & Wen, 2022).

Societal trends and social concepts began influencing education decades ago, especially with a growing emphasis on inclusivity to meet the needs of all diverse learners (Ebersold, 2021). Creating easier accessibility to classroom materials and content becomes a focal point to meet these needs, which makes LMS an increasingly popular choice of decision and policy makers within districts to reconstruct the delivery of instruction. In turn, it is by identifying the deficiencies of instruction before students that the pedagogical approach of schools is changing. The accessibility of content and learning through the LMS bridges the pedagogical gap between teachers, students, and the content. Additionally with cross-curriculum use, the LMS increases technological literacy and opportunities for promoting 21st century skills (Fonseca et al., 2021).

While technology and accessibility advances, the pedagogical approach to its implementation inevitably must evolve. While teacher training and lack thereof may contribute to a flaw with educational technology, the spotlight also shines onto the conceptual framework for utilizing educational technology to powerfully teach subject matter (Kearsley, 1998; Mishra et al., 2009). Teachers need to understand how the technology fits into their content and pedagogy when learning how to implement new technology in their classroom because it results in a more thorough understanding of how the technology fits into their instruction and they are

then more likely to use it (Polly, 2011).

Social Context

The LMS aims to enhance the pedagogical experience in a student-centered fashion as it allows for quick distribution of content, accessibility to content from anywhere at any time, multimedia content abilities, and data collection (Rottman et al., 2020). Both educators and students regularly use it. Still, students appreciate its administrative functions more than the learning applications, and faculty are less likely to utilize the content distribution tools because traditional teaching concepts guide their use of the technology due to a lack of professional development (Koh & Kan, 2021). Over time, with professional development and experience, educators can efficiently utilize the LMS congruently with their teaching style and course objectives (Koh & Kan, 2021). Further investigation is needed regarding the LMS facets and how they are used and experienced for learning activities (Tiong-Thye & Yang, 2021), as well as teachers' perspectives and perceptions regarding their training and professional development.

Students may temporarily utilize an LMS during their educational career at an institution; however, the educators and faculty may continue to use it through each class of students (Conklin, 2020). A study focusing on how high school educators utilize the LMS in a blended learning environment to augment instruction could benefit administrators in making decisions about its use, including building an understanding of its potential, developing a framework for best practice in a blended learning environment, and helping bridge the gap to practice in using its tools for effective implementation.

Theoretical Context

Knowles's adult learning theory outlines the pillars for andragogy, which includes what individuals need to know, their self-concepts, their prior experiences, their overall readiness, the

orientation of learning, and motivation (Knowles et al., 2005). The theory supports the fundamental need to be self-motivated and take on responsibilities that match maturity level. High schoolers may not typically have the same level of motivation as college students; therefore, the ability to be self-direct is a scaffolded study skill. The use of LMS needs to reflect the skills still forming on the secondary level, including accountability. The potential of LMS is to create a student-centered, online environment, which has been used by higher education since the early 2000s (Rottman et al., 2020). College students begin selecting courses with a career in mind, and at this point in their educational career of high school, students are familiar with handling course loads.

Bandura's (1977) social cognitive theory suggests that part of an individual's vital learning experience occurs through observation and social interaction, which then expanded to highlight the importance of self-efficacy. How have activities changed in the classroom to make room for the LMS? What is the balance of what is posted to the LMS for viewing and what is posted for interaction or activity? How are learning outcomes affected? Technology has the potential to continue to positively influence education as it continues to be part of evolution. Still, it needs to keep the students involved in a positive fashion. Educators now have the ability to provide vigorous instruction with the LMS with the implementation of a technological, pedagogical, and content knowledge framework (TPACK), which apportions scaffolding for students (Herring et al., 2016). Once teachers effectively implement instruction with TPACK, student learning can occur through various lenses of experiences in a more hands on approach that can also be autonomous, self-driven, and paced to their needs.

Transitioning instruction to include a 1:1 learning style and an LMS meant to be used in a blended learning environment may impact teacher responsibility and student accountability.

Lave's situated learning theory (Lave & Wenger, 1991) claims that students perform better when actively engaged in instruction, class activities, and overall classroom experience. Is there a shift in student accountability to teacher responsibility that is taking away active engagement resulting in assignments not being completed? How likely are students to check LMS after school? Are teachers taking on more responsibility than students' accountability? More needs to be understood about the shift that is taking place with an increase in technology integration.

Problem Statement

The problem is that LMS are not being used to their fullest potential by high school humanities teachers in a blended learning environment, which could help break away from traditional use of an LMS and towards innovative use (Alshorman & Bawaneh, 2018; Englund et al., 2017; Green & Chewning, 2020; Hedtrich & Graulich, 2018). LMS allows educators to share and exchange knowledge and materials with their students. While it was initially created to blur the geographical boundaries of college students and institutions, they have now been incorporated to supplement instruction. They can potentially improve the quality of learning for a technology-driven generation of students (Kite et al., 2020). When used correctly, students can effectively interact, teachers can present valuable content, and an open line of communication can be created between both parties (Alshorman & Bawaneh, 2018). Tseng (2020) supports that with an organized center of information that includes engaging content and material made by knowledgeable teachers, students and teachers will witness improvements in academic achievement.

Moreover, the platform can encourage students to be self-regulated learners through teachers' scaffolding materials and content, which presents opportunities for flipping the classroom. However, if students are working on individual devices to operate the LMS, there is

no guarantee they are staying on task, and they can navigate elsewhere as the distractions can become a problem. Thompson (2017) pointed out that using devices in class can obstruct their capacity to learn or result in a long time to complete a task, such as reading a passage. It is essential to note the lack of experimental research using LMS data. The reason for this is the vast platform and colossal amount of data it can generate, which would be difficult to analyze; therefore, there is an opportunity to study the students and teachers who use it, and this study will focus on the experiences of teachers. Machajewski et al. (2019) also discussed the downfalls of implementation of the LMS due to a lack of preparation and support to sustain its usage, which may lead to patterns of traditional use without innovation (Green & Chewning, 2020). It would be imprudent to ignore the potential positive influences LMS can have on curriculum and instruction at the high school level; however, the existing research has been conducted with mature, motivated participants at the college level (Coates et al., 2005; Kite et al., 2020).

Purpose Statement

The purpose of this phenomenological study is to describe the experiences with an LMS for teachers within a blended learning environment in a rural, central New Jersey high school with the pseudonym of Big Wave High School. At this stage in the research, the experiences with an LMS in a blended learning environment includes daily use during and/or outside of instructional class time and is generally defined as utilizing an LMS.

Significance of the Study

The transformational teaching theory, introduced in 1962 by Rogers, provides the framework of what influences individuals to accept new technologies (Rogers, 1962). Several attributions indicate whether a new technology will be positively received by an individual, group, or society. The first attribution is its level of sensibility in terms of cost and effect as well

as for what it may be replacing. Next is the innovation's ability to seamlessly complement the existing structure and society. Another attribute would be the perceived difficulty level, followed by the ability to test it out before utilizing it regularly. And finally, the last attribute would be the innovation's noticeable impact; the more obvious and tangible of positive influence, the more likely individuals will be to have a desire to use it. Overall, these attributes contribute to the innovation's momentum to be accepted by society. The level of acceptance for the LMS may also influence how a teacher uses it.

LMS is still a new technology that is evolving to meet the needs of both learners and educators, but for those needs to be met, more needs to be understood of its use and how it supports learning outcomes and standards. Furthermore, the LMS provides an asynchronous, learner-centered experience, which requires intrinsic motivation, but high schoolers are still developing, maturing, and learning positive study habits. This study will highlight and reveal how self-efficacy and social interaction (Bandura, 1977) opportunities adapt for the online instruction portion of the class. And on a final note, the researcher seeks to understand how educators actively engage students, which is how they perform best according to Lave's situated learning theory (Lave & Wenger, 1991) in a blended setting to meet standards and reach desired learning outcomes.

Research has been conducted studying students' attitudes toward the LMS (Cabero-Almenara et al., 2019), the qualities of an effective LMS (Alshorman & Bawaneh, 2018; Machajewski et al., 2019; Cabero-Almenara et al., 2019; Tseng, 2020) and the need for educational technology and LMS professional development (Alshorman & Bawaneh, 2018; Green & Chewning, 2020; Hedtrich & Graulich, 2018). However, there is a need for more research in the utilization of LMS on the secondary level in a blended learning environment as

most attention has been given to higher education since 64% of learning management system users are from a higher education (Gu & Guo, 2017; Westfall, 2020). Most research regarding LMS, online learning, and educational technology is conducted with higher education participants, resulting in a gap for perceived influence on young adults in high school, which leads to an opportunity for researchers to study how high school teachers implement the LMS in their classrooms and describing which features of the LMS they use and how, but also spotlighting which features may be underutilized or even ignored.

Theoretical

The theoretical significance of the study reinforces Bandura's (1977) social cognitive theory for both students and teachers. Students and teachers alike need proper preparation, lessons, time, and support with the LMS in order to acclimate to the system and experience an increased level of satisfaction with its use. Teachers prefer support in the form of in-person and on-hands learning with how to use the LMS, which then reflects how their students also need support in learning because students may not know a world without technology, but that does not mean they easily adjust to new educational technologies.

Empirical

The empirical significance of the study focusing on a LMS supports Chu et al.'s (2017) outline of the 21st century skillset of "(1) innovative thinking; (2) information, media, and ICT (information, communication, and technology) skills (collectively referred to as 'digital literacies'); and (3) life and career skills" (p. 8) because a LMS relies on that augmentation of those skills in order to create a well-balanced blended learning environment. The LMS provides students with access to the class materials and resources both in and out of the classroom setting, but Araka et al. (2021) explains the importance of keeping the materials relevant and engaging to

entice learners to access it more often. Teachers make decisions on how to utilize the LMS with the focus and understanding of how they believe students learn best.

Practical

The practical significance of the study benefits similar populations of teachers and can spark further research to grow upon. The study focused on participants who are English Language Arts teachers and History teachers because of the overlap of standards regarding informational texts, reading, writing, speaking, and listening. The high school supplies all teachers and students with computers through its 1:1 program and they all use Canvas as their Learning Management System. This study reveals a deeper understanding of how teachers experience the LMS and the reasons behind how they use it; therefore, this study can help districts make decisions regarding their guidelines of use for teachers while respecting autonomy, provide districts with considerations for academic integrity policies and procedures, inspire meaningful professional development experiences, and present ways teachers perceive the advantages and disadvantages of using the LMS to achieve learning outcomes.

Research Questions

LMS and its influence on high school students is a phenomenon in the secondary education world that needs to be explored, which is why a phenomenological study would be the best fit (Rockinson-Szapkiw & Spaulding, 2014). The focus will be on high school teachers' experiences with an LMS, who will be asked to participate in thorough interviews to share their experiences and observations, and they will be asked to be observed virtually on their Canvas class so postings can be seen. Participants' responses will provide a detailed look into how they utilize the LMS when seeing their students every day and how it affects their lessons, student learning and outcomes, student accountability, and teacher responsibilities.

Central Research Question

What are the lived experiences of high school teachers as they utilize LMS to facilitate and support learning in a blended learning environment?

Sub-Question One

How do high school teachers utilize the LMS to promote learning outcomes?

Sub-Question Two

What are the advantages and disadvantages of incorporating an LMS for a blended learning environment?

Sub-Question Three

What is taken into consideration during a teachers' decision-making process for how to implement the LMS in their classes?

Sub-Question Four

What is the perceived influence of the LMS over teaching and learning?

Definitions

1. *Blended learning* – Content delivered in a traditional, face-to-face method, as well as digitally (Bouilheres et al., 2020; Rottman et al., 2020).
2. *Educational technology* – "The study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological process and resources" (Simonson, 2008, p. vii).
3. *Learning Management Systems (LMS)* – An online infrastructure used for managing pedagogical content, assessing students, tracking progress, and presenting data to create visuals of the learning process (Rottman et al., 2020; Stockless, 2018; Watson & Watson, 2007).

4. *Learning outcomes* – Statements that establish what a learner is expected to know and/or demonstrate upon completion. According to Gagné (1985) the five types are as follows: intellectual skills, verbal information, cognitive strategies, motor skills, and attitudes (Schunk, 2020).

Summary

Although initially intended for higher education, Learning Management Systems (LMS) have found their place in secondary and elementary schools. Secondary students now experience a blended learning environment with time in a traditional classroom setting face-to-face with their teacher while also accessing their classes through LMS. LMS is accessible on their smartphones, tablets, and computers. The features of LMS have proven to be worthwhile for the convenience of both the educators and students, but how is it being utilized, and what is the perceived influence over teaching and learning? The problem is that the potential influence an LMS can have in a classroom is not being reached by high school humanities teachers because some teachers are not utilizing the features beyond the basic and traditional skill set due to a lack of professional development (Alshorman & Bawaneh, 2018; Englund et al., 2017; Green & Chewning, 2020; Hedtrich & Graulich, 2018). The purpose of this phenomenological study is to describe the experiences with a Learning Management System (LMS) for teachers within a blended learning environment in a rural, central New Jersey high school with the pseudonym of Big Wave High School. When learning is taking place in-person and through LMS, much is to be gained from studying how teachers balance the instructional methods and blend their strategies for achieving student outcomes while providing a valuable learning experience.

CHAPTER TWO: LITERATURE REVIEW

Overview

A systematic review of the literature was conducted to describe teachers' experiences with the Learning Management System (LMS) in a blended learning environment. In the first section, the theories relevant to transformational teaching, social interaction in a learning environment, self-efficacy, and self-regulation will be discussed. Following the theoretical framework will be a synthesis of recent literature regarding the purpose and qualities of a quality LMS, the potential effects of LMS on student accountability and study skills, and finally the impact the LMS has on teachers' roles and accountability. In the end, a gap in the literature will be identified, presenting a viable need for the current study. The gap consists of researchers identifying a need for studies of LMS use with participants who have experience in secondary education as presently the research available lacks an understanding how high school teachers use an LMS, leaves questions regarding how decisions are made with how to use the LMS, and calls for an explanation of the advantages and disadvantages of its use.

Theoretical Framework

The study of the LMS's influence on the blended learning environment connects to Slavich and Zimbardo's (2012) situating transformational teaching theory, as well as Bandura's (1977) social cognitive theory. The way educators perceive any educational technology, including the LMS, may heighten or hinder their experience with it. Additionally, the LMS calls for a different types of interaction between teachers and their students, but these social interactions impact the learning environment; however, with constant changing and updates to educational technology both teachers and students must learn.

Situating Transformational Teaching Theory

Slavich and Zimbardo (2012) introduced the transformational teaching theory, which emphasizes students' disposition toward learning from constructivist theory as a focal point. Students' attitudes, beliefs, values, and skills for concept mastery are the cornerstones of the transformational teaching theory. This theory relies on the foundation of a strong relationship between students and teachers because through that connection, teachers have a deeper understanding of their students and their attitudes, beliefs, values, and skills. It is necessary for the curriculum and the resources being implemented during lessons to reflect these needs as well. At the core, the curriculum needs to meet students' needs, learning styles, and interests, but is presented in a way that scaffolds higher-level thinking strategies that emulate Bloom's taxonomy (Bloom et al., 1956). This process should encourage self-efficacy and the skills required for lifelong learners. Educators have the opportunity to go beyond the passing of knowledge and to influence their students' lives; therefore, this theory's primary objective is for students to not only learn but to grow as an individual as well as spiritually.

LMS provides an opportunity for students to develop lifelong learning skills, especially the 21st century skillset of "(1) innovative thinking; (2) information, media, and ICT (information, communication, and technology) skills (collectively referred to as 'digital literacies'); and (3) life and career skills" (Chu et al., 2017, p. 8). To reach all diverse learners, content can be provided traditionally and/or with additional reinforcements on the LMS such as pictures, guided notes, videos, graphs, etc. The opportunity to proceed at their own pace online enhances their development self-efficacy as well. When the content becomes more engaging on the LMS, they will be more inclined to utilize it (Araka et al., 2021).

Social Cognitive Theory

Bandura's (1977) social cognitive theory accentuates the importance of social interactions and the learning environment. While individuals observe their peers and models, they are also exposed to the feedback that follows, whether it be positive or negative. Therefore, this theory highly supports the notion of learning being context-dependent due to individuals being exposed to various environments and social groups such as their communities, sports, clubs, families, and other social climates (Schunk, 2020). When considering how to direct students' interaction with the LMS, teachers' knowledge of their class, individual students, standards, purpose of lesson, and content need to also guide the decisions being made for implementation. What students need to learn and how they will learn it best depends on the context of all the variables previously listed. Students inadvertently learn in all the environments they find themselves, making the importance of how and what students learn online about the content and about their own perceived abilities, a newer dilemma for teachers to consider with their pedagogical approach.

Although Slavich and Zimbardo (2012) highlighted the importance of self-efficacy, the concept and its importance for students and their education originated with Bandura (1977) and the social cognitive theory. Arising from this social cognitive theory was the idea of self-efficacy (Bandura, 1977), which is an individual's belief in him or herself to be able to perform a particular task and produce a certain result. The influences of self-efficacy include modeling, consequences, feedback, positive and negative reinforcement, and peers' experience (Bandura, 1977).

Related Literature

The related literature for this study focuses on the contextual information of the LMS including its purpose, its features, and its positive qualities for effective learning. The literature then shifts to a discussion of the blended learning environment, student accountability, and study skills with the LMS, and a discussion of flipping the classroom and the LMS effects on student learning. After reviewing the LMS's impact on students, the literature review shows its impact on teachers' roles and how to effectively prepare to utilize the LMS, and concludes with a review of the impact of COVID-19 on educational technology's use.

The Purpose of Learning Management Systems

A Learning Management System (LMS) is a digital platform created and used to enhance face-to-face instruction (Foreman, 2017). It is an educational technology platform for educators to share and exchange knowledge and materials with their students (Bouilheres et al., 2020; Chow et al., 2018; Rottman et al., 2020; Sahin & Yurdugül, 2022). While LMS systems were initially created for higher education to blur geographical boundaries of students and instructions, they are now being incorporated to supplement instruction and improve the quality of learning to a technology-driven generation of students in secondary schools (Stockless, 2018). One of the benefits of the LMS is that it encourages leaders to focus on the students to learn and assess their knowledge at their own pace but requires a new pedagogical approach to work effectively (Chow et al., 2018).

The LMS is accessible wherever there is Wi-Fi or internet through a web browser or app. Computers or even cell phones provide access to the system; however, this does not guarantee students will access the site or open the browser. Students are more likely to use the system when the teacher actively and consistently uses it in ways such as posting assignments, correcting

assessments, providing feedback, and facilitating online discussions (Alshorman & Bawaneh, 2018). When used effectively, a Learning Management System has the potential to allow students to effectively interact with one another, teachers to present worthwhile content, and teachers and students to maintain an open line of communication (Alshormann & Bawaneh, 2018). One of the unique potentials of the LMS is that various learning styles can be met if teachers aptly adapt, which is a facet well-perceived by pupils (Cabero-Almenara et al., 2019). Additionally, elements of engagement for teaching and learning in the online space become expanded.

Student engagement goes beyond just interactions between students and other students or faculty. While those interactions are important and influence engagement, a student's engagement with their individual learning need emphasis especially when considering the online learning aspect. Redmond et al. (2018) furthered former studies by going beyond the limits of behavioral, emotional, and cognitive types of engagement and including social and collaborative engagement. These engagements provide a well-rounded framework for online engagement in higher education. The researchers noted a foundation set by instructors that encouraged all types of engagement, which is an area currently lacking in research and literature.

It is important to note that studies have been conducted with the use of LMS in the secondary learning environment (Gu & Guo, 2017; Stockless, 2017; Westfall, 2020), and there is a lack of experimental research using LMS data. The reason for this is the vast platform and colossal amount of data it can generate, which would be tedious and difficult to analyze; therefore, to start, there is an opportunity to study the students and teachers who use it. If the LMS is being used in a simple, traditional sense of content sharing, it indicates that more of the features need to be explored and practiced in order to reach a higher innovative use to promote

engagement. Studying its use can avoid a lack of preparation and support to sustain its usage which can result in a downfall with LMS implementation (Machajewski et al., 2019).

Features of Learning Management Systems

While many LMS systems exist, their features are similar. When developing LMS systems, designers strive to accommodate "1) curriculum design, 2) instant evaluation, 3) student interest, and 4) content management" (Wicaksono et al., 2021). Accommodating these topics and the stakeholders they impact has resulted in features that fall under one of five classifications: communication, content for learning processes, managerial options, assessment tools, and student tools for research or study habits (Araka et al., 2021). Many of the features available allow educators to offer flexible online learning. Educators can deliver online instruction through video conferencing, live streaming, creating tasks/assignments, live streaming lessons or lectures (Kite et al., 2020; Wicaksono et al., 2021), and facilitating discussions through online forums, which in turn encourages peer interactions if executed efficiently (Araka et al., 2021).

It is often assumed that because this generation of students has grown up with technology, they will automatically know how to use it all; however, they are more app savvy than tech-savvy (Weatherwax, 2017). Furthermore, this idea that students already know how to utilize the tools of LMS has a negative impact on their self-regulatory skills as indicated through qualitive studies of student surveys, which showed the tools designed to promote self-regulation were being underutilized by the students (Araka et al., 2021; Kite et al., 2020). Without the proper support, utilization, and understanding of the features, the LMS may not be used properly. For example, the LMS communication tools, which are essential for self-regulation skills, are reportedly underutilized (Araka et al., 2021). Kite et al. (2020) conducted a qualitative study that identified thematic connections of interview responses of lecturers and postgraduate students

regarding the use of Canvas LMS. Their findings connect students' perception of poor qualities of LMS have less to do with the program and more to do with its implementation; therefore, further highlighting, the significance of studying high school teachers' use of the LMS and describing their experiences with it in the blended learning environment, which is the purpose of this research.

Qualities of an Effective Learning Management System

An advantage to institutions' adoption of LMS is the ability to offer e-learning courses or as part of a hybrid, blended learning environment because of the live stream feature (Alshorman & Bawaneh, 2018). Schools that already implemented LMS as part of their curriculum were at an advantage when the COVID-19 pandemic hit and shut down in-person learning. The course features of the LMS promote communication, interaction, and constructivist learning through tools such as podcasts, breakout rooms, and online forums (Cabero-Almenara, et al., 2019), which are emphasized in the objectives of the 21st-century skill standards. These standards encourage teachers to utilize the LMS with the same intentions they taught without it so they can continue to guide students in making connections between their existing knowledge and the unknown, foster students' hands-on problem-solving skills, scaffold new concepts and skills to advance understanding while identifying students at academic risk (Sáiz-Manzanares et al., 2021).

LMS can be a central hub for all class materials and means of communication. Alshorman and Bawaneh (2018) describe one of the benefits of LMS is that it "provides the opportunity to activate the strategy of the inverted classes by turning the roles of the parties in the educational process by making the role of students the center of the teaching and learning process" (p. 12). The advantages of incorporating an LMS also include its timeliness in

connecting students to teachers in dialogue and feedback on work. Moreover, the platform can encourage students to be self-regulated learners through teachers' scaffolding materials and content. Within the shared content, students can be exposed to multimedia lessons and information as part of instruction, which can be more engaging to the variety of learning styles. The findings of Tseng (2020) prove that with an organized center of information that includes engaging content and material that is made by knowledgeable teachers, students and teachers will witness improvements in academic achievement.

Blended Learning Environment

Traditional, face-to-face instruction has passed the test of time and remains the primary means of instruction for high school students, but the instruction ends when the dismissal bell rings. Remote learning has its advantages, but it comes with limitations because the interactions between instructors, students, and learning resources are essential as well. Online class enrollment may have increased over the years, but the lack of personal interaction amongst peers as well as between student and instructor has a direct and negative influence on the motivation of the student as well as their learning outcomes (Araka et al., 2021; Kite et al., 2020). The result to compensate for the disadvantages of each is the blended learning environment, which is the combination of traditional learning and online learning (Berk et al., 2021; Rafiola et al., 2020; Utami, 2018). While blended instruction aims to better the educational experience and improve learner outcomes, it comes with its challenges and ambiguous meanings, and little professional development for educators, making it also concerning (Rafiola et al., 2020; Smith & Hill, 2018). This study defines blended learning as instructional content being delivered in the traditional, full time, face-to-face, as well as using the LMS daily to augment instruction outside of school hours.

An auspicious blended learning environment results in better learning outcomes by combining the curriculum, community, and technical features, but the success of the student depends on their cognitive engagement and motivation (Rafiola et al., 2020; Shi et al., 2021). Students have even voiced their preference for a blended environment over entirely online because they desire the social aspect and interactions that arise in a traditional environment and motivation they receive through continued engagement from their instructor (Dwivedi et al., 2019). The benefits to a blended learning environment include but are not limited to: easier access to content, flexibility of completing work in various fashions, self-pacing, fostering independent thinking and digital literacy, improvement of teaching styles and pedagogy, and developing important study skills (Adedoyin & Soykan, 2020; Rafiola et al., 2020). Traditional pedagogies can now be integrated to meet the needs of today's innovative thinkers through the blended learning environment which, through data of a survey in a quantitative study, displays favoritism to the flexibility, but the primary disadvantage is the peers' or teachers' lack of engagement (Bouilheres et al., 2020). Another quantitative study of 495 participants who completed an online survey displayed that student achievements improve in a blended learning environment, but not without the motivation to learn and self-efficacy as well as self-regulation (Araka et al., 2021); however, the active engagement fostered by the teacher helps to propel those areas which again highlights the importance of professional development for educators, so they utilize the LMS effectively.

Potentially, innovative teaching strategies augmented by LMS can transform instruction to a more student-centered approach and support traditional learning while refining students' gratification, all of which can positively influence students' motivation (Berk et al., 2021). The features allowing students to feel a part of the learning community and receive feedback

instantaneously improve students' engagement and their acceptance of the LMS. 168 undergraduate students participated in a correlational research study by completing the following Likert-scale surveys: the acceptance of learning management scale, student engagement scale, and a sense of community scale. The participants experienced a blended learning environment course with traditional, in-class instruction and access to the class's LMS for instructor-provided resources and collaborative tools. The findings of Berk et al.'s (2021) study showed a strong, positive relationship between LMS acceptance and the impact on students' engagement and sense of community, which is also linked to students' perception of achievement. Participants indicated that the ease of use and well-organized design of the LMS, in combination with the delivery of materials by the instructor, had a direct impact on the students' ease of use and perceived usefulness.

One of the concerns regarding blended learning is the balance of the two models, face-to-face and online. Teachers may be selective in the tools they use for instructional delivery but depending on several variables such as the class dynamic and instructor, students prefer lectures to be given face-to-face when receiving content of concepts (Dwivedi et al., 2019). Conflicting data and the unpredictable variables, make it difficult to establish a framework for successful blended learning and improving student outcomes, while also satisfying all stakeholders; therefore, suggestions for how to blend with success are needed (Araka et al., 2021; Utami, 2018).

Student Accountability and Study Skills with the LMS

Whether instruction is being delivered traditionally in person, online, or through a blended scenario; the goal is to ensure students are learning and achieving the goals and standards (Aldahwan & Alsaeed, 2020). Angiello (2010) found that when comparing students

who experienced only face-to-face instruction with students whose courses were all or segmented online, the hybrid or online students saw greater success in their class; however, the hybrid students who experienced a class that offered an experience of both performed best. Generation Z (1997-2012) and Generation Alpha (2013-2025) consist of habitual users of technology as they do not know a world without it, which works to their advantage as the student perception of their learning experience in a blended environment is similar among students who have experience with LMS and blended instruction and those who are new to the blended learning model (Bouilheres et al., 2020). A benefit to students today would be that the LMS can potentially offer them information being delivered through multimedia techniques in a way that is not restricted to their time in the class or the school building because their educational setting now becomes wherever they are accessing the class's LMS (Dwivedi et al., 2019). Students can access their class materials, assignments, and even their teachers at any time of day; these attributes of the LMS promote usage by students (Gunesekera, 2020). In summation, the LMS allows for the class to be available to students at all times; however, while the LMS availability improved to reach students just about anywhere, they have to be motivated to actually access and login. Learning goals require students' motivation, which is influenced by their curiosity, autonomy, abilities, understanding, and self-efficacy (Schumacher & Ifenthaler, 2018).

Flipping the Classroom with LMS

When used efficiently and to its potential, the LMS can also enhance the delivery of instruction. One of the benefits of teachers utilizing the LMS is the opportunity to flip the classroom instruction so that lectures, for example, can be viewed before the class, which can then be used for more challenging lessons or critical thinking activities that would require a teacher's guidance. This learning autonomy along with virtual collaboration is what students find

most satisfying when using the LMS (Gunesekera, 2020; Koh & Kan, 2021), and students learning outcomes improve while also keeping them more interested with interactive content (Chao et al., 2015; Dwivedi et al., 2019). A student survey indicated that students have a desire for their LMS features to reflect those they have grown accustom to in their social media apps: a chat-style communication feature as opposed to delayed responses like emails, they want to be able to access recorded lessons and lectures to review as needed, and students also claimed they wished for more collaborative features so they can see can learn from their peers and comment on their work (Koh & Kan, 2021). These points are similar to Gunesekera's (2020) meta-analysis results, which indicated that students are primarily concerned with the usability and features of the LMS.

The mixed-methods approach of Chao et al. (2015) interviewed college students and faculty from a flipped classroom learning environment as well as the control group (CG) in a traditional learning environment where students of the CG felt frustrated with their lessons and consequently became less interested in the material. Contrastingly, the flipped classroom instructor commented on the flexibility of class time as well as heightened enthusiasm perceived from the students as they were more engaged in the lessons taking place in the classroom. Furthermore, the students of the flipped classroom commented that they enjoyed the material they covered independently as they felt it was purposeful homework to be more prepared for class whereas the students who learned the material in-person felt there was little time to even ask questions by the end of the lesson.

Additionally, inverting instruction can enhance essential skills, especially for reading and writing, which are necessary across the curriculum. The flipped instruction design also provides time for the class to divulge into discussion and learning, as well as connect with peers (Chao et

al., 2015). Analyzing, evaluating, and synthesizing information are part of the 21st-century skill standards and students must be able to do this with multimedia sources. These skills take practice and guidance, especially at the early stages; therefore, if students can read or view the material ahead of time, students can hone those skills in the classroom under their instructor's guidance as it is critical to provide both, cognitive and social engagement (Dwivedi et al., 2019).

Different learning levels and abilities need to be met with different learning strategies, which the blended learning model and flipped classroom approach offer. This success lies in the scaffolding of skills for learners' autonomy and diverse, engaging instructional materials. An action research study conducted by Florence and Kolski (2021), with participants in a senior high school English class, sought to understand the flipped classroom model perceived influence on writing quality, student engagement, and overall student perceptions. Pre- and post-intervention writing tasks, a student survey, open-ended responses, and observations led the researchers to the following conclusions: the flipped classroom approach can enhance writing instruction and improve writing proficiency (Florence & Kolski, 2021). Similarly, Cheng et al.'s (2019) meta-analysis on 55 publications supports the idea of a flipped classroom promoting a student-centered approach that positively affects student outcomes. However, the effect size is noted as small, and most literature studies college-level institutions; therefore, the researchers encourage educators to consider the subject area before investing too much in an overhaul to implement a flipped classroom approach. This study aims to address the perspectives of secondary humanities teachers and if their current use of the LMS led them to flipping their classroom strategies and overall, the advantages and disadvantages the LMS offers.

On the contrary, Cabi (2018) experimented with 59 undergraduate students who participated in a mixed-methods study to investigate whether a flipped classroom approach

supersedes traditional learning. One group of 28 students in the experimental group received instruction with a flipped classroom approach, and 31 in the control group received traditional instruction. Both groups learned information about the same topic over the course of four weeks. They then completed an achievement test of 22 multiple choice questions before participating in a focus group interview. Results of the multiple-choice test revealed no statistically significant difference between the groups; therefore, concluding that a flipped classroom approach to instruction does not yield an increase in student achievement. The focus group elaborated on these results with the common themes of self-efficacy and self-directed learning, determining success with a flipped classroom approach meanwhile benefiting from classroom interaction which has a positive influence on self-confidence and collaboration; however, students prefer learning from the guidance of their instructor. Cabı's (2018) results compare to those of Smallhorn (2017), who surveyed undergraduate students weekly and monitored their attendance and the learning analytics of the LMS as they experienced a flipped classroom approach. The participants' responses to a multiple-choice assessment before and after the flipped classroom approach also provided data for the study. Initially, with the flipped classroom approach, students stated in their weekly reflections that they struggled to find the time to work through the resources outside of class in order to be prepared for class; however, as time passed students' perceptions and attitudes toward the approach improved. Like Cabı (2018), the multiple-choice assessments revealed no significant difference in the flipped classroom approach as more beneficial than the traditional instruction regarding student achievement and outcomes. If research does not yield better outcomes than traditional instruction, this study aims to identify the advantages of the LMS and reveal other, non-quantitative related student outcomes and achievements.

Negative Shifts of Student Accountability

When implementing e-learning and Learning Management Systems, it is important for educators not to overwork with the system and remember that the students still need to be held accountable. Since the No Child Left Behind Act (NCLB), there has been a weight on teacher accountability, so some teachers may be compelled to do too much of the work even more so as they find the right balance between content and technology use. Now, as they progress through the educational system and encounter LMS, the teachers have the convenience of posting content-related materials, so they know they shared all the information. These practices of teachers being in the driver's seat while students take in the sights, take the responsibility off students, despite the main goal of a blended learning environment to be student-centered (Utami, 2018). The researcher found that the blended learning environment can potentially raise learning outcomes when executed correctly and in a way that augments students' learning, but teachers need to be technological literate as well and that successfully occurs with support and professional development from their district or institution. NCLB has enabled this shift because teachers feel the pressure of not allowing students to fail when expectations have increased beyond reach.

High school students should be responsible for not just noting their homework but note-taking in general. Teachers may find it convenient to post premade notes to the LMS for students to review (Kite et al., 2020); however, students with college aspirations may find their transition to long, collegiate lectures difficult because note-taking skills were not practiced as often in high school, which in turn may impact their performance in college courses (Morehead et al., 2014). The responsibility of notetaking must remain with the students for best retention results. When actively engaged in notetaking, the brain is using the encoding function, and when students

review their notes, they utilize the long-term storage function; an essential cognitive process (Morehead et al., 2014). Educators will find it important to note that students who take notes by hand instead of on an electronic device, retain more of the information that they were absorbing, and they were able to retrieve it later than those with the electronic device (Morehead et al., 2014). Note-taking is good practice for an individual's encoding process for storage and later retrieval of information absorbed.

To develop the 21st-century skills, students should be held accountable to their teachers' leading questions that are intended to help students improve in their mastery of content. Although teachers will ask the questions, the students are responsible for articulating their responses, which in turn improves their communication skills and involves them more with participation (Koh & Kan, 2021). Another feature that instructors noted as a benefit to LMS is the feedback they can provide on assessments, including writing assignments; however, the instructors are taking the time to leave detailed feedback, but students are logging on, checking the final grade of the assessment, and logging out while ignoring the detailed feedback that led to said grade (Winstone et al., 2021).

Teachers can provide their students with these technological tools, but they still need to use them with intent for themselves; the students who find themselves successful in online learning environments are the ones who took responsibility for their own learning because if they do not then they are less likely to utilize the online tools and resources provided by the LMS (Sahin & Yurdugül, 2022; Schumacher & Ifenthaler, 2018). One final element that has been added to some of the LMS features is the nudge notification, which students receive if the system finds them to have been inactive—not logging on—for an extended period of time. This nudge

has been said to improve the students' engagement and confidence so they would be more active on the LMS (Brown et al., 2020).

Students still need to be intrinsically and extrinsically motivated to interact with the LMS and self-regulation skills need to be enforced, so learning outcomes must be met through engaging lessons (Araka et al., 2021; Panigrahi et al., 2018). Students typically have a positive connection with LMS and are often gratified with courses that implement their use. Additionally, better academic performance was exhibited by those students who consistently logged into the LMS and utilized features beyond the traditional uses, such as the forums, questionnaire, and glossary, but the teacher also needs to hold an online presence (Dwivedi et al., 2019). These functions of the LMS augment the instruction by redefining it in ways that previously were inconceivable.

Utilizing an LMS may occur more frequently outside of class, so students need to be not only motivated enough to access the content on their own, but they also need to learn skills of focusing on a single task at a time because studies support that watching a required class video while scrolling on the phone results in fewer notes being taken and ultimately lower scores on assessments when compared to students who did not use their phones while watching the video (Thompson, 2017). While in class, cell phones can still become a problem as a distraction from completing a task, reading a passage, or paying attention to the class-related discussions or lectures happening; however, students admit to being aware of these distractions of social media and texting as well as its negative effects on mental health, concentration, and overall school performance (Thompson, 2017). However, high school students are laying the foundation of the study skills that will carry them through college, so learning to ignore distractions is critical and is now part of the 21st-century school students' lives. There is the added obstacle of adding a

new form of technology into the lives of teenagers. With so much of their lives being consumed by technology, especially in the form of social media, students will need to avoid distractions and learn that there is a time and place for multitasking, and they need to avoid the temptation of doing non-class related activities with their devices.

Research exists displaying how college students use the LMS, their attitudes towards it, and the effects it has on their learning (Alshorman & Bawaneh, 2018; Bouilheres et al., 2020; Kintu et al., 2017; Machajewski et al., 2019; Tiong-Thye & Yang, 2021), but little research exists on teenagers in high school who are still maturing and honing study skills (Gu & Guo, 2017; Stockless, 2018).

Students' Attitudes Regarding LMS

The research of college participants shows that students tend to favor the LMS when they have more experience using it over the course of their education (Alshorman & Bawaneh, 2018). The researchers concluded that students get more excited about their classes when instructors involve technology because learning becomes more convenient to their lifestyle. Similarly, an online survey of college students conducted by Bouilheres et al. (2020) encouraged educators to move away from traditional classroom learning and revealed a positive perception of learning in a blended learning environment that utilized an LMS. The findings displayed a positive perception due to the balance of peer engagement, content delivery through lectures and the LMS, and teacher accessibility. The lack of inquiry regarding the activities, materials, and tools utilized within the LMS limits the study.

LMS Effects on Student Learning

Kintu et al. (2017) explored the relationship between blended learning, the design of the LMS, and the learners and their outcomes, which include outcome, motivation, satisfaction, and

knowledge understanding. While few studies exist studying factors influencing successful outcomes in a blended learning environment, researchers noted lower levels of satisfaction with the LMS when instructors do not provide feedback in a timely fashion, when they experience technical difficulties, and when they encounter equivocal instructions; therefore, they concluded that self-regulation, the technology design, and social support impact student learning in a blended learning environment, but the variables are not significant predictors of outcomes (Kintu et al., 2017). Comparably, Ümmühan and Ergün (2019) found participation in an online course augment engagement positively influences student outcomes but extends their findings to preventing online learning difficulties. The researchers recommend promoting participation by scaffolding activities and assigning tasks to individuals as needed because struggling students can be identified early on and provided the supplemental instruction needed, which consequently can increase student outcomes. Utami (2018) similarly found a significant increase in student achievement in a blended learning environment when compared to traditional in-person learning for information and communication technology subjects.

Students' Needs as LMS Stakeholders

Contrasting the preconceived notions of LMS supporting teaching, planning, evaluations, and communications, the LMS is also expected to support learning autonomy (Sahin & Yurdugül, 2022; Schumacher & Ifenthaler, 2018). Sahin and Yurdugül (2022) point out three types of intervention essential for learners: instructional intervention, which highlights students' strengths and areas for growth, supportive intervention for encouragement to continue interacting with the LMS, and motivational intervention, which requires a student's own motivation to login and interact with the LMS to access their class materials and perform tasks as outlined by their teacher. They went on to complete a case study of the expectations and needs of learners

regarding all three of these types of motivations with participants of higher education undergraduate students. The study found that for instructional motivation, students want to see their strengths, weaknesses, and what they are missing, and they want notifications as reminders for daily assignments or homework. Additionally, for supportive intervention, they want to see their progress compared to their peers, achievement predictions for passing or failing, and overall final grade prediction. And finally, for motivational intervention, students desire motivation in the form of competition or a leaderboard, and they also would benefit from encouraging notifications to log on. The researchers concluded that the LMS features enabling notifications and competition can foster learner's autonomy. Furthermore, through interview responses, students revealed they require guidance as educational technology can be overwhelming (Nguyen & Bower, 2018). Extending these recommendations, Utami (2018) encourages educators to cultivate their own technological literacy and their district or institution bear at least some of the burden for their training. This study gives educators the opportunity to describe their experiences with the LMS, including their professional development training they received prior to using it and while working with it. Their responses will indicate whether they believe they received enough training with it or if they learn from their own experiences with it and how that may play a role in how it is being used and if they are close to using it as intended.

Impact on Teachers' Roles and Accountability

In order for the incorporation of the LMS in school to be successful, teachers need to be accepting and supportive of it because they need to be the most knowledgeable with it (Alserhan & Yahaya, 2021). Teachers indicate that they are more inclined to utilize technology in the classroom if it fits accordingly with the lesson. While the blended learning environment and multimedia resources enhance the educational experience, it is important to note that they need

to be properly utilized. Information or knowledge cannot just be made available without a focus on the learning activities it can augment (Chauhan, 2017). For teachers to be more willing to accept an LMS into their traditional classroom, thus transforming their instruction to a blended style, they must have self-efficacy, believe their performance, as well as their students' performance, will improve, understand a seamless fit into their instruction and style, see the advantages it can present, and be motivated to do so (Panigrahi et al., 2018).

Another point teachers must consider is that they still need to know their students well. Educators need to be knowledgeable about the information and knowledge students have, so they can continue to build upon that information and extend that knowledge (Fletcher, 2004). Educators should know their students, know what their students know, and know the content and delivery platforms as well, which in a technology-driven world can be a tall feat; however, in both online and offline teaching, the role of teachers should fundamentally be the same and that is to deliver instruction for all learning styles (Aldahwan & Alsaeed, 2020; Ramìrez-Correa et al., 2017).

Teachers' Attitudes Toward the LMS

The attitudes of teachers toward the LMS are not influenced by the years of experience because it is still a modern technology that the educational field is adapting to (Alshorman & Bawaneh, 2018); therefore, professional development is needed for training with specific programs as well as mediums specific to teachers' disciplines. Although Dwivedi et al. (2019) noted better performance by students who received instruction face-to-face and online, the primary factor was educators' knowledge and comfort level with providing online instruction and utilizing the LMS.

A qualitative study conducted by Yousaf et al. (2021) assessed 18 teachers' perceptions of their LMS use and revealed the following four categories: advantages, which included the LMS being more proficient in managing and storing class data, as well as accessibility benefits for students; disadvantages due to its initially increasing teacher workload, relying on the internet, as well as not being flexible or user friendly; problems faced by teachers, which included complaints of not being able to change data, internet problems, limited access for teachers, and lack of support and training; and features of the LMS being used, which showed that despite many features being available for teachers to use, they use very few available. Englund et al. (2017) notes a direct relation between success and the instructor competency with the educational technology being utilized during instruction. The research of Englund et al. (2017) showed that experienced teachers who had a teacher-centered approach changed either not at all or slightly toward a student-centered approach when they implemented educational technology. Some of the participants noted either a lack of professional development or force of habit for how they always executed a lesson. On the contrary, the more novice teachers in the study embraced the instructional technology more readily and their teaching became more student-centered quicker during these initial years of forming their pedagogical philosophy. The participants' students also completed a survey that indicated students' higher satisfaction when the technology was used in combination with a student-centered approach. When solely used for the presentation of information, students were reportedly less satisfied in comparison to students who experienced the learning-focused environment; when the technology allowed them to display their knowledge and therefore enhanced learning outcomes. The insinuations of this study call for the opportunities to review instructional designs of online courses, and for

educators to motivate and encourage students while cultivating students' time management strategies.

Preparing to Use the LMS Effectively

The role of the teacher will shift as the students' participation with the LMS will need to increase as a more personalized learning experience is created (Nguyen & Bower, 2018). Teachers will find that finding and preparing content to be posted on the LMS will take a great deal of effort and time, but then the role primarily shifts to the students and their efforts with those assignments, which can be increased with appealing and organized material (Alshorman & Bawaneh, 2018). Luckily, this process gets easier as most LMS can seamlessly transfer content from one class, semester, or year, to the next. Once teachers acclimate to this process, they will need to focus their attention on abetting their students' attention. As stated earlier, unlike prior generations, these students are accustomed to constant scanning of information; therefore, teachers need to ensure the study skills are being promoted in school and within their specific subject area classes, model strategies for studying efficiently and successfully (Thompson, 2017). The skills teachers can provide students with effective strategies to focus and work purposefully on a task, will not only help the student during their educational career but also in their professional career (Thompson, 2017).

The process and planning for such lessons are an adjustment for teachers, so professional development is critical (Hedtrich & Graulich, 2018). When a teacher leader or administrator is designated to support the staff with professional development opportunities, especially with asynchronous pedagogy, the e-learning experience is improved. Training, beyond just operational how-to's and tips, needs to be provided to the faculty and staff so that the LMS can provide a learner-centered educational experience (Chow et al., 2018) and to ensure the LMS is

being used effectively by teachers and not just a simplistic, traditional basis that can actually harm the students' educational experience (Green & Chewning, 2020). Machajewski et al. (2019) studied the patterns of faculty using LMS and found that the primary tools utilized by post-secondary faculty members included grade postings, announcements for course progress information, and a portal to accept students' assignments. Overall, professional development is essential to also understand the LMS and the school's culture, which builds the conceptual framework for the LMS's place to guide effective instruction (Kearsley, 1998; Mishra et al., 2009).

Another aspect that teachers must consider is the role they play in fostering an environment where children can become contributing members of society. Teachers bear the burden of teaching not only their subject area, but also interpersonal and study skills such as communication, collaboration, time management, stress coping mechanisms (Brown et al., 2020). If teachers fail to research, learn, and plan for how they will effectively use LMS for their delivery of curriculum and the aforementioned skill sets, it is a disservice to the student. Teachers creating experiences and opportunities for students that extend beyond the subject area content and include leadership and responsibility will benefit the students in the classroom and beyond. Similarly, if a high school teacher gives a lecture, but then provides all of those notes from the lecture on the LMS because they think it displays an efficient use of the system, the students are not active members in the lesson or held accountable or responsible for the learning experience. When teaching students about responsibility, the role they play should experience consequences when they do not meet expectations. If they do not take notes, then they cannot study for the assessment. If they do not engage in dialogue on the LMS discussion board then they do not benefit from the insight of others. Teachers need to hold their students to standards

and responsibility in class and online because success is enhanced when they support the behavior of student-centered learning (Dwivedi et al., 2019).

TPACK

The assimilation of technological, pedagogical, and content knowledge (TPACK) reveals an educator's dynamic approach to teaching in a 21st century primary or secondary classroom (Harris et al., 2017; Uerz et al., 2018; Yeh et al., 2021). When designing a visual for TPACK (Figure 1), it became vital to create and reflect as designers originally struggled to find an accurate illustration as they started with triangular figures, but eventually it evolved toward circles in a Venn diagram depiction (Warr et al., 2020).

Figure 1

Canonical Image of Technological Content Knowledge (TPACK)

The Venn diagram allows for each area of knowledge to stand alone, but then overlap in a way where TPACK exists in the center to display the area of all knowledge working together. Additionally, the influences of an educator's TPACK include students' outcomes, content,

pedagogical perceptions, technology accessibility and perception, student characteristics (Nguyen & Bower, 2018).

Researchers, Nguyen and Bower (2018), found through studying three different groups working collaboratively that a common approach for designing instruction begins with the content with consideration to students' abilities and desired outcomes while leaving aesthetic design to the end; however, the educators rarely, if at all, discussed their pedagogical beliefs. Furthermore, the study revealed that collaboration both positively and negatively influenced the process, especially that between mentors and novice teachers, depending on the amount of time, guidance, and communication provided. Extending these ideas, Uerz et al. (2018) examined an overlooked topic for research: the competency of mentors in the form of teacher educators who now also face the task of preparing their students with technological literacy. Their study of literature revealed four domains of competence for both the teacher educator and prospective teacher: competency with technology, competency in pedagogical and educational technology, pedagogical beliefs, and finally innovational and professional learning competencies.

Researchers concluded that collaboration augments these competencies on an innovative and professional level. This study aims to explore the decision-making process of educators when developing their systems of LMS use for their classes.

The Impact of COVID-19 on Education and Educational Technology

The COVID-19 pandemic shook society, causing sudden closures worldwide, and education had to adapt rapidly to continue the education for 1.2 billion students (Tomasik et al., 2020). Individuals were impacted and forced to adjust personally and professionally; for teachers, that meant modifying lessons and pedagogical delivery almost overnight (Carrillo & Flores, 2020; la Velle et al., 2020). Some teachers may have delivered synchronous online

instruction, while most utilized features and apps such as PowerPoint over which the teacher narrated, online videos, and educational websites (Kim & Asbury, 2020).

The LMS features and internet accessibility influences a teacher's self-efficacy with the LMS and teaching remotely (Cardullo et al., 2021). The research showed that elementary and high school teachers' self-efficacy with remote teaching is directly related to the system they use, how comfortable they are with using it, and their educational environment.

Even two years since the outbreak, the increase in online student enrollment continues; however, there is a limited understanding regarding how students' transition and engagement are impacted by online pedagogy (Brown et al., 2020). The pandemic shone a spotlight on education and revealed flaws and potential while causing educators to focus on the content that was most important, knowing they could not do it all with such little time to prepare for an experience under these conditions (la Velle et al., 2020). It created an opportunity for institutions and instructors to capitalize on a chance to modify the traditional education system, which is critical for advancement (Adedoyin & Soykan, 2020).

Challenges

While educational technology can make education convenient, some challenges impact all stakeholders whether the use is in a blended or remote fashion: the technology itself, socioeconomics, unforeseeable distractions at home, and the varying degrees of digital competency of teachers and students (Adedoyin & Soykan, 2020). Despite the challenges mentioned, teachers were tasked with maintaining the level of engagement that mirrored the expectations before the pandemic (Pressley, 2021b).

Dinbar et al.'s (2021) study of 196 K-12 teachers shows that inexperienced teachers' self-efficacy and satisfaction with the LMS quickly equated to experienced teachers during remote

learning caused by the pandemic. When schools were forced to transition suddenly to remote education, only a few viable options existed, which included the LMS. Dinbar et al. (2021) found that the design system of the LMS was not an issue for experienced or inexperienced teachers, but the researchers note that this may be because there was no other option but to learn and adapt. Similarly, Pressley (2021b) found little connection between teacher experience and self-efficacy while teaching during the pandemic and notes that it could be a reflection that all teachers, no matter their background, had to transition quickly. Both Dinbar et al. (2021) and Pressley (2021b) found that the inexperienced teachers indicated in their responses that they received less support, despite studies highlighting the importance of professional development and support when integrating educational technology. Pressley's (2021b) 329 elementary school teacher participants completed a survey that measured self-efficacy between teachers of all virtual instruction, hybrid teaching, and in-person instruction and found that to be the order of self-efficacy levels from lowest to highest; therefore, further noting that all virtual teachers' lack of experience and support may be the reason for their doubts with online teaching. While Dinbar et al. (2021) recommend changes to be made by the LMS system for more simplistic, user-friendly features to complete essential tasks in short amounts of time, Pressley (2021b), Kim and Asbury (2020), and Kim et al. (2021) indicate a need for administrative support and encouragement for their teachers as well as collaborative, professional development among teachers. Where teachers go from here after the COVID-19 dust settles in regard to incorporating the LMS and finding an efficient balance to transition students back to the blended environment will be unnavigated territory; support will be critical.

Another challenge spotlighted by COVID-19 includes teacher emotional stress (Kim & Asbury, 2020; Kim et al., 2021; Pressley, 2021b), an area studied very little compared to the

impact on students. Adapting to some form of online teaching for that initial unknown amount of time when the pandemic began, followed by students' different levels of online accessibility and engagement, became a primary stressor for teachers. Teachers understood the inequity of online accessibility as well as home support for their students, so teachers also suffered from that loss of control (Cardullo et al., 2021). Teacher narratives also revealed teachers felt a loss in their teacher identity and their core values when they transitioned to remote instruction (Kim & Asbury, 2020). Madigan and Kim (2021) elaborated on this problem that a teacher's identity, which includes the skills and experience they bring to their class and the environment they create for their students, positively impacts and influences students' achievement and welfare; therefore, teacher burnout may have a negative influence.

Chronic stress in the work environment leads to burnout and includes indicators of a decrease in self-efficacy, a skeptical and irritable attitude, and exhaustion; all of which impact how a teacher treats their class and individual students and lead to an increase in disruptive behavior exhibited by students (Madigan & Kim, 2021). Madigan and Kim (2021) describe teacher behavior as a contagion impacting students and they found from longitudinal data that teacher burnout projects self-efficacy, but not vice versa and they observed that student outcomes have tendencies to reciprocate teacher attitude. They theorize that these relationships may exist due to burnout impacting teachers' motivation to prepare for their classes as well as teachers' classroom management, which leads to loss of control and troublesome behavior exhibited by students. The lines of work and home life became blurred for teachers, and a survey indicated that 31% of teachers increased their workload and reported working 51 hours per week (Education Support, 2020) which indicates problems leading to teacher burnout (Kim & Asbury, 2020; Kim et al., 2021). When teachers transitioned back into the classroom, which for many

was in hybrid form, teachers' responsibilities now included classroom instruction, online instruction, and additional classroom environment cleaning as per government and district guidelines (Kim et al., 2021; Pressley, 2021a). The emotional stress of personal life and work through a pandemic, in combination with a regular workload and now additional responsibilities, led to teachers feeling exhausted and showing signs of burnout.

Madigan and Kim (2021) reviewed research and produced key findings that teacher burnout creates not only negative consequences for the teacher but also for their students' academic achievement. Teachers experiencing burnout feel less motivated to prepare engaging, efficient lessons, which affects teacher-student relationships, student motivations, and—in turn—academic achievement. Again, research suggests that burnout can be avoided with changes made by organizations or an administration to prevent burnout and support teachers by listening to their concerns (Madigan & Kim, 2021; Pressley, 2021a). Pressley's (2021a) quantitative data results from surveying 359 teachers from across the United States also point out the need for the administration to support teachers in their communication with guardians as the teachers are typically the ones who feel the brunt of criticism about education and support teachers by providing reasonable instructional expectations.

Opportunities

While online learning dates back to the 1980s, emergency remote teaching was vastly different. The challenges were the same, although more significant in severity and impact; however, the opportunities may also be more powerful. Educators now have the grave task of addressing the prediction of achievement gaps. 221 education researchers responded to a survey by Bailey et al. (2021) which led to the prediction that achievement gaps between low-income and higher-income families will increase due to the impact of COVID-19. The implications of

these findings display a need for investments toward additional resources to address the needs of students beyond the initial post-COVID school year.

Teachers interviewed by Kim and Asbury (2020) revealed that the online instruction environment provided an opportunity for students who usually flew under the radar in a classroom to shine. These students enjoyed interacting online more than in a classroom and therefore were more engaged. Some even asked teachers for more work, and the teachers of these students noted wanting to change their approach with them once classroom instruction resumed. While some students shined, teachers appreciated the work autonomy that came about with working from home with online instruction (Kim et al., 2021).

Now that the stages of lockdown are over and students and teachers have returned to the classroom, there is a need to understand how educational technology is perceived by teachers and how they influence the approach to teaching. There seems to be a disconnect between the exciting hype of using these technologies and the lackluster implementation of them by teachers (Englund et al., 2017). Mutton (2020) similarly notes that educators want to capitalize on the opportunity to reconceptualize pedagogies by adopting more modern approaches as part of the "new normal" educational world. Adedoyin and Soykan (2020) outlined topics for researchers that can potentially advance the pedagogical experience: models and frameworks for up-to-date changes in online learning, an understanding of the process of digital transformation within an institution, the design of a user-friendly and personalized learning model, a structure of an online learning model to lessen teacher workload, and an overhaul and redesign of the learning process.

While some teachers agree that the early stages of school closures made it difficult for remote teaching and figuring out how to keep students engaged, once the initial panic subsided, some teachers noted that reforming their approach and finding a way that worked for them and

their students led to teachers feeling more like teachers again as their administrative responsibilities were no longer the priority, they also felt relieved and accomplished, with an increased feeling of self-efficacy to indulge more in a technologically oriented classroom (Kim & Asbury, 2020). Teachers look forward to capitalizing on the benefits they witnessed with online learning such as: students working at their own pace, differentiated learning, flexible learning, encouraging students' self-motivation and self-discipline, fostering student accountability, and providing a more personalized learning environment (Cardullo et al., 2021) mentioned, teachers yearned for more administrative support in these trying times. However, they also noted an increase in collaboration with other teachers and finding emotional support from their colleagues, even by venting to one another. Still, an essential teacher resource can be found in teacher camaraderie (Kim & Asbury, 2020).

On the contrary, teachers' self-efficacy increased, yet the concern continues for learner engagement, efficient feedback for learners, equity among students, and online learning accessibility (Heo et al., 2021). While self-efficacy with technology has a positive relationship with self-efficacy in an online learning environment, Heo et al. (2021) showed that it had a negative impact on learning engagement. Speculated reasons for this include online distractors such as games or apps or the fact the class was not intended to be taught online and therefore was not engaging to the students. Now that schools recommenced in traditional settings, it will be worthwhile to explore if educators rely on the LMS more, less, or the same and why.

Summary

While higher education has been utilizing Learning Management Systems for decades, it is still a newer technology for the high school faculty and students, and currently, it is not being used to its fullest potential in the blended learning environment (Alshorman & Bawaneh, 2018;

Englund et al., 2017; Green & Chewning, 2020; Hedtrich & Graulich, 2018). Angiello (2010) found that there were slight differences in learning outcomes between students who received instruction solely online and those that received instruction entirely face-to-face, but spotlighted the need for studies for grade levels before college; fast forward eight years later, Utami (2018) defines blended learning and highlights its benefits, but once again claims more studies are needed to benefit the educators attempting to implement the blended learning style, and current researchers encourage studying LMS features and perceived usefulness because research, thus far, does not address these questions (Araka. 2021; Englund et al., 2017). This literature review explained the purpose and features of the LMS, explored the qualities of an effective LMS, discussed the blended learning environment, delved into student accountability and study skills with the LMS, considered the use of LMS for flipping the classroom, reviewed students' and teachers' attitudes toward the LMS, considered the effects the LMS has on student learning, examined the impact of LMS on teachers' roles and accountability, highlighted the TPACK approach, and discussed COVID-19's impact on educational technology. With the transformational teaching theory (Slavich & Zimbardo, 2012) and social cognitive theory (Bandura, 1977) as the framework, this phenomenological study will explore how teachers use the LMS, and the researcher will describe the perceived usefulness of it within the blended learning environment.

CHAPTER THREE: METHODS

Overview

The purpose of this phenomenological study was to describe the experiences with a Learning Management System (LMS) for teachers within a blended learning environment in a rural, central New Jersey high school with the pseudonym of Big Wave High School. At this stage in the research, the experiences with an LMS in a blended learning environment includes daily use during and/or outside of instructional class time and will be generally defined as utilizing an LMS.

A comprehensive research design explains how this phenomenological study was conducted with social constructivist underpinnings. The research design reflects the attempt using Colaizzi's (1978) seven steps of phenomenological research (Morrow et al., 2015) to explain the lived experiences of teachers using the LMS in a blended learning environment by answering one central question and four related sub-questions. The setting is described with an explanation for the participants' pool and sample. The interpretive framework and philosophical assumptions provide insight into me as a researcher and the role I played in the research. The data collection plan included individual interviews, designer privileges to view participants' LMS, and a focus group. All methods of data collection were conducted while meeting trustworthiness and ethical considerations requirements.

Research Design

Studies regarding behavioral sciences allow the researcher to explore and make sense of a phenomenon through exploration and interpretation; therefore, I have chosen to pursue a qualitative methodology. A qualitative approach is the best option for a thorough understanding of the lived experience (Creswell & Creswell, 2018; Creswell & Poth, 2018). When choosing

between a quantitative approach, a qualitative approach, or a mixed methods approach, I felt compelled to pursue the qualitative approach because of its popularity for studies related to educational research but also because a phenomenological study attempts to explain the lived experience beyond the surface level of a particular phenomenon (van Manen, 2017c). The focus is on conscious occurrences to study in a meaningful way of reflection for interpretations (van Manen, 2017a). The data collection involved in a qualitative study calls for an open-ended approach, which works best for the research questions of this study. Although I have experience with utilizing the LMS in a blended learning environment, the biases held will be set aside to be open to the truth of what it has to offer others and to make connections of common themes displayed on a deeper level, which is the epoché and reduction process of transcendental phenomenology (van Manen, 2017b). Finally, the goal was to find the object's essential structure (Giorgi & Giorgi, 2003).

Quantitative research methods refer to variables of an organization that can be measured for studying in a close-ended collection. The study views those variables to form hypotheses at the beginning of the research and discusses the variables' relationships by the end of the study. The formed theories then can guide the formation of "if-then" statements and visuals to translate the findings. The data collection for this methodology can either be a survey design, which answers descriptive questions, questions regarding the relationship between variables and predictive relationships over time; or the design of an experiment, which controls the variables and compares the results between a treated and a non-treated group (Creswell & Creswell, 2018). Furthermore, a mixed-methods approach involves both the open-ended data of a qualitative study and a quantitative study's close-ended data collection. Due to the nature of the research questions and the phenomenon under consideration, neither the quantitative nor mixed-methods approach

was appropriate. Once I decided the qualitative design would best fit the purpose of this study, I then considered all five approaches. Still, I found that the case study or phenomenological approach would best suit the needs. Both typically utilize interviews and observations, but the deciding factor came about with the unit of analysis: while a case study studies an event, program, or activity, phenomenology highlights the shared experience of several individuals (Creswell & Poth, 2018).

Research Questions

The research questions call for a better understanding of the LMS and how individuals interact with it; therefore, allowing those individuals to describe their experiences with it and then analyzing the responses and data for significant connections and descriptions has a better chance of bringing about meaningful themes to describe the essence of the phenomenon. Colaizzi's (1978) seven steps of a phenomenological research method have been successful (Morrow et al., 2015) and applied to exploring the following research questions. Researchers of transcendental phenomenology aim to understand the human experience with the researchers' knowledge and biases acknowledged and set aside (Sheehan, 2014). Being open-minded and prepared to see the LMS through the fresh perspectives of others' experiences will enhance the process of extracting statements, formulating meanings, and finding themes. Although the transcendental approach defines meaning through the abstract, Colaizzi's process also includes confirmation from participants. Colaizzi's seven steps (see Figure 2) method fosters a thorough review and analysis of the data collected before concluding with the essential structure of the phenomenon. Participants had the opportunity to confirm whether I captured their experience accurately. Using this framework allowed me to ascertain the significant and accurate themes of teaching with the LMS in a blended classroom.

Figure 2
Colaizzi's Phenomenological Descriptive Method

Note. The figure demonstrates the cyclical approach of Colaizzi's phenomenological seven step method (Sánchez-Garcés et al., 2021).

Central Research Question

What are the lived experiences of high school teachers as they utilize LMS to facilitate and support learning in a blended learning environment?

Sub-Question One

How do high school teachers utilize the LMS to promote learning outcomes?

Sub-Question Two

What are the advantages and disadvantages of incorporating an LMS for a blended learning environment??

Sub-Question Three

What is taken into consideration during a teachers' decision-making process for how to implement the LMS into their classes?

Sub-Question Four

What is the perceived influence of the LMS over teaching and learning?

Setting and Participants

Setting

Big Wave High School (pseudonym) comprises one superintendent responsible for the high school and one combined elementary and middle school for kindergarten through eighth grades. The high school includes 75 teachers, just under 1,000 students from their elementary school, and seven other public elementary schools from the small neighboring towns. The student population is 85.6% white (non-Hispanic), 6.06% White (Hispanic), 4.9% Asian, and 0.567% Black or African American (Hidalgo et al., 2014). 14% of the district is considered part of a minority, and 13% are economically disadvantaged (U.S. News & World Report L.P., 2020). Under the superintendent, the high school has one principal, two vice principals, departmental supervisors, and a district director of curriculum and instruction. The departmental supervisors oversee teachers organized by departments without department chairs. The district also retains a technology office to assist with the 1:1 program and technological needs. Their office also includes a technology coach, a former teacher, who specifically assists with the LMS, Canvas.

The district's high school introduced the 1:1 initiative in 2012. A few years later, in 2016, the district further advanced its technological endeavors by adopting the Learning Management System, Canvas. The school has implemented the LMS in a blended learning environment for

seven years, making them qualified participants to provide details of their experiences utilizing the LMS daily but in a traditional classroom setting.

Participants

Participants included a minimum of 10 teachers, but no more than 15; therefore, following Polkinghorne's (1989) recommendation as a number of individuals experiencing the phenomenon to provide sufficient data. In the end, the study included 14 participants. Eight of the participants teach English Language Arts, and the other six teach History. Six of the eight participants who teach English are female, and two are male. Only one of the participants who teach History is female, and the other five are male. All participants have a minimum of five years' teaching experience (at least three in the district) and three years' experience with the LMS. The teachers at this high school often teach multiple grade levels, even in one class; therefore, a particular grade level was not a criterion for this study.

Recruitment Plan

This phenomenological study used a convenient, purposive sample pool of 21 teachers (10 men and 11 women) within the humanities department. As they are colleagues of mine, the sample is convenient, but they met the criteria for purpose. I emailed all members of the sample inquiring how many years they have worked in the district, as well as their years of teaching experience and Canvas experience. Following those responses, I sent an email (Appendix D) to each teacher who meets the following inclusion criteria: (a) a member of the humanities department, (b) at least five years of teaching experience, (c) at least three years' experience of working with an LMS in a blended learning environment, and (d) a member of the district for at least three years. The email's invitation to participate provided an overview of the study's purpose and goals, an explanation for why they would be a suitable participant, and the Consent

Form (Appendix E), which participants signed and returned to me via email or to my school mail cubby. Once I received the consent, I reached out immediately to set up appointments for their interview. The target sample size included between 10 and 15 participants. The convenience sample allowed me to have access as an observer to each participant's LMS site. The researcher sought to explore the lived experience with the LMS beyond the learning stages and how it works. The established inclusion criteria allowed for thorough responses of lived experiences of working with the LMS because of their experience with it in both pre-pandemic times, during the pandemic, and on the journey to post-pandemic instruction.

Researcher's Positionality

Shortly after my student teaching assignment ended in January of 2009, I put in an application for a long-term substitute position at Big Wave High School. That position resulted in a full time English teacher position that I held at the time this study was completed. Since starting in 2009, I experienced numerous changes in curriculum, standards, testing, and technology. I found technology to be an integral part of my teaching and seamlessly modified my style when the district adopted the 1:1 program in 2012 and excitedly accepted the offer to teach a class that piloted the LMS, Canvas, in 2016. Today, six years since the district introduced Canvas, I still find myself as a point person for my department when they have Canvas questions. While I embraced and encouraged technology use since the start of my career, I would be remiss to not also admit I witnessed a shift in culture since Canvas. Exploring the use of Canvas by other teachers can hopefully lead to a better understanding of its place in a blended classroom for better student outcomes and efficiency for teachers.

Interpretive Framework

Considering each teaching style is as unique as the individual in the role, the ways

teachers incorporate resources will vary, especially in a blended learning environment. Students learn through interactions, especially with their friends, classmates, and teachers; however, the situations and environments will also influence their learning (Cobb & Bowers, 1999), which is the emphasis of constructivism. The philosophers before the 21st-century classroom could not have foreseen that the environment students could interact and learn from would also include the online, technology-driven environment. The social constructivist lens (Creswell & Creswell, 2018; Creswell & Poth, 2018) facilitates an understanding of how individuals interact with the LMS to impart knowledge.

Philosophical Assumptions

The social constructivist theory that guided this phenomenological study is rooted in the theories of Piaget and Vygotsky (Schunk, 2020). Piaget's (1970) theory of cognitive development was developed long before the internet and Learning Management Systems, but all students were in mind with the development of the LMS; therefore, studying its application to all developmental levels congruently is essential. Additionally, exploring the use of an LMS's social tools and their perceived influence on students highlights Vygotsky's (1962) emphasis on social activity being a necessary influence on human development. Educators initially build lesson plans with age-appropriate standards and learning outcomes in mind; therefore, incorporating the LMS also needs to be done with age and abilities in mind. My philosophical assumptions of ontological, epistemological, and axiological follow in detailed explanations.

Ontological Assumption

My ontological assumption is that there is one God. Each individual may experience a different relationship and a different path to God, but everything in our reality and beyond revolves around Him. Living by the Gold Rule and the commandments and trusting the faith we

put in God allows Him to live through us (New International Version, 2011, John 14:15-21,). Not all questions are simply black and white, but just as the sky takes on different colors through the various points of the day and no sky duplicates the same way, He created each day; everyone just experiences it differently. As a researcher, I will be open minded to the varying perspectives each participant brings to the topic from their personal experiences. I will listen, document, and ascertain conclusions without judgment or bias, but rather with respect of the personal experience and journey.

Epistemological Assumption

A combination of social constructivist and pragmatic epistemological assumptions is acknowledged. Numerous variables influence reality, experience, and perspectives; objective and subjective evidence essentially reveals the truth. In this study, the participants' narratives guide a subjective experience while the observance of the LMS itself will offer more objective evidence; however, in the end, the overall experience is of the utmost importance aligning with the phenomenological approach (Creswell & Poth, 2018).

Axiological Assumption

A phenomenological study involves the researcher's understanding and familiarization with a phenomenon, which may also create bias and judgment for the said phenomenon; this case is no different (Morrow et al., 2015). As a teacher who has embraced technology from the start and thrives on the challenges it brings for ways to utilize it to enhance instruction and learning outcomes, I acknowledge my bias. I incorporate technology daily and use the LMS; however, I do not believe it is perfect. I have witnessed a substantial shift in teachers' responsibilities and students' accountability throughout my career, which has paralleled the times of technology becoming a more significant influence in the classroom. These biases are acknowledged and

inspired the study but will be bracketed to focus solely on the experience of the participants.

Researcher's Role

I earned my M.A.T. in 2009 and have taught 9th grade English Language Arts at Big Wave High School since 2009. I have been there through the school's transition to the 1:1 program, as well as a member of the piloting committee for launching the district's Learning Management System, Canvas. Although this topic was an area of interest to study in 2018, I have become even more intrigued and almost 100% reliance on the LMS since the pandemic of COVID-19; however, I do not believe being entirely dependent upon it has been the most successful for learning outcomes and student growth. As a high school English teacher who has been utilizing Canvas since 2016, this topic is of great interest to me. I am familiar with the system; I understand how it works; I know reference tools and LMS terminology in responses; and I can empathize with their feelings and attitudes toward the LMS. While the LMS has closed the gap between students and teachers outside of school hours, students rely on it to receive notes, be reminded of pending assignments, and encompass all materials they may need or want. These experiences and observations influenced the individual interview questions, focus group meeting's questions, and in retrospect, the study; therefore, I embrace the role of a human instrument to now explore the LMS experience of others.

The study's sample consists of departmental colleagues of the English department and colleagues from the history department, all of whom I have no position of authority over in any way, and each has its own approach and learning style. While some colleagues I see daily, others I rarely see during the school week. As the researcher, I will conduct interviews and the focus group in a formal setting while requesting approval to observe each Canvas course the participants manage for their classes. This observation will be strictly for research purposes and

identify commonalities and themes amongst the participants to further advance the focus group and overall observations.

Procedures

The first step before conducting any data collection includes completing and submitting the plan to IRB for approval. Upon approval, I reached out to the superintendent and principal of Big Wave High School, both of whom were aware of my status as a doctoral candidate, and I hand-delivered them my request letter. Once the superintendent returned the signed permission form, I enacted my recruitment plan and then started collecting data. I followed the outlined data analysis plans for each data collection approach and synthesized the data.

Data Collection Plan

This phenomenological study utilized three data collection strategies: interviews, designer privileges, and a focus group. It began with individual interviews, which formed an initial creation of theme clusters to be analyzed. In between the individual interviews and focus group, I referred to the fieldnotes and images I captured with designer privileges of their Canvas courses to look for connections, outliers, and significant discoveries in relation to the theme clusters. Observing these images in between provided a visualization of how the participants structured their individual classes, homepage, modules, and other features they utilize, which guided my understanding of the points they may have referenced in their responses during their individual interviews but also helped in preparing for the focus group as I already saw commonalities and differences to the participants' approach in utilizing the LMS. Concluding with a focus group provided an opportunity to compare and contrast the way participants utilize their LMS in conjunction with those who were interviewed and also created opportunities for participants to elaborate on what is observable in their LMS classes.

Individual Interviews (Data Collection Approach #1)

Qualitative research interviews are conversations that require the interviewer to thoughtfully plan and prepare with copious knowledge about the topic and open-ended, purposeful questions to ask and are then executed adequately with intent listening and note taking (Qu & Dumay, 2011). Interviews were an appropriate data collection strategy for this phenomenological study because it provided information and facts and allowed the researcher to elicit descriptions, emotions, and experiences (Rossetto, 2014) regarding their LMS use.

Of the 14 participants, 10 were interviewed and the others were used for data collection approaches #2 and #3. Each participant's interview occurred one on one in their respective classrooms either before or after school, whichever was convenient for them. Interviews were scheduled in advance and formatted as semi-structured interviews that included the questions outlined below but allowed for emerging questions depending on the dialogue as it unfolded. Each interview lasts approximately one hour in length. We met face to face, but I reminded each participant that the interview was going to be audio recorded via Teams before I started the recording. I will develop a quick rapport with background and experience questions to establish a comfortable environment by getting the participants to talk about what they already know because it is about themselves (DiCicco-Bloom & Crabtree, 2006). If and when the need for clarification arose, I repeated the word that needs elaboration as a question or follow up with another non-biased question to avoid leading any response from the participant. Additionally, during the interviews, I took notes on the attitude and tone of the participants (McLafferty, 2004) as they respond as well as phrases that need further, on-the-spot elaboration, so all statements have value. Each recording was transcribed verbatim so they could be frequently re-read and

studied. The data collected here is critical because firsthand accounts directly answer questions relating to the overarching research question and the sub-questions. I sought the input of an expert for constructive critique following the review of the following questions. Prior to the official study beginning, a pilot round of interviews was conducted with two participants who have experience with Canvas in a blended learning environment but were not included in the pool of participants for this study.

Table 1

Individual Interview Questions

1. Please describe your educational background and career in your current position. CRQ
2. What professional development experiences have you had that prepared you to work with the LMS? CRQ
3. Describe the ways you utilize the learning management system (LMS), Canvas, daily. SQ1
4. Describe the ways the LMS helps you achieve learning outcomes. SQ1
5. What else would you like to add to our discussion of your experiences with the LMS that we haven't discussed? SQ1
6. Describe successful practices when working with the LMS and using it during lessons or for assessments. SQ2
7. Describe lessons or assessments that you could not do if it were not for the LMS. SQ2
8. Describe your challenges when working with the LMS and using it during lessons or for assessments. SQ2
9. Describe lessons or assessments that you prefer to not use the LMS. SQ2

10. What else would you like to add to our discussion of your experiences with the LMS? SQ2
11. Describe what information can be found on your LMS for your students to view. SQ3, SQ4
12. Describe what information is given in class but may not appear on the LMS for students to view. SQ3, SQ4
13. Describe how you decide what to share or post on the LMS. SQ3
14. Describe what students are responsible for in your class in terms of what they can rely on to be in Canvas and how they need to interact with Canvas on a daily basis. SQ1, SQ3, SQ4
15. What else would you like to add to our discussion of teacher responsibilities and student accountability when using the LMS in a blended learning environment? SQ1, SQ3, SQ4

The questions included in the individual interview were open-ended (Creswell & Poth, 2018; Saldaña, 2011) and allowed for elaboration. There were several concise questions, with little overlap, to address the central research question and each of the three sub-questions. The questions were also categorized to flow smoothly to reflect the order of the research questions (McCracken, 1988). Some of the questions also required the participant to recall specific incidents, which at times need spontaneous, yet structured, follow-up questions to further understand the experience being explained (McCracken, 1988).

Individual Interview Data Analysis Plan (Data Analysis Plan #1)

The analysis suggested by Stevick (1971), Colaizzi (1978), and Keen (1975) was modified by Moustakas (1994) and is aligned to analyze the data that was collected from this phenomenological study. First, the transcript of each interview was typed. The transcripts were

then printed, read while highlighting significant and common words or phrases, and annotated with broad phrases and statements. I looked especially for mentioning of LMS features/tools, decisions, assessments, outcomes, when they prefer paper over technology, and other phrases as they related to the central research question and sub question. Different colors of pens and highlighters were used as commonalities emerged. Separately, all relevant statements from the individual interviews as Vivo codes (Saldaña, 2011) were listed both from my own mark-ups and transcribed phrases, along with nonrepetitive statements, before being filed into broad, thematic units and clusters (Saldaña, 2011). The "what" and "how" of the experience played a role in the synthesizing of all collected data.

Images and Designer Privileges (Data Collection Approach #2)

As the teachers agreed to participate in the study and completed their consent, I emailed them to schedule interview times or focus group time options, but I also requested designer privilege to access their Canvas shells from classes of the year prior so that a full course could be observed. I logged in to observe the participants' Canvas courses a week after the scheduled interview and a second time a week before the focus group. I spent approximately thirty minutes exploring their Canvas courses and modules while taking screenshots and notes during each session. A broad sense of interest in how the teacher is utilizing the LMS guided the observations, and predetermined categories will not be used (Marshall & Rossman, 2014). Still, the main goal was to describe the structure of the online class setup, the materials shared by the teacher, and the opportunities students were given to interact with the LMS. Structured, detached, and specific field notes of observation (Emerson et al., 2011; Marvasti, 2014) were taken as I thoroughly inspected the online setup for how the teacher constructs modules, assigns work, assesses students, provides instruction, and any other unique ways they make the LMS

their own and manageable for their class.

Marshall and Rossman's (2014) template for field notes was utilized for noting specific observations and offering immediate personal commentary in the next column. I took note of initial impressions of the look and feel of the online setup before noting the significance and uniqueness and the "how" the teacher utilizes the features within the LMS (Emerson et al., 2011). The memos of each observation were then compared and contrasted thematically to one another with the overlapping examples and evidence under each theme.

Images and Designer's Privileges Analysis Plan (Data Analysis Plan #2)

With guidance from the field notes, an inductive analysis (Marvasti, 2014) of the observation was conducted. While specifics of the observations noted, they were studied and eventually generalized to find plausible relationships. Studying the observations was done by memoing the exact layout of each participant's Canvas setup from the homepage, modules, announcements, and any other features they incorporated into their online class platform. I compared and contrasted the other observations' fieldnotes (Saldaña, 2011) and eventually against the themes found following the individual interviews. In addition to finding relationships and better preparing for the focus group interview, I noted any fundamental problems (Wolcott, 1994).

Ongoing analysis will continue as the statements made in field notes will then be filtered into the initial thematic clusters created after the field interview (Saldaña, 2011). The themes will then be listed according to commonalities. They will be ordered based on frequency among participants to begin forming groups and relationships. Meanings will then be formulated through interpretation before being elaborated on with thorough descriptions (Saldaña, 2021).

Focus Groups (Data Collection Approach #3)

The final data collection approach to be used in this phenomenological study was the focus group, which is a managed group discussion to explore attitudes, share experiences, and collect perspectives (Gill & Baillie, 2018). The focus group was an appropriate medium for this study's data collection because it allowed a group of experienced teachers using the LMS to share their thoughts, experiences, strengths, and weaknesses regarding their use of it. This will allow for organic discussions to materialize. This focus group took place in person, and the participants were invited to a smaller classroom where the Activboard and flexible seating was available. Their role in this group took approximately two hours. Microsoft Teams was used to record it. While it is an in-person meeting, the audio recording has proven reliable.

One focus group session was held, and it included a different set of teachers than those interviewed. Still, it will consist of a mix of history teachers and English teachers from the humanities department with four participants. We met in a small classroom with flexible seating arrangements to sit in a circle after school. The focus group took place after all interviews and observations were conducted and analyzed.

Before beginning the conversation, consent forms were collected if they were not emailed back previously, and I reminded the participants of our focus and the main topic. I explained that it was going to be an audio-recorded conversation so that I could relisten and transcribe the conversation. Still, pseudonyms were used in the transcript for all participants. The audio was recorded through a Teams meeting where the camera was off. Additionally, I asked the participants to (a) be reminded of our confidentiality agreement, (b) not speak over one another or interrupt, (c) allow all participants a chance to speak, and (d) speak clearly, and loud enough for each contribution to be recorded, (e) be respectful when agreeing or disagreeing with points brought up throughout the discussion (Gill & Baillie, 2018). When the recording began, I asked

each participant to go around the room identifying their subject area, their years of experience in education, and their years of experience working with the LMS. Once the preliminary groundwork was set, I asked the first question, only asked for clarification, when necessary, ensured the conversation avoided tangents or digressions, and made sure all participants had a chance to speak.

The first set of questions served as a soft start as well as a contribution of images for analysis and discussion. I asked participants to take out their phones, navigate to mentimeter.com, and input our "class code." Teachers' responses to the following questions created an anonymous visual word cloud on the ActivBoard in the front of the room. Repeated words or phrases appeared larger. I took a screenshot after each word cloud was formed and before I switched to the next question for the next word cloud to be formed. After each word cloud I offered anyone the opportunity to discuss or elaborate on the words that appeared. I sought an expert's input for constructive critique after reviewing the following questions.

Table 2

Focus Group Questions

The following promptswere used for the word cloud activity:

List up to 2 words or short phrases that come to mind when you think back to when Canvas was first introduced to you. CRQ

2. I will then ask if anyone would like to elaborate or discuss the words or phrases that appeared.

3. List up to 2 words or short phrases that come to mind when you think of your experience with Canvas now. CRQ

4. I will then ask if anyone would like to elaborate or discuss the words or phrases that

appeared.

5. List up to 2 words or phrases to answer the following question: Who or what had the biggest influence on you as you learned Canvas? CRQ

6. I will then ask if anyone would like to elaborate or discuss the words or phrases that appeared.

7. List up to 2 words or short phrases to answer the following question: What features of Canvas do you use the most? SQ2

8. I will then ask if anyone would like to verbally elaborate or discuss the words or phrases that appeared.

9. List 1 word or short phrase that identifies your feeling towards Canvas. CRQ

10. I will then ask if anyone would like to verbally elaborate or discuss the words or phrases that appeared.

I then asked the participants to put their phones away and informed them that the following questions were to guide our discussion regarding the Learning Management System, and more specifically, their experience with Canvas.

11. How has the LMS influenced your teaching styles? CRQ

12. Describe how learning outcomes are achieved in a blended learning environment? SQ1

13. What changes or modifications would you make to the LMS to benefit you as the instructor? SQ2

14. What changes or modifications would you make to the LMS to benefit students and their overall experience as a student? SQ2

15. What kind of responsibilities are involved with managing your LMS? SQ4

16. How does the LMS influence student accountability? SQ3

17. Discuss a memorable moment, lesson, activity, or incident that relates to your utilization of LMS. CRQ

The questions proposed in the focus group continued to be open-ended (Creswell & Poth, 2018; Saldaña, 2011) and allowed for elaboration. The hope was also to stimulate conversation among the participants. Several concise questions, with little overlap, addressed the central research question and each of the three sub-questions. The questions were again categorized in order of the research questions to promote structure and smooth transitions between topics (McCracken, 1988). Some questions also provided the opportunity for the participant to recall specific incidents, which may need spontaneous, structured, follow-up questions to further understand the explained experience (McCracken, 1988).

Focus Group Data Analysis Plan (Data Analysis Plan #3)

Much like data analysis plan #1, the modified Stevick-Colaizzi-Keen approach was utilized (Moustakas, 1994). First, the theorist directs researchers to transcribe the audio from the group meeting verbatim. Next, I printed and added my notes taken from the session regarding the significant tone and attitude of the participants as they responded to the questions and one another (McLafferty, 2004). This document was scrupulously read often to identify common and unrepeated statements that either contributed to the interview's thematic units or that indicated the need to create additional, broad themes. This was achieved by highlighting the keywords and phrases that were similar among participants or already noted statements from individual interviews. I then underlined and emphasized points that stood out from being different and nonrepetitive, yet significant, from previously registered responses. Once all the transcript was annotated and additional notes are made in the margins from the memos taken during the

meeting, the statements were filed into broad, thematic units and clusters (Saldaña, 2011). The "what" and "how" of the experience will play a role in synthesizing all collected data.

Data Analysis

Based on the data analysis of each source of evidence and a thorough review and compilation of thematic units, the data was synthesized (Saldaña, 2011). The textural and structural composites (Moustakas, 1994) from the data assisted in the synthesis of LMS utilization. Deductive, inductive, and abductive reasoning (Saldaña, 2011) was applied and the "what" and the "how" that have been collected will help the formulation of discussions to the proposed research questions relating to the perceived influences of the LMS. Themes within the transcripts from individual interviews, the observation of images, and the focus group were color-coded for reference points in the written analysis. Additionally, the transcripts were coded with the method of "theming the data." The transcripts were annotated, and the themes were listed in various groupings to explore the patterns and connections before meta summary and meta synthesis of the data (Saldaña, 2021). The cyclical coding process of each data source led to the analysis and exploration of common codes for the creation of a single set of themes, which was then categorized by research questions.

Trustworthiness

Lincoln and Guba (1985) responded to criticism from positivists about a perceived lack of rigor, reliability, and objectivity by conceptualizing parallel terms for these characteristics of qualitative research, specifically, credibility, transferability, dependability, and confirmability. This section describes the measures I took to ensure a rigorous study through the lens prescribed by Lincoln and Guba. While these terms are, in many cases, synonyms for terms used in

quantitative scholarship, these have different meanings and implications for the quality and rigor of a qualitative study.

Credibility

In order to achieve credibility, the methods of triangulation, member checking, and peer debriefing were used in this study. Triangulation refers to the use of multiple sources for data collection to provide the researcher with a multifaceted and comprehensive understanding of the subject (Braun & Clarke, 2022). This researcher utilized three methods of data collection: interviews, a focus group, and designer privileges of the LMS. The interviews allowed the researcher to understand the participants' perspectives in a one-on-one setting. The questions asked were directly related to the research questions and sub questions but were stated in an open-ended format and articulated in a way they understood and could respond to in detail for thorough understanding (Creswell & Poth, 2018). Additionally, the focus group provided an opportunity for this researcher to receive information from the interaction between interviewees as they also discuss the open-ended questions relating directly to the study's question and sub questions (Creswell & Poth, 2018). Designer privileges for observing the images of participants' LMS and the recording of this information through descriptive notes and reflective notes prior to coding provided a visual aspect of the LMS (Creswell & Poth, 2018). Key writers were accurately cited for the data collection methods, sources, and theories. Collecting data through multiple sources and inviting multiple perspectives into the study achieves triangulation (Merriam & Tisdell, 2015). While the life story of participants will not be collected, their background in education, as well as experience with using an LMS, was valuable criteria for this study. The data collected from these methods was taken through the cycle of coding at least twice (Saldaña, 2011) to strengthen my personal understanding of the data and analysis of

findings. Member checking also helped achieve credibility. I have a connection to the study because I am a teacher with eight years of experience using the LMS, which gives me an insider's perspective that is advantageous to the experiences shared by my colleagues (Rossman & Rallis, 2016). The obtained interview and focus group data was summarized and provided to the participants in order to offer them the opportunity to elucidate or elaborate on my interpretation of the data they provided (Baxter & Jack, 2008), which is member checking. I will ask via email if any of the participants wish to see my interpretation of the data. Each participant who responded that they would like to see it, was provided a printout and asked to email me within one week with any feedback they would like to share. And finally, the technique of peer debriefing (Marshall & Rossman, 2014) was used at three specific points of the study: following individual interviews, following observations, and finally, after the final data collection from the focus group. Peer debriefing helped illuminate the findings as I progressed throughout the study. The transcript was emailed to the participants for their review of the individual interviews and the focus group. I encouraged participants to email me with any questions or concerns.

Transferability

The participants were from the same institution but different subject areas and different levels of classes, and their experiences with the LMS are described. While this study will include participants from only the English and history departments, the LMS use expands to all content areas within the high school as well as the district's middle school. All details are provided so the conditions for transferability will be possible but not guaranteed.

Dependability

The selected methods of data as well as the methods of coding, have been successful in other studies and are outlined in detail in the procedures and methods sections of this study. The committee of this dissertation has reviewed the proposal and study rigorously before approval.

The researcher followed the appropriate steps to conduct this phenomenological study. The involvement of the committee played an essential role in its formation and following of protocols. IRB approval preceded any steps, followed by site approval. I contacted all participants via email for consent and then scheduled a time for either the interview or focus group. The participant's classroom within the approved site served as the location for each individual interview. Reminding the participants the interview was going to be recorded and once the recording started, I asked the questions to the group in the order presented. During the interview, I noted facial expressions, tones, and gestures that accompanied responses. Following each interview, I listened to the recording slowly and stopped frequently to type the transcript accurately, which then served as the coding document. The focus group followed similar steps, but rather than sitting across from the participants, the participants and I formed a close circle. Again, reminding participants that the conversation was to be recorded and upon starting the recording, I asked the first question and allowed the conversations to unfold without interruption while noting facial expressions, tones, and gestures of participants. When the conversation slowed, I posed the next question. Shortly thereafter, I typed the transcript while slowly listening and frequently stopping the recording. Data analysis of all transcripts followed the Colaizzi's descriptive phenomenological method, which works through seven steps of familiarization to get acquainted with the data, identification of significant statements relevant to the topic of research, identifying meanings relevant to the topic while bracketing preconceived notions, grouping common statements together to identify meanings and themes, the narration of the phenomenon

in thorough detail, constructing succinct and descriptive statements of structure, and finally verifying those statements with the participants for accuracy in capturing the experiences (Morrow et al., 2015).

I contacted participants for consent to their LMS designer privileges. As I visited their virtual LMS sites, I took fieldnotes. I visited each participant's site once and observed while notetaking for approximately thirty minutes, but no more than an hour of each. Then I conducted an inductive analysis (Marvasti, 2014) of the observation. Next, I compared and contrasted the notes to those from the transcripts (Saldaña, 2011) for coding and to finding relationships. I then color-coded the transcripts and notes and then annotated them as themes solidified. The cyclical coding process led to common codes and themes applied to each research question. While the same results may not duplicate in a replication of the study, the same steps can be taken as outlined and discussed in the methods. In accordance with Merriam and Tisdell (2015), this study yielded results consistent with the data collected to make sense. The data collected was recorded accurately and became reliable through the triangulation of the multiple data collection methods of interviewing, designer privilege, and a focus group. A detailed and thorough audit trail with the use of memos for how data is interpreted also strengthened the connection between the methods and interpretations.

Confirmability

A detailed audit trail was kept throughout the entirety, which included raw data, analyses, and final reports. And finally, reflective memoing was conducted during the study, which helped bracket my bias. The process of reflecting on personal bias, noting it, and bracketing it allowed me to understand my partiality and minimize its influence on the research process (Ahern, 1999).

Confirmability of the study to display the impartiality of the researcher (Lincoln & Guba, 1985) was achieved through member checks, memoing for audit trail, and reflexivity. Participants had the opportunity to view transcripts and observations to validate the accuracy of their reported opinions and responses without bias. Additionally, the memoing completed during data collection not only assisted the theory from emerging themes, but also served as an audit trail to keep the research on track. One final step, reflexivity assisted in achieving confirmability. I am positioned in the study to display experiences and that allowed me to provide an unambiguous way to discuss the findings and interpretations.

Ethical Considerations

Before submitting proposal requirements to the IRB and the study beginning, permissions for site use were obtained (Appendix B). The study was then submitted to IRB for approval and upon approval, the permissions and a participant protection plan were followed.

Formal permissions were provided following IRB approval. Appendix A includes the IRB approval. Appendix B includes the permission request sent to the district superintendent of Big Wave High School. The superintendent, assistant superintendent, and principal of Big Wave High School are aware of my status as a doctoral candidate. I had a meeting with the superintendent to hand deliver the permission slip (Appendix B) to conduct my study on district grounds and with district employees, which he approved.

Other Participant Protections

The sample pool was contacted via email with an invitation to participate, which they responded to with their agreement and request for an interview date. The individuals of the focus group were also contacted via email, and I asked them to submit the day(s) of the week that worked best for them to try to coordinate days among members and find a date that works for all.

The invitation included information regarding the study and informed potential participants that their participation was voluntary, and all identification labels are confidential. Participants' informed consent (Appendix E) was collected before data collection; risks and benefits were also addressed at this point. All participants had the option to withdraw from the study at any time. All electronic data will be stored on an external hard drive that will be locked in a filing cabinet when not in use. All data collected on paper, such as interview notes and observation field notes, is kept in a locked filing cabinet when not in use. The data collected for the dissertation was added, and original copies will be saved until the third year, upon which they will be destroyed.

Summary

To understand the perceived influence of a LMS in a secondary, blended learning environment, a phenomenological study offered the opportunity to understand how teachers are using it daily beyond superficial understanding to achieve learning outcomes (van Manen, 2017a; van Manen, 2017c). The method of Colaizzi (Morrow et al., 2015) has proven successful in prior studies and will be applied to the interviews, images, and focus groups, which align with the research questions. The analysis of data through Saldaña's (2011) method of coding was ongoing and provided opportunities for adjustments as insights arose. Through the literature-supported strategies for approaching a phenomenological research study, a methodical plan was proposed to understand the lived experiences of high school teachers working with the LMS.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this study is to understand how a Learning Management System (LMS) is being utilized by high school humanity teachers in a blended learning environment. The data collection methods of interview, focus group, and designer privilege revealed themes correlating to the overarching, central research question and four sub-questions. Participants currently teach either English Language Arts or History at Big Wave High School and will be consistently identified according to assigned pseudonyms (Table 1). The themes included learning outcomes with organizational tools, teaching writing and encouraging participation with subsets of various Canvas functions, and absences; and resources; the advantages and disadvantages of the LMS influencing decisions for utilization with subsets of notetaking, objective assessments, and written assessments; and the perceived influence of the LMS over teaching and learning with subsets of teachers' responsibilities, student accountability, and professional development. Two themes of outliers emerged: screentime and interpersonal relationships. Table 3 establishes how each participant contributed to the data collection process and direct quotes from all the participants are used throughout the discussion of the study's findings.

Participants

I successfully solicited 14 participants with at least five years of teaching experience and at least three years' experience with an LMS. Eight of the participants teach English Language Art and 7 of them teach History. The female to male ratio split equally with 7 of each. The participant table includes the breakdown of pseudonyms with total years teaching, number of years at Big Wave High School, number of years of experience with Canvas, content area, the

grade levels they teach, and finally whether they provided data through an individual interview or if they were part of the focus group.

Table 3

Teacher Participants

Teacher Participant (pseudonym)	Years Taught	Years Teaching at Big Wave	Years Teaching with LMS	Content Area(s)	Grade Level	Data Method
Ally	12	5	5	English Language Arts Special Education	9, 11, 12	Interview
Carly	17	8	8	History World Language	9, 10, 11, 12	Interview
Connor	11	11	9	History	9, 10, 11, 12	Interview
Grace	5	5	5	English Language Arts	9, 10, 11	*Interview
Hermione	19	16	8	English Language Arts	9, 10, 12	Focus Group
Jack	28	22	8	History	10, 11, 12	Interview
Maggie	14	12	8	English Language Arts	9, 10, 11	*Interview
Marjorie	23	23	8	English Language Arts	9, 11, 12	Interview
Mark	30	29	9	English Language Arts	10, 11, 12	Interview
Molly	18	18	6	English Language Arts	9, 11, 12	Interview

Memphis	12	8	9	History	9, 10, 11, 12	*Focus Group
Patrick	29	29	8	History	9, 10, 11, 12	Interview
Peter	32	30	8	English Language Arts	9, 10, 11, 12	*Focus Group
Richard	8	5	5	History	9, 10, 11, 12	*Focus Group

Note. An asterisk (*) in the data method column indicates participant shared designer privileges for the third data collection method.

Ally

Ally's teaching experience spans over 12 years, the last five being at Big Wave High School. She has experience with LMS including Google classroom from her former district and now Canvas. She works as an English Language Arts teacher as well as a special education teacher, typically working as an in-class support teacher in other English classes. Her dual certificates make her a worthwhile co-teacher in the English department.

Carly

Carly earned two master's degrees in French and in History, which led her to now teaching both subjects from middle school through 12th grade. She has 17 years of teaching experience, the past eight with Big Wave High School, and therefore, eight years' experience with Canvas. While she teaches both subjects in multiple grade levels, her passion is History.

Connor

Connor has taught at Big Wave High School for 11 years. Similar to Ally, Connor's teaching career began as a special education teacher as a co-teacher in an in-class resource

setting, which took place mainly in History and English classes. After six years as a special education teacher, he became a general education teacher of History, which he has taught for the past five years from lower levels with in-class support up to Advanced Placement (AP).

Grace

Grace completed her college career in 2016 and received a Bachelor's of English. She then returned to her alma mater, Big Wave High School, and taught consistently for over five years as a long-term maternity leave replacement for several teachers. This experience resulted in her teaching every grade level and subject level in English. She experienced Canvas both as a college student and now as a teacher for the past five years.

Hermione

Hermione has 19 years of teaching experience, the past 16 at Big Wave High School. She has experience with all four grade levels of English and with in-class support classes, general education classes, and Honors classes. She has used Canvas since it was introduced to the district eight years ago.

Jack

Jack's teaching career began 28 years ago. He started out in an urban district before moving to a suburban district, and then finally to Big Wave High School, where he has spent most of his tenure. He teaches History at the high school but is also an adjunct professor at night.

Maggie

Maggie received a bachelor's degree in literature. She went on to teach for a year close to where she attended college before moving back home. She taught as a maternity leave replacement at Big Wave High School for a year, another high school's maternity leave position

for a year, and finally ended up back at Big Wave High School for a fulltime position as an English teacher. She taught for 14 years and used Canvas for the past eight years.

Marjorie

Marjorie earned her B.A. in English with a minor in secondary education. She continued her education to earn a master's degree in educational leadership. For the past 23 years she has taught English at Big Wave High School and has used Canvas for the past eight years, since the school acquired it.

Mark

Over the past 30 years, 29 at Big Wave High School, Mark has taught every level of English, from in-class support to AP. He also teaches journalism, which is a course designed to run the school newspaper publication.

Molly

All of Molly's 18 years of teaching have been at Big Wave High School. She teaches English to 9th, 10th, and 11th graders. She teaches in-class support classes, general education levels, and Honors classes. She has incorporated Canas into her class for the past six years.

Memphis

Memphis has taught History for the past 12 years, eight of which at Big Wave High School. His previous school district used Canvas, so he has nine years of experience total with it. In addition to teaching History, he also teaches classes for the Academy of Finance.

Patrick

Patrick earned his B.A. and took a few graduate courses beyond that. He taught in one other school district for one year before accepting a job at Big Wave High School 29 years ago and has taught History to all four grade levels there ever since.

Peter

With the most years of experience out of all the participants, Peter has taught for 32 years, 30 of which at Big Wave High School. He teaches English, as well as a variety of electives related to the subject, and AP Literature. He has experience with all four grade levels and has used Canvas for the past eight years.

Richard

Richard started at Big Wave High School five years ago after teaching in another district for three years. He has eight years' total experience teaching and five years with Canvas. He teaches History classes to all four grades at all levels.

Results

The following themes and subthemes (Table 2) came to light through the coding process of data. Teachers expressed an appreciation of Canvas for its organizational potential, the features to enhance writing instruction and help promote positive participation, and to guide students when absent and when the teacher cannot be in class. Teachers' frustrations became apparent through discussions of assessments, both objective and written, as well as submission for homework assignments. Overall, teachers feel the responsibility to adapt to this technological wave in education and utilize Canvas, but wish they had time to explore it more or experienced worthwhile, hands-on professional development. Unfortunately, the teachers feel that in theory

Canvas should promote student accountability, but instead they encounter just a different type of excuses from students.

Table 4

Themes and Sub-themes Development

Themes	Sub-themes
Learning outcomes	Organizational tool Teaching writing in a way that encourages participation
The advantages and disadvantages of the LMS influencing decisions for utilization	Class resources Notetaking Objective assessments Written assessments Homework
Perceived influence of the LMS over teaching and learning	Teacher responsibilities Student accountability Professional development
Outlier Data	Screentime Interpersonal connections

Learning Outcomes

Teachers follow a curriculum as a guide to help students achieve their expected learning outcomes, which they demonstrate under one of the following types as outlined by Gagné (1985). The five types are as follows: intellectual skills, verbal information, cognitive strategies, motor skills, and attitudes (Schunk, 2020). While following their approved curriculum they incorporate a number of tools from their toolbox, one of which now includes the Learning Management System, Canvas. These high school teacher participants utilize Canvas to promote their learning outcomes on a daily basis and the most obvious word for how this LMS guides their student achievement came to light with its echoing use by most of the teachers: organization. Jack explained, “It’s very organized. Everything is dated and it’s timestamped, so for the students who need organization or structure, it’s especially great, and that’s for all level

students." Branching off from the idea of organization to help learning outcomes, teachers discussed some of the specific features of Canvas that lend itself to achieving learner outcomes, and finally teachers pointed out its effectiveness in dealing with absentees.

Organizational Tool

The teachers at Big Wave High School do not have one classroom to call their own and instead share spaces and teach in at least two different classrooms throughout the school day. Discussions with these teachers revealed that in a scenario such as this, the LMS allows for their own organization. Carly explained:

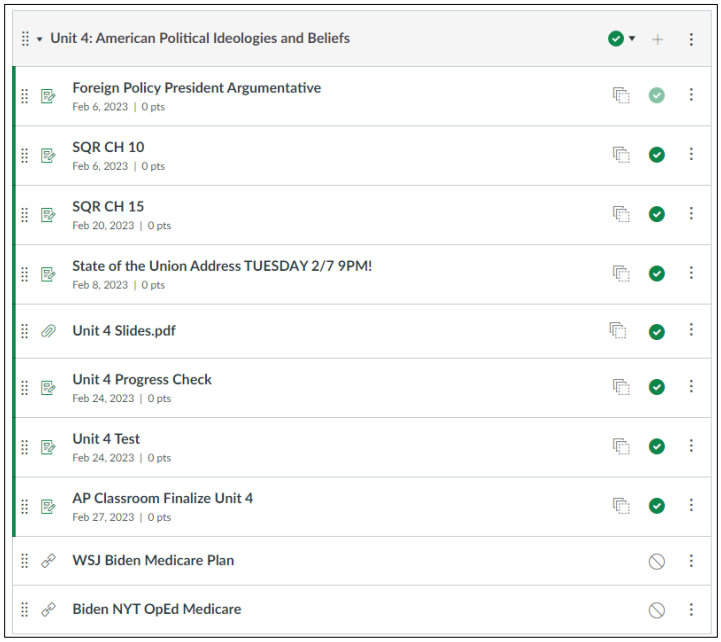
> None of us have our own classroom that it's kind of like a centralizing force. For me, the job I worked in before I came here, I did have my own classroom and when I came here, one of the things I remember feeling all the time my first year was this sense of like I was lost—like I didn't have a central place to be able to put my stuff. I feel like Canvas kind of is that because I can put everything there and it's doesn't matter where I am in the school because it's like a virtual filing cabinet." Now that teachers have a tool to keep their files organized on one virtual platform, their students' experience with Canvas mirrors that organization, as explained by Marjorie that Canvas "takes away excuses of losing items or anything related to personal disorganization for students because all information is organized based on how teachers present it: the progression of ideas.

All the participants set up their modules according to curriculum units as the examples show in Figures 3 and 4, and while they can see all the files, assessments, resources, and tools they will incorporate in that module, they all only publish what the students need as they move through the unit. Students see the units and only what they have done and what they will do on any particular day, which Hermione emphasized that, "In theory, they should never walk in the door not

knowing what's going on or what's happening that day," to which Molly extended, that students can "always expect something to be assigned on Canvas and due with a doable timeframe in a class period." The layout of Canvas and the available features provide teachers with the ease of walking into their classroom and starting, which Mark elaborated on that, "Everything's organized and condensed. I can say this is what we're doing today, and I can put [project] it on the big screen [ActivBoard]. I can tell them, you know this is how long you have to do it, and this is exactly what you're going to do, and this is where you'll submit it when you're done. Everything is controlled and organized, which I like." Memphis agreed that having everything submitted on one platform is an ideal form of organization for both students and himself. When teachers and students maintain consistent organization, both parties can focus on the learning objectives, which should be the priority of any lesson; teachers can teach, and students can learn without cluttered distractions.

Figure 3

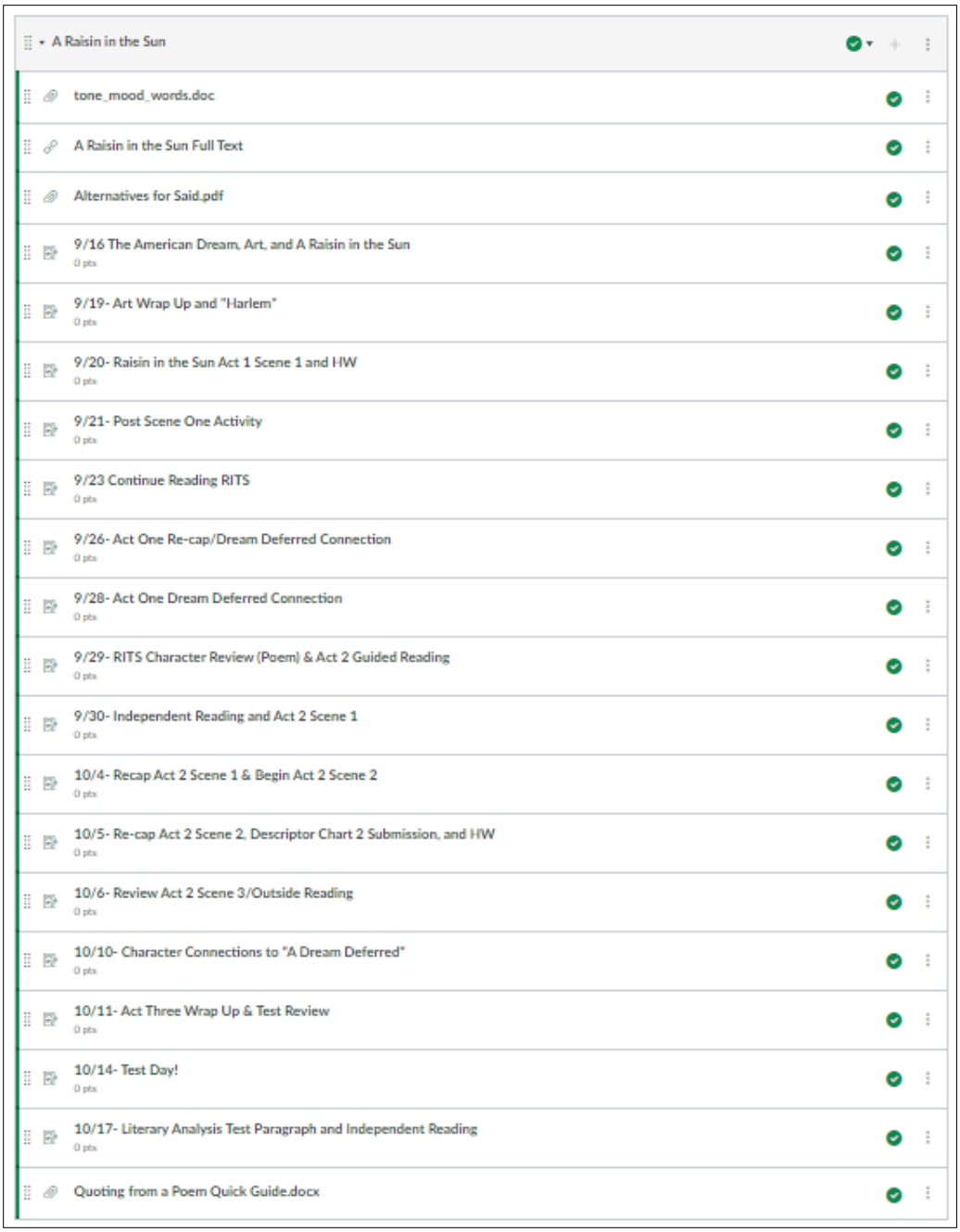
A Canvas unit within an AP U.S. Government and Politics course.



Note. Richard sets up his modules according to units. He waits to publish items until he plans on introducing them to the class.

Figure 4

A Canvas unit within an English III Honors course.



Note. Molly creates modules to reflect her units, which correspond to the texts they read. She also posts the date as part of the page/assignment header.

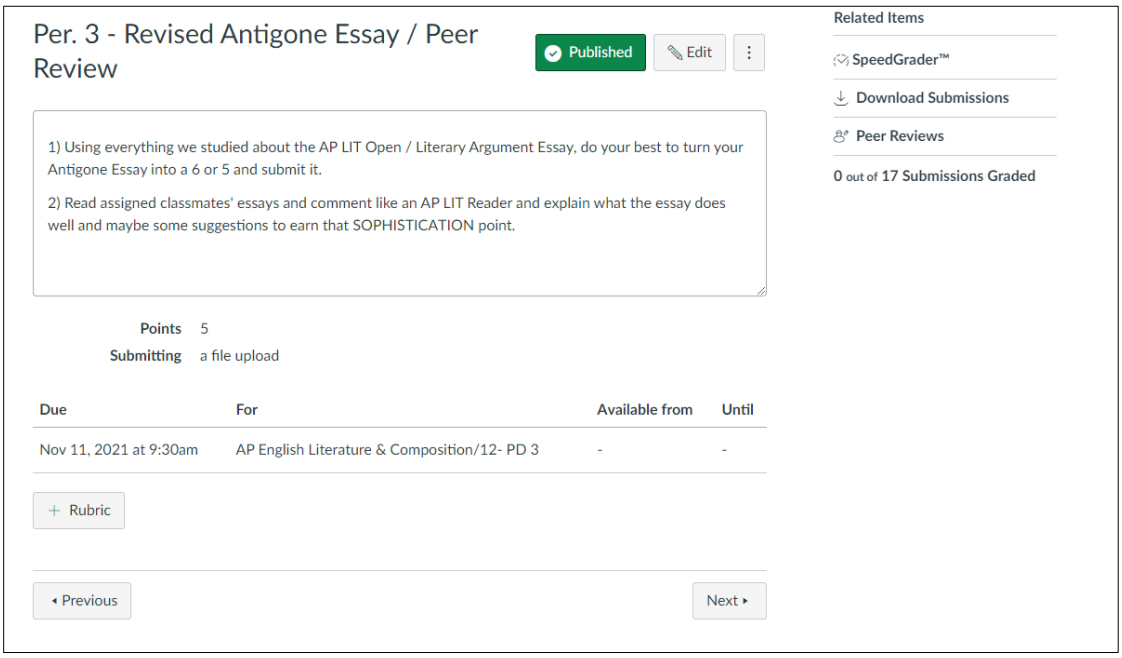
Teaching Writing in a Way that Encourages Participation

Writing standards appear in both the English Language Arts state standards and the History state standards, which made writing as an assessment a common ground of discussion for the participants. Maggie explained the importance of getting students comfortable with typing various things at various lengths because that reflects more of a real-world scenario for their post-education needs. Participants considered three common ways they utilize the LMS to help students achieve learning outcomes in regard to writing: peer reviews, discussion boards, and projecting formal submissions.

Peer Review. Peter often referred to the student review feature (see Figure 5) in his conversation with the focus group emphatically exclaiming, “Peer review is the best function on Canvas. They write something, then you can very easily assign people to read it. And they can do it anonymously! But I can also monitor what they say to one another as they give feedback. I’ve seen their writing really improve with this practice. It’s a really good function!” Not only does the feature allow for monitored anonymity, but Molly also offered that “especially in a big class, you don’t need to shuffle desks around, print out all the papers, or even move tablets. They can do it right from their desks.” Some teachers during the focus group never tried the feature, to which Peter replied he would teach them one day because it is a feature everyone should utilize.

Figure 5

An assignment utilizing the peer review feature.



Note. Peter's assignment is setup to automatically assign Peer Reviews as long as the students submit their draft by the due date.

Discussion Boards. Most teachers agree they use the discussion board feature to some capacity throughout the year. Molly notes a shift in student participation over the years: "Kids need a little more prodding now. They used to have say things to say, but now they like to have something ready to build off of. I like the [discussion] thread because I can have them do it and then cold call on kids to share or expand. I think they're more comfortable with that process. Mark agrees that it helps set a vibe in the room when he uses discussion boards at the right moment:

> I will often have kids when they're working on something, stop and respond to a discussion prompt. I usually click the little 'can't see others thoughts until you post yourself,' so that way everyone has to do it and then I give them time to look through others' responses and I think that's a really effective tool as well whether it's for how to

> write something well or what is everyone thinking about on this topic or on this issue at this point in time, so I do use discussions at post-Covid more than I did prior and I do like it. I also find it generates a nice vibe in the room because kids will often look across the room and say, 'Wow! I really like what you wrote,' or 'I agree with you,' I find that it is good for camaraderie in the classroom as well. It opens students' eyes to a new idea that maybe they didn't listen as well to each other, but when they see it posted that way, it speaks to them more and then we get better participation.

Increasing positive participation also positively impacts learning outcomes. Additionally, Ally, an experienced English Language Arts teacher in addition to Special Education, explained that discussion threads offer a record for teachers to utilize in order to monitor participation and how students develop over the course of the year. She continued to explain that verbally participating in front of a class may not be in the best interest of all students because it's not in their nature:

> They'd rather post to a discussion thread and I can see them participating in that way, so especially with all the diversity that we have in the classroom in the ability level and the disabilities are so huge, you're going to have people that you're not going to notice things or you're not going to see them participate unless it's on Canvas; that's how we know half of them exist because they're packing these—you know these classrooms are really big—we could have 30 students and 10 of them have IEPs and eight of them have 504s and—you know—it's really had to see it in person in live time, but you do back and you see it there and you know you got them to where they needed to be.

Projecting Formal Submissions. Contrasting the positive vibe discussion boards have the potential to create, Peter discussed an experience that in the moment students found uncomfortable, but that led to a positive outcome:

> I was teaching how to write a thesis statement for a literary argument, and I sort of did it on discussion boards, so everybody posted. Everyone posted one and then the group chose the best one to be submitted to the discussion. So, what's good about discussions is that everyone can see it at the same time, so we're looking at them and there was someone's there that after all that, was not a thesis. It was pretty embarrassing—for me, I tried to explain that to them as nicely as possible. And then I had a feeling this person was going to cry because her face was getting really red, but somehow, she didn't. We got through that and later she ended up getting a 4 on the exam! So, after that really painful, awkward day, she got what she needed to from that lesson instead of just not listening and continuing to do it wrong. So yeah—Canvas was pretty good that day!

Mark agreed that students' exposure to other students' writing helps improve their own writing and takes advantage of the ability to project the writing submissions onto the ActivBoard and then select a few exemplary submissions to share with the class: "Whether it's how I want them to write a thesis statement or whether it's how to correct certain sentence errors. I can teacher things about writing; writing there in Canvas, but putting pieces of work on the screen, and often my comments are there as well, so I can show the class, 'Here's what I commented to on this piece of writing and many of you will see that kind of comment in your own work.'"

One final way teachers appreciate Canvas for assessing students' writing rests in the fact their work—as long as the assignment remains published—students can always access previous work samples of their own. Molly discussed that Canvas becomes a writing portfolio of sorts:

> I'm the type of teacher that does everything in a building blocks way. Kind of like everything the kids do in a certain unit becomes relevant to the next unit and then it kind of gets augmented through like further instructions. Kids can easily go back into our first

> paper unit, go to day five where I introduced how to do something, and then revisit that document and lesson to build further. We're always able to channel previous units very easily as well as the previously marked writings, annotated writings of things that I gave them comments on. I'll even make them go back and view my comments and feedback so they can make adjustments of their own and reflect on their own writing for what they need to improve on. We roll backwards and then move forward.

Absences

Most participants agree that they used Canvas on a minimal, surface level basis prior to COVID. The time and effort it took when school closed to transfer lessons, resources, and assessments to Canvas made it a more appealing option to utilize it in a blended environment upon returning to the classroom full time due to the foundation they laid already. Since then, the participants brought up that students can achieve learning outcomes whether present or absent, they can see exactly what they need to do to transition back into class no matter how many days they may be out. Jack explained they can "log in, check the calendar, see the posted homework, and even participate in any discussion boards from that day. Thanks to Canvas, the course is always alive." Additionally, if teachers themselves cannot be in the classroom with students on a particular day, the—modified—lesson can go on as planned. Memphis, a self-proclaimed hater of taking days off explains:

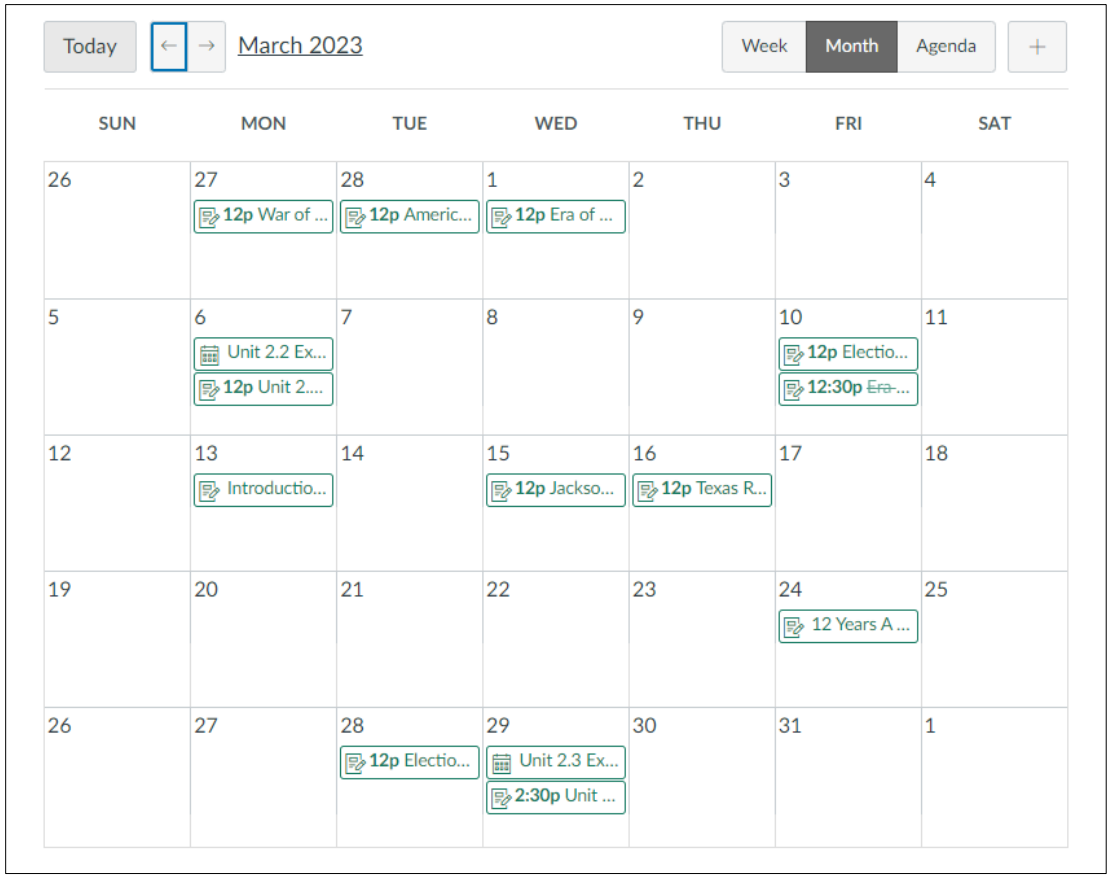
> I hate having to be out ever because that's more work to like to be out and I definitely hate falling behind, especially when I'm teaching an AP class; that's stressful. So, the fact that I can record a lecture—like my voice over a presentation—and I can upload it to my Canvas from my OneDrive, and then I can give them an assignment attached to it, I can feel like I'm at least there. With my AP students this works because my AP kids are

> reliable for the most part. So, when I come back after I was out one day, they have watched the lecture, they'll email me with questions, and pretty much everyone has done the assignment. It's been working really, really well. If I have to miss, it's a lot of work to do that but I feel like I don't have to skip a day or lose a day by doing this, especially if the lesson is easy enough for my to transform like that. So that's what I really love about Canvas.

There are no wasted days when both students and teachers can utilize Canvas when absent in order to continue the momentum of the course and continue learning.

Figure 6

A Canvas calendar viewing one course's assignments by due date.



Note. Memphis keeps his assignments arranged by due date.

The Advantages and Disadvantages of the LMS Influencing Decisions for Utilization

Since participants recognize that online/remote learning during COVID as the turning point in their relationship with Canvas, the conflict becomes what to keep traditional and what transfers to Canvas based. Marjorie embraces Canvas as an opportunity to include "anything that is crucial to their success" in her modules. While Ally notes the struggle of finding a balanced approach because "there is validity in [students] doing things outside of the tablet and walking around and moving," while Hermione, Patrick, Mark, Grace struggle with what goes on Canvas due to their preference of traditional, pen-to-paper method of instruction.

Class Resources

Participants agree they appreciate the ability to share their necessary class resources in real time proves to be one of the most advantageous aspects of Canvas. The resources listed by participants ranged from class expectations, class syllabus, text readings, supplemental notes, where they can be found during each period of the school day, PowerPoint presentations from class, helpful writing tips such as the style guide or lists of transitions, a dated agenda for assignments, and the like; therefore,--in short—Carly summarized that it "pretty much takes the place of lesson plans." When asked about what appears in his Canvas class, Connor stated, "Anything I can, I will put on Canvas; I want them to have as much information and be as prepared as possible." Hermione agrees that Canvas serves as the backup system in case something gets lost, or someone is absent, "Even if I give them a paper, it's also on Canvas," and Marjorie's similar response added, "I've even gotten to putting PDFs of texts on there instead of giving out hard copies of the texts, if possible. Some students aren't really into that yet, and still prefer to have the book—which is great—but I do put all documents in there that I will also print out for them." Most of the participants do assign reading for homework and while most classes

provide physical books for students to read, teachers will post audiobook links and PDFs of the texts as well. Marjorie continued, "Because if they have to read at home, it's just easier to give them access and with like the amount of things—and books—they lose, I would rather them keep their book in their locker and not bring it home, if they can handle reading the PDF online instead."

Additionally, Mark agrees with his colleagues that sharing resources for class is common practice, but also elucidated the shift in accountability as an advantageous reason to post everything on Canvas:

> Almost everything that I teach, even if I'm having them do things in a notebook or on paper, I will later be putting it on Canvas, so there's a record of it. Then it becomes the student's responsibility. I call it putting the ball in there for us. It becomes their responsibility. Like keeping an organized binder with things we've done in class, but also to know they can always go into Canvas and find some handouts or resources or activities we did in class. The record of them is there as well.

Marjorie sympathetically explained that she understands students will be absent for a number of reasons, so she does not find that as a reason to withhold class information from them: "I try very hard to give students every opportunity to do as well as they possibly can."

While most teachers post an electronic form of their readings, teachers like Ally find it important to not read electronically while in class, so not only can they annotate and take notes on paper, but more importantly for her, so they do not miss out on interpersonal connections:

> I try to give it to them on paper or in a book and then stop and have eye contact with them and have these conversations or discussions, especially in English class. I'm doing *Romeo and Juliet* this year and it's just been nice to see them look up and—you know—

> see their faces are lighting up, or somebody's laughing, or they're raising their hands like these are the human aspects of learning that I feel like for literature, especially, when we're talking about so many things with emotions and experiences and feelings, because it's the nature of the content—it has to be talked about and it has to be talked about. We have to be looking at each other.

Notetaking

Participants discussed notes in two ways when discussing what gets shared on Canvas: the notes teachers use as a guide of their lesson to provide during the class period, and the notes they expect their students to take during the class period. Most agree that they will post some of their class notes; however, unless the students understand the full context and interact with the notes from the class when elaboration occurred, the notes would be incomplete. Additionally, most teachers like Jack went on to explain the preferred method of notetaking during class would be with paper and a writing utensil: "Notetaking is an important skill. When you're writing notes rather than reading them, you're synthesizing them and putting them in your own words. So, what happens? The learning process! When you synthesize stuff and don't copy them verbatim or read them verbatim—that—that's what makes your students analytical with the ability to summarize." Carly shares the sentiment, especially with her AP kids because she does not "want them in the mindset of 'Oh, well it's going to be on Canvas, so why do I need to do any of the work myself?' type thing." Ally emphatically shares the idea of notes being an individualized opportunity to learn, saying that posting notes:

> That defeats the whole purpose… their notes are their notes. Notes should be what they, individually, need to understand. Somebody else might need something written next to this one [art because they didn't understand it, whereas somebody else is fine and they

> need to write down more somewhere else at a different part. Notes are individualized as far as reading comprehension does and some stuff makes sense to some people, some doesn't to others.

Teachers appreciate the convenience of Canvas because they can push out resources and notes electronically quickly, but believe that the convenience of that being the teachers' responsibilities may detract from the learning process.

Other teachers, including Mark and Marjorie focused on distractors as the main reason for preferring notes taken by students on paper or in a notebook, to which Marjorie explains she likes to get them away from the screen when she can, and summarized with:

> This sounds silly—I think—they can focus a little bit better on a piece of paper. They're less distracted because obviously Canvas is on the computer and there's a lot of other things that could be happening at the same time that should perhaps not be happening, but they certainly do happen. So, it does take away that distraction of, you know, sport scores they're interested in, or basketball games that might be on, or their email, or whatever else they might find—you know—whatever other homework they may need to do is now readily available too. But when I give them the piece of paper and say we're working on this right now, I can just look at the class and see that they're doing the thing I need them to do.

While Mark agrees, his reasoning differs slightly in that sometimes he does not even expect his captivated audience of students to even get distracted by trying to write while he talks: "I feel like I can teach them and have their attention rather than they might be distracted if they're looking on their tablet or elsewhere. So, when they ask, 'Will this be on Canvas?' I say, 'Yep!

This will be on Canvas!'", but he does make them wait until after the class when the lecture concludes.

Carly's explanation echoed the same concerns as Jack and Marjorie in that sometimes she may be more lenient with her older students, but with her freshmen:

> I had them close their tablets because of attention—like the focus—was just not there. So, a lot of times I would make skeletal notes for them and then they would go with what I would lecture about or the notes they were seeing, and they had to be filled in by hand because it helps them remember. And there is also—if I have 25 freshmen sitting in front of me and even if they're Honors students—I'm going to have a good 15 of them playing games [on their tablet].

She added that now more than ever she encounters official modifications in Individual Education Plans (IEPs) and 504s that noted focusing issues and things stated that the tablets need to be removed from in front of them. But I can't say, 'You can't do it on your tablet,' while everyone else can. It's everyone or no one."

Another factor of teachers preferring students' notetaking by hand reflects the student's own individual computer literacy and organization. Richard stated:

> I make them take notes by hand. Once they take them on the computer, they'll never find that document again. So it's kind of like the reverse—I don't know how to describe this—but the modules we post are so organized and it's encouraging everything to be done on a Word document so they can submit it, but we're not doing anything for the students to like have an organized File Explorer… if we start a document at the end of a class—I don't even know—I don't know what to say for tomorrow, I'm like, 'don't lose

> this.' And that's a coin flip. I think they need to be coupled—Canvas and computer literacy.

In conclusion, teachers have little reservations in taking advantage of the convenient way they can post their own notes to Canvas but prefer to wait until after the lecture and discussion occurred in the class period. However, to avoid Canvas working at a disadvantage to students' understanding and engagement in the learning process, teachers prefer students take their own individual notes during class on paper to avoid distractions and encourage their class experience of synthesizing their knowledge.

Objective Assessments

The ability to produce a grade almost immediately after a student submits makes Canvas quizzes appealing, yet almost every participant considered Canvas assessments disadvantageous and an inconvenience. Reasons for this range from it being a tedious process to create the assessments, which Jack describes as a "looooooong time to create good assessments with visuals and graphs" and Connor adds "there's no time to play around with the new quiz features"; to the preferential way of grading written assessments by hand, and finally to feelings of control and maintaining the assessment's integrity at risk when given online. In short, Patrick "can't do assessments online. Unless—you know, I hate to say this—unless you don't care what the outcome's going to be."

Hermione noted one of the more simplistic of reasons for preferring to avoid online, Canvas assessments:

> It comes back to me being a paper person. Sometimes the Wi-Fi isn't working for these 20 people, but it's working for these four. Or in the middle of the quiz, they lose Wi-Fi. Then it's wasted time, and the scramble just stresses me out. So yeah, I have a bunch of

> quizzes on Canvas that I banged out during Covid, but I've definitely pulled back from using that feature and just gone back to old school on paper as far as assessments.

Connor says, "Sometimes, selfishly I won't put a quiz on Canvas just because I don't want to be staring at a screen for grades." And while the advantage to Canvas grading the quizzes and producing a grade immediately seems enticing, Marjorie notes it results in disruption:

> For students to find out immediately how they did on a quiz is a little disruptive, I think, to the flow of your class. If you want to give a short quiz, like a reading check for example, at the beginning and then you want to move—if they can immediately see that they got a 3 out of 10 or something like that, your class can do a different direction than you wanted it to. And while you certainly can bring that back as a teacher, that might be something that distracts some students significantly if they realize, 'Wow! I just bombed a quiz,' and now that's all they can think about, so now they're not engaged anymore on what the rest of the class is on. I know you can make it so that doesn't happen, but that feature isn't my favorite… Some may even get a little bit angry and now there's a level of animosity going on that might turn them off for the remainder of the class. And, I'll add it does force them to be more attached to a device.

Despite the ability to view student logs during a test and even an additional system the school acquired, NetRef, which allows teachers to view student computer screens in real time, teachers—in general—prefer the traditional pen and paper because "even NetRef has its limitations," notes Patrick. Maggie explains that trying to monitor students through the logs is tedious because you have to "sift through every student to see each individual's log; there should be one place to monitor." Patrick believes anything with an online component "opens itself up to either blatant copy and pasting to just outright plagiarism from the source of their buddy. To me,

it's opening up a Pandora's box of cheating… it's brutal. You know the cheating is rampant." Marjorie explains her comfort level for policing assessments:

> I know we have software to help control what happens on their computers, but I would rather that not even be something I have to worry about in an assessment. If they're doing something in class, some sort of activity, I can police that. But for an assessment, I really don't want to have to do that. I want to be able to look up and be—you know—physically present, moving around the room, and easily see that everyone is on the task that I want them to be on or that their work is genuine. I can feel more comfortable with their work being genuine when the computer is not involved.

Additionally, Grace notes that more stress on students occurs when taking quizzes on Canvas because of situations like this: "Some of my students also got very conscientious when taking a quiz on Canvas like if an email notification pop ups and they accidentally clicked it, they were like, 'I didn't get off the quiz! I swear! It's going to tell you I did, but I wasn't.' So, I would rather just do that on paper or scantron, just so I can control what's going on."

Some teachers take their chances with minor assessments, but avoid Canvas assessments for bigger, summative assessments such as a midterm exam or final exam. Carly also expresses concerns with maintaining the integrity of assessments:

> I'll give short quizzes on Canvas. The big stuff, I'll always give on paper still… I feel more comfortable with it. I guess maybe it's like me being old-fashioned and it's, I feel like there's less of a chance for them to cheat. I mean we can NetRef [monitor screens online] and we can watch them, but they're sneaky. Some are really sneaky, and I want to see what they can do, like what's in there? *points to head* in their brain? Not like from a bot or from looking stuff up. Also, when it's a big class and they're all on their tablets,

> it's really easy for them to see other people's screens. You could say they can also look at other people's papers as well, right? I just think that my big reason is just because I'm very used to the paper and pen when it comes to like unit assessments and things like that. And I have a lot of them already [ready to be copied], so converting them into a Canvas assessment is actually a lot more work on my part. And I have limited time.

The teachers do not trust the online logs or monitoring system, and Maggie went on to explain a fear of what happens after she suspects or even finds evidence of cheating:

> You're also getting into a little bit of muddy water when you're accusing a child of cheating [from the logs] because how can you prove it? I feel like that's kind of where we are in the world now, it's like 'Well how can you prove my child was cheating? They only just clicked this; they weren't actually looking at something.' It [student logs] doesn't tell you what they're looking at when they navigate from the quiz. So I just eliminate it all together and have it [assessments] on paper. It just makes it easier to monitor and make sure that they're like thinking on their own, doing their own work, and not cheating.

While most of the teachers seem to revert back to paper and pen assessments, Mark finds himself comfortable with Canvas assessments as long as he has the time to ensure he set it up correctly. Ally, also, actually finds herself moving more assessments to Canvas to look out for their future:

> I'm moving more toward having more assessments on there because what ends up happening is the real-life experience is going to be writing done on a computer—typing, writing, in a Word document. So, I feel like on paper and pen all the time, won't translate to life. I hadn't been much of a fan of it, but this year I found myself moving more

> toward it just because I feel like that's how people are doing things, so why would I do it different in school and then they leave school, and they never have anyone hand them like a yellow paper with lines on it to write? I mean—they're just not going to see that—not even at the college level—that would be mostly digital. So yeah, I've been moving more away from paper and have assessments in more digital ways.

Written Assessments

At previously stated, writing standards appear in both the English Language Arts state standards and the History state standards and while teachers noted benefits of using Canvas as a tool to teach elements of a paper or writing, most agree they prefer to have students write their writing assignments by hand as well as grade them by hand. Molly finds that students have a tendency to rush written assignments when they type them because she thinks, "It's too easy for them to skip, hop, jump right to a tablet, crank out an essay in Word the way they want. It's too easy of an outlet to get the assignment done digitally." Molly further explained the need for students to slow down and just think before jumping into a response:

> For certain writing, like if we're doing creative writing or personal writing or anything that's going to turn into something later, I still like the whole pen and pencil approach; you know, hand-brain kind of thing, I'm an advocate for that. I feel like sometimes they just need to sit there without anything distracting them and just think with the paper and with the dexterity of again bringing to hand; I think it gives them more focus. Before all the bells and whistles come in and all the things on a document they are going to look at and all the things they're going to do for the assignment. Anything for the initial writing process, like brainstorming, and just my old school habits of essay planning and filling in boxes and actually writing down your thesis statement and letting those things soak in

before they become keystrokes. Same thing for the editing process, I stray away from digital when I really want them to sit and internalize a part of the writing process.

Jack also thinks they also rush through any digital comments as well: “I just don’t think students go back and read the comments with the paper, but when it’s right in front of you, they see it. They don’t have to go back and open it back up to see the comments for why they received a grade, and most of them won’t.”

Teachers frequently mentioned their irritation with cheating as well. Maggie describes the problem as “they have access to things like Google and AI and other things like that. I just ran into too many issues with plagiarism and cheating because they’re forced to be on the internet and then they take the easy way out.” Some of the teachers discussed they know of an online AI detector site, but as Ally explains, the frustration still exists, “We do have NetRef, so we can monitor them there, but we just had a student submit something that didn’t sound like they’re writing, so now we have the AI thing, but yeah now we’re also policing that.” Patrick elaborated that despite the computer and Canvas being valuable tools, “Kids will hand in an essay and when you’re reading it, you’re like ‘oh, man, I feel like I just read this,’ so ya click back to a different class period, and ya spend a few extra minutes clicking around and—because yeah—it’s the same exact paper as so-and-so’s! That’s why I just read this!”

Lastly, all teachers agree the grading tools in Canvas need to greatly improve before they consider grading more on there: “When I tell you it’s the worst thing—I don’t do it anymore because the tools never work!,” explains a frustrated Grace before adding, “It takes 35 minutes to grade on essay because I meant to just highlight one sentence, but it’ll highlight the entire paragraph.” Marjorie also expressed frustrations with the tools with adding a comment bubble, but “the annotations don’t always immediately respond… sometimes you have to click a couple

of times to get the bubble to even show up… this slows a person down.," which Hermione agrees is the reason she shies away from them is because "You're like highl--, high—highlii—HIGHLIGHT! It just took 25 seconds to highlight one thing, but it did too much, so you have to scratch that and try a different tool!" As Hermione displayed her frustration Peter slowly nodded in agreement responding, "Yeah. Highlight still sucks, actually." Ally concurs that the tools make grading a frustrating experience:

> It's really annoying to navigate all of those features in the writing. Now I only use the one that looks almost like a flag or teardrop shape. I put it in red and I just click all over and write my comments in there. I stopped using strikethrough because it stopped working like I would strike through things and then it wouldn't work, so I stopped using it. I stopped using the highlight feature because that was also becoming a pain with the trackpad and the mouse. So now I only use teardrop to post comments.

Peter also defends the traditional way of grading on paper with pen as superior because:

> It's quicker to grade on paper than to grade on Canvas because there's all these clicks you have to make to go on if you want to comment or upload something. On a piece of paper, the paper can go anywhere with you and in seconds you can be grading it. But if it's on Canvas, you know you have to log on, go to Canvas, go to the assignment, go to the student's essay, then read the essay, make a comment, click the buttons to make more comments or marks, and then you have to click back to an arrow… and there's just so man steps whereas on paper you can just like circle something, put a hyphen in, or write a comment. So, in some ways [on Canvas] it's so much more cumbersome.

He also suggested that if Canvas would provide a way to grade with a stylus on the computer, he might consider grading essays on it more often.

Homework

All teachers noted they post daily homework on Canvas. They typically utilize the calendar feature by due date and some go further with an agenda's module to list things in more detail. They all praise the ability to do this, and Hermione explains that "It takes out the guess work. They know what they have to do and when it is due. They can access the information on their tablet or their phone, especially if they downloaded the Canvas app." And while teachers clearly prefer paper for writing and grading essays, they still collect some homework assignments on the computer through Canvas despite frustrations as their Canvas calendar "can get a little overwhelming and convoluted," as Connor stated, in addition to other gripes.

Teachers again bring up cheating as an issue with homework and note that they caught on to some students pretending to do things by accident as a form of cheating the system. Connor explains that:

> I think when they're handwriting it, it's like 'oh well I didn't answer that part, or I didn't do a certain aspect of what was being asked of me' because it's right there in front of them. When they're online, they'll just kind of scroll past thing and maybe not really realize that something wasn't filled out or something wasn't answer. So, I think that sometimes having the manipulative is better for them.

He continued to explain that students sometimes think he will not pay close attention, so they deleted questions because they he will only glance at it for the completion grade. Another issue he finds frequently, which Patrick previously mentioned, the sharing of documents between students:

> Speed Grader doesn't let you see how much time they're spending on a document. A lot of kids like to just change the font color and font size and think, 'It's different from my

> friends because I changed the font color and font size,' but when you're reading the work, you know that they're just submitting the same thing. So, I think it does lend itself to cheating. But again, kids can copy someone's paper copy or something, so it's not really Canvas's fault, [but] it does require a lot less energy to cheat or to claim work that is not your own. And so, I think that it's not just a Canvas issue, but also like our digital age issue!

On a final note of cheating, Connor brought up the frequent blank documents or wrong documents submitted to gain more time to complete an assignment because as he says, "They're savvy like that." Carly discussed a specific incident that confirmed students do this on purpose:

> A teacher I spoke to recently said she overheard a student in one of her classes tell somebody, 'Oh just submit a blank document on Canvas. Then you can pretend it was a mistake.' Everything that's put out there, people will find a way around. They're geniuses when it comes to diverting the system. I tell them all the time, if you put half the amount of brain effort into just doing what you're supposed to do instead of trying to get around it, you would not have time management issues, but you'd probably have straight As.

When asked if they find the submission of blank or wrong documents for an assignment done on purpose, the entire focus group answered in unison some emphatic variation of "Yes!" or "Absolutely!" Memphis elaborated, "Sometimes—no, I think, most of the time—it's on purpose. There are times a kid is just really unorganized, so they download the document four times, don't change the name of it, or forget so they just pick one to upload back and it's blank. They're disorganized and their files are too."

The Perceived Influence of the LMS over Teaching and Learning

Canvas provides students with an opportunity to connect to their teachers and classrooms at any time and from just about anywhere; therefore, a spotlight shines on teachers' responsibilities and students' accountability, but when it comes down to it Jack offers, "It's just kind of the way our district went. And you, can either swim against the current or go with the current." Patrick describes Canvas as, "It's the Swiss army knife of education cause it's got everything on it, but I wouldn't say it's any better than paper and pen, or having a text in your hand." Teachers appreciate the conveniences Canvas offers, but do not utilize all the tools and features available find it frustrating that despite those conveniences, students still struggle with accountability.

Teacher Responsibility

When considering the responsibilities of teachers for utilizing Canvas with their classes, Marjorie feels the pressure, but equal to what she felt before Canvas, just in a different way:

> In general, I feel like there's way more on me than them. I have to put a ton of stuff into Canvas in order for them to interact with it in any-way, but that's not different—in my opinion—than anything I would do to prepare to teach the class. They're not going to teach the class. My job is to teach the class, so I have to prepare whether I'm going to make 150 packets that I'm going to give out to them for something, go get a bunch of books, of I'm going to find things and curate my module here. To me it's all the same thing. In fact, this is probably faster and a bit—maybe—a better use of one's time, to accumulate things here. Rather than kind of lugging around of a binder or resources and constantly making copies and all of that. So yes, there's a lot I feel is on the teacher to do if you really want to use this as the way that it's meant to be used. But, with that said, I

> don't feel like it's any different than would be on teachers if this were 20 years ago and this [Canvas] didn't exist yet.

Molly agrees that her Canvas classroom should represent and echo the traditional classroom setting: "It's my responsibility to make sure everything's in their module. It reflects the day we had in case anyone's absent. My job is to make sure you know it's done with intention and purpose of the kids knowing that there could be something submitted in the period that could pop up and it'll be an eventual grade, or a combination of what we've learned."

Teachers feel that not only should their posting reflect their class, but the setup should be user-friendly. In order to achieve this, Connor comments, "I try to think what I would need as a student." Richard agrees and even asks his students for feedback to take into account when setting up his modules because "we don't see what they see and it's their grades and experience on the line." This leads to teachers "feeling more like a coach on days," as Peter describes, because they need help understanding how it all works. Grace spends time helping her classes configure their settings because "Sometimes I find the student calendars, the boxes aren't turned on so they don't think they have anything, but they have to manually go turn on their classes to see it on the calendar." But after that then the pressure is on the teachers and Jack thinks, "It's our responsibility to post in a timely manner and good for the kids, who are apaying attention who will call you out on it right away."

Another responsibility of the teachers, according to Ally and Molly, includes respecting the modesty of students' IEPs and 504 plans. Hermione extends this to her agreement with her ICR/co-teacher that she "posts the notes and sends things discreetly to those students." Grace also appreciates her ICR/co-teacher because "She will also copy and then modify online assessments to then release only to those students."

One of the biggest concerns of teachers that needs attention for the best interest of their students includes mainstreaming some of the features to alleviate the issue of inconsistency of use from one teacher to another. While Jack thinks, "You have to setup your best practice for your class and make sure you stay consistent. If you're not consistent, then your students are going to be lost," Hermione slightly disagrees and desperately explains:

> The staff is out of sync with how they use it. Someone in the faculty room was just saying this the other day, that a parent was scrambling because some teachers use the calendar for the due date, but others for the date it was assigned. And I think because—not that anybody's using it incorrectly—everybody's using it in a way that makes sense to them. And everybody wants that autonomy, of course, but I think it wouldn't hurt to have a big conversation about maybe streamlining some of the use of features. It would help parents and kids, but we haven't had any conversations like that.

Maggie agrees wholeheartedly with this sentiment of needing consistency between teachers:

> I think like school-wide, it's frustrating that kids don't know how to use it [Canvas] because so many teachers use it differently. If it was a little more streamlined—I don't want to be micromanaged—but if there was just a simple kind of guidelines like everyone making sure homework showed up on the due date of the calendars, there would be less confusion. Or if everyone only had certain features enabled and they were kind of listed in the same order—like everyone has announcements first, then discussions, then modules, and then anything extra for a different period kind of fell after that. So, if your eyes are always seeing the same thing, it would just make it a lot easier, and we would not run into so many issues with kids.

Student Accountability

Teachers may feel the additional pressure to keep their Canvas classroom consistent with their in-person classroom, but they feel the trade out should include less student excuses. In short, Jack says, “You have to follow along online. If you’re missing something, you haven’t checked back. That’s it.” For example, Patrick says with Canvas, “There’s no paper is going back and forth, so no one should lose anything. Nothing should be misplaced.” With that comes the responsibility of keeping track of digital files as they would any important papers given out, but Connor expounds “I run into issues with kids saving things properly or they don’t remember where they saved it and then that’s when we run into an issue with them having to have the organization skills themselves to be able to save something and upload it back to Canvas.” Memphis furthers this idea that there should be no reason to not know a due date and to not know he will enforce a late deduction: “There’s a timestamp on submissions, so by midyear, it’s like, ‘Listen, you’ve been doing this all year,’ so you know eventually they have to be accountable.” Connor also discusses the need for students to be accountable with shared files because occasionally he assigns group work for students to complete by downloading a file from Canvas, completing it, and then submitting it back to Canvas; however, he notes that on Canvas, or paper, students need to check each other’s work:

> I think to them when it’s digital, and they can just share a document, collaboration like that becomes okay, but I don’t trust them enough to look over their groupmates work and see like, did they answer the question properly?’ They’re just accepting that ‘oh well my classmate knew what they were doing,’ and so when they go back to use that material to study for an assignment, maybe all those answers were wrong.

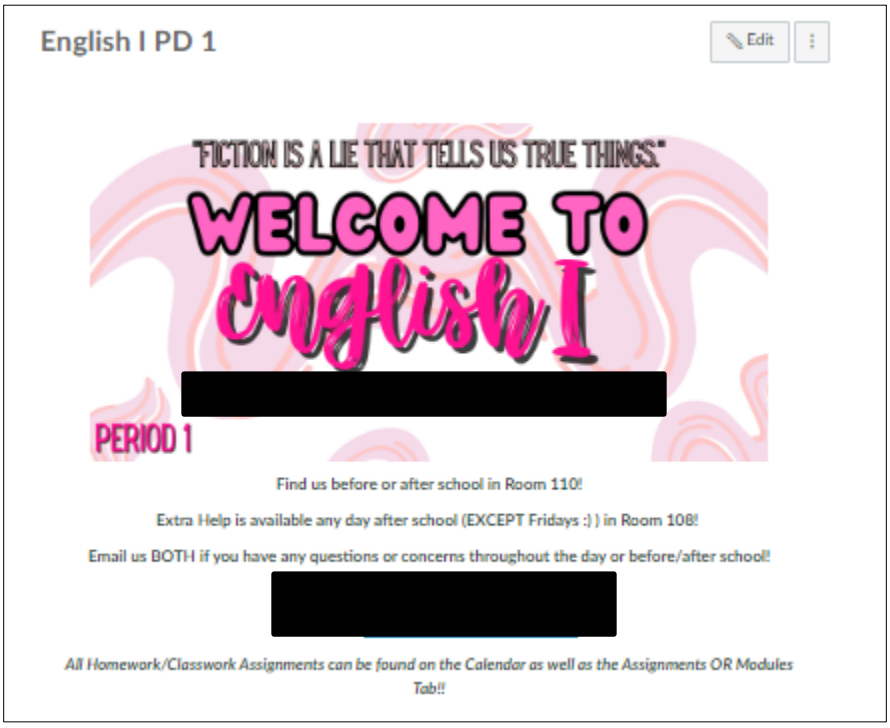
The reoccurring conflict for teachers occurs when they mistakenly forget to post a homework assignment to Canvas, despite saying it in class, students will then use the lack of a Canvas reminder as an excuse. Ally provides an example:

> We had an issue with our seniors this morning not handing something in, and when I looked back, it wasn't on the Canvas calendar. A lot of times we go over what's for homework in class, so it's not really necessarily an excuse to not do it, but it seems to be the number one thing as far as getting things done.

Grace tries to avoid this conflict by displaying the assignments in multiple places and her Canvas homepage reminds students of this (see Figure 7).

Figure 7

A Canvas homepage example.



Note. Grace posts homework and assignments on the calendar, in the assignments feature, as well as the unit modules.

Overall, though, Marjorie firmly believes that Canvas should enhance accountability:

> I think that it's a really good thing that holds them accountable because they have to go in there and find the things they need. There are—in my opinion—fewer sort of classic excuses for not having something you need for a class. Some people may say that it lessens the accountability for students, but at the same time, now we really can hold them accountable because if we're giving all the resources, there it is—you have it and you know you have to access it, and you know you have to make sure you have your charger for your computer so that you can actually open it and use it.

Meanwhile, in regard to student accountability Hermione holds a realistic perspective:

> In theory there should be a shift to them becoming more accountable because you know a lot of the times some of them will come in and say they were absent, but they checked Canvas and they hand in the assignment completely done. But then we have other students who will come in after being out for three days and ask, 'Did we do anything? What did I miss?' So, we see both ends of the spectrum. I still think we see—I think, personally—too many excuses like, 'I lost my paper or work,' but it was on Canvas. You have access to Canvas. Or they say, 'I didn't know it was due,' but again, it was in Canvas, and you should know. And some students just don't see it as an organizational tool; they don't look at the Calendar, they don't look at the To-Do list. It's not helpful if it's not utilized. Unfortunately, some will upload the wrong file, but they shouldn't. They should be checking to avoid that. So, in theory it removes excuses, but unfortunately it also creates new ones… Students who lack intrinsic motivation, now it's just blamed on something else.

Professional Development

Jack, Connor, Carly, Mark, Peter, Hermione, and Marjorie recall professional development meetings held to introduce Canvas and clarify the expectations of the administration's expectations for its use, which occurred the year the high school acquired Canvas, and at the time included their minimal use of just posting homework to the calendar. Between then and now they can only recall one other optional workshop held regarding the incorporation of research sites to the Canvas sites. Since then, they experienced global pandemic that required its full time use and then transitioned back into a hybrid situation, and settled back into the classroom full time; however, during that time all teachers noted a similar professional development to Maggie:

> Some features we're emailed about, but it was to explore it on your own or to look at the tutorial, but I don't have time to do it… Those are all in your own time and so if you don't have free time because you're grading, or you're making lessons, or you're giving extra help, and then you go home and you're being a mom, or whatever else, then you don't have time to learn those things. Having professional development time or just time to sit and do it yourself and explore would be nice.

The teachers noted similar use of features and again, most agree with Maggie that, "There are some features and buttons I see sometimes, and I think, 'Oh, I wish I knew what some of these were even for.'" The teachers who do use Canvas more often took the initiative themselves, such as Jack who would "watch videos online to learn any question I don't know. I just search YouTube. Typically, that gets me where I want to go." Molly agrees that trial and error of just "doing it myself to figure how it worked best for my daily life as a classroom teacher," helped

her. Grace, the youngest of the teachers, also noted she learned a lot from "teachers on social media," which benefited her Canvas setup and student experience greatly.

Ally experienced a brief tutorial with Canvas during new teacher orientation, but other than that it was as she says, "Trial by fire. That first year I just had to get in and use it. Once I started using it more, it was more self-taught." She does onto explain she ends up disabling most of the features because "I don't even know what they are or do!" Memphis who also came in after working elsewhere explains:

> I used Canvas before I got here, but like they did a deep dive into it when I was hired, but now it's like you'll get a long ridiculous email. I don't have time to read that and that's our update with Canvas. We need an in person, like alright, here's what's changed on Canvas and here's what you can do now that's new. I mean anything would be better than just getting these long emails from somebody.

All the teachers agree that they prefer hands-on training. Hermione describes her ideal professional development (PD) as "A tutorial. We all scramble for collaborative time, but even just a department meeting where we talk about Canvas would help. I think those deep conversations are important and we haven't really had them. We're all doing our own personal kind of deep dive and figuring it all out." Hermione furthered her comments to extend to the development needed for students as well:

> Everybody loves to say the new generation, they're tech savvy, and I've always said—they're not tech savvy. I think they're social media savvy. I think there's certain aspects of technology they'll always be so far ahead of us, but at the same time, how to use these laptops—or whatever they have—to the best of their value, like knowing how to label

> files, save files. That's technological intelligence. I think we overestimate them, especially teaching high school. We assume that it's gotten better, but they don't really.

In summation, and as stated by Grace, "I think Canvas has a lot of potential. But it needs a lot of work, and we need some od on how to use it properly."

Outlier Data and Findings

Two outliers surfaced during the data collection process. One participant noted her concerns about too much screen time. The other outlier, interpersonal connections, emerged through discussions with two different participants.

Outlier Finding #1: Screen Time

One of the participants, Marjorie, teachers her own English Language Arts class, but with a special education certificate she also acts as an ICR/co-teacher with other English teachers. Her experiences in both settings and working with students who range in abilities. The lens in which she views her students and their use with the tablet stood out in many ways as she describes the need for downtime from screens and why she avoids situations of the students needing to access Canvas during her class period:

> I feel like this is especially big for my students with special needs. They're sitting at a desk on a screen for how many hours a day? And I just think that I try to tell them we'll do a little something on Canvas then we're going to close it. We're going to look at each other. We're going to talk. We're going to look at something out of an actual book because—I don't know—seeing them hunched over staring at the screen… for their eyes, for their physical bodies… it just looks like when they get to me, it's almost like it's bad enough they're sitting in the desks all day—they need times to get up, stretch, and move around. To be staring at a screen all day because they're also staring at their phones, it

> makes me feel like [in class] this is one of those opportunities where are together in human contact and in a group, so we should be like doing that because when they go home, they're probably on the screen more—whether it's the tv, phone, or computer. So, I feel like it's weird about using it too much sometimes because I also don't have a gauge on how much other teachers were using it that day before they got to me.

Outlier Finding #2: Interpersonal Connections

Marjorie and Memphis stood out due to their moments of emphasizing the needs for interpersonal connections with students. Marjorie explains classroom experiences that occur and do not have a place on Canvas:

> I'm a teacher who really prides themselves on the relationships I make in my classroom; and I have very few discipline problems—I think—as a result of those relationships. So, I will, at the very beginning of every class, just sort of have a chat about what's going on with them, what's going on with me, what's going on around the world. It could be a silly conversation about pizza, or it could be something—you know—a little more serious than that. Those are things I certainly don't indicate anywhere; those are just those tangible moments that—you know—can really make a great relationship with the class and make everything else that do educationally, run a little more smoothly. If you can develop those relationships—so stuff like that—I try very hard to give students every opportunity to do as well as they possibly can, so I don't withhold things from Canvas simply because you happen to be present or not. I don't have control over whether they show up or not, and it may not be their fault. Or maybe it is, I don't know, but that's not for me to judge in that situation. So, anything that's of importance is going to go in there.

Additionally, Memphis explains how he feels that using Canvas early on in the school year hinders his ability to connect with his students, even on a basic level:

> I think for me, I have a really hard time remembering names, so at the beginning of the year it's brutal because I'm not going to start remembering them as they hand in their things like I used to. Because it's always like the best students who are outgoing and want to participate and you'll remember the students that are the problem, you'll remember them first. But then like the quiet ones, the outliers—they might just be good students or whatever but then they're the hardest to remember; they're just a name on the thing. But then you see like 3 Andrews or whatever in the class and you can't remember which one's which, so yeah—that takes away the personal part of it because you become so reliant on plugging in the zero or plugging in the points that they get early on in the year.

Research Question Responses

The study attempted to answer the following central research question and four sub-questions through the use of interviews, a focus group, and designer's privileges. The data revealed three major themes, each with subcategories that connected to the proposed research questions. The participants' quotes, especially, appropriately aligned to the categories.

Central Research Question

What are the lived experiences of high school teachers who utilize a LMS to facilitate and support learning in a blended learning environment? The participants' perspectives include utilizing Canvas as a virtual filing cabinet to which they have handed the keys to their students for full access. Canvas as an organization tool remained at the forefront for its benefits for teachers; however, while in theory this should then promote organization among students

especially for when a student is absent, all teachers agree it does not guarantee that. Participants, majority of them self-taught for Canvas, use Canvas on a daily basis, continue to have gripes with students' cheating and accountability, and when asked if they would struggle without Canvas, many answered, no, and for Patrick, "That's a complete sentence. There's nothing I couldn't do without it."

Sub-Question One

How do high school teachers utilize the LMS to promote learning outcomes? Despite the meaning of learning outcomes to include what students should be able to do, almost all participants discussed Canvas's organizational benefits. Participants described ways they used Canvas, but the uses only slightly modified from what they would do with paper and pen. Patrick hesitated before saying:

> Not to be a cop out, but I don't think it [Canvas] is more helpful than any other tool we have in the toolbox. Just like other tools, if you're not going to use it, it doesn't help at all, but if you are using it and you're using it for a better aim--*long pause*--you know what it's easier to hold students accountable because they can see it just like anything else they do, they want it in real time, so for example once a posted deadline has passed, they can see that it's not there, as opposed to turning in homework and then the paper disappears until I give it back. But other than that—move of the assignments—we're running in history, it's reading and it's writing, and it's the same thing it would be with paper and pen.

Teachers utilize Canvas as an organizational tool for themselves, in hopes it will influence students' organization and be a means to bridge a gap when a student cannot be in due to an absence. Additionally, all teachers need to incorporate writing in their lessons and many

share Canvas experiences that resulted in positive outcomes. And finally, several teachers praised Canvas for its features that teachers can use to promote positive participation.

Sub-Question Two

What are the advantages and disadvantages of incorporating an LMS for a blended learning environment? Once again, teachers reiterated the benefit of organization for their personal use and for providing students with all the resources and information they can to succeed in their class. Molly highlighted this when she said:

> I actually even use it as a tool for myself, especially now that we have been using it for several years. I will—when we start a new unit in the same class I taught last year—I will go into the class from last year, pull that module over to my current year, unpublish it, and then pick things I want to use or edit and republish those things. So, I kind of use it as an organizational tool for myself also to remember all of the different things I did with each unit because I'm one to kind of write everything out I'm going to do that day, but I could get away with not doing that because I have this.

The disadvantages for all participants included complaints regarding homework, objective assessments and writing assessments due to Wi-Fi issues, cheating, plagiarism, and the tools on Speed Grader.

Sub-Question Three

What is taken into consideration during a teachers' decision-making process for how to implement the LMS into their classes? The participants' responses showed a direct correlation between the advantages and disadvantages of using the LMS to their decisions of how to use Canvas. For example, because of its ease of use and ability to share files, Connor stated, "Even when we do something on paper, I'll usually put up a digital copy on there because kids are

either absent or they might lose it." However, teachers prefer students taking notes by hand to enhance their synthesis of information, and most prefer to keep bigger assignments such as essays and summative assessments on paper to avoid plagiarism and cheating. Teachers also adamantly push for students to record their notes by hand in an effort to increase understanding of content during lectures and presentations.

Sub-Question Four

What is the perceived influence of the LMS over teaching and learning? The teachers feel more pressure to ensure they use Canvas as a productive way to disseminate information, but they do not always feel the pressure of student accountably reciprocated. Grace explains:

> I think it's really intended for like a college level where you're not doing a lot; you're just submitting papers and getting feedback on them. But when you're trying to get kids super engaged with activities, I don't think it was intended for anything below a college level, really. I mean, I find it useful for my own management purposes, but I don't know if the kids are really getting too much out of it.

All teachers agree that increasing professional development opportunities as well as an introductory lesson of Canvas for students, could potentially increase all stakeholders' relationship with Canvas thus producing more positive experiences and influence of their blended learning experience.

Summary

Fourteen participants discussed their experiences with The Learning Management System, Canvas. The teachers at Big Wave High School do not have their own classrooms, so the organizational capabilities provided by Canvas became the most praised. The majority of the teachers, no matter the years of experience with Canvas or in teaching in general, feel more in

control and more comfortable with bigger assessments and written assessments being done on paper, despite the convenience of having everything in one place when uploaded to Canvas. Time and integrity remain the two main factors of what goes on Canvas and what remains to be delivered and submitted traditionally. All teachers agree that they could benefit from additional professional development and collaborative time because almost every participant mentioned at the conclusion of our discussion that the most, they ever discussed Canvas happened to be during our time together for the data collection of this study. Participants seem to agree that Canvas has the potential to offer major advantages, but without professional development for teachers, training for students, and tweaks for ease of use and integrity, teachers will continue to use the basics.

CHAPTER FIVE: CONCLUSION

Overview

The purpose of this study set out to understand how a Learning Management System (LMS) is being utilized by high school humanity teachers in a blended learning environment and ended up revealing deeper insights into the teachers' experience with the LMS. The findings of this study include how Canvas promotes learning outcomes, the advantages and disadvantages of Canvas and how those impact teachers' decisions for utilization, and the perceived influence of Canvas over teaching and learning. The interpretation of findings includes a discussion of organization for teachers, assessments, professional development, and interpersonal skills. The findings may also have implications for policy and practice. The study recognizes its connections to theoretical and methodological implications and its limitations and delimitations, which influences the recommendations for future research.

Discussion

I started teaching at Big Wave High School in 2009 as a temporary leave replacement from February to the end of the school year, but the teacher chose not to come back, and the principal offered me the position as a fulltime English teacher; I have been there ever since. During my time there, several technologies entered the district, but on a temporary basis, but the 1:1 initiative stayed, and once Canvas entered the picture, it too, remains. I know each of the participants in this study, and I also participated in the pilot program of Canvas; therefore, I bracketed my biases prior to the study. With that said, many of my thoughts and feelings regarding Canvas in the classroom were echoed by my peers. These thoughts include, but are not limited to: students feel less guilt about cheating and plagiarizing; those said accounts of cheating and plagiarizing feel like they increase each year; while sometimes we think certain

meetings can be an email, this is not the case with professional development related to our number one used resource, Canvas—in short—we want the meeting; I appreciate the conveniences of Canvas, but prefer to read from my book, which is also a sentiment expressed by my own students; I also no longer post assessments and allow them to be done on the computer because while students may apologize when caught, their parents do not settle for it; I find students forget homework more than ever because they no longer physically write it down in a planner, but my best students continue that practice on their own; I can name so many students' names from my first few years teaching due to those before and after instruction time when we wait for a bell, but I too sometimes second guess myself before calling a student's name in class; and I too am worried about the impact of too much screentime, from both phones and computers.

Summary of Thematic Findings

The 14 participants' responses revealed the themes of organization, assessments, and teacher responsibility with student accountability. Through these themes and other minor themes such as learning outcomes, the advantages and disadvantages of using the LMS, and the perceived influence of the LMS became the overarching themes in results. Teachers appreciate the organization Canvas provides, but feel like they would explore more with time, professional development, and improvements made by the LMS to enhance user experience with both setup and use.

Significant findings for discussions branched from the results. These significant findings, points of emphasis, and questions fall under one of four categories: organization for teachers, professional development, assessments, and interpersonal relationships. These significant findings reflect the setting, participants, literature, and theories.

Organization for Teachers. Big Wave High School does not have the capacity to provide each teacher with her or her own classroom; therefore, all spaces, from desks to filing cabinets, become shared space among teachers. The district provides 1:1 laptop for every staff member and student, so the computer with Canvas becomes the "homebase" for teachers. Teachers painstakingly created their Canvas shells/classrooms to model an organizational framework by unit. They use multi-level headings, some use dates, and they include their class resources within the modules in the order they will present them to the class to provide a flow to the virtual unit. Tseng (2020) encourages this type of organization, which can positively impact academic achievement. Carly explains that she does not always publish each item because some serve as reminders to either show or introduce something to the class when they reach that part of the unit. The virtual organization Canvas provides became the number one point of discussion for teachers and their biggest praise; however, this organization does not result in a consistent reflection of students' organization. The TPACK framework (Warr et al., 2020), for most teachers then, becomes off-balanced. Knowing they could teach with or without Canvas due to their content knowledge and teaching experience, the Pedagogical Knowledge and Content Knowledge figures would complement one another; however, all teachers agree they use the basic features because of a lack of quality professional development, a lack of time to explore the features, and they found a comfort level in what works for them now, therefore negatively affecting the Technological Knowledge piece. LMS has the potential to transform teaching and learning, but the teacher participants do not feel as though they have the knowledge to use it in a meaningful way that allows the transformation to unfold. Teachers do not seem to utilize Canvas as a means to flip instruction, which Alshorman and Bawaneh (2018) pointed out as a key advantage of an LMS for effective learning.

This creates a domino effect to their frustration with students because of inconsistency of use and student accountability to know how to work the LMS, when the teachers themselves—with much more years of experience—display limited knowledge with the LMS. Nguyen and Bower (2018) explained that student outcomes, content, pedagogical perceptions, technological accessibility, perceptions, and student accountability influence the educator's TPACK. When discussing student outcomes, the majority of participants often replied that the organization of Canvas helps them reach the outcomes but did not identify a specific use or lesson. One participant, Hemione, struggled with identifying any lesson that required Canvas as memorable or worthwhile, and even felt guilty about it, but sometimes actions speak louder than words.

Professional Development. Effective instruction relies on professional development individualized to the LMS and the school's culture in order to build conceptual framework (Kearsley, 1998; Mishra et al., 2009). The teachers recognize a synchronous, hands-on approach as the unanimously preferred method of professional development. Ansyari et al. (2022) discussed the importance of quality professional development and its influence of learning outcomes and showed that in-person professional development leads to better data literacy because of the interaction attribute between presenter and teachers; however, due to the increasing need and ability to deliver workshops online, synchronous training showed very little difference due to interaction still being available. Just as teachers may assume students just know how to utilize Canvas, administration may be assuming teachers just know how to utilize Canvas at this point as well because they introduced it nine years ago. Since that time, the school experienced a schedule change (semester block to full year drop-and-rotate), a pandemic with remote learning, a hybrid schedule of either asynchronous or synchronous teaching, and back to the blended environment of Canvas use in a traditional classroom. However, teachers cannot

recall any consistent form of professional development outside of the occasional emails from the tech department that includes a Canvas update and a "how-to" list if they want to try out whatever new feature(s). All participants expressed frustration with the emails and Maggie shook her head adding:

> Some features we're emailed about, but it was to explore it on your own or to look at the tutorial, but I don't have time to do it… Those are all in your own time and so if you don't have free time because you're grading, or you're making lessons, or you're giving extra help, and then you go home and you're being a mom, or whatever else, then you don't have time to learn those things. Having professional development time or just time to sit and do it yourself and explore would be nice.

Chow et al., (2018) notes that type of professional development does not benefit teachers because it will not help them utilize features in a more profound way. Green and Chewning (2020) added that if teachers do not receive beneficial training that can lead to positive use with technology, it could negatively impact students' learning experience. During the conversations between participants in the focus group, when some teachers shared activities, they do with Canvas or a feature they find beneficial, the other teachers wanted to know more. Teachers teaching teachers could be one of the most cost-effective forms of professional development and all it requires is providing time for teachers to collaborate, but it could lead to a positive behavior and attitudes towards technology (Guggemos & Seufert, 2021).

The paradox of administration, assuming teachers know how to use Canvas effectively and teachers assuming students know how to use Canvas effectively results in frustrations with the LMS and with students. Teachers and students may have adapted to accept technology into both their personal worlds and school environments, but that should not come with the

assumptions that all stakeholders are comfortable or knowledgeable with it without training and time to explore and gain confidence in using it. Earlier I noted that Lave's situated learning theory (Lave & Wenger, 1991) claim that engaging instruction and classroom activities, as well as hands-on experiences, result in increased student performance; however, when it comes to technology, we are all students, so both students and teachers need collaborative and engaging opportunities to develop their technological knowledge.

Assessments. The teachers at Big Wave High School supported the study by Machajewski et al. (2019), because the primary tools they rely on include the information for course progression and utilizing Canvas as a portal to accept assignments. A majority of participants prefer their traditional pen and paper methods for any type of assessment, especially summative ones. Patrick stated the cheating is "rampant," and Marjorie feels she "has more control" when students complete larger-point assessments without the computer because as Hermione stated, "I try to protect the integrity of the test." Patrick compares the computer to a barrier between himself and the students because, "…once they raise that screen and you're staring at the silver [cover] you can't see what they're doing. … Even NetRef has its limitations. … Chances are they're not doing what you're asking them to do." The majority of the veteran participants discussed their preference for the traditional pen-and-paper method, which Englund et al. (2017) discuss as either a force of habit or a lack of professional development, both of which were noted by the participants.

Yousaf et al. (2021) would also fault the LMS for not being as user-friendly for teachers, which means the LMS needs improvements to meet teachers' needs. The teachers expressed vehement frustrations with the tools to grade writing assignments that ironically can be found under "Speed Grader." They find it irritatingly tedious and time-consuming to transfer Word

document assessments to the Canvas system without ease of use or readability. They find it irritating that Canvas quizzes cannot prevent students from navigating elsewhere, and they find the system annoying in that to "police" the students they either need to painstakingly view each individual's student log or they themselves would also need to monitor a screen to watch student monitors with NetRef. Teachers should be able to circulate around the room, answer questions, address any student's concerns, or help students, but instead this method of assessments on Canvas leads to teachers feeling like they need to wait and search for cheating. But the question remains, what happens when they suspect cheating during an online assessment? They do not feel as confident to follow through the channels due to parents' pushback and defending students' actions. When teachers move more to virtual ways of teaching, do they lose credibility? Do they lose the authority to enforce consequences on cheating? What is the difference between finding a cheat sheet in a student's lap and finding a line in a student's Canvas log that shows they left the quiz? Hermione and Memphis teach different subjects, but both have experience with getting pushback, so Memphis explains his reason for keeping summative assessments on paper: "I don't use it as a summative assessment for that reason too (agreeing with Hermione). I do my summatives on paper for that reason. I don't want to deal with the 1,000,000 excuses and parent emails about them being kicked off or out of the quiz." This raises the question: How can we better educate families, so they have an understanding of Canvas? How can integrity policies reflect these new modes of cheating and plagiarism? How can teachers not only protect the integrity of their assessments, but also their individual integrity as an adult authoritative figure in their own classroom? Expectations and standards for students need to uphold in order for a successful student-centered learning experience in a blended environment (Dwivedi et al., 2019).

Interpersonal Relationships. All the teachers mentioned the value of students taking breaks from the computer and screens. Ally explained that especially in the content area of English when they read stories and they study characters and themes, emotions play an important role in their understanding and it also helps her connect to her class. With Ally's experience in special education, she brings up another point that coincides with other teachers' concerns of not really knowing how other teachers use Canvas and missing some type of streamlined structure or protocol for teachers to follow:

> I feel like this is especially big for my students with special needs. They're sitting at a desk on a screen for how many hours a day? And I just think that I try to tell them we'll do a little something on Canvas then we're going to close it. We're going to look at each other. We're going to talk. We're going to look at something out of an actual book because—I don't know—seeing them hunched over staring at the screen… for their eyes, for their physical bodies… it just looks like when they get to me, it's almost like it's bad enough they're sitting in the desks all day—they need times to get up, stretch, and move around. To be staring at a screen all day because they're also staring at their phones, it makes me feel like [in class] this is one of those opportunities where are together in human contact and in a group, so we should be like doing that because when they go home, they're probably on the screen more—whether it's the tv, phone, or computer. So, I feel like it's weird about using it too much sometimes because I also don't have a gauge on how much other teachers were using it that day before they got to me.

Brown et al. (2020) described the role of a teacher in fostering children's interpersonal skills and helping them enhance their skills of communication, collaboration, time management, and stress coping mechanisms. Especially in the day and age of smart phones, teachers find themselves

"fighting the good fight" to help limit their screentime in an effort to increase their interpersonal time. Marjorie tries to capitalize on those initial few moments in class when they just sit down, and instruction has not started yet:

> I'm a teacher who really prides themselves on the relationships I make in my classroom; and I have very few discipline problems—I think—as a result of those relationships. So, I will, at the very beginning of every class, just sort of have a chat about what's going on with them, what's going on with me, what's going on around the world. It could be a silly conversation about pizza, or it could be something—you know—a little more serious than that. Those are things I certainly don't indicate anywhere; those are just those tangible moments that—you know—can really make a great relationship with the class and make everything else that do educationally, run a little more smoothly.

When teachers reserve space for the face-to-face time, they're subconsciously promoting Bandura's (1977) social cognitive theory to enhance their learning experience through observation of others and social interactions, which cannot be duplicated on a screen.

Implications for Policy or Practice

Based on the topics of Learning Management Systems and how veteran teachers experienced it for a minimum of five years, and their discussions, some recommendations for implications for policy and practice arose that may also be relevant to other schools and districts.

Implications for Policy

Based on the experiences of teachers with utilizing the LMS, the research suggests districts need to create or reevaluate their integrity policy in a way that it protects all stakeholders and the issues that may arise while using any form of district-issued technology, including Canvas. The academic integrity policy in a 21st century school district that loans students

computers and provides tools such as a LMS need to include standards and expectations which reflect these tools and meets the new needs that teachers point out as problems. Academic integrity policies need to outline the definition of cheating and plagiarism for both traditional pen-and-paper methods of completing assignments, as well as anything completed digitally. Students need to understand the implications of their decisions to use cheat-sheets, look over at a peer's paper or computer, send and/or receive completed work of another student, utilize an AI site, copy and paste answers from the internet or peer, navigate away from an online assessment, etc. If their own mind did not generate the idea and work they submit, they need to understand there are consequences for actions outlined in a thorough, readable policy. Arbitration for appeals can also be outlined in the policy, but with the seriousness of needing to meet in front of a committee comprised of teachers and administrators. There should also be tiers of consequences depending on the number of offences. This policy should be signed by students and their parent(s)/guardian(s) at the beginning of the school year and remain posted to places of traffic, such as main office and high school website. The work does not end there though, the teachers and administrators should work together to not only create the policy, but to reevaluate it on an annual basis to ensure it meeting the needs of this generation. Teachers and administrators also need to enforce the policy firmly, fairly, and consistently.

Implications for Practice

Based on the experiences of teachers with utilizing the LMS, the research suggests the following implications of practice for this district and that may also be relevant to other districts utilizing an LMS.

First and foremost, districts should set aside a certain amount of time for in-person, hands-on professional development with the LMS each school year and when the company

introduces changes or updates. This can be in the form of faculty meetings, PLCs, or department meetings; however, it is important to introduce the feature(s) of discussion and equally important to provide time for teachers to practice, ask questions, and familiarize themselves with how it works. It can include teachers who consider themselves experts with Canvas or with a specific Canvas feature, or it can include a presenter from outside the school or district, but still with an expert knowledge and an understanding of what the demographic of teachers would find beneficial.

To enhance the implications for policy, districts should create a technology committee to act as liaisons between teachers and administration to address needs and concerns with technology. This committee should meet bi-annually, at a minimum and should consist of teachers and administrators who share the same goals and can be a proactive voice for their peers.

While teachers may know what works best for themselves with organizing the LMS, districts need to also look out for how students learn best. Districts should respect the autonomy of teachers but provide guidelines of use that directly impact students' use. For example, all teachers should be required to utilize the calendar feature and post assignments to it by the due date.

Additionally, to help students adjust to working with a LMS, districts should consider a class or built-in time for students to learn how to use Canvas at the beginning of the school year. The recommendation would be for this to happen in groups no larger than the typical class size. There should be a system in place for students who transfer throughout the school year. Furthermore, districts should consider creating a Canvas How-To class to remain on each students' Canvas list of classes. This would serve as a reinforcement to their in-person training

and may be accessed at any point throughout the school year to address any students' questions regarding Canvas.

One final suggestion would be that districts should hold a full transparency family information session. Administrators or representatives from the technology department and a teacher representative, who is experienced with Canvas, should explain to families the expectations with Canvas, how their students will be utilizing it, what it looks like when teachers suspect cheating and plagiarism, and all other pertinent information that should be frontloaded before the school year begins. This should reflect the district's policy and hold the tone for firm, firm, and consistent enforcement.

Empirical and Theoretical Implications

The theoretical and empirical implications of this study confirm the previous research of Bandura's (1977) social cognitive theory, Lave's (Lave & Wenger, 1991) situated learning theory, and Zimbardo's (2005) transformational teaching theory. However, the connotative definition of student, as referred to in these theories, needs to be broadened to beyond the definition of a minor working through the years of traditional schooling. Instead, it needs to include any individual learning something new. Technology changes at a rapid pace and perpetually evolves; therefore, all individuals—despite age or any other difference—may call themselves students. This redefined perspective that students learn through social interactions and experiences, especially when engaging and interactive because our attitudes regarding these new technologies may have a direct influence on how we use them and the outcomes their use can produce.

Empirical Implications

Although interactions cannot be duplicated on a screen, they can still promote social

interactions augmenting Bandura's (1977) social cognitive theory. Participants discussed the ability for students to respond quietly first to a discussion board and then use that as the springboard for the live classroom discussion increased student efficacy and confidence to participate in those discussions. This practice of requiring a personal post before sharing allows students to internalize their thoughts, articulate them with words, and then feel more prepared before getting called on at the risk of embarrassment. This potentially reveals a correlation with students feeling more judged and exposed in this day and age of smartphones and social media, which has the potential to connect them more than ever with their peers. Additionally, participants found motivation to learn new features or ways to utilize Canvas features through collaboration with others, whether that be in-person peers or those teacher-influencers they see on social media. Either way, value remains in connecting to others in-person, but can be positively supplemented by doing so virtually. Being able to connect both in-person and in a virtual world, as provided by the LMS, potentially augments the learning environment as student centered.

Lave's situated learning theory (Lave & Wenger, 1991) states that engrossing instruction that includes engaging classroom activities, as well as hands-on experiences can in increased learner performance and outcomes. This theory does not only apply to stereotypical students as minors but extends to anyone who may consider themselves a student because they embark on the journey of learning something new. In this case, the something new includes educational technology in the form of an LMS, more specifically Canvas. Teachers need not only just as much training but more than a child in his or her class needs. All teachers need to be experts in whatever they introduce to their students, which nowadays does not mean only their content, but also their instructional resources. Teachers need hands-on professional development to feel better

equipped to utilize the technology provided by their districts, otherwise it just becomes another dusty tool in a toolbox.

Theoretical Implications

The LMS as a tool provides teachers with an opportunity to go beyond just the passing of knowledge; however, the organizational framework and distribution of information with Canvas remains its primary use. Again, considering technology makes us all students, Slavich and Zimbardo's (2012) transformational teaching theory extends to teachers as students. The attitudes, beliefs, values, and skills of teachers as students are a direct reflection of their experience with the LMS. Teachers believe in the value of integrity, and the fact they cannot guarantee that with assessments on Canvas, results in the attitude of keeping to paper and pen assessments to avoid cheating and plagiarism by students. Cheating and plagiarism by students continues due to skewed belief that cheating or plagiarizing with the tools online is a more acceptable form of cheating because of their comfort level of doing it on a minor scale with social media and text messages. At the core, districts and teachers need to instill a value system and teach etiquette with technology, as well as its consequences when not followed.

LMS provides an opportunity for students to develop lifelong learning skills, especially the 21st century skillset of "(1) innovative thinking; (2) information, media, and ICT (information, communication, and technology) skills (collectively referred to as 'digital literacies'); and (3) life and career skills" (Chu et al., 2017, p. 8). Additionally, all levels of learners can benefit from the resources provided on LMS because teachers engage them by sharing notes, pictures, videos, graphs, textbooks or excerpts, etc., and the more sharing of engaging content, the more likely—in theory—students will access it (Araka et al., 2021). Canvas has its hiccups, teachers have their apprehensions, but when they buy in and students

invest their time and efforts to Canvas with diligence, it can lead to a successful and impactful experience to prepare them for the next step. Jack testifies to that saying: “I know from having my own child go through our school with Canvas, that she was then very happy to jump into college this year and have them use it on Canvas. She was prepared!” Preparing students for their next step in education includes enhancing their skills with educational technology.

Limitations and Delimitations

The decision to answer the research questions with a phenomenological study and the data collection of interviews, a focus group, and designer’s privileges makes sense because the researcher wished to explore the participants’ lived experiences; however, using a mixed method with interviews and a questionnaire could have provided more details as to the features of Canvas get used the most and the least, or the comfort level of teachers with exploring new features, their preference for professional development, etc.

Limitations

A limitation that created a boundary for the study was the decision based on convenience to only incorporate participants from one high school. This limits the data to participants who all experienced similar professional development opportunities, similar demographic of students, and the same LMS, Canvas. I restricted the pool to those with a minimum of five years of teaching experience and a minimum of three years of teaching in a blended learning environment that utilizes an LMS.

Delimitations

I made purposeful decisions when creating this study due to my experience, knowledge, and convenience, but some of those decisions created boundaries on the study at hand. One of the boundaries on the study included only using one high school and two departments. Due to

trying to limit the scope of the study, I chose to only include the departments of English Language Arts and History because of similar standards, their subjects' reliance on reading and writing, and their use of similar assessment types. I chose English Language Arts because of my own experience as a teacher within that department and I am aware that due to the content, Math and Science's needs and feature use would have been too different to include in this study; I maintained a more focused scope. Including different content areas may present different findings due to the different ways those teachers will interact with the LMS, the different features they include and ask their students to use, the different conversations during department meetings which may include collaborative time, and how their content lends itself to a virtual environment.

Additionally, I selected a phenomenological approach with a transcendental focus because of my desire for an unbiased approach to understanding the data. I know Canvas quite well as a student and teacher. I was involved in the pilot program at the high school, and I mentored several of the participants over the first couple of years of its roll out. Therefore, I made the decision to note my biases, bracket them, and allow the participants' data to speak for itself.

Recommendations for Future Research

In consideration of this study's findings, limitations, and the delimitations, it is recommended that future studies explore the blind spots of this study. One recommendation would be to incorporate a quantitative element to the study. A questionnaire of features used, how often they're used, encounters with cheating and plagiarism, scales of comfort level with different uses and features, etc. could open the study to more interpretations with hard data. It is also recommended to explore other Learning Management Systems (Google classroom, Moodle,

Schoology, etc.). Exploring other LMS, the features they offer, the ways those teachers utilize it, and how students respond to its use which may influence the decisions teachers make in how they use it. In this case, it would require the need to branch out beyond Big Wave High School.

This study only took into account two departments' perspectives and accounts with Canvas; therefore, another recommendation would be to explore the experiences of teachers in other departments, such as Science, Math, Foreign Language, Health, Business, the Arts, etc. Their needs differ from those of the English Language Arts and History teachers; however, what they use and how could inspire those teachers to try different features to suit their needs.

One final recommendation for future study would be to include students as participants. It would be beneficial for all stakeholders to understand their firsthand accounts and explore the topics that came to light in this study, for example: What do students need to better their experiences in a blended learning environment? Do they find the ethical, moral code of cheating to be blurred when behind a screen? Do they find their best work to be done on a computer or by hand? How do they prefer to read class resources, a book or a posted PDF? What types of activities engage them more? Their perspectives could help bridge the gap of how teachers are using the LMS, the potential features of the LMS, and what the students need.

Conclusion

Technology found its way into the high school classroom in various ways, but the LMS brings multiple features together for teachers' convenience of a virtual filing cabinet to share with students with the click of a few buttons. Teachers do not see a direct correlation between the technology and learning outcomes, but they find it helpful in organization, encouraging participation, and with teaching writing—but not assigning or grading it. Advantages and disadvantages to using the LMS exist and impact teachers' decisions for what to share, such as

class information, resources, homework assignments, and what not to assign on Canvas, such as notetaking, objective assessments, written assessments, and some homework assignments. Overall, professional development influences the perceived influence of this technology for both teacher responsibility and student accountability, which teachers do not agree are equal in reciprocation. This technology creates a ripple effect to both past and present. Educators need to balance the core understanding of education and children, in ways such as how they learn, develop, and thrive with theories such as Bandura's (1977) social cognitive theory and self-efficacy, Lave's (Lave & Wenger, 1991) situated learning theory, and Slavich and Zimbardo's (2012) transformational teaching theory. The core values of these theories remain relevant to society and education today; however, with technology constantly changing and evolving, teachers must also view themselves as the students of these forces, to which these theories also then apply. Canvas provides students with an opportunity to connect to their teacher and classroom at any time and from just about anywhere. Multiple responses reflect teachers looking out for the betterment of student experience when utilizing the LMS, but all teachers emphatically agree, they can survive without it! Educators need the professional development to seamlessly adapt to technology, but they must make decisions based on their experience, their content, their pedagogical knowledge, their beliefs about how students learn, and the technology for what they can use it for in order to maintain not only the integrity of assessments but of the quality of education.

References

Adedoyin, O. B., & Soykan, E. (2020). COVID-19 pandemic and online learning: the challenges and opportunities. *Interactive Learning Environment*, 1-13.

Ahern, K. J. (1999). Ten tips for reflexive bracketing. *Qualitative Health Research*, *9*(3), 407-411. doi:10.1177/104973239900900309

Aldahwan, N. S., & Alsaeed, N. I. (2020). Use of artificial intelligence in learning management system (LMS): A systematic literature review. *International Journal of Computer Applications, 175*(13), 16-26.

Alserhan, S., & Yahaya, N. (2021). Teachers' perspective on personal learning environments via learning management systems platform. *International Journal of Emerging Technology in Learning*, *16*(24).

Alshorman, B. A., & Bawaneh, A. K. (2018). Attitudes of faculty members and students towards the use of the learning management system in teaching and learning. *TOJET: The Turkish Online Journal of Educational Technology, 17*(3).

Angiello, R. (2010). Study Looks at online learning vs. traditional instruction. *Education Digest: Essential Readings Condensed for Quick Review, 76(*2), 56–59.

Ansyari, M., Groot, W., & De Witte, K. (2022). Teachers' preferences for online professional development: Evidence from a discrete choice experiment. *Teaching and Teacher Education, 119*.

Araka, E., Maina, E., Gitonga, R., Oboko, R., & Kihoro, J. (2021). University students' perception on the usefulness of learning management system features in promoting self-regulated learning in online learning. *International Journal of Education and Development using Information and Communication Technology, 17*(1), 45-64.

Bailey, D. H., Duncan, G. J., Murnane, R. J., & Yeung, N. A. (2021) Achievement Gaps in the Wake of COVID-19. *Educational Researcher, 50*(5), 266-275.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191–215. https://doi.org/10.1037/0033-295X.84.2.191

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

Berk, U. A., Karaoglan Yilmaz, F. G., & Ramazan, Y. (2021). Investigating the role of accepting learning management system on students' engagement and sense of community in blended learning. *Education and Information Technologies, 26*(4), 4751-4769.

Bloom, B. S. (Ed.), Englehart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). *The taxonomy of educational objectives; the classification of educational goals.* (Handbook 1: Cognitive domain). David McKay Company.

Bouilheres, F., Le, L. T., McDonald, S., Nkhoma, C., & Jandug-Montera, L. (2020). Defining student learning experience through blended learning. *Education and Information Technologies*, *25*, 3049-3069.

Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. Sage publications.

Brown, A., Lawrence, J., Basson, M., & Redmond, P. (2020). A conceptual framework to enhance student online learning and engagement in higher education. *Higher Education Research & Development, 41*(2), 284-299.

Cabero-Almenara, J., Arancibia, M.L., & Del Prete, A. (2019). Technical and didactic knowledge of the Moodle LMS in higher education. Beyond functional use. *Journal of New Approaches in Educational Research (8)*1. DOI:10.7821/naer.2019.1.327

Cabı, E. (2018). The impact of the flipped classroom model on students' academic achievement. *International Review of Research in Open and Distributed Learning, 19*(3).

Cardullo, V., Wang, C. H., Burton, M., & Dong, J. (2021). K-12 teachers' remote teaching self-efficacy during the pandemic. *Journal of Research in Innovative Teaching & Learning.*

Carrillo, C., & Flores, M. A. (2020). COVID-19 and teacher education: a literature review of online teaching and learning practices. *European Journal of Teacher Education, 43*(4), 466-487.

Chao, C., Chen, Y., & Chuang, K. (2015). Exploring students' learning attitude and achievement in flipped learning supported computer aided design curriculum: A study in high school engineering education. *Computer Applications in Engineering Education*, *23*(4), 514-526.

Chauhan, S. (2017). A meta-analysis of the impact of technology on learning effectiveness of elementary students. *Computers & Education, 105*, 14-30.

Cheng, L., Ritzhaupt, A. D., & Antonenko, P. (2019). Effects of the flipped classroom instructional strategy on students' learning outcomes: a meta-analysis. *Educational Technology Research and Development, 67,* 793-824.

Chow, J., Tse, A., & Armatas, C. (2018). Comparing trained and untrained teachers on their use of LMS tools using the Rasch analysis. *Computers & Education, 123*, 124-137.

Chu, S., Reynolds, R. B., Tavares, N. J., Notari, M., & Lee, C. (2017). *21st century skills development through inquiry-based learning from theory to practice.* Springer.

Coates, H., James, R., & Baldwin, G. (2005). A critical examination of the effects of learning management systems on university teaching and learning. *Tertiary Education and Management, 11*, 19-36.

Cobb, P., & Bowers, J. (1999). Cognitive and situated learning perspectives in theory and practice. *American Educational Research Association, 28*(2), 4-15.

Colaizzi, P. (1978). Psychological research as a phenomenologist views it. In: Valle, R. S. & King, M. (1978). *Existential alternatives for psychology.* Open University Press.

Conklin, S. (2020). Evaluating LMS. In D. Barreto, A. Rottmann, & S. Rabidoux (Eds.), *Learning management systems: Choosing the right path for your organization.* EdTech Books.

Cox, S., & Osguthorpe, R. T. (2003). Building an online instructional design community: Origin, development, and the future. *Educational Technology*, *43*(5), 44-48.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches* (5th ed.). SAGE Publications.

DiCicco-Bloom, B., & Crabtree, B. F. (2006). The qualitative research interview. *Medical Education*, *40*(4), 314-321.

Dinbar, M., Suorsa, A., Hermes, J., Karppinen, P., & Naykki, P. (2021). Comparing technology acceptance of K-12 teachers with and without prior experience of learning management systems: a COVID-19 pandemic study. *Journal of Computer Assisted Learning, 37*(6), 1553-1565.

Dubé, A. K., & Wen, R. (2022). Identification and evaluation of technology trends in K-12 education from 2011 to 2021. *Education and Information Technologies, 27,* 1929-1958.

Dwivedi, A., Dwivedi, P., Bobek, S., & Zabukovšek, S. S. (2019). Factors affecting students' engagement with online content in blended learning. *Kybernetes, 48*(7), 1500-1515.

Ebersold, S. (2021). *Accessibility and reinventing education.* (Ebersold, Ed.) ISTE, Ltd.

Emerson, R. M., Fretz, R. I., & Shaw, L. L. (2011) *Writing ethnographic fieldnotes* (2nd ed.). University of Chicago Press. (Original work published 1995).

Englund, C., Olofsson, A. D., & Price, L. (2017). Teaching with technology in higher education: understanding conceptual change and development in practice. *Higher Education Research & Development, 36*(1), 73-87.

Fletcher, G. H. (2004). Technology's role in accountability and assessment: Technological horizons in education. *T.H.E. Journal, 31*(9), 2-2,4.

Florence, E. A., & Kolski, T. (2021). Investigating the flipped classroom model in a high school writing course: Action research to impact student writing achievement and engagement. *Tech Trends, 65*, 1042-1052.

Fonseca, D., García-Peñalvo, F. J., & Camba, J. D. (2021). New methods and technologies for enhancing usability and accessibility of educational data. *Universal Access in the Information Society, 20*(3), 421-427.

Foreman, S. D. (2017). *The LMS Guidebook: learning management systems demystified.* ATD Press.

Gagné, R. M. (1985). *The conditions of learning* (4th ed.). Holt, Rinehart & Winston.

Gill, P., & Baillie, J. (2018). Interviews and focus groups in qualitative research: an update for the digital age. *British Dental Journal, 255*(7), 668-672.

Giorgi, A. P., & Giorgi, B. M. (2003). The descriptive phenomenological psychological method. In P. M. Camic, J. E. Rhodes, & L. Yardley (Eds.), *Qualitative research in psychology: Expanding perspectives in methodology and design* (pp. 243–273). American Psychological Association. https://doi.org/10.1037/10595-013

Gradschools. (2020). Education dynamics. https://www.gradschools.com/degree-guide/technology-in-the-classroom-timeline-curriculum-planning

Green, K. R., & Chewning, H. L. (2020). The fault in our systems: LMS as a vehicle for critical pedagogy. *TechTrends, 64*(3), 423-431.

Gu, P., & Guo, J. (2017). Digital case-based learning system in school. *PLoS ONE*, *12*(11): e0187641.

Guggemos, J., & Seufert, S. (2021). Teaching with and teaching about technology-Evidence for professional development of in-service teachers. *Computers in Human Behavior, 115.*

Gunesekera, A. (2020). Moderating role of user types and system usability on IS success model: A meta-analysis of e-learning. *International Journal of Information, Business and Management, 12*(4), 39-61.

Harris, J., Phillips, M., Koehler, M., & Rosenberg, J. (2017). TPCK/TPACK research and development: past, present, and future directions. *Australian Journal of Educational Technology, 33*(3). https://doi.org/10.14742/ajet.3907

Hedtrich, S., & Graulich, N. (2018). Using software tools to provide students in large classes with individualized formative feedback. *Journal of Chemical Education, 95*(12), 2263-2267.

Heo, H., Bonk, C. J., & Doo, M. Y. (2021). Enhancing learning engagement during COVID-19 pandemic: Self-efficacy in time management, technology use, and online learning environments. *Journal of Computer Assisted Learning, 37*(6), 1640-1652.

Herring, M. C., Koehler, M. J., & Mishra, P. (2016). *Handbook of technological pedagogical content knowledge (TPACK) for educators.* Routledge.

Hidalgo, C., Landry, D., Simoes, A., & Speiser, J. (2014). *Data USA*. https://datausa.io

Kearsley, G. (1998). Educational technology: A critique. *Education Technology, 38*(1), 47-51.

Keen, E. (1975). *A primer in phenomenological psychology.* University Press of America.

Kim, L. E., & Asbury, K. (2020). 'Like a rug had been pulled from under you': The impact of COVID-19 on teachers in England during the first six weeks of the UK lockdown. *British Journal of Educational Psychology, 90*(4), 1062-1083.

Kim, L. E., Oxley, L., & Asbury, K. (2021). "My brain feels like a browser with 100 tabs open": A longitudinal study of teachers' mental health and well-being during the COVID-19 pandemic. *British Journal of Educational Psychology, 92*(1), 299-318.

Kintu, M. J., Zhu, C. & Kagambe, E. (2017). Blended learning effectiveness: The relationship between student characteristics, design features and outcomes. International Journal of Educational Technology in Higher Education, *14*(7).

Kite, J., Schlub, T. E., Zhang, Y., Choi, S., Craske, S., & Dickson, M. (2020). Exploring lecturer and student perceptions and use of a learning management system in a postgraduate public health environment. *E-Learning and Digital Media, 17*(3), 183–198.

Knowles, M. S., Holton III, E. F., & Swanson, R. A. (2005). *The adult learner: the definitive classic in adult education and human resource development* (6th ed.). Elsevier.

Koh, J. H., & Kan, R.Y. (2021). Students' use of learning management systems and desired e-learning experiences: are they ready for next generation digital learning environments? *Higher Education Research & Development, 40*, 995 - 1010.

la Velle, L., Newman, S., Montgomery, C., & Hyatt, D. (2020). Initial teacher education in England and the COVID-19 pandemic: challenges and opportunities. *Journal of Education for Teaching, 4*(46), 596-608.

Lave, J., & Wenger, E. (1991). *Situated learning: legitimate peripheral participation.* Cambridge University Press.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Sage Publications, Inc.

Machajewski, S., Steffen, A., Elizabeth, R. F., & Rivera, E. (2019). Patterns in faculty learning management system use. *TechTrends, 63*(5), 543-549.

Madigan, D. J., & Kim, L. E. (2021). Does teacher burnout affect students? A systematic review of its association with academic achievement and student-reported outcomes. *International Journal of Educational Research, 105*.

Marshall, C. & Rossman, G.B. (2014) *Designing qualitative research.* SAGE.

Marvasti, A. (2014). Analysing observations. In *The SAGE Handbook of Qualitative Data Analysis* (pp. 354-366). SAGE Publications Ltd, https://doi.org/10.4135/9781446282243

McCracken, G. (1988). *The Long Interview*. India: SAGE Publications.

McLafferty, I. (2004). Focus group interviews as a data collecting strategy. *JAN: Leading Global Nursing Research, 48*(2).

Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation*. John Wiley & Sons, Incorporated.

Mishra, P., Koehler, M. J., & Kereluik, K. (2009). The song remains the same: Looking back to the future of educational technology. *Tech Trends, 53*(5), 48-53.

Morehead, K., Dunlosky, J., & Rawson, K. A. (2014). How much mightier is the pen than the keyboard for note-taking? A replication and extension of Mueller and Oppenheimer (2014). *Educational Psychology Review, 31*(3), 753–780.

Morrow, R., Rodriguez, A., & King, N. (2015). Colaizzi's descriptive phenomenological method. *The Psychologist, 28*(8), 643-644.

Moustakas, C. (1994) *Phenomenological research methods.* Thousand Oaks, CA: Sage.

Mutton, T. (2020). Teacher education and COVID-19: responses and opportunities for new pedagogical initiatives. *Journal of Education for Teaching, 4*(46), 439-441.

New International Version. (2011). BibleGateway.com. http://www.biblegateway.com/versions/New-International-Version-NIV-Bible/#booklist

Nguyen, G., & Bower, M. (2018). Novice teacher technology-enhanced learning design practices: the case of the silent pedagogy. *British Journal of Educational Technology, 49*(6), 1027-1043.

Panigrahi, R., Srivastava, P. R., & Sharma, D. (2018). Online learning: Adoption, continuance, and learning outcome—A review of literature. *International Journal of Information Management, 43*, 1-14.

Piaget, J. (1970). *The psychology of a child*. Basic Books.

Polkinghorne, D. E. (1989). Phenomenological research methods. In R. S. Valle & S. Halling (Eds.) *Existential-phenomenological perspectives in psychology* (pp. 41-60). Plenum Press.

Polly, D. (2011). Teachers' learning while constructing technology-based instructional resources. *British Journal of Educational Technology, 42*(6), 950-961.

Pressley, T. (2021a). Factors contributing to teacher burnout during COVID-19. *Educational Researcher, 50*(5), 325-327.

Pressley, T. (2021b). Returning to teaching during COVID-19: an empirical study on elementary teachers' self-efficacy. *Psychology in the Schools, 58*(8), 1611-1623.

Qu, S. Q., & Dumay, J. (2011). The qualitative research interview. *Qualitative Research in Accounting and Management, 8*(3), 238-264.

Rafiola, R., Setyosari, P., Radjah, C., & Ramli, M. (2020). The effect of learning motivation, self-efficacy, and blended learning on students' achievement in The Industrial Revolution 4.0. *International Journal of Emerging Technologies in Learning (iJET), 15*(8), 71-82.

Ramírez-Correa, P. E., Rondan-Cataluña, F. J., Arenas-Gaitán, J., & Alfaro-Perez, J. L. (2017). Moderating effect of learning styles on a learning management system's success. *Telematics and Informatics, 34*(1), 272-286.

Redmond, P., Heffernan, A., Abawi, L., Brown, A., & Henderson, R. (2018). An online engagement framework for higher education. *Online Learning, 22*(1), 183-204. doi:10.24059/olj.v22i1.1175

Rockinson-Szapkiw, A. J., & Spaulding, L. S. (2014). *Navigating the doctoral journey: A handbook of strategies for success*. Rowman & Littlefield.

Rogers, E. M. (1962). *Diffusion of innovations*. New York, Free Press of Glencoe.

Rossetto, K. R. (2014). Qualitative research interviews: Assessing the therapeutic value and challenges. *Journal of Social and Personal Relationships*, *31*(4).

Rossman, G. B., Rallis, S. F. (2016). *An introduction to qualitative research: Learning in the field*. United States: SAGE Publications.

Rottman, A., Barreto, D., & Rabidoux, S. (2020). *Learning management systems: Choosing the right path for your organization.* EdTech Books.

Sahin, M., & Yurdugül, H. (2022). Learners' needs in online learning environments and third generation learning management systems (LMS 3.0). *Technology, Knowledge, and Learning, 27*, 33-48.

Sáiz-Manzanares, M. C., Marticorena-Sánchez, R., Rodríguez-Díez, J., Rodríguez-Arribas, S., & Díez-Pastor, J. (2021) Improve teaching with modalities and collaborative groups in an

LMS: an analysis of monitoring using visualization techniques. *Journal of Computing in Higher Education, 33*(3). Sáiz

Saldaña, J. (2011). *Fundamentals of qualitative research*. Oxford University Press.

Saldaña, J. (2021). *The coding manual for qualitative researchers* (4th ed.). Sage.

Sánchez-Garcés, J., López-Gonzalez, J. L., Palacio-Farfán, M., Coronel-Sacón, V., Ferney-Teheran, Y., Peñuela-Pineda, J., & Avila-George, H. (2021). Exploratory analysis of fundamental spiritual support factors to a positive attitude in patients with COVID-19 using natural-language processing algorithms. *Applied Sciences, 11*(20). https://doi.org/10.3390/app11209524

Schumacher, C., & Ifenthaler, D. (2018). The importance of students' motivational dispositions for designing learning analytics. *Journal of Computing in Higher Education, 30*, 599-619.

Schunk, D. (2020). *Learning theories: An educational perspective* (8th ed.). Pearson.

Sheehan, A. (2014). A conceptual framework for understanding transcendental phenomenology through the lived experiences of biblical leaders. *Emerging Leadership Journeys, 7*(1).

Shi, Y., Tong, M., & Long, T. (2021). Investigating relationships among blended synchronous learning environments, students' motivation, and cognitive engagement: A mixed methods study. *Computers & Education*, *168*.

Simonson, M. (2008). Defining educational technology. *Fischler College of Education: Faculty Articles*, 162.

Slavich, G. M. & Zimbardo, P. G. (2012). Transformational teaching: Theoretical underpinnings, basic principles, and core methods. *Educ Psychol Rev, 24*, 569-608.

Smallhorn, M. (2017). The flipped classroom: A learning model to increase student engagement, not academic achievement. *Student Success, 8*(2), 43-53. https://doi.org/10.5204/ssj.v8i2.381

Smith, K., & Hill, J. (2018). Defining the nature of blended learning through its depiction in current research. *Higher Education Research & Development, 38*(2), 383-397.

Stevick, E. L. (1971). An empirical investigation of the experience of anger. In A. Giorgi, W. F. Fischer, & R. von Eckartsberg (Eds.), *Duquesne studies in phenomenological psychology*: Vol. 1 (pp. 132–148). Pittsburgh: Duquesne University Press.

Stockless, A. (2018). Acceptance of learning management system: The case of secondary school teachers. *Education and Information Technologies, 23*(3), 1101-1121.

Thompson, P. (2017). Communication technology use and study skills. *Active Learning in Higher Education, 18*(3), 257–270.

Tiong-Thye, G., & Yang, B. (2021). The role of e-engagement and flow on the continuance with a learning management system in a blended learning environment. *International Journal of Educational Technology in Higher Education*, *18*(1).

Tomasik, M. J., Helbling, L. A., & Moser, U. (2020). Educational gains of in-person vs. distance learning in primary and secondary schools: A natural experiment during the COVID-19 pandemic school closures in Switzerland. *International Journal of Psychology, 56*(4), 566-576.

Tseng, H. (2020). An exploratory study of students' perceptions of learning management system utilisation and learning community: Association for Learning Technology Journal. *Research in Learning Technology*, *28.*

U.S. News & World Report L.P. (2020). *U.S. News & World Report.* https://www.usnews.com/

Uerz, D., Volman, M., & Kral, M. (2018). Teacher educators' competences in fostering student teachers' proficiency in teaching and learning with technology: an overview of relevant research literature. *Teaching and Teacher Education, 70*, 12-23. https://doi.org/10.1016/j.tate.2017.11.005

Ümmühan, A., & Ergün, E. (2019). Online students' LMS activities and their effect on engagement, information literacy and academic performance. *Interactive Learning Environments, 1*, 71-84.

Utami, I. S. (2018). The effect of blended learning model on senior high school students' achievement. *EDP Sciences*.

van Manen, M. (2017a). But is it phenomenology? *Qualitative Health Research, 27*(6), 775-779.

van Manen, M. (2017b). Phenomenology and meaning attribution. *Indo - Pacific Journal of Phenomenology, 17*(1), 1-12.

van Manen, M. (2017c). *Phenomenology of practice: Meaning-giving methods in phenomenological research and writing.* Routledge.

Vygotsky, L. (1962). *Thoughts and language*. MIT Press.

Warr, M., Punya, M., & Scragg, B. (2020). Designing theory. *Educational Technology, Research and Development, 68*(2), 601-632. https://doi.org/10.1007/s11423-020-09746-9

Watson, W. R., and Watson, S. L. (2007). An argument for clarity: What are learning management systems, what are they not, and what should they become? *Tech Trends, 51*(2). https://cardinalscholar.bsu.edu/bitstream/handle/123456789/194513/Watson_Argument_Clarity_Techtrends_2007.pdf?sequence=1&isAllowed=y

Weatherwax, M. (2017). Are students tech-savvy or text-savvy? *Education Week*.

Westfall, B. (2020). Back to school: The top learning management system statistics impacting education. Capterra, Inc. capterra.com

Wicaksono, G. W., Pamula, B. N., Evi, D. W., & Yus, M. C. (2021). Canvas Learning Management System feature analysis using feature-oriented domain analysis (FODA*). IOP Conference Series. Materials Science and Engineering*, *1077*(1).

Winstone, N., Bourne, J., Medland, E., Niculescu, I., & Rees, R. (2021). "Check the grade, log out": students' engagement with feedback in learning management systems. *Assessment and Evaluation in Higher Education*, *46*(4), 631-643. DOI: 10.1

Wolcott, H. F. (1994). *Transforming qualitative data: description, analysis, and interpretation*. India: SAGE Publications.

Yeh, Y. F., Chan, K. K. H., & Hsu, Y. S. (2021). Toward a framework that connects individual TPACK and collective TPACK: A systematic review of TPACK studies investigating teacher collaborative discourse in the learning by design process. *Computers & Education*, 171.

Yousaf, F., Shehzadi, K., & Aali, A. H. (2021). Learning management system (LMS): The perspectives of teachers. *Global Social Sciences Review*, *6*(1), 183-196. DOI: 10.31703/gssr.2021(VI-I).18

Appendix A

IRB Approval

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

July 28, 2023

Jamie Onorato
Dina Samora

Re: IRB Exemption - IRB-FY23-24-6 The lived experiences of high school humanities teachers as they utilize an LMS to facilitate and support students' learning: A phenomenological study

Dear Jamie Onorato, Dina Samora,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

Category 2.(iii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:
The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

For a PDF of your exemption letter, click on your study number in the My Studies card on your Cayuse dashboard. Next, click the Submissions bar beside the Study Details bar on the Study details page. Finally, click Initial under Submission Type and choose the Letters tab toward the bottom of the Submission Details page. Your information sheet and final versions of your study documents can also be found on the same page under the Attachments tab.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,
G. Michele Baker, PhD, CIP
Administrative Chair
Research Ethics Office

Appendix B

Permission Request Letter

7 July 2022

[redacted]
Superintendent of District
[redacted]

[redacted]

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a doctoral degree. The title of my research project is The Lived Experiences of High School Humanities Teachers as They Utilize an LMS to Facilitate and Support Learning for Their Students: A Phenomenological Study and the purpose of my research is to understand how a Learning Management System (LMS) is being utilized by high school humanity teachers in a blended learning environment.

I am writing to request your permission to conduct my research at [redacted] and contact members of the staff to invite them to participate in my research study. For data collection, participants will be asked to participate in either an interview or focus group and I will observe their Canvas modules.

Participants will be asked to contact me to schedule an interview or will be asked to attend a focus group interview. The data will be used to explore how teachers utilize their LMS and the role it plays in their blended learning environment. Participants will be presented with informed consent information prior to participating. Taking part in this study is completely voluntary, and participants are welcome to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, please provide a signed statement on official letterhead indicating your approval. A permission letter document is attached for your convenience.

Sincerely,

Jamie L. Onorato
Doctoral Candidate

Appendix C

Permission Request Approval Letter

[redacted]

February 28, 2023

Jamie L. Onorato
Doctoral Candidate
[redacted]

Dear Jamie Onorato,

After careful review of your research proposal entitled, The Lived Experiences of High School Humanities Teachers as They Utilize a Learning Management System (LMS) to Facilitate and Support Learning for Their Students: A Phenomenological Study, I have decided to grant you permission to contact our faculty and invite them to participate in your study and conduct your study at Manasquan High School.

Check the following boxes, as applicable:

☑ I grant permission for Jamie Onorato to contact staff members of the History and English departments of [redacted] to invite them to participate in her research study.

☑ I am requesting a copy of the results upon study completion and/or publication.

Sincerely,

[redacted]

Appendix D

Recruitment Letter

Dear [Recipient]:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a doctoral degree. The title of my research project is The Lived Experiences of High School Humanities Teachers as They Utilize an LMS to Facilitate and Support Learning for Their Students: A Phenomenological Study and the purpose of my research is to understand how a Learning Management System (LMS) is being utilized by high school humanity teachers in a blended learning environment, and I am writing to invite eligible participants to join my study.

Participants must be at least 18 years of age, a teacher in the district, a teacher with at least five years of experience (three of those in-district), and at least three years of experience with the district's LMS. Participants, if willing, will be asked to participate in an individual interview (1 hour), a designer privilege where I can observe your online Canvas modules (30 minutes), and potentially a focus group (90 minutes). Names and other identifying information will be requested as part of this study, but the information will remain confidential.

An information sheet is attached to this email. The information sheet contains additional information about my research. Please read the entire information sheet before deciding to participate in my research study.

Sincerely,

Jamie Onorato
Doctoral Candidate
[redacted]

Appendix E

Consent Form

Title of the Project: The lived experiences of high school humanities teachers as they utilize an LMS to facilitate and support students' learning: A phenomenological study.

Principal Investigator: Jamie Onorato, Doctoral Candidate School of Education, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be at least 18 years of age, a teacher in the district, a teacher with at least five years of experience (three of those in-district), and at least three years of experience with the district's LMS.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to understand how a Learning Management System (LMS) is being utilized by high school humanity teachers in a blended learning environment.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do either #1 or #3, and #2 of the following:

1. Participate in an in-person, audio-recorded interview that will take no more than 1 hour. This will be audio recorded.
2. Provide designer privileges to your Canvas shell from a former class. This will be observed for approximately 30 minutes and screenshots will be taken of modules, setup, and features as well as any other relevant and related items.
3. Participate in a focus group, which will be audio-recorded and will take approximately 90 minutes.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include a better understanding of how the LMS is used in a high school's blended learning environment, which can further aid how decisions are made regarding educational technology and a framework for best practices.

What risks might you experience from being in this study?

The expected risks from participating in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

I am a mandatory reporter. During this study, if I receive information about child abuse, child neglect, elder abuse, or intent to harm self or others, I will be required to report it to the appropriate authorities.

How will personal information be protected?

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher[s] will have access to the records.

- Interviews will be conducted in a location where others will not easily overhear the conversation.
- Confidentiality cannot be guaranteed in focus group settings. While discouraged, other members of the focus group may share what was discussed with persons outside of the group.
- Data collected from you may be used in future research studies. If data collected from you is reused or shared, any information that could identify you, if applicable, will be removed beforehand.
- Data will be stored on a password-locked computer. After three years, all electronic records will be deleted, and all hardcopy records will be shredded.
- Recordings will be stored on a password-locked computer/etc. for three years. The researcher and members of her doctoral committee will have access to these recordings.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please contact the researcher at the email address/phone number included in the next paragraph. Should you choose to withdraw, data collected from you, apart from focus group data, will be destroyed immediately and will not be included in this study. Focus group data will not be destroyed, but your contributions to the focus group will not be included in the study if you choose to withdraw.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Jamie Onorato. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [redacted].

You may also contact the researcher's faculty sponsor, Dr. Dina Samora at [redacted]

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our email address is irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

☐ The researcher has my permission to audio-record me as part of my participation in this study.

_____
Printed Subject Name

_____

_____
Signature & Date