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Middle School Teachers' Experiences Implementing the Workshop Model in Their Classroom

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Abstract

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MA, Touro College 2011

MA, Touro College 2004

B Sc, University of Port-Harcourt Nigeria, 1997

Proposal Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Due to the increasing diversity in U.S. schools, there is a need for differentiated and individualized educational models for these learners to be successful in the future. However, little is known about innovative educational models allowing differentiation and individualized education. The purpose of this basic qualitative study was to understand the experiences and perceptions of middle school teachers implementing the innovative Workshop Model (WSM) of teaching and learning. The conceptual framework for this study included the diffusion of innovation, sociocultural, andragogical theories, and the principles of technological pedagogical content knowledge (TPACK). The participants were 10 middle school teachers recruited online with 3 years or more experience implementing the WSM in their classrooms. The data collected for this study included semi-structured phone interviews. Thematic inductive analysis of the interviews was used to identify themes. Results indicated that (a) teachers described the need to be flexible in their classroom to successfully implement WSM; (b) teachers were motivated to implement the WSM because their students were learning; (c) significant concerns impairing the implementation were the result of issues from outside their classroom; and (d) the teachers responded to substantial technology integration challenges including the lack of training, and access to hardware and software. The results of this study provide administrators and teachers new understanding on how the implementation of an innovative instructional model can support the goal of educating knowledge workers for the 21st century workforce in the U.S.

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Dedication

First and foremost, this dissertation is dedicated to God Almighty who is the source of knowledge and life that has sustained me in this academic journey. Accomplishing this great task would have been impossible without His abundant grace and sustenance.

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To the team of middle school teachers who agreed to be part of this study, I say thank you to all, your participation in my research offered broad support that made this study successful.

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Chapter 1: Introduction to the Study

The topic of this study was the implementation of an innovative educational program designed to support the development of advanced 21st century knowledge workers. According to data from the annual report Building a Grad Nation: Progress and Challenge in Raising High School Graduation Rates (Atwell, Balfanz, Bridgeland, & Ingram, 2019), the graduation rate for students who are English language learners, low socioeconomic status, and students with disabilities graduation rate is below 70%. Eight of ten students who did not graduate were low income. Urban schools have larger numbers of student of color and students living in poverty (Scott & Home, 2016). As a result, policymakers, and leaders in the field of education across the United States have instituted new reforms and policy frameworks to increase the number of students who are graduating urban high school with the skills needed to be career or college ready.

Dole, Bloom, and Kowalske (2016) study found that the U. S. educational system requires new constructivist and differentiated pedagogies to prepare diverse students with required 21st century skills. To attain this goal, teachers must change their traditional instructional practices, standardized assessment processes, and teacher and student relationships to a constructivist project-based learning environment (Dole et al., 2016; Fullan & Langworthy, 2013). As a result, educators face the task of shifting their traditional teacher-centered method of instruction to constructivist learner-centered pedagogy to increase their students' readiness to succeed beyond k12 education.

The purpose of this basic qualitative study was to examine middle school teachers' experiences and views in implementing the innovative Workshop Model, (WSM) designed based on constructivist learning concepts utilizing a differentiated instructional model with the integration of learning technologies. The teachers in this study have implemented the WSM in their classrooms. Understanding how individual teachers implement this innovative instructional method of the WSM using technology may provide new knowledge to support and improve future implementation of reform programs designed to support the development of 21st century learning in U. S. schools.

Background

In response to reform efforts implemented in U. S. school districts, teachers face the challenges of adopting best practices to foster 21st century learning for every student. Koh, Chai, and Hong (2017) described 21st century knowledge as the learning experiences that help students to promote the socio-cultural, cognitive, meta-cognitive, productive, and technological competencies to function in a 21st century workplace. These schools implementing reform have tasked educators with redesigning and implementing learning environments that support student development toward a more dynamic, interactive, and global society.

Given that the traditional method of instruction does little in helping students develop confidence, ownership, and beliefs in their abilities and learning, teachers in today's educational settings need to provide student-centered instruction (Bautista, Toh, Mancendo & Won, 2018). Studies have examined the effectiveness of utilizing innovative student-centered instructional approach in K-12 grade classroom (Ashley,

2016; Bautista et al., 2018; Calkins & Tolan, 2010; Casket & Henry, 2017; Ciampa, 2016; Fox, & Algina, 2016; Hattie et al., 2017; Leu, Kinzer, Coiro, Castek, & Henry, 2017; Porath, 2016; Russell, 2012; Sand, 2018; Tomlinson, 2017). The trend has necessitated a wave of change in the instructional approach from traditional or teacher-directed didactic method to a student-centered approach which places the learner at the heart of teaching process while the teacher designs the instruction to address the students' ideas, interests, and needs (Bautista et al., 2018).

Student-centered instruction allows teachers to nurture the autonomy of the learner as well as assist students in developing key 21st century competencies such as collaboration, self-directed learning, and communication skills to become life- long learners. This necessitates a switch to active engagement through project-based learning. This basic qualitative study seeded to develop new understandings of the implementation of a new project-based learning environment from the perspective of the teacher.

To increase students' active participation in the teaching and learning process, educators need to shift their instructional practice to student-centered pedagogies (Bautista et al., 2018). To achieve this task, student-centered pedagogies that are constructivist-based that allow students to develop the 21st century skills of creativity, critical thinking, problem-solving, and innovation (Partnership for 21st. Century Skills, 2013) must inform teachers' instructional practices. The purpose of this study was to understand the teachers' experiences implementing a constructivist-based educational program that is differentiated to support the independent progress of each student through the voice of the teachers implementing the new educational program.

Kul (2018) noted that teachers' experiences and beliefs inform the learning environment they create. Teachers implementing innovative pedagogies need collaboration, reflection, and professional development to respond to the multiple stressors of implementing change in their classroom (Porath, 2016). They must manage the conceptual, pedagogical, cultural, and political dilemmas they encountered during the implementation of reform (Porath, 2016). Understanding the teachers' perceptions of change in their classroom is a critical source of information on how teachers implement change. This study defined the teachers' perceptions of the implementation of a constructivist, problem-based learning environment in their urban middle school classrooms.

Research has described 21st century learning as the learning experiences that help students to foster the socio-cultural, cognitive, meta-cognitive, and technological competencies to function in a 21st century workplace (Bautista et al., 2018; Ertmer, Schlosser, Clase, & Adedokun, 2014; Hindman, Wasik, & Erhart, 2012). In a reform-based classroom, teachers are implementing multiple levels of reform identified as an innovation cluster (Russell, 2012). An innovation cluster means that teachers implementing change in their classroom are simultaneously changing the curriculum, which results in changing the nature of interactions in the classroom, which results in changing the process of assessment of learning. In this study, the teachers have designed the curriculum, developed a differentiated level of interactions in the classroom, and integrated new technologies while being responsible for standardized assessments.

Teachers implementing reform are tasked with redesigning and implementing learning environments that support student development toward a more dynamic, interactive, and global society. To understand how teachers, respond to the complex, difficult activity of implementing layers of reform in their classroom, researchers must understand how teachers' experiences and perceptions influence the implementation of reform-based education in their classrooms. However, few studies identify teachers' perceptions and experiences while implementing a reform-based educational program using a holistic lens that defines the relationship between the teacher's content knowledge, pedagogical knowledge, and technological knowledge. This study fills that gap by utilizing the lens of technological pedagogical content knowledge (TPACK) to understand the teacher's perceptions and experiences implementing an innovative new program, the WSM, into an urban middle school classroom. Using the lens of TPACK provided the researcher with new understandings on the differing levels of innovation, new content curriculum, new pedagogical issues, new technological issues, and related assessment issues.

The purpose of this basic qualitative study was to understand the teachers' perceptions and experience implementing the innovative WSM designed based on constructivist learning concepts utilizing a differentiated instructional model with the integration of learning technologies. The teachers in this study have implemented the WSM in their classrooms. Understanding how individual teachers implement this innovative instructional method may provide new knowledge to support the future

implementation of reform programs designed to support the development of 21st century learning in U. S. schools.

Problem Statement

The WSM is an example of a reform model implemented to support the development of 21st century learning. Koh et al. (2017) identified 21st century learning as the engagement of students in collaborative work and real-world problem solving through effective exploitation of information and communications technologies (ICT). The WSM is a constructivist project-based learning environment that engages the learners in developing projects in groups (Williams, 2015). Research has supported the underlying precepts of the WSM, such as self-directed learning activities, including extensive reading and writing opportunities (Porath, 2016).

The WSM is a differentiated instructional model that is based on constructivist learning principles. The WSM is designed to support diverse learners through a differentiated, problem-based learning environment. To implement the WSM, teachers must design and implement a new curriculum, a new instructional model, and integrate new technologies into their middle school classrooms (Porath, 2016). This non-traditional instructional model is being implemented in various school districts across the U.S. to promote essential 21st century skills of problem-solving, critical thinking, collaboration, and communication skills.

The WSM classroom allows educators to use a learner-centered pedagogical approach to differentiate and maximize instruction to meet individual students learning needs (Calkins & Tolan, 2010). Unlike the traditional method of instruction that makes

students' to be passive and disconnected from learning, the WSM of instruction promotes students' active participation. In a WSM classroom, students have choice and authority for their learning. The WSM student-centered pedagogy prepares students to succeed in a future where information is ever-changing.

The WSM classroom provides students the opportunity to engage in classroom discussions and dialogue with group members to share opinions and thoughts regarding class tasks (Tomlinson, 2017). Educators implementing the WSM of instruction act as a coach, or guide that facilitate the learning process through conferencing, small group instruction and station teaching of specific areas of needs to foster individual student's learning need. Alt (2015) found that teachers using the WSM in their classrooms were able to increase students' motivation to learn, increase students' comprehension skills, and improved students' opportunities for authentic experiences. The results of these studies highlighted the effectiveness of utilizing student-centered instructional strategies to improve learning.

Although student-centered instructional methods provide positive supports to students' academic performance, research has indicated that both new and experienced teachers in today's classroom still prefer to use the traditional pedagogies in their classroom due to its ease of implementation (Tomlinson, 2017). In addition, Krahenbuhl (2016) explained that some teachers might have concerns about losing a degree of power if they hand over decisions and direction to the students. Alternatively, teachers implementing student-centered instruction may fail to integrate appropriate technology because of the rapid technology growth and changes in today's classroom (Kul, 2018).

Within the existing literature on differentiation and student-centered instructional approach, research has given limited attention to examining the experiences of teachers' implementing the non-traditional instructional strategy of the WSM. Ashley (2016) study investigated Math WSM and the effect on students' academic achievement, while Sand (2018) used a quantitative approach to compare the effects of the WSM of teaching in middle grade. However, these studies focused on students' academic performance in a specific content area.

Implementing new instructional approaches impacts multiple areas of the classroom. Research on innovation often focuses on one aspect of implementing change. Sand (2018) and Ashley's (2016) research focused on students' academic success and curriculum efficacy without considering the emotional facet of educators implementing the instructional method. According to the New York State Education Technology Directors Association (2010), the educational system needs to develop innovative learning environments that address both the learners' needs for 21st century skills and knowledge. Hindman et al., (2012) noted that teachers' professional development must address the need to implement reform productively.

Understanding how these teachers experience implementing reform is a critical perspective needed to implement change in education. Although prior studies have explored the academic gains of students of teachers adopting and implementing innovative instructional approach in K-12 grade learning environment, (Hemmeter, Snyder, Fox, & Algina, 2016; Leu et al., 2017; Russell, 2012) few research studies have explored the experiences of middle school teachers implementing the non-traditional

instructional approach of WSM using the lens of TPACK. Research that defines the experiences of urban middle school teachers during the integration of a non-traditional WSM in their middle school classrooms is needed to understand the perspectives and experiences of these teachers implementing reform-based learning environments.

In many states across the U.S., a new curriculum is being implemented to develop 21st century skills and knowledge in response to changes in public policy. As the desire to improve the learning outcomes of U. S. students increases, a new legislative education reform titled Every Student Succeed Act (ESSA) was enacted in 2015 to replace the No Child Left Behind rigid accountability expectations. The purpose of the ESSA is to enable states and local communities to improve and support our nation's public schools and to ensure that every child can achieve. The goal of ESSA is to improve the education system by providing teachers, schools, and states adequate resources needed to give quality education to students (Darling-Hammond et al., 2016).

In most cases, the adoption of common core state standards (CCSS) into a school curriculum results in significant changes. The CCSS focuses on knowledge development to enable students to develop and attain competency that is specific for 21st century learners. 21st century learning is incorporated to describe the types of competencies needed to thrive in today's complex and interconnected global landscape. Examples of these skills include digital literacy, cultural competence, inventiveness, emotional awareness, entrepreneurship, critical thinking, and problem-solving (Partnership for 21st Century Learning, 2013).

This study was of the WSM implemented in urban middle schools in Northeastern U.S. states. The implementation of this new program was in response to these new policy standards. As a result, the teachers have the complex task of implementing this project-based, differentiated, and technologically based program with standardized assessments still in place. My study's focus was to understand how these teachers are implementing this new program by asking teachers currently implementing the WSM how they perceive and experience the implementation of the WSM.

Knowledge about implementing reform from the perspective of the teachers implementing the reform is a critical perspective needed to implement change in education. Thus, research that examines the perspectives and experiences of teachers during the implementation of a non-traditional WSM of instruction in the middle-grade classrooms is needed to understand the perspectives and experiences of these teachers implementing reform-based learning environments. A gap in research exists on innovation in education from the perspective of the teachers in the middle-grade classroom.

The purpose of this study was to understand the perceptions and experiences of middle school teachers implementing the WSM. The WSM includes the design and implementation of a constructivist, collaborative, differentiated, and student-centered instructional model. Additionally, the WSM focuses on developing specific content areas, including literacy. Finally, the WSM also includes the integration of new technologies. Consequently, teachers face the complex task to design and implement a modern

pedagogy, a focused content area, and new technologies. Additionally, these teachers are also required to do standardized testing on a regular schedule.

As a result, I used concepts inherent in TPACK to understand the experiences and perceptions of these teachers as they implement an innovation cluster (Russell, 2012). This study defined how the teachers' technological knowledge, content knowledge, and pedagogical knowledge linked to their experiences implementing this innovative instructional model. By using TPACK to understand the teachers' experiences and perceptions, this study was uniquely capable of developing new understandings in a systemic manner that is reflective of the complexity of designing and implementing reform in education. There were no studies identified that were designed to use TPACK to understand the perceptions and experiences of middle school teachers who are implementing the WSM in their classrooms with technology integration to develop 21st century knowledge in students.

A gap exists in research on innovation in education from the perspective of the teachers in the middle-grade classroom. This study sought to develop a new understanding of the experiences of urban middle school teachers who are implementing the WSM in their classrooms with technology integration. Teachers in today's educational settings have embraced an innovative instructional approach of teaching, such as the WSM, to ensure that students get prepared to succeed in a future where information is ever-changing. To achieve this goal, present-day educators must create meaningful learning experiences that allow students to develop the 21st century skills of

creativity, critical thinking, communication, collaboration, and innovation (Partnership for 21st. Century Skills, 2013) that will provide the educated citizens of the future.

Purpose of the Study

The purpose of this basic qualitative study was to examine middle school teachers' perceptions and experience implementing the innovative blended WSM designed based on constructivist learning concepts utilizing a differentiated instructional model with the integration of learning technologies. The problem that this study addressed was to identify how teachers implement reform implemented to develop 21st century knowledge for U. S. students. This study created new understandings of urban middle school teachers' experiences and perceptions in response to executing a technology-based, differentiated teaching and learning model.

Research Questions

The main research question for this study was What are the perceptions and experiences of middle school teachers implementing the innovative blended WSM designed as a constructivist learning model utilizing differentiated instructional model using technologies? Secondary questions included:

1. How do middle school teachers describe the implementation of the WSM, into their classrooms? and
2. What are the perceptions of middle school teachers integrating the innovative WSM into their classrooms?

Conceptual Framework

To answer the research questions of this research, this basic qualitative study explored the experiences of teachers implementing the WSM of teaching and learning in their middle-grade classrooms. The following conceptual framework informed this qualitative basic study (a) Roger's (2003) diffusion of innovation (DOI) theory to understand how the teachers respond to the innovative technologies integrated into the WSM; (b) Vygotsky's (1978) zone of proximal development (ZPD) to understand how the interactions in their classrooms have changed; (c) Malcolm Knowles's (1984) andragogy theory to understand how the teachers acquire the new pedagogies and instructional methods of the WSM and; (d) the TPACK framework (Hill, Ball, & Schilling, 2008; Koehler & Mishra, 2009) to understand how teachers are experiencing the real-world integration of their pedagogical content knowledge with their content area expertise during the implementation of the WSM in their classrooms.

Diffusion of Innovations

Rogers' diffusion of innovations theory is a conceptual framework to examine technology adoption in the educational environment. Rogers (2003) used the word technology and innovation as synonyms. Rogers viewed technology as "a design for instrumental action that reduces the uncertainty in the cause-effect relationships involved in achieving a desired outcome" (p. 13). Rogers defines innovation as an idea, practice, or object that is perceived as new by an individual or other unit of adoption (Rogers, 2003).

According to Roger's diffusion of innovation theory, individuals adopt innovation at varying levels in a given period. Similarly, Hall and Hord (2015) noted that the rate of

learning to make a change and to develop the skill and competence to use innovation vary individually. Rogers (2003) posited that the innovation decision process, the decision to adopt or reject innovation, depends on a strong relationship within the group. Similarly, individual's belief and attitude play vital role in implementing innovative instructional model. Rogers classified five adopters' categories namely (a) innovators; (b) early adopters; (c) early majority; (d) late majority; and (e) laggards. The diffusion of innovation theory is a substantial conceptual framework for this study and will be used to understand how the teachers respond to the innovations they implemented in their classrooms.

Andragogy

Knowles (1984) andragogy theory has drawn a considerable attention to the field of adult education. Andragogy theory emphasized that adult learners are unique and therefore learn differently compared to children learning. As a result, Roulston, Justras, and Kim (2015) posited that instructors of adult learners must consider six core assumptions to plan instructions and training that meet the adult learner's learning goals (Knowles, 1984). Andragogy theory connects to this study in that the six core assumptions provide the background to understand how middle school teachers implement an innovative instructional model based on their professional development needs (Dachner & Polin, 2016). The six core assumptions are:

1. The adult's self-efficacy is vital to learning.
2. Their background experience links to their learning.
3. That their willingness to learn depends on how much they want to understand.

4. The adult learns well in a problem-based learning environment.
5. Adults are driven by internal motivation.
6. Adults require meaning when they learn.

In this study, these aspects will be identified in teacher interviews.

Vygotsky's Zone of Proximal Development

Vygotsky's constructivist sociocultural theory (1978) includes the zone of proximal development (ZPD) and the related concept of scaffolding. ZPD is defined as the learner's individual capability to succeed in the learning environment. Scaffolding is the process of developing support systems for learners. Vygotsky's theory is to define the interactions in the classroom, such as collaborative learning and differentiation of instruction in the WSM through the lens of ZPD and scaffolding.

In the WSM, educators design and implement a learning environment that promotes cooperative learning, peer collaboration, and teacher's guidance. The "work time" session of WSM teaching entail students working in small group collaboratively to complete group selected task with the teacher's guidance and one-on-one conferencing to help students at different zone of proximal development to acquire the skill to complete task. Sociocultural learning theory is to understand the design concepts and the implementation of the WSM by these teachers.

Technological Pedagogical Content Knowledge (TPACK)

The TPACK framework builds on Shulman's (1987) descriptions of pedagogical content knowledge (PCK) to describe how teachers' understanding of educational technologies and their content knowledge interact with one another to produce effective

teaching with technology. The conception of TPACK described here has developed over time and through a series of publications, with the complete descriptions of the framework found in Koehler and Mishra (2009). In this study, TPACK was used to understand the underlying perceptions and the real-world experience of the teachers implementing the WSM.

Nature of the Study

The purpose of this basic qualitative study was to examine middle school teachers' experience implementing the innovative blended WSM designed based on constructivist learning concepts utilizing a differentiated instructional model with the integration of learning technologies. Participants for this proposed study comprised ten teachers from two middle schools in U. S. school districts. The participants were middle school teachers that have implemented or implementing the WSM in their middle-grade classroom for at least three years.

Definitions

Several definitions of terms used throughout this research are offered in this section to provide a base and standpoint for understanding the experiences of middle school teachers implementing the innovative WSM designed as a constructivist learning model utilizing differentiated instructional model using technologies.

Constructivism: Constructivism is the philosophical belief that learners construct their own understanding and knowledge of the world through their experiences and reflecting on those experiences. For the purpose of this research, the philosophy of constructivism indicates that when one encounters something new, one must reconcile it

with previous ideas and experiences, changing what one believes or even discarding the new information as irrelevant (Richardson, 1997).

Every Student Succeeds Act (ESSA): A legislative, educational law. The ESSA is a recommitment to equal opportunity for students. It seeks to ensure academic achievement by requiring school districts to expose students to quality academic guidelines that prepare learners for academic success, college, and careers (Educator Advocates, 2015).

Learner-centered: A perspective that combines a focus on individual learners' heredity, experiences, perspectives, backgrounds, talents, interests, capacities, and needs with a concentration on the best available knowledge about how learning occurs (Richardson, 1997).

Middle School: A public or private school for students in Grades 6–8 (U. S. Bureau of Labor Statistics, 2014). Middle school represents a school between elementary school and high school. It is also called an intermediate school, junior high school, or junior high.

Pedagogical Content Knowledge (PCK): According to Shulman (1987), pedagogical content knowledge is the transformation that occurs as the teacher interprets the subject matter, finds multiple ways to represent it, and adapt and tailors the instructional materials to alternative conceptions and students' prior knowledge.

Pedagogical Knowledge: Pedagogical knowledge (PK) is teachers' in-depth knowledge about the processes and practices or methods of teaching and learning. They encompass, among other things, overall educational purposes, values, and aims. It is a

generic form of knowledge that deals with understanding how students learn, general classroom management skills, lesson planning, and student assessment (Richardson, 1997).

Perceptions: Perception is a way to understand reality and experience through your senses. Perceptions influence opinions and judgments (Richardson, 1997).

Professional Development: An ongoing training in the content, pedagogy, and skills necessary for teachers to stay current in their field (Jaquith, 2010).

Technological Pedagogical Content and Knowledge (TPACK): This is a complex interaction among three bodies of knowledge; content, pedagogy, and technology. The interaction of these bodies of knowledge, both theoretically and in practice, produces the types of flexible learning needed to successfully integrate technology use into teaching (Richardson, 1997).

Workshop Model of Instruction (WSM): WSM is a research-based pedagogical approach developed to provide meaningful instruction that is literacy-based to meet students' individual learning preferences (Atwell, 1998).

Assumptions

This study on middle school teachers' experience implementing the WSM in their classrooms centered on some underlying assumptions. In conducting qualitative research, researchers encounter shortcomings in resources and human failings. According to Leedy and Ormrod (2010), assumptions are fundamental in the study, a lack of assumptions would limit the existence of research problem. The general purpose of the study was to investigate middle school teachers' experiences in implementing the WSM in their

classroom. There was the assumption that the teachers participating in this study would be sincere, open, and cooperative, and they would also be honest in their input and response to interview questions. An assumption was that participants will voluntarily make inquiries to ensure their understanding of the interview questions.

Scope and Delimitations

This study focused on the experiences of eight to ten middle school teachers in U.S. school districts. I interviewed the first ten participants who are currently a middle school teacher that has implemented or is implementing the WSM in their middle-grade classroom using technology and has more than three years' experience teaching. These criteria allowed me to examine middle school teachers' experiences in the implementation of the WSM in their classroom. The scope of this study was to understand the experiences of middle school teachers implementing the WSM in their class.

Delimitations

The delimitation of this study included the nature of the implementation process of the WSM and the use of basic qualitative research methods to understand the responses of the teachers. Several indices bound the delimitation of the study. It included the nature of the integration of the innovative instructional model and understanding the teachers' responses to this integration process and the use of basic qualitative research to understand the reactions of the teachers. The potential transferability of this study results was to develop new understandings concerning the professional development of

educators implementing an innovative technology-based learning environment and the administrative supports required by teachers implementing reform.

Limitations

The limitations of this study are based on the research design. The primary limitation of this study was the size of participants. The research study recruited 8-10 participants, so generalizations was limited due to the small sample size. Considering the time constraints associated with the study, comprehensive and or thorough qualitative examination of the participants may be restrictive to obtain.

For this study, I am the sole person responsible for all data collection, analysis, and interpretation; therefore, there is potential for researcher bias and subjectivity. As a classroom teacher, I have substantial experiences with school reforms. My experiences with reforms might have a potential of biasing my interpretation of the data. To address these biases, I maintained an ongoing reflexive journal in which I reflected on my assumptions, dispositions, and biases in relation to school reforms.

Other biases may have resulted from how I presented the interview questions or how participants understand the interview questions. Additionally, telephone interviews limited the researcher from observing participants' non-verbal reactions and body language. I used memoing, ongoing reflexive journaling, and a defined process of data collection, data structuring and analysis to provide an audit trail throughout the study.

Significance

An educated population is required to create and maintain healthy and robust economic prosperity in a changing world of globalization, keeping pace with rapid

technological growth, and moving forward in an increasingly complex, interdependent world (Senge, Cambron-McCabe, Lucas, Smith, & Dutton, 2012). Dole et al. (2016) found that educational systems require new pedagogies to be able to prepare students with 21st century skills. Schools are searching for best instructional practices to promote more effective teaching and learning processes to increase student engagement and develop higher-order critical thinking skills (Sharp, Bonjour, & Cox, 2019). The study may be beneficial to the educational system and teachers by contributing to the existing body of knowledge in the field of education, improve practice in the area and provide guidelines for responding to increasing diversity in U. S. classroom.

The social change implication of this basic qualitative study was that the findings from the study provided an in-depth understanding of specific experiences that hinder or foster reform implementation from the teachers' point of view. Sharing new information gathered from this study may assist school administrators in making decisions to support teachers to effectively implement the WSM designed to prepare students with the required skills needed to succeed in the 21st century workforce. Understanding the teachers' voices about how they have implemented change may provide educational policymakers with insight and frameworks into how to plan for change. It can also show how to design active professional development experiences, better techniques for effective technology integration, and how to create organizational climates that will foster change to improve teachers' practice and promote student learning.

Summary

This chapter has addressed the conceptual issues of this study on middle school teachers' experience in implementing the WSM in their classrooms. The chapter introduced the subject matter of the study by identifying all the issues related to the research problems and research questions. The purpose of the research and its significance was discussed along with the delimitation and limitations of the study. I defined the keywords that informed the research topic and problem. Chapter 2 will provide an overview of the conceptual framework and a review of relevant research literature to explain the core principles related to the proposed study.

Chapter 2: Literature Review

The purpose of this basic qualitative study was to examine middle school teachers' experiences implementing the innovative blended WSM designed based on constructivist learning concepts utilizing a differentiated instructional model with the integration of learning technologies. The main research question for this study was What are the perceptions and experiences of middle school teachers implementing the innovative blended WSM designed as a constructivist learning model utilizing differentiated instructional model using technologies? Secondary questions included How do middle school teachers describe implementation of the WSM, into their classrooms? and What are the perceptions of middle school teachers integrating the innovative WSM into their classrooms? The problem that this study addressed was to understand how teachers implement reform in U. S. classrooms designed to develop students' advanced knowledge and skills necessary for success in the 21st century workplace.

This chapter of the study contains the conceptual framework that defines the research problem. The conceptual frameworks relevant to understanding the teachers' experiences implementing a new educational program include; Roger's diffusion of innovation, Vygotsky's ZPD model, Malcolm Knowles's theory of andragogy, and Koehler and Mishra (2009) TPACK framework. The following topics of research critical to understanding this complex topic were reviewed, including the background of educational reform, technological integration in schools, TPACK, problem-based

learning instructional model, differentiated instruction, professional development for teachers, middle school learners, and the WSM.

Literature Search Strategy

Literature sourced for this review included articles obtained from multiple sources such as books, refereed journals, and government official gazette dealing with middle school teachers' experience implementing the WSM of teaching and learning, teachers' professional development and the integration of technology into the implementation of WSM in middle school classrooms. Online searches were conducted through the Walden online library in which *Middle School, WSM, Teachers' Professional Development, TPACK, student-centered instructional approach* constituted the search themes. Additionally, information was drawn from Google Scholar.

Conceptual Framework

The conceptual framework that informed this qualitative study was based on Roger's theory of the diffusion of innovation, Vygotsky's (1978) zone of proximal development (ZPD), Malcolm Knowles's (1984) andragogy theory and the TPACK framework of teaching and learning. (Koehler & Mishra, 2009). TPACK was used to define the teachers' perceptions and experiences as they implement the WSM (Ahn, & Class, 2012).

Diffusion of Innovation

Rogers' (2003) diffusion of innovation theory is a crucial framework for the current study because it provides an appropriate model that guides the adoption of technology in various levels of learning environments. Sahin (2006) described the

diffusion of innovation as the process that takes place when individuals accept to adopt a new idea, product, practice, philosophy. Rogers (2003) presented five categories of adopters of innovation. These include (1) innovators, (2) early adopters, (3) early majority (4) late majority (5) laggards (Sahin, 2006).

Rogers emphasized that few individuals embrace new ideas and adopt innovation immediately. Those who do are early adopters. These early adopters would spread the innovation to other people until more individuals buy-in and adopt the innovation. Eventually, the innovative practice or product is diffused into the entire organization. Rogers categorized the adopters based on innovativeness, as Figure 1 shows, the distribution of adopters is normal.

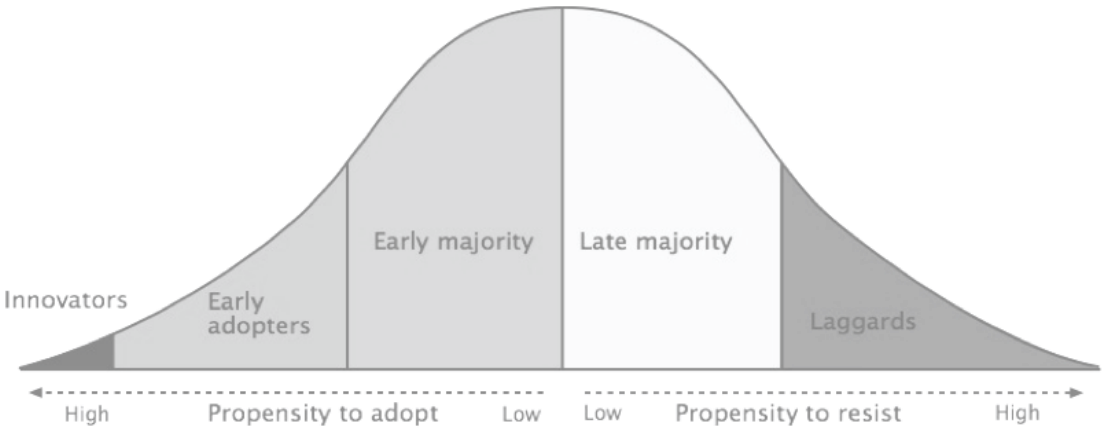

Figure 2: The distribution of adopters of technology

In the changing world of the 21st century characterized by technological advancement, implementing an innovative reform such as the WSM of teaching and learning constitutes a challenging endeavor. Given that present-day students have highly

developed skills for technology, middle school teachers face the pressure of preparing students for this new digital world (Yigit, Koyun, Yuksel, & Cankaya, 2014). Today teachers integrate technological innovations such as iPad, mobile phones, and interactive boards (Yigit et al., 2014) into their practice. Understanding teachers' willingness to adopt the technologies integrated into the WSM of teaching is crucial. The influence of technology in the WSM has been a less explored area in studies investigating the WSM of teaching and learning. These teachers' professional development was explored in this study as an aspect of defining their response to innovation.

Sociocultural Learning

The sociocultural theory supports the constructivist philosophy that defines learning as the context in which students play an active role in their learning. The roles teacher and student play in the learning process become shifted, as a teacher collaborates with his or her students to help facilitate meaning construction in students. Thus, learning, in this sense, becomes a reciprocal experience for the students and teacher. (Vygotsky, 1978).

Vygotsky focused on the connections between people and the sociocultural context in which they act and interact in shared experiences. He noted that humans use tools that develop from a culture, such as speech and writing and technologies, to mediate their social environments. Initially, children develop these tools to serve solely as social functions, ways to communicate needs (Vygotsky, 1978). Vygotsky's sociocultural theory identified that the internalization of these tools led to higher thinking skills.

Vygotsky's theory identifies social interactions as leading to changes in learners' thoughts and behavior that can vary from culture to culture (Woolfolk, 1995). Human development depends on interaction with people and the tools that the culture provides to help form their view of the world. Vygotsky (1978) identified three ways an educational tool can pass from one individual to another. The first one is what he called imitative learning, a learning method where one person tries to imitate or copy another.

The second is instructed learning. This involves remembering the instructions of the teacher and then using these instructions to self-regulate. Vygotsky described collaborative learning as the final way that cultural tools pass to others, which involves a collaboration between a group of peers who strive to understand each other and work together to learn a specific. In this study, technologies serve as mediational tools to differentiate instruction in the WSM.

Zone of Proximal Development

Vygotsky (1978) developed the zone of proximal development (ZPD) to illustrate the distance between a student's ability to perform a task under adult guidance and or with peer collaboration and the student's ability to solve a problem independently. He maintained that learning occurred in this zone. It is the concept that a learner accomplishes a task that he/she cannot do alone, with the help of a more skilled person (Vygotsky, 1978).

Vygotsky assumes that there are developmental tasks that get resolved in different ways. His theory is one of the foundations of constructivism. His theory asserts some fundamental assumptions regarding social interaction, namely, the more knowledgeable

other (MKO) and the zone of proximal development (ZPD). According to him, social interaction plays a fundamental role in the process of cognitive development. (Vygotsky, 1978).

Vygotsky also described the ZPD as the difference between the actual development level as determined by individual problem solving and the level of potential development as determined through problem-solving under adult guidance or collaboration with more knowledgeable peers (Pardjono, 2016). Vygotsky argued that for ZPD to be such a success, it must contain two features. The first is called subjectivity, the process where two individuals begin a task with a different understanding and eventually arrive at a shared understanding. The second feature is scaffolding, which refers to a change in social support over the course of learning.

The zone of proximal development has implications for assessment, especially concerning children with learning and behavior problems. (Pardjono, 2016).
In Scaffolding Children's Learning, Berk (1994), discuss the negative aspects, according to sociocultural learning theory, of using standardized achievement tests as valid measures of learning. They posit that understanding the ZPD is crucial for identifying each child's readiness to benefit from instruction to increase the effectiveness of teaching and learning (Berk, 1994). The WSM is designed for differentiated learning that focuses on understanding each learner's zone of proximal development by developing an individualized learning plan. Teachers implementing the WSM integrate technologies, including online sites, to support differentiation.

Vygotsky's theory identified in his ZPD model that social interactions are a necessary ingredient for learners to assimilate what he/she cannot assimilate learning alone. The WSM learning environment is designed based on constructivist sociocultural learning principles including differentiated instruction and a problem-based learning environment. The WSM learning environment offers this learning environment for peers' interaction and gives them the opportunity to learn through collaboration with the teachers' guidance (Woolfolk, 1995).

The ZPD is the distance between tasks children can solve independently and tasks they need guidance to acquire a new skill to solve. It connects to this study by explaining the instructional supports and scaffolds the teacher provides to help students to construct new knowledge. Teachers as instructional coaches provide students with technology learning tools to enable students to develop higher order thinking and problem-solving skills under guidance or in collaboration with more capable peers (Wertsch, 1986). The WSM tasks teachers with developing these individualized interactions and assessments for their students.

Andragogy

Andragogy is a conceptual framework for adult learning. In this study, it will help to understand teacher learning in response to professional development. Malcolm Knowles (1984) concept of andragogy provides principles that distinguish adult learning from childhood learning. Andragogy is the art and science of assisting adults in learning (Kadir, 2016). Roulston et al. (2015) stated that adult learners differ from children's learning process due to prior knowledge, life span, and physiological changes. With this

understanding, andragogy is synonymous with adult learning, as compared to pedagogy, which is the art and science of helping children learn.

The six core assumptions of adult learning that has helped in clarifying some lasting criticism and debates surrounding the tenets of andragogy (Dachner & Polin, 2016). The six assumptions are:

1. Adults have an already established self-concept and are prepared for self-directed learning
2. Adults have prior work experiences on which they can draw in the classroom to facilitate learning.
3. Adults have a strong readiness to learn when the new knowledge will benefit their new role
4. Adults have a problem-focused orientation to learning such that they want to be able to use new knowledge and skills immediately
5. Adults need to know how, why, and what they will learn.
6. Adults are intrinsically motivated to learn

Roulston et al. (2015) study incorporated these principles into a self-directed instructional method. For this study, the adult learners analyzed their learning needs, plans, and practices as they learned to play a musical instrument in a self-directed program. Participants in this study were responsible for making choices towards achieving the goal of learning how to play musical instruments. The study findings revealed that this was a useful learning experience for these adults. In this program, adult learners played an active role in their learning experiences.

In a self-directed learning environment, these adult learners directed their learning goals to play musical instruments. They had the time to reflect on their new knowledge in several ways, such as sharing learning goals with instructors and utilize feedbacks from instructors in problem-solving to improve learning. Roulston et al. (2015) posit that educators of adult learners need to consider the range of unique needs of their various adult learners.

Knowles's assumptions provide the background for this study for understanding that adult educators and policymakers can use in designing curricular, implementing educational practices, and learning activities for teachers in professional development programs (Dachner & Polin, 2016). Knowles's (1984) andragogy is a framework for the present study because it can assist in understanding how middles schoolteachers' experiences were implementing the new instructional WSM in their classrooms. This study defined the teachers' professional development, their use of resources, and the changes in their integration of the WSM using the concepts of andragogy.

Technological Pedagogical and Content Knowledge (TPACK)

The third conceptual framework for this study was the concept of technological pedagogical and content knowledge (TPACK). Shulman (1987) introduced the idea of pedagogical content knowledge (PCK) to indicate the nature of teachers' experience as well as what constitutes the appropriate type of knowledge teachers must possess to teach effectively. Koehler and Mishra (2009) proposed TPACK to indicate the knowledge educators need to integrate the use of digital tools and resources competently in multiple content areas (Olofson, Swallow, & Neumann, 2016).

TPACK is a robust framework that has many potential generative uses in the research and development related to the use of ICT in education. According to Harris, Phillips, Koehler, and Rosenberg (2012), TPACK has emerged as a powerful concept to unpack the knowledge and skills teachers need to design and integrate curriculum for 21st century classrooms. TPACK refers to the synthesized form of knowledge required for integrating educational technology into classroom teaching and learning. As a form of knowledge, TPACK has been described as a situated, complex, multifaceted, integrative, and transformative strategy to understand teaching and learning. Harris et al. (2012) stated that TPACK is used in examining how teachers develop, apply, and assess technical knowledge in diverse settings and across multiple content areas.

Mishra and Koehler (2006) explained that TPACK conceptual framework acronym was renamed TPACK to merge the relationship of the three-basic knowledge of technology, pedagogy, and content it presents. The TPACK framework represents the dynamic and reciprocal relationships between the three types of knowledge teachers must possess to incorporate technology into their instructional practices. As a framework, it helps to design the teacher education curriculum and to design classroom use of technology.

The core constituents of TPACK are content knowledge (CK), pedagogical knowledge (PK), and technological knowledge (TK). The interaction of these three basic forms of knowledge gives rise to pedagogical content knowledge (PCK), technological content knowledge (TCK), technological content knowledge (TPK), and the TPACK**.** The three types of knowledge (technology, content, and pedagogy) in the

TPACK framework represent specific components in the teaching and learning process. For example, content knowledge (CK) represents the subject matter, technology knowledge (TK) represents the tools used for teaching subject matter information. Lastly, pedagogy knowledge (PK) represent the instructional method applied to assess students' learning. The connections among these aspects are identified in Figure 2 below.

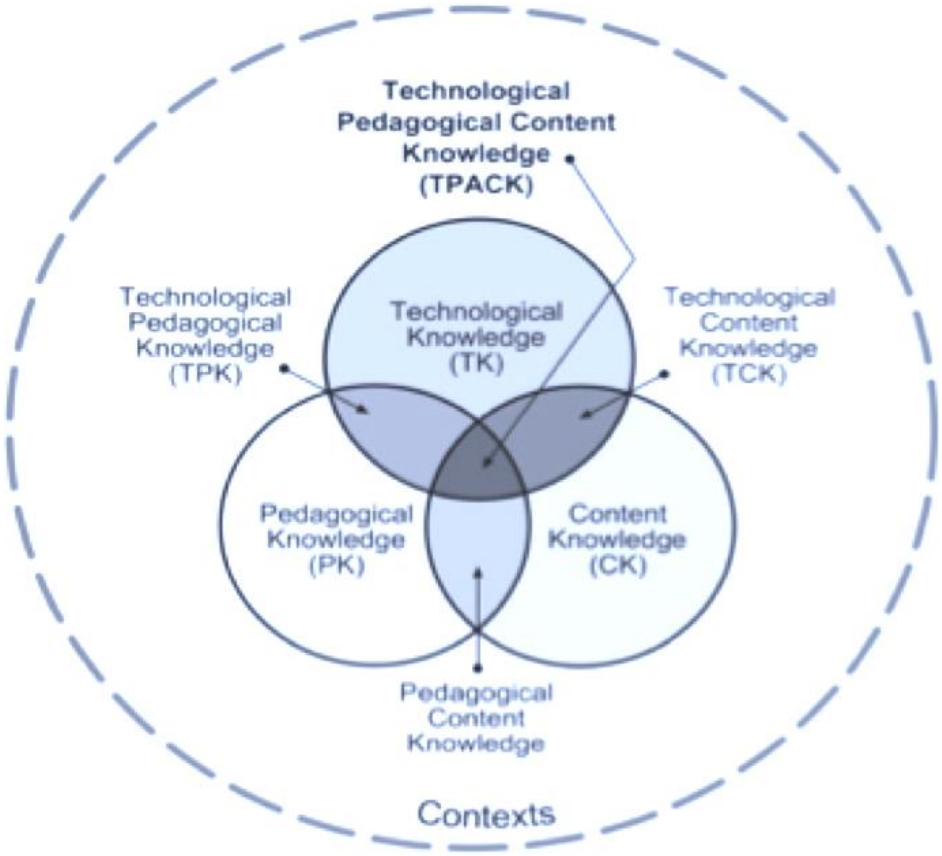

Figure 3: TPACK

Studies identified the co-relational aspects of TPACK for the teachers, including how a low level of TK connects to less effective implementation of technology into the content area. Other research (Harris et al., 2012) reinforced the usefulness of the TPACK

framework, not only for understanding pre-service teachers' pedagogical development but for understanding how teachers implement technologies into their classrooms.

The TPACK framework defines teaching with current and emerging technologies, but also can set the "greater effort in thinking about planning, implementing and evaluating their knowledge" (Hill et al., 2008, p. 299). Findings in an exploratory study (Abbitt, 2011) of pre-service teachers about technology integration illustrated the changing nature of the complex relationship between TPACK knowledge and self-efficacy beliefs. Abbitt (2011) found that the pre-service teachers described their TPACK knowledge was aligned with their concepts of the efficacy to implement reform.

The TPACK framework relates to this research in two ways. These educators in the middle-grade level described their understanding of the dynamics and reciprocal interaction of the three types of knowledge to effectively support and foster students' learning as they implement the WSM instructional approach.

Summary

In my review of the conceptual framework, I described the significant theories and the conceptual underpinnings that support or explains the research problem. I clarified the primary foundational theoretical constructs of Roger's diffusion of innovation theory, Vygotsky's zone of proximal development (ZPD), Malcolm Knowles andragogy and the technological pedagogical and content knowledge (TPACK) framework. A concept is an analytical framework and a mental construct that explains a social phenomenon and research problems. The rationale for the choice of these frameworks is twofold. First, the concepts center on core educational theories that lay the

foundation for effective pedagogy. Secondly, the structure provides the potential to understand the processes and methods of teaching and learning in an innovative instructional model such as the WSM that includes the integration of new technologies, new curricula, and new instructional practices.

Literature Review Related to Key Concepts

This current study sought to understand how teachers experience the integration of a new instructional model in cognition and utilizing advanced technologies. I have defined the following topics of study critical to understanding this complex topic, technology integration issues, teacher professional development issues, TPACK research, and relevant research on the WSM, including differentiation, constructivist learning environments, and literacy instruction. Multiple studies have described innovation through the lens of technology integration, differentiated learning, innovative instructional models, and teacher self-efficacy. However, this study was significant as it is to address the underlying issues inherent in implementing reform in education through the lens of the conceptual background of TPACK.

Teacher Professional Development

In this study, I identified the teachers' experiences and perceptions of their professional development as they implement the instructional reform model, the WSM. Research has identified the need for professional development for teachers implementing new instructional models, the qualities of the professional development programs that are most effective, and the responses of the teachers as a result of this professional

development program. Teacher professional development is vital to the effective implementation of reform in education

Researchers have emphasized that high-quality professional development is essential to boost teachers' professional growth. Research by Cengiz (2015) identified that despite the increase in awareness of the technology tools for teachers to use in their daily practice, many still lack the competency to incorporate technology into their instructional practices and the ways to improve technology usage. Mesecar (2015) noted that the legislative education law of Every Student Succeed Act (ESSA) signed into law in 2015, redefined the standards for high-quality professional development for teachers. Additionally, ESSA federal legislative law has provisions that promote educational technology, new learning models that foster personalized learning with professional development teacher support that corresponds to the learning models (Mesecar, 2015)

The No Child Left Behind Act defined professional development as activities that assist teachers in gaining a better understanding of the content area they teach, become highly qualified teachers, advance their instructional techniques. To support ESSA, the U. S. Department of Education extended the definition of professional development to advancing teacher understanding of effective instructional strategies, as well as aligning with standards, and to support the recruiting, hiring, and training of highly qualified teachers.

For those teachers implementing reform, professional development is a critical aspect of successful implementation. Effective implementation of reform-oriented practices demands a considerable change in teachers' instructional approach that is

different from the procedural methods that dominate most U. S. classrooms (Spillane, Hopkins & Sweet, 2018). Reforms of instructional methods are required to develop 21st century students' competencies. These include mastery of challenging content, critical thinking, complex problem-solving, effective communication and collaboration, and self-direction.

According to Desimone and Pak, (2017) research has indicated that for professional development to be effective in improving teaching practice and student learning, it must possess five key features which included (a) content focus; (b) active learning; (c) duration; (d) collective participation, and; (e) coherence. Professional development activities must center on subject matter content and how students learn that content, provide learning opportunities for teachers to observe, receive feedback, analyze students' work, make presentations rather than attending a passively sit-and-listen lecture type of professional development. Desimone and Pak (2017) further explained that effective professional development content, goals, and activities must be consistent with the school curriculum, teacher knowledge, needs of the students, school, districts, and state reforms and policies. The study concludes that professional development for educators implementing change should focus on the development of real-world skills and knowledge that teachers provide in their classrooms.

Professional development for teachers implementing reform goes beyond a few workshops. Research has identified that professional development for teachers implementing reform means helping teachers to develop contextualized and applied knowledge required for better practice (Harris et al, 2012). Professional development is

most effective when it possesses the following features (a) active; (b) reflective; (c) sustained; (d) job-embedded; (e) coherent; (f) in-depth; and; (g) focused upon students' curriculum-based learning (Harris et al., 2012). They noted that reform must include on-going, contextualized professional development to be successful. These studies have identified the characteristics of professional development.

Additionally, research has identified that professional development must be on-going to be effective. In a quantitative research study of a mathematic reform effort by Spillane et al, 2018), they found that teachers' on-going interactions with other teachers were predictive of changing beliefs about implementing the reformed math program. The study concluded that teachers implementing reform need opportunities to engage in on-going professional learning activities that develop their capacity to teach in ways that approximate the ambitious content and pedagogy advanced by reformers.

Stosich (2016) reported that educational reforms that require teachers to change their instructional practices need appropriate professional development and administrative support to implement change. Stosich (2017) employed a qualitative case study approach to examine principals' leadership practice and teachers' responses to CCSS professional development in a large urban school district. Findings from this study revealed that teachers could change their practice to align with new standards when school leaders provided substantial support that encouraged teachers to learn and implement the original method designed to meet the new standard goals. His research found that curriculum or pedagogical training was more effective when connected with

both administrative support and sustained professional development in grade-level teams (Stosich, 2017).

Stosich (2017) found that intensive and on-going job-embedded professional development is necessary for teachers to make progress in learning to use new pedagogical approaches and curricular resources in ways that support students in meeting standards. He found that teachers need direct guidance to revise their practice in ways that promote student mastery of the new standards. Thus, Stosich found that professional development is an essential tool to bridge the gap between ambitious policy goals and the capacity of teachers to implement those policy goals.

For teachers implementing changes in their classroom, professional development provides new understanding concerning how the changes work in their classrooms is needed before and during the implementation of reform. Although my study will not examine principals' leadership practices, it will utilize TPACK concepts and open-ended understand the experiences of teachers in the middle- grades implementing the new instructional strategy of WSM that promotes CCSS reform goals.

Research has identified the relationship between teachers' confidence and professional development. Koh et al. (2017) conducted a mixed-methods study with 37 lower and upper elementary teachers. The study used pre and post TPACK surveys to examine teachers' confidence for TPACK for 21st century learning and lesson design practices. This study results showed the TPACK-21CL (TPACK 21st century learning) professional development process is adequate for enhancing both teachers' TPACK-21CL confidence as well as their determination to implement reform.

Koh et al. (2017) affirmed that professional development raised the teachers' perceived confidence for designing curriculum as well as the teachers' confidence to engage in ICT lesson design. Teachers' instructional self-efficacy is related to the successful implementation of reform (Althauser, 2015). Active professional development that increases a teacher's instructional self-efficacy influences the successful implementation of change in education. Providing effective training and designing active professional development are crucial tools to implement innovative learning reform. Based on the findings from this research, teachers should deserve on-going professional developments and training on the WSM of teaching and the use of technology to achieve success.

Studies have also identified how teacher professional development can increase student learning. Althauser (2015) study examined how professional development can lead to improving teacher knowledge, classroom instruction, and student achievement as measured by test scores. The results showed that students achieved high academic performance in math due to improved teachers' instructional practice because of new strategies gained from professional development.

Research has shown that educators are challenged to promote a depth of understanding for learners while integrating new technologies (Ahn, & Class, 2012). Professional development can be a critical aspect of implementing reform to increase student knowledge in preparation for 21st century learning. Russell (2012) found that the essential purpose of providing professional development is to improve student academic achievement to achieve high academic success.

Productive professional development can increase the success of reform efforts. A study by Hemmeter et al. (2016) evaluated the potential efficacy of classroom-wide implementation of the reform-based Pyramid Model of instructional practices within a public school's early childhood classrooms. The result of this study indicated that the intervention teachers, those who had professional development before the implementation of this student-centered instructional model, resulted in students that were more social, more academically prepared, and collaborative than the control classrooms that did not have professional development.

As research has identified how teacher professional development is related to the efficacy of implementing reform, research has also identified how professional development is critical to achieving specific constructivist-based reform instructional methods. The WSM promotes the constructivist-based reform instructional method called Differentiated Instruction**.** Differentiated instruction is the instructional model of the WSM, the focus of my study.

Hartwig and Schwabe's (2018) study investigated how teachers perceived the quality of teacher training and collaboration relate to their practice of Differentiated Instruction (DI). A total of 250 secondary school teachers participated in this study. The statistical analysis found that teachers who received the opportunity to learn about dealing with the different ways that students learn in training reported conducting DI more often in their lessons. They also showed higher rates of preparation in advance and reflection on DI afterward.

In addition, Hartwig and Schwabe's (2018) study affirmed that differentiated training and teachers' interaction is crucial in the learning environment and to achieve effective implementation of an instructional model such as the WSM. Teachers implementing the WSM promoted individualized learning during conferencing and small-group instruction, students' interaction, and reflections. This aligns with the various components of the WSM.

Professional Development and Content Knowledge Pedagogy

In my study, I structured my analysis around understanding the teachers' responses using the lens of pedagogical content knowledge of the teachers. Research has identified that to be effective, professional development must link to classroom practices. In a meta-analysis of research, Whitworth and Chiu (2015) found that educators' content and pedagogical knowledge improves when teachers attend purposeful and effective professional development that connects to the subject area they teach. In the findings, they identified that defined administrative support, including both resources and professional development, lead to increased teacher beliefs about their ability to implement the reform. These teacher beliefs led to changes in teacher practice and improved learning results that are the goal of the implementation of reform.

Lakin and Wallace (2015) implemented a quantitative survey study of a reform program in middle-school science classrooms to understand how teachers' beliefs about their reform-based practice aligned with their implementation of the reform. The professional development program was inquiry-based, so teachers responded in kind to the inquiry-based science program that they linked with implementing. Their research

revealed that professional development played an important role in improving classroom practices of middle-grade teachers. Professional development to increase teachers' beliefs about their ability to implement reform, in this study, an inquiry-based scientific model, was correlated to their implementation of the reform program.

Trumper and Eldar (2015) studied professional development as part of an MEd program designed to support teachers' implementation of student-centered instruction. The study included interviews with the teachers and observations in their classrooms. The results indicated an increase in effective instructional practices and beliefs about their ability to implement new instructional practices for these teachers. The issues that impacted the teachers' implementation were their content area, their evaluation of their capabilities, and the resources available at their schools.

A naturalistic case study by Jaipal-Jamani and Figg (2015) found that using TPACK as a structure for developing a professional development program for teachers implementing new technologies in science classrooms. The teachers designed the new curriculum in a series of workshops. The study results found that using TPACK in a WSM followed by the immediate use of the curriculum designed in the workshop was a useful model for professional development for these teachers. Jaipal-Jamani and Figg's (2013) research relates to my study in two ways. Firstly, my study will conduct a study on teachers' experiences. Secondly, it will explore the teachers' TPACK knowledge.

Professional Development and Technology Integration.

My study of WSM was to understand the teachers' experiences as they integrate advanced technologies into their classroom as part of the WSM. I used the lens of

TPACK to understand their experiences. Researchers have identified the need for teachers to be competent in technology to successfully integrate new technologies. Cengiz (2015) used TPACK, the teachers' self-efficacy, and instructional technology outcomes expectations to design a study of preservice teachers implementing new technologies. The quantitative intervention used pre and post scales to understand the changes in preservice teachers' TPACK, efficacy, and understanding of technology integration in their classrooms. The study showed a significant difference in content knowledge, pedagogical knowledge, technological pedagogical knowledge. Overall, it presents teachers' TPACK, and their understandings of the process of integration as a result of their TPACK- based professional development .

Technology Integration

The WSM integrates multiple technologies into a blended classroom that integrates multiple content areas. In my study, I used the TPACK model to understand how teachers perceive and experience the integration of advanced technologies into the content areas. Today's educators are increasingly incorporating computer tools to provide individualized and real-time feedback about students' progress in learning activities (Chen, Star, Dede, & Tutwiler, 2018). With this trend, students and teachers are surrounded by digital technologies that were not available five years ago. Studies have shown that technologies can support a differentiated instructional model like the WSM.

In a study by Chen et al. (2018), they examined various technologies in terms of how technologies motivate students to engage deeply with tasks and outcomes in technology-rich mathematics class. Study participants were students in Grades 5–8, along

with their teachers, in a large school district in Virginia. Findings provided interesting insights regarding the experience patterns that students demonstrate while participating in the technology activities and how these patterns relate to achievement and motivation in mathematics.

In this study, the integration of technology was most successful when teachers provided successful learning experiences with technology where students were able to work independently. Chen et al. (2018) found that the degree that teachers provided meaningful choices in their classrooms influenced the quality of students' motivation and engagement with specific technology-rich activities. In my study, the teachers provide choices to students in the WSM's differentiated instruction method.

Satsangi and Miller (2017) studied the learning of students with disabilities in a technology-based math program that implemented virtual manipulatives. These researchers found that integrating virtual manipulatives into the learning environment provided students with flexible options for learning core mathematical concepts and greater student autonomy that leads to an increase in student learning and motive. This study identified how educators implementing new technologies could integrate technologies in viable ways to increase content knowledge for special needs learners. In my research, the WSM connects to the development of content knowledge through the integration of advanced technologies.

The issue of technology integration in learning is a formidable challenge for many teachers in schools. Research has identified the potential of integrating new technologies into classrooms, including using technologies to support disabled students' individualized

learning and using technologies to support the development of specific content-area knowledge. In this study, technology was not a specific aspect of the study. Instead, technology is a critical aspect of the implementation of the WSM was studied through the lenses of the TPACK model. Understanding how teachers experience the integration of new technologies into their classrooms through these lenses may provide a new understanding of how technological knowledge links to the other aspects of reform in this setting.

Research has identified that active professional development supports student achievement when the focus of the training corresponds to the teachers' instructional practice is ongoing, meaningful, and contextualized. Additionally, research has identified a relationship to teacher confidence and effective implementation of reform. Defining the relationship between professional development the teachers' experiences and perceptions as they implement the WSM in their classrooms was a critical aspect of this study. In conclusion, research has identified that the process of reform in education should also be linked to a reform effort in professional development that empowers teachers through ongoing contextual professional development.

Technological Pedagogical Content Knowledge (TPACK)

In this study, I used the TPACK framework developed by Koehler and Mishra (2009) to understand how the teachers' experience the integration of new pedagogy, a problem-based learning environment, and new technologies into their classrooms. TPACK is a technology-based framework for teaching and learning. The TPACK framework related to this study as it defines the dynamics and reciprocal interaction of

the three types of knowledge in the TPACK model to effectively support and foster students' learning.

According to Cheng and Xie (2018), TPACK is the knowledge of using technologies to enhance teaching and learning for the specific subject matter. Based on the importance of the interactions that exist among the three knowledge domains, the researchers found that teachers need the primary knowledge and the integrative knowledge of the components of TPACK. Cheng and Xie (2018) emphasized that deep consideration of the interplay between these three knowledge components is essential for developing appropriate representations of concepts through technology to facilitate student learning.

According to Koehler and Mishra (2009), there are seven components in the TPACK framework. Content knowledge (CK) is knowledge of the actual subject matter that is to be learned or taught. Knowledge and the nature of inquiry differ between fields, and it is important that teachers understand the more in-depth knowledge components of the discipline they teach. Pedagogical knowledge (PK) is deep knowledge about the processes and practices or methods of teaching and learning, and it encompasses educational purposes, values, and aims.

Pedagogical content knowledge (PCK) is based on Shulman's (1987) idea of pedagogy, the knowledge of how to teach is applicable to the teaching of specific content. This knowledge includes knowing what type of instruction is a good fit for the content area, and, likewise, knowing how elements of the content can be arranged for better teaching. Technology knowledge (TK) is knowledge about standard technologies, such as

books, chalk and blackboard, and more advanced technologies, such as the Internet and digital video. Technological content knowledge (TCK) is knowledge about the way technology and content are reciprocally related. Although technology constrains the kinds of representations possible, newer technologies often afford newer and more varied representations and greater flexibility in navigating across these representations.

Technological pedagogical knowledge (TPK) is knowledge of the existence, components, and capabilities of various technologies as they are used in teaching and learning settings, and conversely, knowing how teaching might change as the result of using technologies. TPACK is an emergent form of knowledge that goes beyond all three components (content, pedagogy, and technology). This knowledge combines knowledge of a discipline and technology with the general pedagogical knowledge shared by teachers across disciplines.

The focus of TPACK interpretation has shifted in recent times to suggestions of a skills framework that can be used by teachers for designing lessons and learning experiences. In this framework, the learning goal is for educators to make connections and synthesize information both within and across disciplines. What is noteworthy in these studies are references made to constructivist project-based learning approaches (Chen et al., 2018) linking TPACK to constructivist and project-based learning models like the WSM.

Researchers have used the TPACK model to understand the integration of new technologies into classrooms. Olofson et al. (2016) performed a multiple case study to understand and interpret 13 middle school teachers' construction of knowledge for

teaching in the technology-rich context. They found that TPACK is a useful tool as a lens for understanding and analyzing teacher practice. In my study, I used the TPACK model to understand how teachers integrated technology into their WSM classrooms.

WSM of Reform

The WSM was designed to implement an innovative technology-based instructional model responsive to the new standards required in many U. S. states. Stosich (2017) stated that most states in the United States had adopted the CCSS that emphasize more critical thinking with less traditional learning in English Language Arts and mathematics. The CCSS in 2010 are often linked with the Next Generation Science Standards (NGSS). The goal of adopting the CCSS and NGSS was to help students succeed in the different content areas such as math, English language, and science according to the demands of the 21st century skills. This plan emerged based on the International Assessment report on U. S. students' performance is lower than other nations in mastering 21st century skills of problem-solving, creativity, and critical-thinking skills.

The reform standards were created in a collaborative effort of educational stakeholders, including leaders in both business and higher education (Nariman & Chrispeels, 2016). The introduction of the CCSS into the educational system in the U. S. introduced a significant change in teachers' instructional practice. As a result, many school districts are adjusting the school curriculum, instruction method, and assessment to match inquiry and problem-solving approaches (Nariman & Chrispeels, 2016).

Swanson, et al. (2017) highlighted that a significant shift in learning expectations exist in the middle school classrooms in consideration of the new state and national standards.

Given the demands emerging from the diverse population of middle school students in present-day classrooms, educators are asked to implement both standard-based programs and best practices to connect policy into classroom practice. As a result, educators have recognized the need to shift their practice from a traditional method to an innovative instructional model that is student-centered and supports personalized learning to assist students in developing 21st century skills. However, research has shown that overall public schools in the U. S. have been slow in implementing learner-centered pedagogies (Dole, et al., 2016).

WSM has been implemented in response to the need to both respond to increasing diversity in U. S. classrooms and the mandate to develop new learning standards. WSM is designed as an improvement to the weak strategies of the traditional method of teaching. Larcara (2015) found that teachers' instructional strategies improve when implementing the WSM of instruction. In turn, diverse learners' needs were better addressed, and their learning becomes improved.

Ertmer et al. (2014) found that instructing present-day students requires educators to streamline instructional techniques that challenge students and increase the motivation of students with diverse learning needs. Savery (2015) encouraged teachers to use different strategies to make instruction relevant and more appealing to their students. Achieving this goal means that teachers design student-centered instruction that would

captivate students' interest and build the level of engagement needed for learners to develop 21st century learning.

As a result, teachers of middle grades implementing the WSM must design a learning environment with explicit differentiated instruction to foster students' learning, increase students' interest, motivation, and aspirations to master skills in mathematics, science, social studies, English language arts, and technical subjects to attain their learning potentials (Peterson, Barrows, & Gift, 2016). Peterson et al. (2016) found that the WSM is a student-centric model that is based on the differentiation of the instruction to support individual student learning and increase student engagement.

The CCSS also created an interdisciplinary link between English language arts (ELA) and other subjects such as science, social studies, history, and technical subjects. The National Governors Association Center for Best Practices and the Council of Chief State School Officers, (2010) reported that in middle schools, the CCSS that most states use should align literacy standards to other content areas including social studies, science, and technical subjects. Middle school students are required to develop competent literacy skills to read different informational texts across content areas. Students develop this competency from third-grade common core English language arts standards.

Interdisciplinary Literacy

Research has identified the need for higher levels of literacy among students in the U.S. Leu et al. (2017) focused on the need for the educational system to advance literacy. They affirmed that the nature of literacy in today's world is rapidly changing due to the demands of living in the age that is continuously changing information and

communication technologies. These authors noted that educational systems in most nations, including the U.S., are beginning to develop important national initiatives to raise literacy levels and prepare students (Leu et al., 2017) to attain competency in literacy skills required to be successful learners in the 21st century workplace. In response to changing standards, the WSM focuses on developing advanced content knowledge and skills, including literacy.

The WSM is a standards-based approach to teaching designed to foster literacy. This non-traditional teaching method of the WSM originates from Atwell's (1998) book. In the WSM middle school content area courses require students to master specific literacy skills. Students need to read, write, and understand texts in each academic area. The WSM is designed to allow teachers to approach literacy instruction from an interdisciplinary approach while developing students' critical thinking skills.

Torgesen et al. (2017) highlighted that students acquire conceptual knowledge and understanding through both broad and deep reading and through explicit instruction from content-area teachers. Peterson et al. (2016) found that this instructional model allows middle school students to read texts in science, social studies, math, and different content area. This, in turn, assists students in building a foundation of knowledge of the content area, gaining background information, and be capable of reading texts in the different content areas. Additionally, Hudson and Williams (2015) found that the WSM is a preferred reform due to its strengths in fostering the link between literacy framework and the CCSS.

Content area literacy has an important role in helping students understand and interact with various disciplines. Armstrong, Ming, and Helf (2018) highlighted that students, including middle school students, need to master the distinct approaches to literacy that are used in academic disciplines such as science, mathematics, and history, and other content area subjects. However, middle school students with low literacy skills are challenged to read the information in the various content-area course provided in the middle grades (Armstrong et al., 2018).

Swanson et al. (2017) explained that some middle school students lack the literacy skills and interests to read and comprehend the detailed, complex, difficult vocabulary content-area texts they encounter daily in different classrooms. Similarly, Armstrong et al. (2018) found that students need to master the distinct approaches to literacy that are used in academic disciplines such as science, mathematics, and history, and other content area subjects. Middle school students that lack the competency to access content knowledge through text or engage in complex reasoning outlined by the CCSS require significant support from the teacher. In the WSM, the instructional model has differentiated learning, where students progress with support from their teachers based on a plan for differentiation of their instruction.

In a study by Lawrence and Jefferson (2015), they found that literacy skills among eighth-grade students improved very significantly after teachers implemented workstations components of the WSM to address multiple learning styles. Students in these classrooms participated in workstations activities. During these activities, students get a variety of supports from group members and their teachers that help them

participate actively in the learning process by ensuring that they had in-class time to practice using the reading strategies introduced in class. During these experiences, students are challenged to generate their own questions and explore interactive, appealing, and novel ways of teaching and learning with peer and teacher support.

The WSM is organized to provide meaningful instruction that is literacy-based to meet students' individual learning preferences (Atwell, 1998). Proponents of WSM of teaching and Learning suggest that this pedagogical approach is beneficial for several reasons. Firstly, it allows teachers to design a learning environment that fit the learning preference of 21st century students. It allows students to work at their best level due to its unique process of providing adequate scaffolding that helps students engage in deeper levels of thinking, collaborative learning, and self-regulated that prepare students to assume ownership of their learning (Meyer, 2010).

Researchers have identified the type and qualities of interactions in classrooms developing technological literacy skills. A study by Leu et al. (2017) identified the implications of a dual-level theory of instruction in a model called the New Literacies. In this model, educators are tasked with building the literacy skills of students needed to be productive in the future. This study identified the characteristics of productive instructional practice for teaching the new literacies of the information and communication technologies with the traditional advancement of content literacies.

Additionally, researchers found that the educators' ability to coordinate literacy learning opportunities between and among students is a factor in the development of new literacies (p. 7). A dynamic social learning environment allows teachers and students to

foster their literacy skills and their potential for effective communication and information use (Leu et al., 2017). In this model, educators need to establish new social practices in today's classrooms to help students cope with the level of interaction within increasingly complex technologies emerging in this information age. The WSM is based on the differentiated instructional model that integrates both advanced content literacy and information technologies in a blended classroom.

In summary, the WSM helps to develop content literacies that are required for students to be successful in the 21st century. The WSM includes specific differentiated instruction on the content-specific literacy skills. Research has identified how student-centered instruction can be productive in developing advanced literacy skills. This study will define the perceptions and experiences of middle school teachers implementing the WSM in their classrooms.

The WSM is designed as a constructivist instructional model to develop advanced learning skills and content knowledge required by new standards and the increasingly diverse students. Kwan and Wong (2015) found that instructional approaches that emphasized creating a constructivist environment and promoting active learners or a learner-centered culture can develop students' critical thinking. Classrooms based on constructivism principles presuppose that active learners can investigate further and can construct knowledge for themselves (Vygotsky, 1978). According to Bruner (1961), the purpose of education is not to impart knowledge, but instead to facilitate a child's thinking and problem-solving skills which can then be transferred to a range of situations.

Research by Liang and Akiba (2015) found that students who learn in constructivist environments tend to have more positive cognitive outcomes compared with students learning in a traditional learning environment. A constructivist learning environment is characterized with features such as (a) knowledge is shared between teachers and students; (b) teachers and students will share authority; (c) the teacher's role is one of a facilitator or guide and; (d) learning groups will consist of small numbers of heterogeneous students. This instructional approach allows students to construct their own knowledge through investigation, collaboration, and reflection (Liang & Akiba, 2015).

Research by Calkins and Tolan (2010) studied the implementation of the WSM to understand student motivation and engagement. In this study, middle school teachers create learning environments with planned, explicit differentiated instruction. Teachers guide to foster students' learning, increase students' interest, motivation and aspirations to master literacy skills in mathematics, science, social studies, English language arts, and technical subjects to attain their learning potentials. They found that increased interest and motive does result in increased engagement to build the needed literacy skills in students.

In a traditional teacher-directed classroom, the teacher's role is a reading and writing expert who impacts the skills, strategies, and knowledge. Piper (2017) found that student-centered learning is needed to foster cross-disciplinary learning that is lacking in the traditional classroom. This author concluded that educators must shift from a traditional mindset of direct instruction to a more flexible and student-centered approach

to interactions in their classrooms to increase engagement and the learning potential of their students.

The WSM is based on constructivist learning principles. Constructivism is a student-centric learning philosophy that identifies learning as resulting from engaging the learner in creating new knowledge through inquiry and project development. In constructivist classrooms, the teacher's role is as a facilitator or mentor, reducing the time spent in direct instruction or lecture. This study defined the teachers' perceptions of their efficacy and their beliefs about their students' ability to learn in the WSM.

Differentiated Instructional Methods

The constructivist philosophy undergirding the WSM is student-centered and focused on differentiating instruction and materials to meet individual students' needs. The WSM uses differentiating instruction to address the learning needs of all students. Differentiated instruction is a model that develops individual student choice in response to an instruction that includes multiple forums. The WSM uses a differentiated model of instruction.

Research has shown that students can develop academic skills in a differentiated model of instruction. Larcara (2015) highlighted that teachers implementing WSM differentiate instruction by using varied reading materials, integrate the audio and visual benefits of technology to read text for students, use of paired reading strategies, or small group instruction when need arise. The principle of differentiated instruction is that by developing an instructional plan that is matched to the learner's needs, you will increase their learning.

Pablico, Diack and Lawson (2017) conducted a mixed-method study on six science teachers and 65 students. Interviews were the tools to explore individual beliefs, experiences, and perceptions of teachers about differentiated instruction while the quantitative section used a survey to compare the end of course performance of students exposed to differentiated instruction with students not exposed to differentiated instruction. Findings from data analysis indicated that teachers had positive perceptions of differentiated instruction. Teachers in this study felt that differentiated instruction improved students' engagement in the class as they were asked to choose activities that suit their interests and learning preferences.

However, this study identified challenges that teachers face in implementing differentiated instruction. A significant challenge identified included the amount of time required by the teachers to plan and implement DI strategies. Additionally, the teachers identified a lack of resources to implement DI in their classrooms. These researchers suggested that teachers need to be creative because there were few available resources for differentiating in their science classrooms (Pablico et al., 2017).

Similarly, results from the student survey revealed that students have positive or strong positive perceptions of nine out of 10 components of differentiated instruction. However, the ANCOVA result showed no significant difference at the end of course scores between students in Differentiated Instruction classrooms and students in traditional instruction classrooms (Pablico et al., 2017). Unlike this study, which focused on high school science students and teachers, my study will study the experiences of middle school teachers integrating differentiated instruction through the WSM.

Chien (2015) conducted a case study that investigated the influence of a differentiated instruction workshop on thirteen elementary school English teachers. This case study examined both the teachers' understanding of differentiated instruction and these English teachers' competence in implementing differentiated instruction. The study findings identified that the teachers designed choices for class activities or homework to meet the diverse needs of their students. The study also identified that the teachers' understanding of differentiated instruction's purpose was linked to their ability to integrate this instructional model into their classrooms.

Problem-Based Learning Model

The WSM is a problem-based learning environment. Problem-based learning is an instructional model based on constructivist learning philosophy with roots in the work of constructivist theorists such as Dewey (1938) and Vygotsky (1978). Russell (2012) described problem-based learning as an instructional approach that enables students' learning to occur through solving an authentic problem. The WSM is based on new research on the development of advanced 21st century knowledge and skills using a problem-based learning environment.

Researchers have found that new pedagogies are required to enable teachers to create a conducive learning environment for present-day students to develop skills needed to be successful individuals in the 21st century workforce (Cookson, 2009; Dole et al., 2016). Problem-based Learning (PBL) is a student-centered instructional method. The problem-based learning method of instruction has been shown to enhance students' ability to explore and develop new understanding. Students in this learning environment

take more ownership in the learning process, while teachers assume the role of facilitator or coach rather than the transmitter of knowledge that is prevalent in traditional teaching methods (Dole et al., 2016).

Problem-based learning is a collaborative learning environment where groups of students with mixed abilities solve authentic problems with the support of teachers (Russell, 2012). Students identify a problem utilizing their metacognitive skills to develop skills such as deeper learning, content mastery, critical thinking, problem-solving, effective communication, self-directed learning, and academic mindsets (Dole et al., 2016). Unlike in traditional teacher-centered pedagogies that the teacher structures and dictates students learning activities, problem-based learning classroom allows students to be fully responsible for the self-regulation of their learning.

Horak and Galluzzo (2017) conducted a quasi-experimental study in a gifted program for middle school teachers and students in a large suburban school district in the mid-Atlantic region of the United States. The purpose of the study was to examine the effects of problem-based learning (PBL) on students' academic achievement and their perceptions of the PBL environment in comparison with students learning the same content in teacher-centered, non-PBL classes. Study participants were 206 seventh grade students who completed pre/post assessment data sets, and 192 that completed a study survey.

The comparison group received traditional district teacher- direct method in a science class, have 243 seventh grade students that completed pre- and post-test data sets, and 251 students who completed the surveys (Horak & Galluzzo (2017). Participants

from each group took 25- items pre-tests, and at the end of three weeks of the study, the same assessment was administered as a post-test. The data analysis showed that students taught with the PBL techniques outperformed students taught with a traditional direct instruction approach based on academic achievement measures.

Flores (2018) conducted a qualitative study of problem-based science classrooms. The goal of using the problem-based science model was to increase science literacy while fostering the mindset of creative problem solvers. Study participants were fifth grade and sixth-grade students in science classes. Data collection for this study used interviews. Findings revealed evidence of increased self-efficacy among the students as a result of addressing and designing solutions to real-world problems.

The WSM centers around the problem-based learning model of teaching and learning. The students are given problems to respond to in their groups and develop projects as a result. This instructional model allows teachers to create the advanced cognitive processes and content knowledge required for 21st century learners (Russell, 2012). Problem-based learning is a constructivist learning model of instruction that is collaborative and student-centered. This model has been shown to increase the development of advanced thinking processes. Problem-based learning is a design aspect of the WSM as learners respond to problems in their workshops.

WSM

The WSM is the instructional model implemented in the classrooms that are the context for my study. The WSM is based on constructivist learning principles, including the zone of proximal development as a model for implementing the differentiated

instructional model. Additionally, the WSM is based on problem-based learning, where the students respond to integrated problems through the development of workshop projects. Finally, the WSM integrates technologies into a blended, part face-to-face, and part online classroom.

The WSM is an integrated model of teaching and learning. The WSM is based on workshops that promote individualized learning, differentiated instruction, and problem-based learning with the focus on students assuming more responsibility for their learning. The workshops are structured to allow teachers and students to achieve a classroom society, which supports students in becoming empathizers, synthesizers, and problem solvers well equipped for success in the knowledge age.

Although the times may vary slightly, the instructional components establish the routines for classroom instruction. Teachers implementing WSM may use forty-five minutes or ninety minutes block for the workshops depending on the school-approved instructional schedule Workshops typically involve participants doing work on an issue or problem. The goal is that when they leave, they will have at least a rough plan or tools in place to address the challenge. The warm-up (not technically part of a WSM) is added to facilitate transitions from bell to bell and set the tone for learning.

The WSM includes three main components or sessions including (a) Mini-Lesson; (b) Work Time/Conferencing; and (c) Share Time (Children's Literacy Initiative, 2017). The mini-lesson session is the time when the teacher introduces, models, or teaches a new skill, technique, or concept to the students. It lasts 8-10 minutes. The workshop mini lesson has a definite structure with various parts, including making the connection.

During the mini lesson, the teacher introduces the new concept by connecting the topic to previous lessons taught. The teacher presents an explicit and repeated instruction with models of the skill students require to master and do in their work time session. In the work time, students work in a small group, one-on-one guided practice, conferencing to complete tasks based on their choices. WSM teaching concludes with students sharing what they have learned.

The work time is the second component of the WSM when the students apply the new skills they learned during mini lesson into reading or writing activity. Teachers use the work time session to check for students understanding through individual conferencing and small group instruction. Lastly, is the share time when students demonstrate their new knowledge by sharing how they apply the new skill acquired from mini lesson.

As students are working in their groups, the teacher visits different groups to conference with individual students using varied questionings to check for individual student's understanding, clarify complex concepts with detailed explanations and examples. Lempp (2017) reported that students in a small group setting demonstrate high confidence and feel comfortable to engage actively during group sharing and answering questions. Small group instruction, peer interaction, and collaborative learning activities that characterize WSM teaching allow students ample opportunity to build self-confidence through the teacher's closer modeling and supports (Hoffer, 2012).

Teachers implementing WSM integrate technologies in a blended learning environment to help students develop digital literacy skills and individualize the students'

responses. Teachers create podcasts, blogs, videos, Google Docs, and Google presentations on the school website that enable students to post their writing, brainstorm, collaborate with peers, view, and respond to their group members' ideas or discussion questions. Students can log into the school website to post their writing, listen, watch, and read other groups' posting and provide appropriate feedback in the blog section of the website.

The WSM classroom exposes students to innovative ways of learning and participation, which is quite different from traditional academic assignments. The WSM is based on constructivist learning principles and designed to improve the weak strategies of the conventional method of teaching and teaching. Additionally, research has shown that academic performance improves in the WSM. The WSM centers around a differentiated instructional model that teaches literacy skills as well as critical thinking skills. The WSM is incorporated in response to new standards required for educators in U. S. schools.

Summary and Conclusions

This review of related literature to the study topic has highlighted evolving themes on teachers' various experiences implementing WSM. The purposefulness of integrating the TPACK model into teacher professional development was discussed. Prior research examined the critical concepts related to the historical background and the need for reform in schools.

The WSM is a problem-based learning instructional model that relates to constructivist learning principles. Based on the literature reviewed, the WSM connects to

differentiate instruction in a way that is aligned with the CCSS. Teachers implementing the WSM design a collaborative learning model that engages the learners in developing projects in response to problems identified in their workshops. Additionally, the WSM includes the integration of an online workspace creating a blended model of learning.

Research on the WSM has shown positive results, such as active collaborative learning and fostering students attaining 21st. Century skills. Research has found that the WSM classroom provides a conducive environment for students to develop essential 21st. Century skills of critical thinking, problem-solving, communication, creativity, and collaboration. The WSM includes an integrated literacy approach that focuses on both content literacy and technological literacy.

Although the studies discussed above offered new understanding regarding the importance of the WSM, what is not known is the experiences middle school teachers encounter while implementing the WSM using technology and virtual space in the classrooms. Understanding the skills teachers face during implementing WSM teaching in the school may direct instructional leaders and policymakers to make specific decisions and provide resources to help teachers to overcome the challenges and be capable of implementing WSM to foster students learning effectively.

My study examined the perceptions and experiences of middle school teachers during the implementation of the WSM in various content area classrooms through the conceptual lens of TPACK to define the correlating aspects of technology knowledge, content knowledge, and pedagogical knowledge. To answer research questions for this research, it was important to understand both the perceptions and experiences of these

teachers during their real-world design and implementation of the reform, the innovative program of the WSM.

This study was significant in that it used the systemic analysis provided by the TPACK model to understand these teachers' real-world design and implementation of an innovation cluster, new technologies, new content-specific instructional practice, and new pedagogical knowledge incorporated in the WSM. This chapter reviewed the current literature that relates to this proposed study. Chapter 3 will present detailed information about the methodology for this study. Chapter 3 will include a description and justification of the research design, the role of the researcher, criteria for selection of participants, method of data collection, and data analysis.

Chapter 3: Research Methodology

The purpose of this basic qualitative study was to examine middle school teachers' experiences implementing the innovative blended WSM designed based on constructivist learning concepts utilizing a differentiated instructional model with the integration of learning technologies. This chapter outlines the study purpose, research questions, and the research design, as well as the rationale for the selection, are described. This chapter discusses the target population, sampling size, data collection method, and other related study procedures. Also, in the chapter, I identify the research questions, participants' recruitment plan, data analysis, and procedure. I discuss the limitation of the research design, issues of trustworthiness, ethical process, and the chapter summary. In this chapter, I will review my study design, the reasons for the design, the methodology, methods, and describe the limitations and significance of my study.

Research Design and Rationale

This was a basic qualitative descriptive research study. The main research question for this study was What are the perceptions and experiences of middle school teachers implementing the innovative blended WSM designed as a constructivist learning model utilizing differentiated instructional model using technologies? Secondary questions included How do middle school teachers describe the implementation of the WSM into their classrooms? and What are the perceptions of middle school teachers integrating the innovative WSM into their classrooms?

A basic qualitative study, also referred to as a generic qualitative approach (Kahlke, 2014), was considered a fit for this proposed study. This connects to Percy, Kostere and Kostere's (2015) definition that researchers employ basic qualitative descriptive study to understand how people interpret, construct, or make meaning from their world and their experiences (p. 39). In a similar note, Patton (2015) described basic qualitative research approach as a practical methodology to qualitative methods that primarily uses open-ended questions to explore the phenomenon, improve programs, or develop policies.

Basic qualitative descriptive studies seek to understand a phenomenon by obtaining descriptive responses and knowledge of circumstances from the individuals involved. Anyaka (2017) utilized generic qualitative approach to discover the motivations of 10 high-achieving African American high school students to persevere and achieve academic success regardless of social and psychological challenges. Similarly, this study employed a qualitative approach explore and understand the experiences and perspectives of ten teachers implementing the innovative WSM of teaching in different content area middle-school classrooms.

Other qualitative methods such as grounded theory, ethnography, case study, and phenomenology would not be appropriate to define teachers' experiences implementing this innovative model of instruction. A case study approach does not fit this study since a case study investigator explores a real-life in a contemporary bounded system (a case) over time, through detailed, in-depth data collection involving multiple sources of information, and reports a case description and case themes (Creswell, 2013).

The phenomenological approach is not suitable for this study as the focus of the researcher is oriented towards lived experiences and interpreting the texts of life-based on phenomenology philosophy. The ethnography approach does not fit the study because the goal of the researcher is specific to the entire cultural sharing group of individuals, unlike this study that has focused on individuals with the knowledge of the phenomenon of interest (Patton, 2015; Rubin & Rubin, 2012). Grounded theory approach does not fit this study since the goal of the researcher is to move beyond description and create a theory, unlike this study that is oriented to problem-solving or evaluating a program.

Basic qualitative descriptive research designs are used to understand the experiences people encounter with the phenomenon of interest (Yin, 2009). In this basic qualitative descriptive study, I collected data from semi-structured interviews. I used Yin's (2009) six-phase research plan to design and implement the study. Yin's six-phase research model includes (a) planning the study; (b) designing the study; (c) preparations to collect evidence; (d) collecting data; (e) analyzing the data and developing the conclusions; and (f) reporting on the results. Merriam and Tisdell (2015) noted that qualitative study focuses on generating themes from the experiences of people who are knowledgeable of the phenomenon under study.

I used the basic qualitative methodology and inductive analysis to explore the experiences of participating teachers' reports of their subjective opinions, attitudes, beliefs, or reflection on their experiences (Babbie, 2010). I structured the data by creating initial codes, then combining these codes into patterns, categories and resulting themes

(Boyatzis, 1998). For this study, the phenomenon was the teachers' experiences implementing the WSM. I interviewed ten participants.

Role of the Researcher

According to Marshall and Rossman (2015), a researcher in a qualitative study is an instrument for data gathering. As a result, my role in this basic qualitative study required that I sustain the integrity of the research. My part included recruiting and gaining consent from middle school teachers who volunteer to participate in the study. I was responsible for collecting data relevant to my study question. Similarly, I analyzed, interpreted, and reported all study findings.

As a former middle school teacher in an inner-city public-school district and an educator in the high school setting, I have an interest in understanding the innovative educational program. Therefore, I wanted to examine the experiences and perspectives of teachers who are incorporating the new WSM into their practice. I resisted potential biases and prior experiences as a former middle school teacher to maintain objectivity.

To attain this, I engaged in reflexive journaling and memoing to continuously record my new thoughts and techniques throughout the data collection and data analysis process. Miles, Huberman, and Saldana (2014) described memoing as an essential part of the interview data. The purpose of memoing was to consistently record responses and changes that occurred during the interviewing process. Additionally, I memoed extensively throughout the study to create a comprehensive audit trail.

I was also mindful that fellow teachers discussing their perception of the implementation of WSM instructional methods my bias of how to implement the WSM.

Amid these fixed notions, I resisted personal preferences from infusing into the data gathering process through constant journaling of new thoughts in a reflexive journal and identifying responses and changes that emerge during data collection and data analysis through memoing. Throughout the research process, I sustained a respectful position to the study participants.

Methodology

My goal for the study was to understand the experiences of teachers implementing the WSM of teaching in middle schools concerning the knowledge of teachers in using technology to implement the reform. I implemented a basic qualitative study that used thematic inductive analysis. I collected interviews of teachers.

Participant Selection Logic

This study used purposive sampling. Merriam and Tisdell (2015) noted that a researcher must choose participants that meet the criteria to gain specific knowledge of the phenomenon under review. Patton (2015) stated that qualitative inquiry has no specific rules for sample size since sample size depends on specific criteria including what an investigator wants to find out, the purpose of the study, how the findings will benefit the field, and what resources and time are available for the review (p. 311).

My initial goal of including 8-10 participants was to obtain a substantial representation of middle school teachers who have implemented or implementing the WSM of instruction and to develop saturation. Similarly, Lane (2018) conducted a qualitative study on teachers' morale in a Turnaround School. The researcher selected eight participants to examine the experiences of teachers who had experienced the

conservatorship process in their practice. This sample size provided the requisite data needed to address the research questions.

These teachers were selected based on the inclusion criteria, including (a) teaching public middle school identified as grades 6-8; (b) teaching using the WSM with technology integration; and (c) have a minimum of three years teaching using the WSM. Middle school teachers who meet these criteria were the study participants. I attempted to include teachers from differing content areas through my sampling process. The purpose of this was to increase the diversity of the participants and to give different teachers voice to share their experiences during the implementation of the WSM of instruction in their various classrooms.

Participants for this proposed study were ten middle school teachers who have implemented the WSM of instruction in their practice. Participants were ten middle school teachers from grades six through eight. Using this sample size provided sufficient participants required to satisfy the inductive and deductive reasoning in this study as well as to attain data saturation.

Instrumentation

The data collection instrument for this current study included telephone interviews of teachers. The interview questions were designed around the conceptual framework, including understanding their attitudes toward innovation, according to Rogers, their efficacy, TPACK and their perceptions about implementing instructional reform.

Interview Protocol

I conducted semi-structured telephone interviews to inquire about the experiences of middle school teachers implementing the WSM of teaching using technology. Interviews are an essential data collection source in qualitative research (Yin, 2014). Nine open-ended interview questions were created to establish a cordial conversation that allows participants to provide detailed information about their experiences with follow up probes. The interview questions were drawn from a review of the literature and created to align to and answers the study's research questions and the conceptual framework. Yin (2014) detailed that the purpose of using open-ended and broad interview questions is to let the interviewee provide a new explanation about the phenomenon under study. The purpose was to enable the interviewee to provide detailed relevant information about their lived experiences while implementing the innovative instructional method of the WSM with technology integration.

Interview Questions

To design the interview questions, I talked to a subject matter expert in the field of education. The expert has a doctoral degree and works with doctoral students in education. She reviewed the questions created for the interview process and collectively aligned the questions to the research questions. This process established the reliability and validity of the interview questions. Below are the interview questions for this study.

1. What instructional approach (student-centered innovative, traditional method) do you apply daily into your practice? Why? Probe: What role do you play to foster better implementation?

2. Tell me about your experiences in implementing the WSM in your classroom.
3. What are your perceptions of using the WSM of instruction in the different content areas (math, English Language Arts, science, social studies, music, technology, physical and health education)?
4. Based on your experience, what benefits do learners gain during WSM teaching? Please give an example.
5. What are some of the challenges you encounter implementing the WSM of teaching?
6. Tell me about the professional development you have attended since the beginning of WSM implementation using technology?
7. Describe the various technology resources (Google document, online assessment, blog, virtual space) you incorporate into the WSM learning environment?
8. Describe how technology integration into your classroom enhances the WSM of instruction.
9. In general, what support do you need most to overcome the challenges of implementing the WSM?
10. Do you have anything else relating to your experiences and perception of implementing the WSM program you want to discuss? I thank you for participating in this interview.

Questions 1, 4, 8, and 9 are pertinent to understanding Rogers' (2003) diffusion of innovation theory. Similarly, questions 2, 3, 5, and 10 relate to the first research question; How do middle school teachers describe the implementation of the WSM, into their

classrooms with technology integration? Questions 4, 7, and 9 relate to the second research question; What are the perceptions of middle school teachers integrating the innovative WSM into their classrooms?

This study aimed to understand the experiences of middle school teachers implementing a non-traditional instructional method of WSM with their perception of the program using technology. The interview questions allowed teachers to describe their lived experiences and perceptions.

Procedures for Recruitment, Participation and Data Collection

Recruiting participants for this study did not commence until the researcher received the approval from the dissertation committee and Walden University's Institutional Review Board (IRB). Upon receiving IRB approval, the next step entailed the researcher posting to three teacher groups Facebook pages. I posted the study flyer on the Facebook page to seek public middle school teachers in the Northeast region of the United States who have implemented the WSM. Potential participants contacted the researcher and responded to inclusion criteria questions to determine eligibility.

If the volunteer met the inclusion criteria, I emailed the Informed Consent Form (Appendix B) to study potential participants to review. They gave consent by replying that they agree to participate. After signed informed consent emails were received, I emailed a request for participants to indicate a convenient time and day to conduct telephone interviews.

I scheduled all the phone interviews. I conducted telephone semi-structured interview with study participants. The initial interview lasted for 60 minutes while a

follow-up- interview will be scheduled at the end of the initial interview if additional information is required to provide clarity. The interview session was be recorded with the phone audio-recorder file and stored on a login-secured mobile phone. Data files were later download and saved into the researcher's personal study computer for data analyzing. Then the audio files were deleted.

I hired a transcriptionist to transcribe all the interviews. I sent an email with interview transcripts to each participant to review and confirm the accuracy of their responses through member-checking. If the participant identified inaccuracies, I corrected the transcript. Upon completing the data collection process, the researcher sent an email to thank all participants for their participation.

Data Analysis Plan

Basic qualitative studies are inductive (Percy et al., 2015). Thus, data analysis in basic studies relies on thematic analysis to find meaning. Merriam and Tisdell (2015) identified that basic qualitative studies concentrate on how people interpret their experiences, construct their worlds including the meaning they attribute to their experiences, I used Braun and Clarke's (2006) model of thematic analysis to structure my analysis.

In this regard, data from all participants was analyzed to discover repeating patterns and themes. These themes and patterns were synthesized together into a composite synthesis. This composite synthesis assisted in interpreting the meanings and implications of the study questions (Percy et al., 2015). Based on this explanation, this researcher used the step-by-step inductive method of thematic analysis to analyze

different data set gathered in this study, including interviews (Braun & Clarke, 2006). My procedures for data analysis are listed below:

1. I maintained a daily reflexive journal and memoing to write down emerging thoughts, significant comments, and new questions from the field
2. I familiarized with each data collected by reading the notes and listening to the recorded data to ensure accuracy.
3. I sent all collected data to a transcriptionist to ensure accurate transcribed data
4. Upon receiving the transcribed interview, the researcher sent the transcribed copy to participants for member checking. The participants were asked to identify any mistakes in the transcript or add new meaning to the transcribed interview.
5. After all the participants had completed the member checking, and the researcher uploaded all transcribed data into a qualitative data analysis program.
6. With the aid of a qualitative data analysis program, the research created an initial coding structure to find emerging patterns and categories from each participant's data.
7. I used a paragraph as a unit of meaning. I linked an identifier to each paragraph that compresses the topic of the paragraph into a few words.
8. After I have done the initial coding for each interview, I combined these codes into categories based on similarities in the initial codes.

9. After I completed coding all interviews, I reviewed the categories for each interview and compressed them into patterns across all the interviews.
10. Next, I identified main themes based on all patterns across all interviews.
11. I synthesized the themes together to form a composite synthesis of collected data to interpret the meaning as well as answer research questions
12. I wrote the final report of the study findings.

Issues of Trustworthiness

Establishing trustworthiness criteria is a necessary process that qualitative researchers must follow to establish the rigor of the inquiry (Anney, 2014). Since the nature of qualitative study entails understanding a phenomenon through participants' perception, it is imperative that the researcher endeavors to establish adequate trustworthiness to ensure gaining access to teachers in the middle grade. Patton (2015) noted that gathering relevant data and interpretation of data depends strongly on the level of trustworthiness the researcher established. Thus, qualitative researchers use trustworthiness criteria, such as credibility, transferability, establishing confirmability, and dependability, to maximize study authenticity (Anney, 2014).

Credibility

Credibility is defined as the confidence that can be placed on a study finding (Anney, 2014; Merriam & Tisdell, 2015). It is used for establishing whether the research findings represent reasonable information from the participants' original data. Qualitative researchers establish study credibility through several methods. For this study, I recognized that there could be misconceptions about the study resulting from the opinion

the researcher has about the WSM and district improvement plan initiatives as a former middle school educator. I reduced my biases by member-checking to ensure that the participants can respond to the transcribed interviews to increase accuracy and I also used reflexive journaling throughout the study.

Member checking is the key method qualitative researchers use to ascertain the stability of a study data. It involves consistent testing of data and interpretation collected from different study participants (Anney, 2014). I sent the transcribed interview data to the participants to confirm the researcher's interpretation of their thought and to suggest changes of inconsistent or inaccurate interpretations (Merriam & Tisdell, 2015). Additionally, the credibility of this study was established by using peer debriefing. I aimed guidance, comments, and feedback from the mentor and my committee to improve the quality and accuracy of the study findings.

Transferability

Transferability is the scope that results of qualitative research can be transferred to a different setting with other participants (Anney, 2014). I used a thick description to ascertain transferability in this study. This included providing extensive detailed analysis of the research context, processes, and methodology. In addition, purposeful sample selection of teachers with enough detail about the participants to keep their confidentiality at the same time allowing others to see if their faculty have similar characteristics. The means the results may be relevant to their teachers, as well.

In this study, teachers implementing the WSM have the knowledge of the phenomenon of interest. I provided enough detail about the participants to keep their

confidentiality at the same time allowing others to see if their faculty have similar characteristics. In this study, sampling included identifying those middle school teachers that met the inclusion criteria of have taught in the WSM for at least three years to ensure that their experiences were relevant for this study and increasing the likelihood of that other teachers can benefit from their real-world experiences. For this study, transferability was evidenced by interviewing multiple participants' experiences until data saturation is attained (Mason, 2010). The audio-taped interview data and notes were transcribed to keep an accurate audit trail.

Dependability

Dependability in qualitative research entails the stability and consistency of findings in a given period (Anney, 2014). I used specific strategies such as audit trails to establish dependability throughout the study. Participants were interviewed, data collected, audio-taped, and transcribed for themes and patterns that developed from the study will be further used in data analysis. I used memoing throughout the study to increase my audit trail.

Confirmability

Confirmability of qualitative research explains how research findings can be confirmed or verified by other researchers. Given that qualitative research investigates the participant's world view (Anney, 2014), confirmability assesses the integrity of research findings. A data trail was kept throughout the study to eliminate biases on data collection and data analysis. I achieved confirmability through an audit trail, and a reflexive journal. I also kept a reflexive journal, which included all events that happened

in the field, and personal reflections in relation to the study. Analysis and synthesis were shared with my dissertation chair and committee to note an audit trail for when results are found.

Ethical Procedures

Research procedures of this qualitative study maintained several ethical considerations. I obtained permission from the teachers' social webpage director to post a recruitment flyer in the teachers' forum to enable a potential participant to indicate their interest. The selection of participants was based on teachers that met the selection criteria for implementing the WSM in their daily pedagogical practice. I did not have existing relationships with the participants nor the setting of this study.

The study data was collected from participants' responses during the interviews. Additionally, before conducting the study, I provided the study participant with informed consent, including a brief description of the study purpose, and the interview procedure. Participants in this study received an informed consent form before any data collection. They were informed that their participation is voluntary and may decide to discontinue participating in the research without being harmed or penalized. I took measures to provide confidentiality to the study participants by identifying them using alphanumeric codes (T1, T2 T3. .)

I used member checking, memoing, and reflexive journaling to reduce bias. Participants were given access to interview data and survey data to confirm information or clarify any error introduced by the researcher. For this study, data gathering used

audio-recorded during a telephone interview with a cellphone recording device, memoing, and reflexive journaling.

The interviews were coded for analysis. The audio-taped data and hard copy data was securely stored in a safely locked cabinet that can only be assessed by the researcher. The digital data was also secured in the researcher's personal laptop computer that is password protected. After analysis, the digital data was stored on a flash drive. When the minimum required five years have elapsed, all the stored papers data will be shredded, and the flash drive will be destroyed.

Summary

In conclusion, this study aimed to understand teachers' experience in implementing the WSM of teaching and learning in their middle school classroom regarding their knowledge of integrating technology and their perception of teachers' professional development. To understand this phenomenon, I used the basic qualitative research design, collected multiple sources of data and structured the coding the interviews, and developed themes from the analysis that relate to the research questions. As a result, I answered the research question; What are the experiences of middle school teachers implementing the innovative blended WSM designed as a constructivist learning model utilizing differentiated instructional model using technologies? In Chapter 4, I will present my study procedures, results, and conclusions.

Chapter 4: Results

The purpose of this basic qualitative study was to examine and obtain an in-depth understanding of the experiences middle school teachers encountered while implementing the innovative WSM of instruction, designed based on constructivist learning concepts utilizing a differentiated instructional model with the integration of learning technologies. My literature review identified academic gains in students' academic performance in the K-12 grades that used the WSM instructional method. However, research that defines the experiences urban middle school teachers encountered during the implementation of a non-traditional WSM of teaching, with technology integration in middle-grade classrooms, is lacking.

The central research question for this study was What are the experiences of middle school teachers implementing the innovative blended WSM designed as a constructivist learning model utilizing differentiated instructional model using technologies? Two secondary questions included How do middle school teachers describe the implementation of the WSM in their classrooms? and What are the beliefs and attitudes of middle school teachers integrating the innovative WSM into their classrooms? Four conceptual frameworks relevant in exploring teachers' experiences and perceptions implementing the WSM included the diffusion of innovation, sociocultural learning, andragogy, and TPACK.

I generated qualitative data relevant to this study from in-depth semi-structured phone interviews. Data collected were transcribed, analyzed, and reconnected to the

research questions and conceptual framework. This chapter contains a detailed description of the research setting, the demographics of the participants, the data collection process, and instruments. Additionally, I will present a description of coding processes and data analysis, evidence of trustworthiness, and results obtained from analyzing the experiences and perceptions of ten middle school teachers who implemented the WSM of instruction in their classroom using technology. I will include a review of the research findings that address the research questions.

Setting

Upon receiving IRB approval, I posted a recruitment flyer into three teacher groups on Facebook the support educators implementing the WSM. Twelve candidates responded to my recruitment flyer post on a Facebook site for middle school teachers implementing the WSM. I used purposeful sampling to identify that all candidates were middle-grade public school teachers who have implemented the WSM of instruction for at least three years in their classroom.

The ten participants signed the informed consent form to participate in my study. The other two potential participants withdrew their interest after the consent form notified them about the non-financial compensation nature of my study. I did not have any issues scheduling the phone calls for interviews for all ten participants.

Demographics

The ten participants were middle school teachers who have implemented the WSM of teaching for at least three years. Nine of the ten participants interviewed were females, and one was a male. The participants have different years of teaching

experience. One was a special education teacher, while the rest were general education teachers and taught different content areas in public middle schools in the Northeast region of the United States. Table 1 provides the participants' profiles, followed by a summary of each participant.

Table 1.

Participants Characteristics

Pseudonym	Gender	Grade	Content Area	Years of Teaching Experience
T1	F	7th	ELA/Reading	25 yrs.
T2	F	6-8	ELA/Math	8 yrs.
T3	F	6-8	Science/Math (Special ed.)	20 yrs.
T4	F	6th.	ELA/Science	3yrs.
T5	F	7-8	Science	18 yrs.
T6	M	6-8	ELA/Social Studies	3 yrs.
T7	F	6th.	ELA/Math	3 yrs.
T8	F	6th.	ELA	17 yrs.
T9	F	6-8	Math	5 yrs.
T10	F	7-8	Science	19 yrs.

Description of Participants

A total of ten middle school teachers shared a variety of WSM implementation experiences and perspectives based on the content area they taught in the classrooms. Most of the participants were females; nine of the ten participants were females while one was a male. Participants had from 3 to 25 years of teaching experience.

Study participant 1 was a veteran teacher with twenty-five years of teaching experience. She had taught different grade levels in various regions in the United States.

Presently, she teaches literacy to 7th and 8th-grade students and is implementing the WSM in her classroom. She co-teaches with another teacher in one session of writing class. Both teachers used their co-planning period to collaborate, plan, and design the WSM lessons. She has also mentored new teachers in implementing the WSM with technology integration. She also had worked part-time in a prison facility where she taught literacy to male inmates with the WSM.

Study participant 2 was a middle school teacher who started using the WSM from three to four years ago. She taught sixth- grade and utilized the WSM in both English and Reading teaching. She explained that her school district implemented WSM teaching to monitor students' growth in reading and writing from sixth grade through eighth grade. Study participant 3 was a Special Education teacher with 20 years of teaching experience. She implemented the WSM in her Math and science lesson. She expressed that the WSM of instruction provides the required structure that allows teachers to provide an individualized learning environment for special education students.

Study participant 4 was a middle school English language arts teacher with three years of teaching experience. She has implemented the WSM of instruction in her regular general education classroom and Integrated collaborative team teaching (ICT) classroom. She utilized Google classroom and a Smartboard to foster students' collaboration among peers and to allow students to control their learning.

Teacher 5 was a female veteran teacher with 19 years of teaching experience. Her school district introduced the WSM as the school-wide instructional method without adequate professional development and training. She embarked on research to obtain self-

training on how to implement the WSM of instruction in her science class. Presently she maintains an effective implementation of the WSM of teaching daily in her science classroom using various technology to enhance students' learning and lab skills.

Participant 6 participant was a middle school English language arts and social studies teacher. He has diligently used the WSM of instruction with technology integration to teach his middle-grade students. He is a young teacher with three years of teaching experience and has used the WSM of instruction since he began teaching. He described the WSM of instruction as a method with the right structure and consistency middle school students need to establish a daily routine to engage in rigorous learning.

Participant 7 was a middle school teacher is implementing the Workshop of instruction in her sixth-grade literacy classroom. She also works in a school district that integrated the WSM without adequate training for three years before she received proper coaching and was able to implement the WSM more effectively.

Study participant 8 works in a K through 8th-grade school. She has taught students in different grades in her seventeen years of teaching. She was a Language Art teacher for sixth-grade students and have used various technology such as Smartboard, laptop, Google classroom to implement WSM of instruction in her classroom.

Study participant 9 worked in a public middle school that implemented the WSM of instruction. She used the WSM teaching method to plan, structure, and teach math lessons to her students. Study participant 10 taught middle school for fifteen years. She had long years of teaching experience and frequently implemented the WSM of instruction in teaching science to students in different grades. She integrated Google

classroom to promote students' collaboration among peers and group and active students' participation in science reading and writing constructed responses and class project tasks.

Data Collection

Upon receiving IRB approval, I posted a recruitment flyer into three teachers' group on Facebook. The study recruitment flyer included my contact information. Potential participants who logged into the various teachers' group Facebook websites contacted me through my email contact information post on Facebook about their interest in participating in my research. I used purposeful sampling to identify participants for this study.

After sampling, I emailed the Informed consent form (Appendix B) to each potential participant with detailed information about the scope of the study, the voluntary nature of the study, and the confidentiality. Ten participants voluntarily gave their consent and returned their consent form to me via email. I made several calls and emails to participants to schedule a convenient time for a phone interview. Participants' interest and willingness to participate in this study were apparent and evidenced in their quick response to contacting the researcher.

Interviews

I interviewed the ten participants. Prior to the phone interviews, I thanked each participant for their interest to be part of my study before I began the interview. I reviewed the study purpose, scope procedures related to risks, confidentiality, and the non- monetary compensation nature of the study.

I conducted telephone interviews with ten participants. The telephone interviews lasted within a range of 35 minutes to 60 minutes. All the study participants lived in the Northwest region of the U.S. The interview was conducted in a private study room in my home to guarantee confidentiality and eliminate any distractions during the interview process. Additionally, each participant was notified that the interview transcript would be emailed to them to review for accuracy. Each participant consented to the interview audio recording. None of the participants withdrew from the interview procedure. Participants were extremely cooperative during the interviews and shared detailed and clear responses.

I developed an interview protocol (Appendix A) to attain uniform data collection from all study participants. Interview questions comprised of nine semi-structured open-ended questions designed for participants to share detailed experiences they encountered during WSM implementation in their classroom. The beginning questions were designed to establish a positive rapport with participants while the rest questions investigated participants' experiences, perceptions, and attitudes during the implementation of the WSM of instruction.

I conducted the ten semi-structured telephone interviews with participants within four weeks between June and July 2019. Participants were informed that (a) the interview would be recorded using mobile phone voice recording app; (b) they will receive a copy of the transcript to review for accuracy and verification; (c) they have the right to stop the interview process at any time without consequence and; (d) the duration of the interviews was between 35 to 60 minutes. In addition to the phone recording device, I took notes on

the back of the study participant's interview protocol while interviewing each participant. I listened to each participant's recorded file to guarantee that the interview session was accurately captured.

Field notes and memoing were used daily to capture both verbal and non-verbal events throughout the data collection process. After each interview session, I expressed my appreciation and thanked each participant for his or her participation in my study. I notified each participant that the interview transcript would be emailed to him or her for review. Interview transcripts were emailed to each study participant to allow participants to verify interview discussions for accuracy.

Before transcription, I assigned all teachers an alphanumerical pseudonym code such as T1 through T10 to identify each participant and to protect their identities. Letter "T" represented the teacher, and a number was assigned to show the sequence of each participant's interview. All completed interviews were sent to a professional transcriptionist for accuracy. Interview transcripts were emailed to each participant to allow member-checking for discrepancies and corrections. All interview data were transcribed verbatim into a Microsoft Word document and saved on a password-protected computer and backed up on a USB drive. Next, I uploaded all transcribed files into an online qualitative data analysis program computer program for coding.

Similarly, I kept field notes and memoing daily to capture both verbal and non-verbal events throughout the data collection process. All recorded audio files, USB drive, reflexive journaling, memoing, and consent forms were stored and secured in a locked

fireproof file cabinet inside a private study room in my home. I alone have access to the locked file cabinet.

Data Analysis

Data analysis for this basic qualitative study used Braun and Clarke's (2006) step-by-step inductive method of thematic analysis to develop patterns and themes. Percy et al. (2015) noted that qualitative studies are inductive and use composite synthesis to interpret study meaning. Additionally, Patton (2015) stated that themes and sub-themes categorize qualitative data. Based on the explanation above, I employed the step-by-step inductive model of thematic analysis to search and analyze repeated patterns of meaning from study participants' interviews.

Braun and Clarke's (2006) phases of thematic analysis were used to explore how middle school teachers described their experiences and perceptions encountered while implementing the WSM in their classroom. The first step involved reading each interview transcript line by line, searching for pertinent codes. The next phase was to combine codes with similar meanings to develop patterns. The third phase involved sorting different codes into potential themes. The final phase involved refining, defining, and naming the themes. Tables 2 and 3 provided a visual illustration of the coding process.

I began data analysis by familiarizing myself with each data set I collected for this research. First, I reviewed the notes taken during each interview and listened to each participant's recorded data while I wrote a reflexive journal. I emailed the ten collected audio-recorded interview data to a professional transcriber to ensure accurate transcribed data. Upon receiving the transcribed transcript, I sent the transcribed copy to each

participant to verify thought accuracy and for member checking. Next, I uploaded and analyzed all transcripts in a qualitative data analysis program.

Interview Analysis

I sent the ten audio-recorded interview data to a transcriptionist who signed a confidentiality agreement. When I received all the interview transcriptions, I uploaded it into an online qualitative data analysis program, a data management program that manages, structures, and organizes data. After uploading ten participants' interview transcripts data into the data analysis program, I created a project database to code data, observe patterns, and develop themes. First, I selected and read each participant interview transcript questions and the response. Next, I highlighted the text to identify a unit of meaning in the text, I assigned labels to essential data and created initial and parent codes in the data analysis program.

I categorized initial codes to identify patterns for each interview data set. I linked results from the analysis of interview questions to answer the main research question that asked; What are the perceptions and experiences of middle school teachers implementing the innovative blended WSM designed as a constructivist learning model utilizing differentiated instructional model using technologies? I used the patterns to generate themes supported by participants' original words. Table 2 below represents the initial coding process and pattern development. I used the patterns to generate five overarching themes.

Table 2
Initial Coding Table

Pattern Development	Code-count
Differentiated Instruction	16
Inside classroom Activities	9
Effective Instruction	10
Reading Instruction	7
ELA and Math activity	3
Outside classroom Issues	11
Professional Development	5
Administrative Supports	2
WSM Positives	8
Benefits of WSM	4
Students Learning	4
Reading Analysis and synthesis	8
WSM other content area issues	10
Technology Use	12
TPACK Issues	4
Efficacy-Beliefs about abilities/practice	2
Classroom management	3
Beliefs about students learning	4
Challenges of WSM	3
Scheduling Issues	2
Changes recommended	2

After I completed the initial coding, as shown in Table 2 above, I reviewed the initial codes from the interviews to find related patterns. I grouped the most frequent related codes to generate patterns. I further condensed related patterns to generate study findings that are connected to the two research questions and the conceptual study frameworks. Overall, eight patterns emerged from the initial codes and four themes resulted from the analysis of the topics of the patterns.

Table 3.
Patterns and Themes

Initial Codes	**Patterns**	**Topics**	**Themes**
Modeling Differentiated curriculum Differentiated groups Conference individual students Knowing students	Differentiated Instruction	Identification of individual student's needs	
Flexible groupings Re-design curriculum Back-up plan Teacher motivation Change and internalize new approach	Strategies to implement change	Complex implementation required teachers to design and redesign their classrooms	Flexibility required to implement
Professional development Self-training Inter-visitations programs Coaching	Implementation and training	Professional development needed	
Google classroom Smartboard Work shared digitally Laptop Chrome book Ilearn	Using technology to differentiate the learning Develop reading skills	Technology used as student-directed activities	Technology supported the students' self-directed learning in content areas.
Foster reading and writing Students' interaction Learning across all content area Instruction\Project-based learning Exploratory learning Blended instruction	Students worked independently Students worked collaboratively	WSM Benefits	Teachers were motivated to implement the WSM because they believed in the benefits of the WM.
Growth in reading and writing Confidence in reading Student-centered learning Teacher guide learning	Learning benefits	Student-centered implementation required teachers to do self-training	
Scheduling Standardized test Inconsistent Admin. Support Time constraints Improper implementation Inadequate time to plan and implement Loss of motivation	Difficulties of implementation	Problems related to issues from outside the classroom	Difficulties implementing the WSM were all related to issues from outside the classroom

Table 3 above presents initial codes, patterns, topics and the themes related to the experiences and perceptions teachers had while implementing the innovative WSM of instruction in their middle school classroom, including significant challenging issues. The eight patterns that emerged from this study data analysis were differentiated instruction, teachers' efficacy and beliefs about abilities, implementation supports, and training, technology use, benefits of WSM teaching, WSM reading content, challenges of the WSM, Need for change. These patterns were grouped into four main themes;

1. These teachers were motivated to implement the challenging WSM because they believed in their students and their own ability to develop new knowledge,
2. They described a need for flexibility in their own classroom to implement the WSM effectively,
3. They described significant negative issues impacting their ability to implement the WSM, all identified as issues from outside their classroom, such as professional development needs, standardized testing and scheduling constraints.
4. The teachers used technology in their classrooms to differentiate and empower student learning. However, more professional development and consistent support was identified.

Evidence of Trustworthiness

This qualitative study's authenticity was established by using trustworthiness criteria, including credibility, transferability, confirmability, and dependability. To

establish transferability for the study, I utilized a set of inclusion criteria to allow the recruitment of participants with diverse experiences from different schools. The inclusion criteria meant that each participant was a middle school teacher who had experiences teaching in the WSM classroom. As they were recruited online, I was able to recruit these teachers from different districts in the Northwest region of the U.S. and include teachers teaching multiple content areas.

Transferability was also evident in the detailed analysis of each participant's interview. I used a qualitative data analysis program, to code, develop patterns, and to generate study themes. I followed the steps for data analysis outlined in chapter 3. I established the dependability of the study through extensive time spent on the collection of detailed accounts from participant. My study interviews were audio-taped, transcribed, and data were coded for pattern development and themes. I used reflexive journaling and memos to increase audit trail and keep track of personal reflections and all events that happened throughout the study. I maintained constant communication with my mentor through weekly meetings.

I used several techniques to eliminate biases during my study data collection and data analysis. I established confirmability through audit trail, reflexive journaling, and constant memoing to track personal thoughts and feelings and all events that happened in the process of gathering and analyzing data. I used a professional transcriptionist to transcribe all study interviews, which included participants' direct quotes to explicate pattern development and themes in the data. I shared my study report drafts with my mentor to review and to ensure consistency

Results

This section presents study findings from data analysis of participants' interviews. This study resulted in four major themes. In the first theme, teachers described the need to be flexible in their classroom to be successful in implementing the WSM. The second theme identified was that the teachers were motivated to implement the WSM because their students were successfully learning. The third theme was that all the difficulties the teachers described were the result of issues from outside their classroom. Finally, the fourth theme was that technology integration fostered individualized learning, but more tools and training are required.

Theme 1. Successful Implementation Required Teacher Flexibility

The first theme is related to Research Question 1 How do middle school teachers describe the implementation of the WSM in their classrooms? The teachers stated that they were able to implement the WSM successfully if they could modify the WSM to meet the needs of their learners. Teachers described their abilities to control their interactions and instruction in their classrooms as critical to their success. Teachers discussed the importance of modifying the classroom schedule and redesigning the curriculum to implement WSM effectively.

Participant T8 described her experiences before and after making changes to the classroom schedule for implementing WSM. The teacher stated, "For the first three years we were specifically using it straight from the book. We were figuring out how we could cut things out; we did not need certain things; how could we make it really short." Participant T1 stressed, "This year, instead of spending two months on the narrative, we

spent five weeks on the narrative, and the kids were engaged because the lessons were so short."

Teacher responses revealed how their decision to make changes helped them achieve success during WSM implementation. Participant T2 stated, "I don't have to follow the book as in the previous years. I don't have to teach every single session, but I could pick and choose the ones that we needed." The changes made in the classroom schedule and curriculum enabled the teachers to implement all sessions of WSM as specified.

Eight participants described specific techniques they utilized in their effort to implement WSM successfully. Participants in this study affirmed that the differentiation of instruction was a basic technique that characterized their practice in implementing WSM teaching in their classroom. Teachers discussed their experiences of designing differentiated instruction to provide student-inspired instruction and to motivate students to engage in constructive learning. Teachers identified differentiated instructional methods as flexible grouping, re-designing curriculum, personalized learning, conferencing individual students, and switching methods as integral techniques they applied during WSM implementation in their classroom. However, these classroom instructional techniques require flexibility in scheduling and planning for the teachers.

Participant T4 stated, "I get to see what students are transferring or not transferring. I am constantly redesigning, and I never plan more than a day in advance." Participant T2 stated, "Honestly, the planning piece is a huge issue of it, I spend hours at night trying to figure out strategies to use and the next part of the unit to cover."

Participant T7 stated, “I have to build in time to write down who I conferenced and what we discussed because I am so good about taking notes on every student that I meet with.”

Four participants described their experiences in implementing the WSM in their classroom to increase student learning. Participant T3 stated

> I can give them differentiated lessons to assist those that get it process and absorb the lesson and be able to show that they get it. Participant T5 stated, I give them different assignments and projects, and they come up with their ideas, questions to construct new knowledge and learn from one another.

In response to research question 1, How do middle school teachers describe the implementation of the WSM in their classrooms, these teachers linked devoting extra time to plan, modifying classroom schedules, and redesigning curriculum to their personal commitment to better practice and their desire to achieve success during WSM implementation. As a result of these efforts they were able to implement this innovation successfully. These teachers stated that they needed the flexibility to respond to their classroom’s dynamics to implement the WSM successfully.

Theme 2: Issues from Outside their Classrooms

In response to Research Question 1, How do middle school teachers describe the implementation of the WSM in their classrooms, the results revealed that the difficulties faced by these middle school teachers implementing the WSM in their classrooms were related to issues from outside their classrooms. The difficulties they described centered around the following issues (a) time constraints; (b) lack of adequate professional

development; (c) the lack of support from school administrators with regards to teaching scheduling issues and; (d) required standardized testing.

The data for this study included interviews with ten participants. These teachers identified that the school district did not provide adequate professional development for teachers to learn strategies to implement WSM in their classrooms effectively. Participant T5 said, "I didn't get any form of support such as professional development from my school about WSM of teaching." Similarly, five teachers got overwhelmed with WSM implementation due to a lack of specific professional development and training on strategies to foster effective implementation. Participant T9 said

> I attended PDs during the school year, but none was specific to WSM implementation. I was sent on how to get the kids engaged, and that was a topic called math talk. In May, I had a few about classroom management. That was it.

To foster the adoption of innovative instructional practice and demonstrate self-efficacy, some participants engaged it self-directed learning. Participant T8 mentioned, "I did a couple of online courses and webinars to learn the techniques to implement WSM in my classroom." Participant T3 and T10 shared similar views regarding professional development. Both lacked WSM specific training and administrators' support in their three years of teaching experiences. Participant T10 said, "I went looking online, researching and getting information from other people and other sources" Teachers' responses indicated that some school districts organize professional development is based on the district improvement plan goal. Participant T1 stated, "The school district does

professional development mainly on how to improve testing because that is what we're required to do by the test."

While there was the absence of specific professional development and training for most participants, other teachers stressed that they received extensive professional development s and training on the WSM. Participant T2 described her extensive WSM professional development experiences as,

> We've had professional development on the WSM as teachers this past summer of 2018. I was trained on the entire template of our lesson planning for the WSM method, and I was well versed in it.

Participant T6 mentioned that he has gone through various meetings with mentors from schools that are implementing WSM effectively. Some teachers discussed that their school sent them to observe teachers in other schools implementing WSM appropriately. Participant T4 said

> I visited the classroom of teachers in schools that are implementing WSM to observe how they are implementing it. I think it needs to be expanded more. I think they need to give teachers more strategies on how to perfect… on how to best use that model and teach.

Four participants described scheduling issues and time constraints they faced while implementing WSM in their classrooms. Teachers were overwhelmed with a limited time schedule at school, which led to not having enough time to implement the components of WSM effectively. Participant T2 stated,

> This year we are able to implement WSM of teaching using the technique that is supposed to go by, but the school changed its hours, instead of having 50 minutes per class we only have 46 minutes; time was taken away from us.

Participant T2 stated, "We have 48-minutes classes and with 25 kids, and if the schedule gets messed up, it totally obliterates what I can get done. I do not have enough time to conference each kid every week genuinely." Other participants described that they spent time teaching the standards and test-taking preparation techniques, which prevented them from implementing the WSM components. Participant T2 said, "I have to make sure that I covered the standards that are on the test, or else I'm the one on the chopping block."

Effective implementation of innovative instructional approach such as WSM involves lots of strategies to plan; thus, teachers need specific professional development and substantial time to co-plan and obtain materials to implement WSM better in their classroom. Teachers identified that school policies should consider providing flexible schedules and collaboration among staff members to enhance better implementation shared support from both administrators and teachers.

In response to Research Question 1, What are the experiences of these teachers, participants' responses provided an understanding of the challenges and difficulties these middle school educators faced while implementing the innovative instructional model of WSM. Their responses identified how classroom teachers experience and respond to the multi-faceted aspects of integrating a new curriculum with new technologies into their classroom. In this study, the issues that arose that originated from outside of their

classroom included a lack of professional development, scheduling issues and the requirement of standardized testing.

Theme 3: Technology Integration

In response to Research Question 1, How do middle school teachers describe the implementation of the WSM in their classrooms, nine teachers reported experiences of using technology resources during WSM implementation in their classroom. Their responses indicated that they utilized different forms of technology to enhance their practice in their WSM classroom. Teachers mentioned that they used various forms of technology such as iPads, Google classroom, Smartboards, online school programs, and videos to foster differentiated instruction and to motivate students' learning.

Participant T8 said, “Technology increases student engagement as most of my students were bored with just using a textbook or workbook during instructional periods.” Participant T2 had a similar idea about using technology in her WSM teaching. She reported, “Technology motivates students to learn, it promotes personalized learning; for example, my online school program such as I ready and BrainPOP allow students to engage in individualized learning." These teachers described using Google classroom and Google doc to facilitate students' learning. Participants T1, T2, T3 T5, T7, T8, T10 agreed that they used Google Classroom to foster students' learning and develop digital literacy skills during WSM implementation.

Participant T10 said, "I use Google Classroom to post homework, projects, and reading passages for students to read, annotate, and write their responses to extended response questions.” Participant T2 said,

> We have Google classroom, and that has really helped my kids with losing papers and things. I use Google Classroom to assist students in organizing their writing. The writing is done online. We use the Flip Grid online application. Students use it to record their faces, their visual aspects, and they do a book review or online journal writing.

Other teachers stated that they use the Google Classroom to post an ongoing Google form for students to create a portfolio so that students can interact, share ideas, and thoughts with their peers. Participant T1 mentioned that students were able to digitally complete class final projects in the form of the newscast, green screens, video, and get feedback. All the teachers described that the Google Classroom promoted interactions and constant flow of information among students, parents, and teachers during WSM teaching.

The experiences shared by these participants indicated that teachers believed in their abilities to integrate technologies effectively into their classrooms. However, teachers described difficulties that arose during implementation such as insufficient technology tools, lack of adequate training and upgrading, lack of training, and poor internet access. Participants highlighted that their schools do not have enough working laptops and iPads to foster differentiated instruction. Participant T4 said, "My school laptops are mostly outdated, or not in order." Teachers mentioned a lack of staff development training, with five participants mentioning this as an obstacle.

Teachers expressed that school administrators did not provide adequate technology supports, professional development , training, and coaching to foster their

knowledge and better use of technology tools. These participants engaged in self-training to develop their content, technology, and pedagogical knowledge they needed in their classrooms to integrate technology into the WSM. As in the prior themes, they worked independently to develop the skills and knowledge to integrate technology based on their belief that the WSM will support their diverse learners.

Theme 4. Teachers Motivated to Increase Student Learning

To respond to Research Question 2, What are the perceptions of middle school teachers integrating the innovative WSM in their classrooms, all the ten teachers stated that they were motivated to implement the WSM because they perceived the potential for positive learning for their students. The teachers who participated in this study described positive experiences related to their students' ability to develop content knowledge and skills taught in the WSM. All the teachers in this study emphasized that effective implementation of the WSM in the classroom helped in developing student's independence and motive to learning. Teachers described that their students were able to engage deeply in the class assigned tasks and improve their reading and writing confidence.

When asked how WSM teaching benefits students' learning, Participant T1 had positive experiences while implementing the WSM in her seventh-grade reading class. She reported that implementing WSM in the middle-grade classroom fostered the development of life skills. Participant T1 said, "WSM is an approach teacher must use to teach present-day students to become better readers, writers, critical think, comparing

different literature and development of life skills among students”. She incorporates additional activities to set a high expectation for her students.

Participant T1 said, "The more teachers realize what kids can do and the depth to which they can go, the more they can do and the more connections they can make." Most participants were of the view that setting a high expectation for students pushes them to work extra hard to become experts. Participant T1 stated, "I'm hoping that we can do Workshops and write children's books …. And do more so that my kids are seen as experts for the younger kids (Elementary grade students)".

Participant T2 and T9 shared the same view. Both teachers explained that WSM gives the students an opportunity to do lots of personalized learning. Participant T2 said

> I like it too because I can drive them to grow. I know where they need to grow, and I can help them to grow. Students in the WSM classroom become autonomous learners and play an active part in their learning as they interact and construct learning with their peers. Students need to take control of their learning.

Participant T6 said, "I think the structure of WSM, and the consistency of the structure make it beneficial to the student body as they find themselves in a routine of rigor and structure”. Participant T3 stated that, "Students are doing more analysis and synthesis rather than regurgitation."

Participants in this study discussed the importance of utilizing a student-centered instructional approach to implement WSM in their classroom. Participant T9 shared her positive experiences of implementing the WSM in her class, most importantly, how the model encourages teachers to employ the student-centered instructional method. A

student-centered classroom allows educators to know their students' strengths and weaknesses, understand their learning levels, and create a purposeful grouping. Participant T9 stated, "As a math teacher, I give instruction that is more student-centered".

They want students to discuss, collaborate with their peers during WSM teaching. Participant T4 stated,

> My experience is that I facilitate instruction; students play an active role in constructing and acquire new skills. I coach, guide, and provide supports to struggling learners, while the highflyers lead their peers to construct learning, solve a problem, and compare thoughts.

Participant 2 stated, "I like it a lot. It gives the students an opportunity to do a lot of personalized learning." Participant T8 mentioned, "As an educator, you have to be mindful of different students and think of different topics and teaching styles to use." Participant T9 stated, "We have an online program that is individualized. I use that as a way to differentiate students' learning in my class." Participant T10 indicated, "It entails applying multiple intelligence and different ways of learning. WSM is not one size fits all students, knowing your students and knowing what works with each child by differentiating instruction is the key".

Teachers expressed that students' content knowledge increased during WSM implementation in their middle-grade classroom. All the participants in this study described positive experiences related to students' feeling more connected to develop content knowledge to the lesson. The teachers agreed that the WSM of instruction

enabled students to develop content knowledge and skill they would need to work well in all content areas and world situations.

Teachers mentioned multiple aspects that indicated an increase in students' content knowledge. Participant T10 said, "In my eighth-grade science class, students can read, annotate, make predictions, build science key vocabulary and interact with peers' ideas from reading science articles." Participant T6 noted, "The routines of rigor and the structure WSM provides help for students to stay focused and develop the stamina to withstand various rigorous task." Participant T4 stated, "WSM classroom enables students to interact with peers, discuss tasks and compare ideas to solve problems.

Participant T2 stated, "students' choice and voice are promoted in the WSM classroom." Participants T1 and T7 had similar views; both pointed out that the WSM of instruction works well in all content areas because it increases students' reading, comprehension, and writing confidence. They described their students engaged in a class group reading, digital group reading, and book club. Participants discussed incorporating techniques such as purposeful, flexible grouping, individual student conferencing, personalized instruction, project-based learning, station learning, and extrinsic motivation. Teachers highlighted that developing students' independence and motive empower them to gain the confidence to excel in future academic challenges and life situation.

In response to Research Question 2, What are the perceptions of middle school teachers integrating the innovative WSM in their classroom, teacher responses indicated the multiple techniques they employed to implement the innovative WSM effectively was

associated with their learners' success in the classroom and their perception that this innovative program would support their students' learning. These responses revealed teachers' efficacy beliefs about their own abilities to use better practices to implement an innovative instructional method successfully. These teachers described a sense of commitment and their efforts in their classroom to ensure the successful implementation of WSM to support their diverse learners.

Summary

In sum, this basic qualitative study explored the experiences of teachers implementing the innovative blended WSM of teaching and learning in their middle-grade classrooms using technology**.** The primary research question for this study was; What are the experiences and perceptions of middle school teachers implementing the innovative blended WSM designed as a constructivist learning model utilizing differentiated instructional model using technologies? The two secondary research questions were; How do middle school teachers describe the implementation of the WSM, into their classrooms? and What are the perceptions of middle school teachers integrating the innovative WSM into their classrooms? The objective of this study was to gain an in-depth understanding of the experiences and perceptions middle school teachers encountered while implementing the innovative blended WSM designed as a constructivist learning model utilizing a differentiated instructional model with technology integration.

Participants in this study shared detailed implementation experiences and perceptions of utilizing technology to implement the innovative approach in their middle-

grade classroom. Teachers perceived that implementing WSM of instruction components such as one-on-one conferencing and small group interactive worktime offered teachers the fundamental opportunity to address each student's learning needs. In addition, participants found that the structure, routine, and components of WSM of teaching motivate students to become autonomous learners.

These teachers were implementing WSM without adequate professional development and outside support because of the interest to adopt this innovation in their practice in support of their students' learning. Teachers described their ongoing efforts to implement the WSM successfully by devoting extra time to engage in research and collaboration with other teachers who have received adequate training and techniques to implement WSM in the classroom. Participants emphasized that specific professional development and adequate training of teachers on WSM teaching techniques are critical to better implementation.

In chapter four I provided a detailed narrative of study data analysis and the themes that emerged, chapter five presents an interpretation of the study findings in connection to the reviewed literature in chapter two. I will discuss the limitations of the study, offer recommendations for future research, and examines study implications for social change.

Chapter 5: Discussions, Conclusions and Recommendations

The purpose of this basic qualitative study was to explore the experiences of teachers implementing the innovative blended WSM of teaching and learning in their middle school classrooms using technology. The sample population for this study focused on middle school teachers implementing the WSM of instruction using technology. A qualitative research design was employed to allow me to investigate and understand how middle school teachers report their experiences, beliefs, attitudes, or reflections on their experiences while implementing WSM of teaching in their classroom with technology. I collected data from ten middle school teachers implementing WSM through semi-structured phone interviews.

The collected data were analyzed to generate the initial codes. Most frequent codes were grouped to generate patterns that were later condensed to form four themes; (a) teachers described the need to be flexible in their classroom to be successful implementing the WSM; (b) teachers were motivated to implement the WSM because their students were learning; (c) all difficulties the teachers described were the result of issues from outside their classroom; and (d) they used technology extensively but the lack of technology support, and training impeded their efforts. The following section places them in the context of the literature review provide in Chapter 2, noting the broader theoretical and literature-derived conclusions to be drawn from each key finding.

Interpretation of Findings

In this study, I explored middle school teachers' experiences implementing the innovative blended WSM designed based on constructivist learning concepts utilizing differentiated instructional model with technology integration. Teachers responses in the interviews provided data that was analyzed and synthesized into study themes. I interviewed ten teachers with experience teaching WSM.

Overall, four themes emerged. These included (a) the teachers' need for flexibility in classroom; (b) these teachers' high level of motivation to implement WSM because of perceived student benefits from the WSM teaching method; (c) the difficulties related to a lack of professional development s; and (d) the restrictions in the instructional scheduling and the challenges of implementing the new technologies including a lack of technology support and no consistent technology access.

The first theme of this study's results was that the successful implementation of the WSM required teachers to have significant flexibility in how they approached it. Teachers expressed reliance on instructional approaches such as differentiated instruction, scaffolding, individualized learning, and purposeful grouping. The most important of these was differentiated instruction, which took the form of flexible grouping, redesigning curriculum, personalized learning, conferencing with individual students, and switching teaching methods in the middle of class.

This aspect of the study is also related to Vygotsky's constructivist sociocultural learning principles and confirmed his concept of the zone of proximal development

(ZPD) (Vygotsky, 1978). Five study participants' techniques, including differentiated instruction and collaborative learning, are specifically discussed by Vygotsky as scaffolding and interpersonal learning. This first theme extended Savery's (2015) findings for teachers to use different strategies to make instruction relevant and more appealing to their students. Additionally, it confirmed other conclusions drawn from the literature, such as Piper's (2017) and Liang and Akiba's (2015) findings that flexible, student-centered teaching fostered greater collaboration. Pablico et al (2017) reported that differentiated instruction improved students' engagement. Chien's (2015) also found that when teachers designed choices for class activities or homework, they were able to meet the diverse needs of their students.

The study's second major theme was that teachers' efforts to implement the WSM were driven by a belief in its efficacy at improving learning outcomes. This study finding confirm that participants linked their individual belief and attitude in addition to other conditions as the key to successful implementation of innovative WSM instructional model. In addition, the finding corroborates diffusion innovation ideas from Rogers (2003) and Hall and Hord (2015) who stated that the decision to adopt innovation, rate of learning to develop the skill and the competence to use innovative practices depends on individual and strong relationship within a group.

Under Rogers' (2003) diffusion of innovation framework, the teachers were innovators. Rogers theory suggests that, given their belief and attitude in the model's value, teachers were motivated to do everything they could to make it succeed. The study data confirmed that claim: the teachers in this study devoted extra time and effort to

planning, modifying schedules, and redesigning curriculum to support their use of the WSM. I found evidence of positive attitude to adopt the skill through Professional development, self-learning and their individual and group beliefs to develop the competence to successfully implement innovative practices among the participants enabled (Hall & Hord, 2015; Rogers, 2003).

The study's third theme relates to challenges in implementation; most major problems these teachers described originated from outside of their classrooms. There was the lack of professional development courses or trainings that were specifically relevant to WSM and its components methods. This was also the case with the integration of technology into the classroom. The lack of specific training on technologies by the district was an issue for all these teachers.

This finding reflects literature documenting the importance of relevant professional development opportunities, which are critical to improving teachers' capacities for specific tasks (Desimone & Pak, 2017; Stosich, 2017). To overcome the lack of professional development , many teachers chose to participate in self-learning activities such as webinars, external courses on the WSM, and researching WSM teaching techniques independently, all with good results. The teachers' action confirmed Koh et al. (2017) and Althauser's (2015) assertions that professional development improves teachers' confidence in designing curriculum as well as their instructional self-efficacy for implementing reforms.

It also validates Whitworth and Chiu (2015) idea that educators' content and pedagogical knowledge improves when teachers attend purposeful and effective

professional development. I found that participant sought for self-directed learning to increase the instructional ability and self-efficacy they need to implement WSM of instruction successfully in their classroom. Trumper and Eldar (2015) posited that professional development increases teachers' effective instructional practices and beliefs about their ability to implement new instructional practices.

In addition, I found that participants believe that self-learning and professional development s increased their instructional ability to implement WSM successfully. This theme showed that adequate professional development increase teachers' instructional self-efficacy which is the key to successful implementation of WSM. Koehler and Mishra (2009) TPACK framework supports the idea that professional development is most effective when it is focused on the specific content of relevant pedagogy, with technology-specific training included. That approach also combines all three knowledge components of TPACK with Shulman's (1987) conception of pedagogy, which Cheng and Xie (2018) identified as the most productive means of facilitating reform.

Finally, the study's fourth theme builds on its third, suggesting that the integration of technology into classrooms, a key component of the WSM, was hindered primarily by the lack of external technology-specific support and by the lack of consistent access to the technology involved. Teachers in this study were imaginatively and effectively adding laptops, iPad, smartboards, video clips, Google classroom, and flip grids to their instruction to foster student learning. However, they could have been more effective with improved knowledge, training, and guidance. This finding validates Cengiz's (2015) view that educators in present-day classrooms lack the competency and application knowledge

to use technology in their practice even with the increased availability and awareness of technology in the educational setting.

Limitations of the Study

Participants for this study were limited to middle school teachers implementing a specific instructional model. Participants in this study were limited to a sample size of ten public middle school teachers implementing WSM teaching using technology and have three years of teaching experience. Middle school teachers with three years of teaching experience and implementing the WSM using technology does not represent a homogeneous sample. In addition, study participants were based on a small sample population of public school teachers from the Northeastern region of the United States.

In addition, participants in this study were teachers with more than two years of teaching experience and a strong view of WSM that may have influenced their interview responses. New teachers with two years of teaching were excluded in the current study; therefore, transferability of study findings may be limited due to the inclusion criteria. The inclusion of new teachers as participants would be beneficial to discover the lived experiences and perspectives of middle school teachers implementing WSM in their classroom with less previous experience.

A final limitation of the study is the use of telephone interviews as a data collection instrument. This method inhibited the researcher from seeing the participants during the interview session. The use of face to face interviews may have provided additional research memos, field note, non-verbal, and body language description of

study participants. Similarly, the use of one audio recording was not stable; an additional recording device for backup would have provided a more stable recording.

Recommendations

The purpose of this basic qualitative study was to understand middle school teachers' experiences implementing the innovative blended WSM designed based on constructivist learning concepts utilizing a differentiated instructional model with the integration of learning technologies. Recommendations for further study were derived from the benefits and challenges of the study. These teachers expressed strong concern about not receiving appropriate professional development and training on how to implement the WSM of instruction from instructional leaders. Further research may investigate the implementation experiences of teachers who received specific training before implementing the WSM in their classroom.

Implications

The results of this study identified the teachers' experiences implementing an innovative technology-based instructional model. The implication for social change from these results is the new awareness of the complexity of these teachers' responses to implementing innovation into their classrooms. By identifying these real-world responses, new understanding of how teachers integrate new instructional methods and technologies into their classroom, other teachers may benefit from these teachers' experiences. The educational system in the U.S. is struggling to implement reform designed to support diverse learners. Understanding how these teachers responded to an

innovational model implemented with the goal of supporting diverse students in an urban district, may provide new understanding on the process.

This basic qualitative study was focused on understanding primary data from the teachers' experiences. This type of research may provide foundational understandings about the real-world experiences of teachers implementing new instructional models into their classrooms. The implication is that these types of studies that focus on understanding experiences from the real-world of the classroom teachers may support others implementing change in their classrooms.

As these teachers in this study identified specific areas of concern during the implementation of this innovation, educational systems implementing change may understand how to implement change and offset these areas of concern. For example, the issues that these teachers responded to were from outside their classroom. If districts provided more training, reduced the emphasis on standardized testing, provided consistent technology support and access to technology, these teachers in this study would have been more effective in their implementation of this innovative instructional model.

Conclusion

The primary research question for this study was What are the experiences and perceptions of middle school teachers implementing the innovative blended WSM designed as a constructivist learning model utilizing differentiated instructional model using technologies? The two secondary research questions were How do middle school teachers describe the implementation of the WSM into their classrooms? And What are

the perceptions of middle school teachers integrating the innovative WSM into their classrooms?

This study found four major themes including (a) teachers described the need to be flexible in their classroom to be successful implementing the WSM; (b) teachers were motivated to implement the WSM because their students were learning; (c) all difficulties the teachers encountered during implementation came from outside their classroom and; (d) technology integration fostered individualized learning, but more tools and training is required. The results from this study indicate that implementing the innovative WSM fostered students' active participation and personalized learning.

These teachers emphasized that the WSM offered them an innovative teaching approach needed to foster their students' learning. Study findings indicated that the WSM structure, routine, and rigor motivated students to become autonomous learners. However, more support from the administrative level is required to provide implementation resources, flexible scheduling, effective and specific professional development , and adequate technology training of teachers on WSM teaching methods to ensure better implementation.

The findings from this study add to the current literature by presenting new understandings concerning how teachers understand the implementation of an innovative instructional model. This study can lead to better implementation techniques and strategies that educators can employ to overcome future reform implementation challenges. These study results help teachers, instructional leaders in the school and

district levels as well as policymakers to design successful innovative constructivist-based reform implementation techniques for future instructional reforms.

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Appendix A: Interview Protocol

Seven semi-structured interview questions were developed. During the phone interview I will digitally record their responses using a digital recording device.

1. Tell me about your experiences implementing WSM in your classroom.
2. What are your perceptions of using the WSM of instruction in different content areas, e.g. math, English Language Arts, science, social studies, music, technology, physical and health education?
    a. Probe: Is it more or less effective in different content areas?
3. Based on your experience, what benefits do learners gain during WSM teaching?
    a. Please give an example.
4. What are some of the challenges you encounter implementing the WSM in your classroom?
5. Tell me about the professional development you have received to support implementing the WSM.
6. Describe the various technology resources (Google document, online assessment, blog, virtual space) you incorporate into the WSM learning environment?
7. Describe how technology integration into your classroom enhances the WSM of instruction.
8. In general, what support do you need most to overcome the challenges of implementing WSM?
9. Do you have anything else relating to your experiences and perception of implementing WSM program you want to discuss? I thank you for participating in this interview.

Appendix B: Informed Consent

Background Information:

My name is Patience Onyegwara and I am a high school teacher. I am a doctoral student at Walden University in Learning Instruction and Innovation program. Presently, I am working on my dissertation and my dissertation topic focus is on the experiences of Middle School Teachers implementing Workshop model in their classroom. The goal of my dissertation is to (1) give voice to middle school teachers and (2) provide instructional leaders, and field of education new understanding regarding implementing new reforms from teachers' perspective. Additionally, finding from this research will assist future instructional reform decisions, supports and specific implementation techniques for middle school teachers to align theory and practice. My goal is to recruit 8-10 Middle School Teachers who have taught or implementing the Workshop Model of instruction in their classroom for three years and above with technology integration.

Procedure:

To participate in this study, you will be engaged in an interview session to discuss your experiences while implementing the Workshop model in your daily classroom practice. The interview will be through phone. The initial interview will last for 45-60 minutes and will be recorded to allow for researcher review as part of data collection requirement.

Voluntary Nature of the Study:

Participation in this study is entirely voluntary. You do not have to participate if you feel so, and if you decide to be part of the study now, you may change your mind and discontinue at any time

Risk and Benefit of study participants:

Being in this type of study involves some risk of minor discomforts that can be encountered in typical daily life, such as becoming fatigued. Participating in this study would not pose threat to your safety, job or wellbeing.
I will share the results of my study with you for your review. You may have a better understanding of some aspects of your instructional practice as a result.

The study is designed to explore the experiences of middle school educators implementing Workshop model of teaching in their classroom with technology integration and for future educators interested in implementing innovative instructional method.

Payment:

There will be no payment to participate in this study.

Privacy:

Your participation in this type of study will be treated with adequate respect and confidentiality as any reports related to this research will use numeric- pseudonyms. This study will be consistent to protect the privacy and identity of individual participants. Any information or reports presented in this research will use numeric- pseudonyms such as T1, T2, T3 and will not share your personal identity, your school or district name and location. The researcher will share study data with each participant for review upon request and the data will be stored and secured in login protected computer, USB placed in a locked file cabinet. The study data will be kept for a period of five years according to the University regulation before they are being destroyed.

Contacts and Question

If you would be interested to participate or have any questions about this study please feel free to reach the researcher, Patience Onyegwara by phone: 3479612103 or email: patience.onyegwara@waldenu.edu

If you want to talk privately about your rights as a participant, you can call the Research Participant Advocate at my university at 612-312-1210. Walden University's approval number for this study is **06-07-19-0334138** and it expires on **June 6, 2020.**

Obtaining Your Consent

Please share any concerns or questions you may have regarding the study at this time. If you feel you understand the study as described above and decide to participate please reply to this email by writing the words "I consent" below.

Please print or save this consent form for your records.