

REFLECTIONS FROM THE FIELD: A MIDDLE SCHOOL READING SPECIALIST'S
DEVELOPMENT OF TPACK TO GUIDE INQUIRY IN THE LITERACY CLASSROOM

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This practitioner inquiry research study developed a model project for using self-reflection by a reading/literacy specialist to examine the knowledge processes involved in the curricular design of paired text instruction. This research study analyzed the International Literacy Association's Standard 5, *Learners and the Literacy Environment*, within the practitioner's experience as a reading/literacy specialist and included a specific lens related to the curricular design and implementation of a multimodal text set unit of study. Using a metacognitive process, the practitioner explored Mishra and Koehler's (2006) TPACK framework to determine how a reading/literacy specialist can use *technological, pedagogical, and content knowledge* to design and integrate a multimodal text set into reading instruction. In terms of data collection, formal lesson plans guided the development of video recordings to showcase curriculum design. An online screen recording program was then used to capture voice recordings of the practitioner completing a think aloud of each lesson, and transcripts were downloaded for further annotations and analysis. After teaching each module, a self-reflection rubric focused on TPACK was completed, along with an additional review of artifacts. A six phase reflexive thematic analysis (Braun & Clarke, 2022) was applied to find patterns of shared meaning, and three major themes were conceptualized from the dataset. First, literacy teachers should design curriculum to include supports for scaffolding and differentiation. Second, consider the potential of digital resources within the literacy curriculum. Third, self-reflection on the design process reveals areas for growth with digital technologies. As a result, a five-part professional development framework is suggested for a reflective practitioner model focused on multimodal text set integration.

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Chapter 1: Introduction

Statement of the Problem

Reading specialist, literacy coach, interventionist, and literacy coordinator are just a few of the names commonly referred to in schools as “specialized literacy professionals”. This can cause confusion about the specific roles and types of job-related tasks that they are expected to perform. In 2017, the International Literacy Association officially updated their *Standards for the Preparation of Literacy Professionals* to provide more clarity on the roles of a reading/literacy specialist, literacy coach, and literacy coordinator.

This was important because it offered guidance for university certification programs, schools, and districts by providing “...a national framework for rethinking programs for preparing reading/literacy specialists as well as a description of what is expected of those serving in the field” (Kern et al. 2018). Colleges and universities that prepare reading/literacy specialists need to ensure that they are providing a rigorous program that adequately trains candidates with the skills needed for today’s digital world and for the realities of what they will encounter in the workplace. In addition, school districts that employ reading/literacy specialists can use the updated *Standards (2017)* for hiring procedures, professional development, and evaluation.

This study expands on the revised ILA *Standards (2017)* that specify key shifts to the knowledge required of a reading/literacy specialist. As stated by Kern et al. (2018), “[c]hanging times require changes in what reading/literacy specialists are required to know and be able to do”. I have witnessed this change in the position first-hand, as I currently work within this capacity as a middle school reading specialist.

Research Context/Importance

For the past eighteen years, I have been fortunate to work in the same school district since graduating with my undergraduate degree in education. I started my career as a 7th Grade Language Arts teacher, and I quickly learned how varied the needs of the learners in my classroom were. It was clear that students in the middle school years were experiencing a wide range of literacy levels in each classroom. One lesson, presented in one format, would not be enough to reach every learner. I decided that I wanted to do something more to help.

In order to increase my pedagogical knowledge base regarding literacy and how to apply it to middle school learners, I applied to graduate school to receive certification as a reading specialist. Throughout the program, I felt that my knowledge as a reading practitioner developed in two important ways. First, I acquired specific subject matter knowledge in reading disabilities and training in reading assessments/diagnostics, which advanced my content knowledge (CK) as a reading specialist. Second, I also learned more about the learning science best practices in teaching strategies to support students with reading difficulties, enhancing my pedagogical knowledge (PK). When I finished the coursework for my reading specialist master's degree, I felt more equipped to provide literacy interventions and support for students in middle school. An opportunity presented itself at the same school where I was employed, and I was able to begin working as the middle school reading specialist at the start of my eighth year of teaching.

As I was developing my content knowledge and changing as an educator, the literacy world around me was changing as well. Within the last decade, traditional literacy began to shift towards more 21st century digital literacy practices. The introduction of the Common Core State Standards (CCSS) was a driving force behind this change. Largely up until that point, some teachers were experimenting with using technology in the classroom; however, the Common

Core State Standards made it clear that it was no longer going to be an option. Students were entering classrooms with a new set of skills. The standards emphasized that lessons would need to evolve with the 21st century and become multimodal in order to acknowledge the unique skill sets that students were developing outside of the classroom. Additionally, 21st century workplaces were beginning to have different requirements and needs; therefore, the Common Core State Standards were introduced to recognize that schools have new responsibilities of preparing students for today's world.

Working as a middle school reading specialist for the last eleven years has provided me with the ability to see how students are responding to the adoption of digital literacy practices. I have seen some classrooms stick to more traditional practices, others move towards full integration, and some educators adopt a blend of both approaches. In 2020, the Covid-19 pandemic and resulting distance/hybrid learning, added an additional layer of technological models. Being a teacher in today's classroom requires a new type of knowledge. This type of knowledge, technological knowledge (TK), refers to a teacher's understanding of digital technologies/tools, as well as their operational skillset. Currently, there is a variety of professional knowledge and teacher understanding of ICTs (information communication technologies). In a 2011 study, Hutchison and Reinking differentiated between "*Technological Integration*" and "*Curricular Integration*". Technological integration is where many of the tasks performed are low-level and simply enhance non-technology tasks. To best support students in the classroom and beyond, teachers should be aiming for authentic curricular integration. However, this is not something that can happen easily overnight.

Technological Pedagogical Content Knowledge (TPACK)

In reality, teachers must rely on their background knowledge in several different areas to accomplish this task. Mishra & Koehler (2006) developed the TPACK (technological pedagogical content knowledge) framework to acknowledge the cognitive processes involved in this 21st century approach to teaching and learning. This framework includes the combination of a teacher's technological knowledge (TK), pedagogical knowledge (PK), and content knowledge (CK). "Mishra and Koehler's motivation for creating the TPACK framework was what they argue has been a tendency in education arenas to consider the technology that can be used, but not how it is used" (Hutchison & Woodward, 2014, p. 317). Their framework draws attention to the fact that using technology in the classroom is an integrated process.

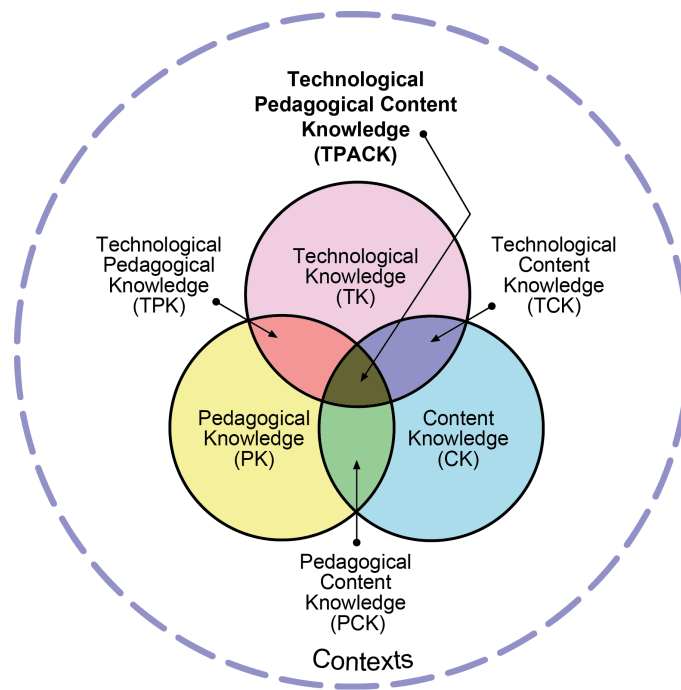


Figure 1: Revised version of the TPACK image. © Punya Mishra, 2019. Reproduced with permission

Self-Reflection/Metacognitive Process

This is where the focus for my work began. A large part of my research interests until now have focused on technology integration with a literacy lens. However, I feel that in order to serve my students as a reading/literacy specialist in the most effective manner, I need to be metacognitive about my instructional planning process. A reading specialist should be designing instruction that is differentiated to the needs of the students, while incorporating varied resources, both print and digital. Therefore, this study contained a specific lens on my metacognitive curricular design of literacy instruction as a reading specialist using a multimodal text set to guide inquiry in the language arts classroom.

Multimodal Text Sets

Framing this metacognitive study of my technological pedagogical content knowledge (TPACK) as a reading/literacy specialist was the development of a multimodal text set to guide inquiry and integrate technology within literacy instruction. The instructional design of a multimodal text set blends print and digital, non-traditional resources together into one cohesive unit. “Because today’s readers encounter all types of digital texts and devices on a daily basis (e.g., mobile devices, e-readers, websites), educators should bear in mind the role of digital texts in adolescents’ lives to better instruct them to become more strategic readers” (Turner et al., 2020, p. 292). Therefore, teachers can use multimodal text sets as a way to help students be successful with complex texts, while enhancing the technological skills needed to be proficient with today’s rapidly changing digital world. It was my hope that my learning through this investigation would expand my own TPACK and improve my practice as an educator.

Purpose and Significance of Study

From reading through the International Literacy Association's revised *Standards for Literacy Professionals (2017)*, three main questions emerged that I planned to answer through practitioner inquiry focusing on the curricular design process. First, I investigated how a reading/literacy specialist integrates technological pedagogical content knowledge (TPACK) processes with curriculum design to guide inquiry in the literacy classroom, specifically with using a multimodal text set. "Standard 5 acknowledges that literacy learners live in a world of digital tools, devices, and interactions to communicate and learn" (Kern et al., 2018). This calls for specialized literacy professionals to recognize the expanding resources and modes available for literacy instruction in today's world.

With the shift towards more 21st century digital literacy practices, traditional literacy practices should not be thrown away. However, they must be blended with 21st century digital experiences in order to prepare students appropriately for the future. With the introduction of multimodal texts, "...digital (and print) texts provide nearly unlimited choices, and reading/literacy specialists need to recognize their role in personalizing the individual student literacy experience" (Kern et al., 2018). How can reading specialists fulfill their role of serving students by integrating 21st century digital literacy practices into literacy instruction? Therefore, the first part of this study focused on the instructional planning process of a reading specialist in practice, at the middle school level, and the integrative work of designing a multimodal text set.

The second research question was also connected to the ILA's *Standards for Literacy Professionals*, but focused on what is revealed when a reading/literacy specialist self-reflects on the knowledge processes involved in the curricular design of a multimodal paired text set. Understanding a specialist's individual design process with integrating digital technology and

traditional literacy practices can help to guide district curricular decisions, inform professional development, and help to confront any district technological barriers that exist.

According to Hutchison and Reinking (2011), "...understanding literacy teachers' perceptions about integrating ICTs into instruction, and which perceptions and reported uses are associated with higher levels of integration, may inform professional development" (p. 316). The survey from their study also found evidence that a teacher's individual beliefs and confidence with technology was indicative of their level of frequency and use of technology in the classroom. Since the implementation of multimodal text sets for literacy instruction would be dependent on the integration of ICTs, this part of the study was designed to understand more through self-reflection of a middle school reading/literacy specialist regarding any benefits and constraints of this instructional process.

Finally, the third research question completed the study, but focused on how a reading/literacy specialist specifically uses the language of ILA's *Standard 5* for self-reflection to design curriculum and implement instruction with digital technologies. Key literature and prior studies were reviewed in order to determine a context and the best method to examine how a teacher uses knowledge of technology in decision-making to plan instruction and reflect after implementation.

For this study, the TPACK framework was utilized to assess a reading/literacy specialist's decision-making and reflection process while designing curriculum to guide inquiry using a multimodal text set to address the technological changes called for by ILA's *Standard 5*. Combining all parts of inquiry, the eventual goal of the study was to determine how a contemporary reading/literacy specialist combines multiple-modes of knowledge to plan 21st century literacy instruction using connected texts.

Research Questions

In reflection of background experiences, key literature, and 21st century teaching and learning, three main questions emerged to be answered in this research study:

1. How does a reading/literacy specialist integrate technological, pedagogical, and content knowledge (TPACK) processes with curriculum design to guide inquiry using a multimodal text set?
2. What does self-reflection by a reading/literacy specialist on the integration of knowledge processes involved in the curricular design of multimodal paired text instruction reveal?
3. How does a reading/literacy specialist use the language of ILA's *Standard 5* for self-reflection to plan and implement instruction with digital technologies?

Local Contexts

The selected site for my study was a small, public middle school in southern New Jersey. It is located about thirty miles east of Philadelphia. The middle school serves approximately 350 students in grades 5-8. The school is one of two schools in the school district. I chose this field site for practitioner inquiry because it is my current place of employment as a middle school reading/literacy specialist. However, it is important to note that since the study focused on the curricular design process, and I was the only participant as the researcher and the practitioner, no student data was collected at the selected site.

Theoretical Frameworks

In order to answer the research questions and investigate the practice of a contemporary middle school reading/literacy specialist, there were three theoretical foundations explored in the study.

<i>Contemporary Reading/Literacy Specialist</i>		
<i>TPACK</i>	<i>Sociocultural Theory</i>	<i>New Literacies/ Multiliteracies</i>

Table 1: Theoretical Foundations

First, Mishra & Koehler’s (2006) *technological pedagogical content knowledge (TPACK)* framework provided context for the research questions presented. The TPACK framework was developed to represent the knowledge processes involved in successful educational technology integration with instruction. In their original work, Mishra & Koehler (2006) proposed a conceptual framework that identifies three types of knowledge that actively combine to support learning: technological, pedagogical, and content knowledge (TPACK). The framework built upon Shulman’s (1986) concept of pedagogy and content knowledge. Mishra & Koehler enhanced Shulman’s model with the introduction of technological knowledge. Of importance, and what differentiates this model from other technology integration models, is that each component of the TPACK model is equally distributed and works in collaboration. Technological knowledge (TK) refers to a teacher’s knowledge of standard and digital technologies, as well as operational skills. Pedagogical knowledge (PK) includes the scaffolding and processes involved in teaching and learning through various methods to deliver instruction. Content knowledge (CK) defines the knowledge of the subject matter needed for successful teaching and learning. According to Mishra & Koehler (2006), their framework “is the understanding that teaching is a highly complex activity that draws on many kinds of knowledge” (p. 1020).

Second, Vygotsky's (1978) *sociocultural theory* was analyzed as the second theory to provide context to this research study. This theory is grounded in learning as a social and cultural process. At the center of sociocultural theory is the concept that learning can be constructed through social interactions with others. The work and research of Lev Vygotsky (1978) created the foundation for this perspective, which has evolved into the New Literacy Studies. Vygotsky believed that language and learning experiences were shaped by peer interactions. Using the gradual release of responsibility, teachers can engage students in a unique instructional process situated in sociocultural theory. Literacy teachers can scaffold instruction from direct instruction to guided practice through collaboration. Through social interaction with knowledgeable peers, students will benefit from shared communication and discussion as they work towards demonstrating independent proficiency.

Finally, New London Group's (1996) theory regarding *multiliteracies* pedagogy and *new literacies studies* completed the theoretical framework in order to explore the cultural and technological changes of the global society. When planning instruction, a reading/literacy specialist should ensure that literacy pedagogy is reflective of a culturally and linguistically diverse society. In addition, the New Literacies Studies can provide context and guidance for the changing nature of modalities and defining texts used for instructional purposes.

When combined, the three theoretical frameworks described in this section provide a foundation to inform current classroom instructional practices for the contemporary reading/literacy specialist.

Positionality

As the study began, I looked closely to acknowledge any positioning that is unique to the research study in my role as a teacher and as a researcher.

I am a thirty-nine-year-old, female, white educator who is completing her eighteenth year of public-school teaching. I was born to a middle-class family living in Southern New Jersey with two parents and one brother. My life history and experiences have helped to shape my personal achievements, and I believe, the type of teacher that I am today. I grew up and remained living in the same South Jersey town that I was born in for the entire duration of my K-12 school experience. After high school, I attended a large public university out-of-state on the east coast to study elementary education. I was fortunate enough to have some teaching and practicum experiences throughout my studies in college that broadened my lens of culture.

After graduation, I returned to my home state to begin my teaching career. I obtained a job in a nearby town teaching 7th grade Reading and Language Arts. This is the same school and district that I am still employed in now, eighteen years later.

For the last eleven years, I have served as the middle school reading specialist at this school. I work with students that receive Title I targeted assistance for literacy support. In addition, I fulfill other responsibilities in my role as the reading specialist, such as co-teaching with classroom ELA teachers, advising about the district literacy program, participating in a professional learning community, teaching additional ELA classes as needed, etc.

Since 2013, I have worked as a supervisor/coach of a summer literacy practicum course at a nearby university guiding graduate students who are completing their fieldwork in the reading specialist master's degree program. This is also the same university program that I graduated with my master's degree from in 2012. A large part of the course revolves around

action research and self-reflection for growth, which is instilled as one of my core beliefs for teacher practice and professional development for improvement. Therefore, self-reflection played a significant part in this practitioner inquiry research study focused on curriculum development.

Since this study involved the use of technology, I acknowledge my privilege in access to technological devices both in the workplace and at home. At school, all teachers are provided with a district-issued laptop. Additionally, all students have Chromebooks and classrooms have recently updated Promethean interactive panels. I am fortunate to have access in my home to the Internet, as well as Apple products (Macbook and iPad), and an HP dual monitor to enhance productivity. The technological tools available for my use in the workplace and in my own home provide me with privileged access for lesson planning, curriculum design, and self-reflection of literacy lessons, reducing any technological barriers that may exist.

Terminology

The TPACK framework is an acronym that represents the integration of three types of core knowledge processes. When paired, each type of knowledge can create a new type of knowledge depending on the combination. Table 2 below contains a glossary of important TPACK terminology that will enhance understanding of this research study. Examples for each type of knowledge system are provided and related to the core topic of focus in this study (*integrating knowledge from a multimodal text set*).

Glossary of TPACK Terminology

Term	Code	Meaning	Example <i>(Focus: Integrating Knowledge from a Multimodal Text Set)</i>
Technology Knowledge	TK	<ul style="list-style-type: none"> • <i>Knowledge of standard and digital technologies, as well as operational skills</i> 	The reading/literacy specialist knows how to use digital technologies and tools, such as an interactive panel and a Google Site/Slides with hyperlinks to plan and teach a series of connected lessons.
Content Knowledge	CK	<ul style="list-style-type: none"> • <i>Knowledge of the subject matter for teaching and learning</i> 	The reading/literacy specialist has knowledge of the grade-level anchor standards in reading for the integration of knowledge and ideas regarding complex literary and informational texts.
Pedagogical Knowledge	PK	<ul style="list-style-type: none"> • <i>Knowledge involving the scaffolding and processes involved in teaching and learning through various methods to deliver instruction</i> 	The reading/literacy specialist scaffolds the learning process through the gradual release of responsibility including direct instruction, guided practice, and independent practice.
Technological Pedagogical Knowledge	TPK	<ul style="list-style-type: none"> • <i>Knowledge of the variety of technologies and their capabilities for instruction and how technologies can impact instruction</i> 	The reading/literacy specialist will adjust instruction using knowledge of digital technologies/tools based on students' understanding and provide multiple access points to complex texts using multimodal resources and assistive technologies (<i>audiobooks, videos, ebooks, etc.</i>)
Technological Content Knowledge	TCK	<ul style="list-style-type: none"> • <i>Knowledge about how technology and teaching content can be related, as well as how content instruction can be changed by implementing instruction with technology</i> 	The reading/literacy specialist is aware of different digital technologies/tools and edtech platforms that can be used for teaching students to integrate knowledge and ideas from multiple texts/sources.
Pedagogical Content	PCK	<ul style="list-style-type: none"> • <i>Knowledge of which teaching approach best fits</i> 	The reading/literacy specialist is able to select effective teaching

Knowledge		<i>the content and how content can be differentiated through instruction and curriculum to support student learning</i>	strategies (<i>whole-class, small group, individualized</i>) to differentiate instruction and design curriculum to support students in learning the process involved with integrating knowledge and ideas from multiple sources.
Technological Pedagogical Content Knowledge	TPACK	<ul style="list-style-type: none"> • <i>The overall intersection between three main components of teaching and learning: (technological knowledge, pedagogical knowledge, and content knowledge)</i> 	The reading/literacy specialist is able to effectively combine knowledge from all three domains (<i>digital technologies, grade-level anchor standards in reading, and teaching/learning practices</i>) in order to successfully plan and teach connected lessons involving the integration of knowledge and ideas from multiple texts/sources using digital tools.

Table 2: Glossary of TPACK Terminology
Adapted from Mishra & Koehler (2006)

Organization

A practitioner inquiry research methodology was applied to this qualitative study. This approach explored my personal experience serving as a middle school reading/literacy specialist in practice. Normally, a practitioner inquiry research study would focus on a teacher/practitioner implementing an action research project and collecting student data. Since this study included a specific lens only on the curricular design process of a reading/literacy specialist, no student data was collected in this practitioner inquiry. In order to capture detailed information, I maintained ongoing data collection of my design and self-reflection process. I engaged in action research throughout the study in relation to the three research questions presented. After all data was collected, a reflexive thematic analysis was applied to the dataset for coding and qualitative analysis.

Chapter 2: Review of the Literature

Introduction

In the current educational climate, especially with the Covid-19 pandemic adding an additional set of instructional challenges, the job of a reading/literacy specialist continues to evolve. It requires dedication and flexibility. In 2017, the International Literacy Association provided guidance with the updated *Standards for Literacy Professionals* to offer recommendations for the various roles and responsibilities of a contemporary reading/literacy specialist.

The updated *Standards for Literacy Professionals* (2017) contain overarching standards across seven different domains including foundational knowledge (Standard 1), curriculum and instruction (Standard 2), assessment and evaluation (Standard 3), diversity and equity (Standard 4), learners and the literacy environment (Standard 5), professional learning and leadership (Standard 6), and practicum/clinical experiences (Standard 7). Additionally, each standard contains four components that elaborate on the main standard with further detail. With this update, the titles for Standards 1, 2, 3, and 6 remained unchanged; however, there were new changes to the titles for Standards 4 (diversity and equity) and 5 (learners and the literacy environment). The final standard, Standard 7 (practicum/clinical experiences), was a new addition to the updated framework.

Leaning on the standards as a guide, this study worked to provide beneficial information regarding the new role of a contemporary reading/literacy specialist to inform university preparation programs, schools and districts, and professionals currently in the field. In addition, this study also emphasized new literacies impacting teaching and learning. In order to adequately

prepare for the research study, a review of literature was first conducted regarding these two strands.

New Role of the Reading/Literacy Specialist

In key literature reviewed, Kern et al. (2018), lead writers and co-chairs of the International Literacy Association's *Standards 2017*, offered further guidance for interpreting and implementing all of the updated standards. However, they specifically note that one area of professional knowledge that has experienced the most change for a reading/literacy specialist would be within Standard 5: *Learners and the Literacy Environment*. Standard 5 states, "*Candidates meet the developmental needs of all learners and collaborate with school personnel to use a variety of print and digital materials to engage and motivate all learners; integrate digital technologies in appropriate, safe, and effective ways; foster a positive climate that supports a literacy-rich learning environment.*" The terminology here expands upon learning to exist beyond just the learner, and considers the possibilities of new technologies entering classrooms. "Moreover, we expanded the notion of *environment* to address contextual factors influencing 21st century learning, namely digital literacies" (Kern et al., 2018, p. 220). This modern, digital environment brings a new role for reading/literacy specialists, requiring a certain level of technological knowledge to successfully foster literacy learning.

Along with the overarching Standard 5, four sub-standards are also included in the revised *Standards*. Table 3 below represents all components of ILA's Standard 5.

Standard 5: Candidates meet the developmental needs of all learners and collaborate with school personnel to use a variety of print and digital materials to engage and motivate all learners; integrate digital technologies in appropriate, safe, and effective ways; foster a positive climate that supports a literacy-rich learning environment.			
5.1 Candidates, in consultation with families and colleagues, meet the developmental needs of all learners (e.g., English learners, those with difficulties learning to read, the gifted), taking into consideration physical, social, emotional, cultural, and intellectual factors.	5.2 Candidates collaborate with school personnel and provide opportunities for student choice and engagement with a variety of print and digital materials to engage and motivate all learners.	5.3 Candidates integrate digital technologies into their literacy instruction in appropriate, safe, and effective ways and assist colleagues in these efforts.	5.4 Candidates facilitate efforts to foster a positive climate that supports the physical and social literacy-rich learning environment, including knowledge of routines, grouping structures, and social interactions.

Table 3: ILA *Standard 5*
Kern et al. (2018)

According to Kern et al. (2018), “In Standard 5, we address digital literacies as the multiple ways we read, write, communicate using digital technologies (e.g. tools and devices)” (p. 221). This acknowledgement recognizes and values the multiple modes of literacy. For reading/literacy specialists, this also presents exciting possibilities for multimodal instruction and intervention.

Preceding the development of the *2017 Standards*, some of the authors conducted a large-scale national survey to understand the roles and responsibilities of specialized literacy professionals. As described in Bean et al. (2015), the survey consisted of mostly quantitative information, with a few open-ended questions, for a total of 46 items. It was distributed through SurveyMonkey (www.surveymonkey.com), and a total of 2,531 respondents completed the survey. “The results of this study indicate the roles of specialized literacy professionals are complex and require individuals serving in those roles have multiple skills, knowledge, and dispositions” (Bean et al., 2015, p. 102). For reading/literacy specialists, this means the ability to be flexible and advocate for all areas of literacy while working with both students and teachers.

Furthermore, the results of this study were used by the authors to inform the work of composing the updated standards for specialized literacy professionals, including reading/literacy specialists.

As a result, Bean & Goatley (2021) highlighted the effect that the *2017 ILA Standards* will have on university preparation programs for specialized literacy professionals, as well as teachers in the field. Knowledge of technology integration within literacy instruction may be an area to see the greatest influence in today's digital society. According to Bean & Goatley (2021), technology "...has the potential to make literacy more accessible for students, especially those who might experience difficulties with reading and writing" (p. 20). If teachers have the technological knowledge needed to design new learning experiences, they can differentiate literacy instruction to support students and their needs with reading and writing.

Additionally, the Common Core State Standards define new literacies and skills for print and digital sources. Therefore, "...educators must understand how to use the capabilities of electronic texts, mobile applications, and search engines to help students become critical readers" (Bean & Goatley, 2021, p. 20). The updated *2017 Standards*, especially Standard 5 regarding "learners and the literacy environment", make it clear that this is a new instructional role and responsibility of a reading/literacy specialist.

All research questions presented in this practitioner inquiry research study focus on the reading/literacy specialist's curriculum design process. Key literature was reviewed in order to understand the changing knowledge and new skills required of this specialized literacy professional. The updated *2017 Standards for Literacy Professionals* by the International Literacy Association clearly identify that reading/literacy professionals will require knowledge of digital technologies to be successful in today's educational environment. This information

provides important information and implications for school districts and university preparation programs to consider.

Technological Pedagogical Content Knowledge (TPACK) by Mishra & Koehler (2006)

When designing lessons, reading specialists and all literacy teachers will need to consider numerous factors. The content of the lesson will need to be developed, as well as a lesson objective. Basic teaching pedagogy will determine how the content will be delivered, and it can also account for any differentiated instruction that will be needed based on individual student needs. In addition, when deciding to enhance a lesson with digital tools, several factors will have to be considered depending on the lesson objective and design of the lesson presentation. There is an ongoing interaction between all elements. According to Mishra and Koehler (2006), their model “...of technology integration in teaching and learning argues that developing good content requires a thoughtful interweaving of all three key sources of knowledge: technology, pedagogy, and content” (p. 1029). As a result, for this study, the knowledge a reading/literacy specialist will require for instructional planning will be studied through the lens of TPACK, or *technological pedagogical content knowledge*. Key literature was reviewed to gather background information about this knowledge framework.

Eutsler (2020) completed a qualitative study to focus specifically on how preservice teachers used TPACK and the gradual release of responsibility to design instruction using an iPad. A case study design was used and thematic analysis was implemented to arrive at a key finding that preservice teachers found success with designing technology enhanced literacy instruction when participating in workshops aimed at developing their TPACK and pedagogy with the iPad through scaffolding. As with any task, the more confidence that a person gains, the

more successful that they will feel. This was evident in this study in that the preservice teachers felt more skilled at designing literacy lessons when their TPACK and pedagogy with the iPad was enhanced. “Teacher educators can benefit from emphasizing TPACK’s pedagogical knowledge construct and the scaffolded gradual release of responsibility when integrating the iPad and related technologies to plan instruction” (Eutsler, 2020, p. 15). This can inform professional development for literacy specialist preparation programs, as well as for school districts, when designing workshops for educators. There is value in scaffolding the learning process for adults, especially when designing technology-enhanced literacy lessons.

In a similar theoretical study, Harris & Hofer (2011) used the TPACK framework to complete research with a lens specifically on secondary social studies teachers. The study focused on the development of the social studies teachers’ TPACK before and after engaging in technology related professional development. Findings indicated that teachers benefit from focusing on the development and learning of instructional possibilities that exist regarding technology integration. In addition, the planning phase of the social studies teachers’ TPACK development was closely examined. “Teachers’ technological pedagogical content knowledge is enacted, in part, during instructional planning” (Harris & Hofer, 2011, p. 213). This showcases that a successful lesson can largely depend on the planning process that occurs before the students are even in the classroom. Teachers devote a great deal of time and effort to the lesson planning process, and it is essential to understand that more than just the content of the lesson is considered in this part of the process. Although this study was completed with secondary social studies teachers, it can provide guidance for secondary reading/literacy specialists in that it specifically focuses on the instructional lesson planning process.

In other literature reviewed, Hutchison & Woodward (2014) discuss the benefits of the technological pedagogical content knowledge framework, or TPACK, because it "...highlights the important overlap between and among a teacher's pedagogical knowledge and content knowledge but also emphasizes the importance of technological knowledge" (p. 317). As stated, Mishra and Koehler (2006) emphasize that the three components of this framework actively work together in order to help teachers think about how they are using technology to deliver their content.

In their research study, Hutchison and Woodward (2014) used the TPACK framework to examine the digital technology work of a sixth grade teacher who designed a persuasive writing unit for three class periods with the same instructional goal, but with different plans for technological integration. In the beginning, the teacher was not familiar with the digital tools that she had selected to use. As a result, she spent most of the time helping the students with the technology and not enough time on the goal of the instructional activity (teaching persuasive writing). This proves that when teachers do not have adequate technological content knowledge, digital tools can act as a barrier or constraint to successful integration. After the teacher took time to learn about the technology being used, her overall instruction benefitted. The results of the study indicated that once all components of this teacher's technological pedagogical content knowledge (TPACK) were improved, there was a positive outcome on teaching and learning. The teacher's reflection in this study is supported by the researchers' goal of the framework. "Mishra and Koehler's motivation for creating the TPACK framework was what they argue has been a tendency in education arenas to consider the technology that can be used, but not *how* it is used" (Hutchison & Woodward, 2014, p. 317). Literacy teachers can benefit from using a model

like the TPACK framework, and reflecting after implementation, which was a goal in this practitioner inquiry research study that emphasized the curricular design process.

Hutchison and Reinking (2011) completed a national survey within the United States in order to develop a comprehensive profile regarding literacy teachers' opinions about the integration of information communication technologies (ICTs) into literacy instruction. For their research study, a survey was conducted of 1,141 literacy teachers, all members of the International Reading Association. In their study, the authors emphasized a distinction between "*Technological Integration*" and "*Curricular Integration*". Technological integration is concentrated on superficial integration, where many of the tasks performed are simply enhancing non-technology tasks. With this type of integration, technology can be viewed as an additional accessory. "Curriculum integration, on the other hand, is associated with accommodation and higher levels, such as teaching specific skills related to using the Internet, and reflects a stance that views ICTs as integral to the curriculum..." (Hutchison & Reinking, 2011, p. 314).

The results of the survey indicated that most teachers saw value in implementing digital literacy practices, but did not have a complete understanding of how to achieve full curricular integration. "That distinction is consistent with the literature suggesting that technology is less likely to be integrated, or integrated authentically and effectively, when teachers conceptualize the integration of technology as separate from the curriculum" (Hutchison & Reinking, 2011, p. 314). Therefore, reading/literacy specialists should actively seek out professional development opportunities about methods to infuse digital literacy skills into the curriculum to enhance technological knowledge.

The first research question presented in this study directly references a teacher's technological pedagogical content knowledge (TPACK). Additionally, the second and third

research questions involve self-reflection, which was grounded in the TPACK framework for this study. Understanding the development of this theory by Mishra & Koehler (2006) was key to engaging in this work. This framework helped to represent the considerations involved in planning and implementing a contemporary lesson: technology, pedagogy and content. The updated 2017 ILA *Standards for Literacy Professionals* are clear that digital technologies should be considered when planning instruction. Therefore, reading/literacy specialists can use the TPACK framework during the lesson planning process to ensure that digital tools are being used to enhance curricular integration, as stated by Hutchison & Woodward (2014). Literature by Eutsler (2020) and Harris & Hofer (2011) provide authentic examples of teachers engaging in reflective TPACK practices to support this work.

New Literacies

The last thirty years have represented a significant change in the cultural and technological landscape of the global society. In the early 1990s, a group of literacy scholars gathered in New London, New Hampshire to discuss their assessment of the cultural and technological changes in the field of literacy. Their key work was published in 1996 as the New London Group to document their conclusions at the time. The literature reviewed reveals two key themes. First, the New London Group identified that literacy pedagogy should be reflective of a culturally and linguistically diverse society. Second, they “argue that literacy pedagogy now must account for the burgeoning variety of text forms associated with information and multimedia technologies” (New London Group, 1996, p. 61). A metalanguage of multiliteracies was introduced to represent modes of meaning other than linguistic, such as visual, audio, gestural, spatial, and multimodal. “Of the modes of meaning, the Multimodal is the most

significant, as it relates all the other modes in quite remarkably dynamic relationships” (New London Group, 1996, p. 80).

Furthermore, a pedagogy of multiliteracies was introduced and defined by the authors. This framework included situated practice, overt instruction, critical framing, and transformed practice. The literature presented that a “successful theory of pedagogy must be based on views about how the human mind works in society and classrooms, as well as about the nature of teaching and learning” (New London Group, 1996, p. 82).

An extensive text by Serafini & Gee (2017) brings together scholars from literacy education to contribute essays commenting on the state of multiliteracies pedagogy since the New London Group’s original work. The book contains fourteen essays sharing the common task of exploring how multiliteracies pedagogy has evolved into today’s educational landscape. Serafini & Gee (2017) remind readers of NLG’s founding principle that “pedagogy needed to account also for the great diversity in the nature of texts and communication resulting from societies that were becoming increasingly culturally and linguistically diverse and globalized” (p. 6).

In chapter 2, “*Multiliteracies: Meaning-Making and Learning in the Era of Digital Text*”, Cope et al. (2017), some of the founding members of the New London Group, describe the evolution that the reading process and “texts” have experienced with the digital age. “In the 21st century, readable matter also is found on phones and tablets and in e-books, as reading has come to be about meaning-making, not only about decoding alphabetic and image-based text” (p. 38). This emphasizes how meaning can be represented and interpreted through multiple-modes.

Bill Cope and Mary Kalantzis, who are once again two of the original members of the New London Group, have gone on to further their research and work in the area of

multiliteracies, making significant contributions to the field. In 2005, Cope and Kalantzis reframed the original pedagogy of multiliteracies and expanded it to conceptualize their “Learning by Design Knowledge Processes”. This framework contains four knowledge processes: experiencing, conceptualizing, analyzing, and applying. “In applying these ideas to curriculum realities over the past decade, we have reframed these ideas somewhat and translated them into the more immediately recognizable pedagogical acts or ‘knowledge processes’...” (Cope & Kalantzis, 2009, p. 184). It is important to note that in the literature, Cope and Kalantzis emphasized that the four knowledge processes do not have to be implemented in a sequential, linear order. Instead, teachers should recognize that the knowledge processes can help as a general guide with instructional planning. “Rather, they are a map of the range of pedagogical moves that may prompt teachers to extend their pedagogical repertoires” (Cope & Kalantzis, 2009, p. 186).

Mills (2010) argued that students benefit from scaffolding of instruction with digital technologies in order to build skills with new literacies. “Adolescents need facility with an array of multimodal and digital literacies for different social purposes: critical inquiry, creativity, and communication” (Mills, 2010, p. 36). She claimed that this is not something that they will always know how to do on their own, as not all students are equipped with proficiency in the digital skills that they need to be successful in today’s classroom. A solution is provided in that more knowledgeable peers and students can be leveraged in leadership positions to scaffold the learning process. For example, the literature suggested an example that this strategy can be implemented when students are working on a claymation movie design project. “The teacher can regroup the students, distributing an expert to each group of moviemakers to mentor their peers in a specialist area” (Mills, 2010, p. 42). As a result, this instructional practice incorporates the

sociocultural perspective with students relying on the interaction of multiple individuals and working in social groups to advance learning and understanding.

The New London Group (1996) paved the way for the pedagogy of multiliteracies to transform classroom literacy practice, reflecting the growing changes in society. Cope and Kalantzis (2009) have continued this work with their “Learning by Design” knowledge processes. Contemporary reading/literacy specialists can pair this updated framework with TPACK when lesson planning in order to design effective literacy instruction. As they engage in this process, teachers can design curriculum to scaffold the learning experiences of students when they work with digital texts and new literacies. The goal here will be to discover how including multiliteracies in instruction, and reflecting afterwards, can enhance knowledge of pedagogy and overall literacy learning.

Literacy as a Social Practice

Grounded in the work of Lev Vygotsky (1978) is the principle that learning can occur and be constructed through social interactions with others. This framework is situated in Vygotsky’s “zone of proximal development” and values what learners can do on their own vs. what learners can do with support from a more knowledgeable peer/teacher. In a study presented in the literature by Mills (2016) regarding a digital literacy intervention, “[d]emonstration involved guided participation in learning, or scaffolding, within students’ many zones of proximal development” (p. 14). The finding here connects to the work of Mishra and Koehler (2006) and the TPACK framework in that teachers can carefully consider how to scaffold lessons and instruction, while also considering multiple components, in order to enhance student learning.

Moll et al. (1992) produced a key project that studied the connection between households and classroom practices in Tucson, Arizona. The purpose of the project was to inform teaching practices that built upon knowledge and skills found in the home. Findings suggested that building upon students' funds of knowledge should be incorporated into instruction to enhance learning experiences. Teachers should consider students' background experiences and interests when designing lessons. Instructional practices reflective of funds of knowledge can become "the catalyst for forming research teams among the students to study topics of interest to them, or important to the teacher, or for achieving curricular goals" (Moll et al., 1992, p. 139).

In addition, from a sociocultural perspective, teachers see themselves as learners in the classroom, as well as the students. There is a mutual understanding of shared learning. Background and life experiences can provide authentic learning opportunities. It is essential that all students be viewed from an asset perspective to propel learning.

Furthermore, Galloway et al. (2020) provide new discussion and insights to inform the science of reading. Previously, language and reading comprehension within this perspective has been viewed as strictly cognitive. However, literature by Galloway et al. (2020) supports that academic language learning and the reader's interaction with the text is a sociocultural practice. For the science of reading, "...avoiding the pitfalls of skills-based academic language instruction in the translation of research to practice entails also understanding linguistic comprehension as a context-embedded, sociocultural practice" (Galloway et al., 2020, S333). This does not mean that the cognitive, skills-based philosophy involved in the science of reading is replaced. Instead, it recognizes that incorporating students' funds of knowledge, and pairing with cognitive knowledge, can result in advancements in literacy learning. This will be a shift in thinking for many, but incorporating "sensemaking" practices is an important component to reading

comprehension. Finding the balance and “viewing academic language proficiency as involving language skills and learning of sociocultural practices moves the science of reading to account for and value the diversity of human experiences—with language, with others, and with the world—that students bring to classrooms” (Galloway et al., 2020, S342). This perspective shares the philosophy presented in the literature by Moll et al. (1992) and recognizes the value that each learner brings to the classroom.

Literature presented by Hattan and Lupo (2020) is consistent in agreeing that when the science of reading is examined, the sociocultural perspective should be considered in addition to cognition in order to leverage students’ funds of knowledge when engaging with texts. In this perspective, students’ background knowledge is an essential component to learning. Hattan & Lupo (2020) “contend that this interaction between background knowledge and text supports students in learning from text, as well as being able to apply what was learned to new situations” (p. S284). The more background knowledge that a student has about a topic related to what they will be reading about, the more success they will experience when reading.

This highlights the importance of pre-reading activities. Teachers can engage students in activating prior knowledge and use schema to set students up for discovery. “Instead of assuming that students will automatically utilize their funds of knowledge, teachers can guide students to think about various forms of knowledge that may support textual understanding” (Hattan & Lupo, 2020, p. S293). Using sociocultural theory as a guide, teachers can design literacy learning experiences that use scaffolding to build upon students’ prior knowledge.

In a recent study by Yang et al. (2018), research was conducted regarding how technology has been reflected within reading theory and determining how various theories have guided the shift to digital literacy practices. For this study, the authors reviewed articles

published over the course of twelve years between 2004-2015 in leading literacy journals, *The Reading Teacher* and *Journal of Adolescent and Adult Literacy*. The researchers focused on examining how technology was used to teach reading skills, the functions of technology use, and guiding theories. When literacy teachers are planning instruction, lessons should reflect best practices and be guided by principles of strong pedagogy. In the study conducted by Yang et al. (2018), the reading theory most evident was the sociocultural perspective, followed by reading motivation theory. The authors noted that this was to be expected because “...these reviews reflected that social theories have been widely drawn upon in reading and writing instructional practices, including practices incorporating technology” (Yang et al., 2018, p. 71).

When considering a sociocultural perspective, students can learn through engaging in collaboration and social interaction with others. Advances in our rapidly growing technologically-enhanced society are making it easier than ever to collaborate with others, regardless of geographical location. A function of technology in reading instruction identified in the study was that “... collaborative learning is encouraged in reading instruction because the interaction and collaboration among community members is a key to knowledge construction” (Yang et al., 2018, p. 71). The Common Core State Standards have changed what today’s 21st century literacy classroom should look like, fitting with the sociocultural perspective and providing students with opportunities to engage in collaborative activities.

In this study, the reading/literacy specialist actively worked to plan instructional experiences and guide inquiry, as reflected by all of the research questions and framed by the sociocultural perspective theory of literacy. With this theoretical lens, literacy and learning involves social and cultural factors. Led by the work of Vygotsky and the gradual release of responsibility, reading/literacy specialists should be designing instruction that builds upon

students' funds of knowledge (Moll et al., 1992) and provides learning opportunities that foster collaboration through social constructs. All students should be viewed through an asset perspective, as all students bring knowledge to the classroom from their life experiences that should be valued. Reading/literacy specialists can then use this knowledge when lesson planning, and working through the TPACK framework, to develop 21st century literacy instruction that will prepare students to value all cultures in a global society. Furthermore, the recent literature by Galloway et al. (2020) and Hattan and Lupo (2020) provide a call to action for the science of reading to recognize the sociocultural perspective in addition to the cognitive. This research has the potential to shape misconceptions about the currently described "knowledge gap".

Literacy as a Multimodal Practice

The research study presented in this paper explored a reading/literacy specialist's development and reflection of her own technological pedagogical content knowledge to design instruction. This included recognizing the use of instructional materials that transcended beyond traditional print literacy. In today's 21st century society, the definition of a "text" can vary from print to digital and be inclusive of picture books and graphic novels to ebooks, blogs, podcasts, videos, tweets, vlogs, hyperdocs, etc.

Not only has there been advancements in the types of texts used, but there has also been changes to the expectations of what teachers should be planning for in the classroom. Within the last ten years, the development of the Common Core State Standards "...makes the use of digital tools in the literacy and language arts classrooms a requirement rather than a preference" (Hutchison & Woodward, 2014, p. 316). Therefore, teachers have started to incorporate more digital literacy practices into core instruction based on this shift in order to keep up with the

changes reflected in society. Many students are coming to school with a new set of skills already acquired regarding technology from the use of smartphones, tablets, gaming devices, etc.

Learning to adapt instructional delivery to include multimodalities can build on students' funds of knowledge to achieve curricular goals and offer multiple pathways for students to engage in the learning process. In consideration of the research study presented in this paper, reading/literacy specialists can use their TPACK to make instructional decisions about presenting content in different modes in order to achieve the intended meaning based on a lesson objective.

In a review of literature, Jewitt (2008) continued to build on Kress' concept of considering not just what is to be learned, but also how information is represented. Literacy learning must consider the meaning and mode of representation in today's 21st century technological society. "For instance, the ways in which teachers design and use pedagogic materials shape how students can remake a text through its possibilities and resistances or how they can navigate the designed relationship of image and writing and identify possible reading paths" (Jewitt, 2008, p. 264). How the curriculum is shaped, and what texts, materials, and tools are utilized, can determine the direction of a lesson. This raises questions regarding pedagogy and lesson design. Jewitt describes in detail the decisions that teachers, curriculum developers, and policymakers must make regarding "everyday design decisions". A connection can be made here between this commentary and Mishra and Koehler's (2006) TPACK framework. Teachers and curriculum developers could benefit from engaging in work within a TPACK framework in order to continue making the design designs needed for today's multimodal literacy classrooms.

The merging of ideas and philosophies of education can frequently result in tension within the educational system, and literacy professionals might find themselves standing in this "contact zone". Contact zones within literacy instruction can be defined as "the spaces where

differing theories and research perspectives on language and literacy development produce conflicting ideas about best practice in instruction, curriculum, assessment, and home/school relationships” (Wohlwend, 2020, p. 3). When considering present day issues that literacy and language arts teachers are navigating, the Common Core State Standards (2010) and the contact zone of text complexity is a frequently discussed topic. How hard should texts be? Should all students be reading on grade-level? “Current debates center on whether students should read more challenging texts” (Lupo et al., 2018, p. 435). This debate has prompted teachers to think about the types of texts that they are including in their curriculum. Additionally, some educators have more autonomy than others, with some districts moving towards mandating certain materials to meet the rigorous demands of text complexity presented in the CCSS.

However, a review of literature suggests an instructional method as a potential solution to helping teachers design curricular units that will provide access points for all readers with complex texts. This method moves from using singular, traditional texts towards lesson design that builds knowledge through the implementation of multimodal text sets. Blending print and digital texts, teachers can design multimodal text sets as a way to enhance students’ technological skills, while encouraging success with complex texts and literacy tasks.

Through the evaluation of literature related specifically to the integration of multimodal text sets into literacy and language arts instruction, an analysis of some current practices have been identified.

Turner et al. (2020) completed an exploratory study to discover what, where, and how adolescents read digitally. Participating in this study were adolescents in grades 7-12 (ages 13-18) from twelve rural, urban, and suburban classrooms across the United States. The study used multiple methods for data collection involving surveys and interviews. The survey was

conducted in students' English Language Arts classes, which provided additional insight to help construct a pool of students for the interviews. Through data collection and analysis, the work evolved into a grounded theory study that informed the author's formation of the "Connected Reading Framework". This framework for reading comprehension is based on the work of Ito's (2013) *connected learning theory* and Rosenblatt's (1978) *reader-response theory*. In the Connected Reading Framework, the authors identified three main processes involved in connected reading: encountering, evaluating, and engaging. In addition, the authors noted a key finding from their study revealed that adolescents live in a both/and world, which includes the reading and interaction of both print and digital media.

I found the "Connected Reading Framework" to be a refreshing perspective regarding the contact zone of print vs. digital literacy. It was reaffirming to my own knowledge to read about the authors' perspective and research finding that adolescents need to be engaging with both types of texts, print and digital. In my experience, I've found a lot of educators that argue for an either/or approach; however, we cannot neglect that technology has "...changed the landscape of reading, raising questions about the nature of texts on what devices readers access those texts, and how readers engage with them" (Turner et al., 2020, p. 291). Finding ways to teach students how to engage with both print and digital texts in the classroom will ensure that literacy and content-area teachers prepare students for the reading that they will do beyond the walls of the classroom. "Adolescents need to learn how to navigate print texts, and they need to learn how to consume digital text critically and to share them with purpose" (Turner et al., 2020, p. 305).

Lupo et al. (2019) supports the use of multimodal text sets for knowledge building in the classroom for reading instruction. The authors introduced the Quad Text Set Framework to help literacy teachers think through curating multimodal texts that will enhance students'

understanding of a topic and to achieve curricular objectives. First, a “hook” text should be included to foster engagement and develop students’ interest in the topic. Next, an easier text should be included to continue building necessary background knowledge. In addition, a visual/multimodal text, such as a video, would be helpful to support concept development. Finally, a challenging, target text should be included in the text set, which would be supported with knowledge learned from the other texts. “Therefore, teachers should select a variety of texts, both complex and easier, as well as visual and multimodal texts, that will help students build background knowledge, develop complex conceptual knowledge, and garner students’ interest in a topic” (Lupo et al., 2019, p. 515-516). In this model, all four texts within the multimodal text set would help to scaffold students’ learning experience and to develop the necessary background knowledge needed to develop success with text and the reading experience. Leaning on the sociocultural perspective, and Vygotsky’s zone of proximal development, students would use the multimodal text set to learn through scaffolding and the gradual release of responsibility.

I believe the “Quad Text Set Framework” provides a user-friendly approach towards developing a multimodal text set for any literacy or content-area classroom. One challenge that can sometimes exist with text sets is having/finding the time for lesson planning and access to materials. The Quad Text Set Framework simplifies the process for teachers and provides the necessary scaffolding to guide students through the gradual release of responsibility (Pearson & Gallagher, 1983). In content-area classes such as science and social studies, students typically struggle with informational texts due to the domain-specific vocabulary and content. However, “knowledge building may be key to assisting adolescents in understanding rigorous texts” (Lupo

et al. 2018, p. 435), which can easily be accomplished through the implementation of a quad text set.

Hoch et al. (2018) provided information from a study of inservice teachers that were working towards a Masters of Education degree in Reading with a Reading Specialist or Reading Teacher endorsement. For this study, the inservice teachers served as tutors in a summer reading improvement program that was part of their coursework. Each teacher worked with two students. Data was collected from 50 teachers and 60 students that was analyzed to determine the benefits and constraints of using multimodal text sets to guide inquiry. Teachers in the program received professional development in the process of creating multimodal text sets and developing inquiry questions. The work in this study was driven by the need for teachers to consider new instructional frameworks that are needed to help students with digital literacy skills. “Teachers provide necessary instruction by modeling such skills as developing personally meaningful questions, searching multimodal sources for relevant information, navigating multimedia within websites, highlighting and note-taking, and using digital tools to demonstrate and share learning” (Hoch et al., 2018, p. 702).

From data analysis, the authors determined five key findings: develop text sets to enhance student motivation and engagement, select sources carefully to increase text complexity and include multimodalities, frame instruction as inquiry, support student synthesis with reading strategy tools, and offer students opportunities to write for authentic audiences. The conclusions from the study indicated that the teachers felt the students were motivated and successful with the text set approach to inquiry and many teachers planned to continue this pedagogical approach moving forward. The findings in this study by Hoch et al. (2018) can offer guidance for reading

specialists and teachers when considering how to implement multimodal text sets, framed as guided inquiry, in literacy and content classrooms.

As a reading intervention strategy, guiding inquiry with the use of multimodal text sets can be a successful strategy because it allows the interventionist/ specialist to use the gradual release of responsibility and support students with the reading of texts through modeling and practice. Rather than compiling resources and assigning, “...students should systematically build their reading muscles, gradually increasing the weight of texts, including light days of independent reading as well as opportunities to max out with challenging texts, under the watchful eye of a teacher to spot them with support when needed” (Hoch et al., 2019, p. 705). I think this type of instructional practice would be beneficial to small-group instruction for any educator working with middle school students.

In addition, Opatz and Nelson (2022) offer a helpful structure for curating text sets to guide disciplinary instruction. Their strategy builds off of the background knowledge that students already have about a topic and that they bring to the classroom, which Gonzáles (1995) calls *funds of knowledge*. First, teachers can assess students' funds of knowledge and use this information to guide instruction. Next, Opatz and Nelson (2022) suggest having the end in mind and working backwards to develop curriculum, using the framework of Wiggins and McTighe (1998). Knowing the standards and outcomes will help teachers to move through the next step of consulting the curriculum to determine additional resources that need to be added to a text set in order to achieve the learning targets. Fourth, teachers can begin to curate the instructional text sets by building on students' funds of knowledge and incorporating any resources that are missing from the curriculum. Finally, develop a bridge by determining an appropriate sequence for instruction and any scaffolding that may be needed. To demonstrate the effectiveness of this

approach, the authors provided an example of a teacher, Mr. V., and his work with the Next Generation Science Standards (NGSS) to curate a text set on volcanoes. The result of this work was his students' successful learning of the science unit. If implemented with fidelity, teachers will have the opportunity to increase content area disciplinary knowledge through the use of text sets that build on students' prior life experiences and knowledge.

Opatz and Nelson (2022) provide a helpful strategy for any teacher that is interested in the lesson planning process of designing units with multiple resources aligned to standards to support a learning outcome. One of the challenges involved in planning text sets is the act of finding appropriate resources and having a “recipe” for this process can make the design more effective for instruction. “Curating text sets is an intentional process of presenting information to students. Ultimately, we see our job as teachers to invite students into the learning process by scaffolding instruction through engaging, relevant material” (Opatz & Nelson, 2022, p. 521). Teachers should build on what students already know and find valuable, credible, and authentic resources that would help to supplement existing district curriculum in meeting learning objectives and creating the “bridge” towards discovery. Although this study contained an example with science standards, reading/literacy specialists can use the same step-by-step framework when curating resources and planning instruction for literacy text sets.

A study conducted by Tracy et al. (2017) focused on a sixth grade classroom teacher working in the Blue Ridge Mountains and her work using multimodal text sets. The purpose of the research was to share how this sixth grade teacher was able to successfully implement a text set centered on a theme, rather than a topic. The theme for the curated text set shared in this project was courage. The teacher in the project, Katie (pseudonym) wanted to encourage her students to select a theme that mattered to them, and through engaging with a text set of

resources, learn about it and take purposeful action. Key points presented were that teachers should learn to shift their thinking about text sets to move from topics to themes. In addition, text sets should expand to include more non-traditional texts. Findings from the project determined that through the use of text sets in the classroom, there was improvement in students' ability to understand others' perspectives and their skillset with synthesizing information from multiple sources.

Reviewing this particular literature prompted me as a literacy teacher to think about my mindset and also shift how I have previously approached the design of text sets. Thinking about designing text sets from a thematic approach, instead of by topic, is a needed change that will move students towards higher-level thinking. "Text sets offer students an entryway into deeper understandings of information and encourage them to evaluate the information they encounter" (Tracy et al., 2017, p. 528). We want students to be analyzing the information that they learn; not simply consuming it. Additionally, the study by Tracy et al. (2017) showcased how text sets could be helpful in providing multiple access points for students in their learning. "Texts ranged in reading level and format so students with varied interests and skills could access the information" (Tracy et al., 2017, p. 528). This provides important considerations for teachers that work with striving readers and students with individualized education plans.

A two-year study completed by Beck (2014) from the University of North Dakota describes research conducted with a university Summer Reading Camp and the participating clinicians. The purpose of the study was to determine the relationship between multi-genre text sets and reading engagement and motivation. The participating clinical practicum students were elementary education undergraduates and graduate students enrolled in the Elementary Education and Reading Master's programs. Practicum students experienced planning and

preparation that involved several phases: Phase I- The Intervention (using text sets to motivate and engage readers, Phase II- Professional Development, and Phase III- Implementation. Data collection for this study consisted of observations, document review (daily lesson plans, reflections, portfolio review), and a survey. Findings indicated the benefits of using multi-genre text sets to include different levels of texts, exposing readers to a variety of genres, making connections between texts, connected lesson planning, and matching texts to students' interests to enhance motivation. Challenges identified included finding non-print resources and time for implementation. Overall, study participants found value in the approach and plan to use text sets moving forward in their classroom instruction.

This study demonstrated how university practicum students used multi-genre text sets to foster motivation and engagement. Each teacher used their students' interests to design the main curriculum for the intervention program. This created differentiated and individualized programs for each student that was participating in the summer reading program. As a result, students felt successful and motivated, achieving a main goal of the program. "Reluctant readers; those who struggle with mainstream textbook reading, should be given the same opportunities to choose interesting and accessible text as those who can read widely and easily" (Beck, 2014, p. 17). I think too often in reading intervention programs teachers use pre-packaged materials and scripted curriculum. Beck's (2014) study showcases that designing interventions around student interest and incorporating multiple resources from different genres/modalities can result in positive effects on student engagement.

Salerno et al. (2020) represented a cross-curricular team of educators working with pre-service teachers (PSTs) to implement quad text sets (QTS) into English Language Arts, English as a Second Language/Foreign Language, science, and social studies secondary

classrooms to build content-area learning. The exploratory study was part of an 11-month project from teacher-education program coursework at a large public university in the southern United States, and all participants were earning a master's of teaching degree and licensure to teach grades 6-12 in their respective content area. In addition to coursework, participants spent fieldwork hours each week working in local secondary classrooms. For the study and coursework assignment, the PSTs developed a quad text set tailored to the interests and needs of two specific students that they were working with in their content area. Data collection consisted of participant-developed quad text sets, mid-term and end-of-class surveys, fieldnotes, emails, and other work samples. Findings indicated that content area pre-service teachers differed in the types of texts that they selected to include in their text sets. Additionally, the PSTs most often used the texts within the set to build background knowledge as a scaffold towards reaching the target text that was provided in the text set. Overall, the participants identified the concept of quad text sets to be "helpful"; however, the science-area content teachers expressed division on the need for literacy instruction in the sciences.

I found value in this study because it explored how teachers are trying to address the growing demands of literacy in the content-areas. I recognize this growing "contact zone" of the need to teach literacy in social studies and science. Specifically, history articles and primary documents can demonstrate difficulty for adolescent readers. Due to this struggle, I notice that teachers often replace content-area reading with project-based learning. "McKenna and Robinson (2014) suggest that teachers sometimes avoid literacy-related challenges by eliminating reading and writing requirements instead of working to build literacy" (Salerno et al., 2020, p. 2). I think incorporating multimodal text sets into disciplinary instruction would prove to be a helpful strategy of bridging content area learning and literacy instruction.

Coombs and Bellingham (2015) presented information about how a seventh-grade teacher implemented the use of text sets into her classroom to foster the inquiry process. The teacher incorporated three units using text sets in a variety of ways throughout the school year to guide inquiry. Each unit was developed with a thematic essential question. The thematic question of the first text set was “*Why is it important to celebrate differences?*” and contained six resources, both fiction and nonfiction. The second unit was aimed towards having students synthesize ideas and make connections between different texts. The guiding question for this text set was “*What makes a true friend, and how can I develop the characteristics of a good friend?*”. For this text set, students worked with “expert groups” to complete text set readings on additional subtopics. The third essential question for inquiry was “*What is empathy?*”. Again, students worked collaboratively in groups and completed jigsaw activities to demonstrate learning from their “expert groups”. Final assessment was through presentations and written essay assignments. Findings from the project revealed four reflections from the students on how inquiry through text sets helped their literacy skills: aided comprehension, helped to make connections to their world and themselves, texts served as models for writing, and improvement with constructing responses using text evidence and quotations.

Similar to Tracy et al. (2017), the authors of this study also found success with organizing text sets around themes. As a middle school reading specialist, I found the examples provided in this article and centered around three thematic questions to be helpful in conceptualizing how instructional units could be designed. An emphasis is continued on framing the reading of the texts as inquiry. “Comprised of texts from different genres, readability levels, and perspectives organized around a common theme, text sets invite students to explore a variety of resources in

answer to an inquiry question” (Coombs & Bellingham, 2022, p. 89). Setting up text sets to guide inquiry will foster the process of authentic reading for discovery in the literacy classroom.

A case study completed by Scales and Tracy (2017) analyzed research on a sixth grade teacher’s use of text sets to facilitate critical thinking in the classroom. The purpose of this study was to explore the features and processes of a teacher utilizing text sets to promote critical thinking, what evidence of critical thinking emerges when implemented, and what enhances or constrains the use of text sets. The case study focused on the experience of the sixth grade teacher, Jane (pseudonym), an employee of a rural K-8 school in the southeastern United States, who teaches language arts to three sixth grade classes on her team. Jane designed a unit plan for a text set about courage, which contained modeling and scaffolding as students progressed towards their own topics of interest and projects. Data collection included observations, field notes, an audio recorded and transcribed semi-structured teacher interview, and eleven audio recorded and transcribed semi-structured student interviews. Artifacts such as unit plans, text sets, and other documents were also collected. Findings indicated that Jane was a “visionary, student-centered teacher” for creating learning opportunities that teach literacy in authentic ways. In addition, data analysis revealed students as strategic, deep thinkers and motivated advocates. Finally, the study revealed that Jane had some autonomy and used her professional judgment as she navigated outside demands of the curriculum.

The findings from the experience of Jane in this study is elaborated on in the feature article by Tracy et al. (2017) and shared by the philosophy presented in Coombs & Bellingham (2015). A thematic text set can be a powerful tool to offer students multiple perspectives on a topic and introduce varying resources for synthesis. However, when teachers are designing thematic text sets and choosing resources, Jane demonstrates that they will need to navigate

outside controls. Data analysis from the study “supports the idea that teachers need flexibility and autonomy when making decisions about how to teach language arts” (Scales & Tracy, 2017, p. 149). In a typical classroom, students have different needs and interests as learners; therefore, teachers will need the flexibility to address their needs through curriculum design.

“Texts” have evolved with a rapidly changing digital society, resulting in new implications for 21st century literacy instruction. Jewitt (2008) demonstrates the need for lesson pedagogy to shift, as well as design decisions. Since the ILA’s *2017 Standards* require the use of digital technologies, the research questions will seek to analyze how a reading/literacy specialist can develop and reflect during the lesson planning process while implementing the TPACK framework. The literature reviewed in this study presented several examples and studies for literacy teachers to consider how they can implement multimodal text sets into their language arts classrooms. A common thread among all of the articles presented is that the Common Core State Standards have introduced the need to present students with more challenging texts in the classroom. Additionally, the standards call for the integration of digital technologies as students work towards proficiency in navigating print and digital reading skills. Multimodal text sets can provide reading/literacy specialists with a helpful instructional tool to scaffold learning for students as they engage with more challenging levels of text complexity in today’s classrooms.

Synthesis of Literature Review

It has been established that the Common Core State Standards have redefined how literacy should be taught in today’s language arts classrooms. Traditional literacy practices should not be abandoned; however, they need to be blended with 21st century teaching and learning. Existing research indicates that many teachers currently use technology. However, more

research is needed in order to determine the best practices and strategies for helping teachers, including reading/literacy specialists, to achieve full “*Curricular Integration*” with implementing technology into literacy instruction.

The literature reviewed makes it clear that all teachers should be entering today’s classrooms with enhanced technological knowledge (TK). For reading/literacy specialists, this carries the responsibility of how they can effectively combine technological knowledge with already existing content knowledge of reading disabilities (CK) and best practices in learning science for lesson delivery, or pedagogical knowledge (PK).

In the last two years specifically, there has been renewed attention to the science of reading and knowledge of how students are being taught to read. Many states are continuing to adopt new legislation requiring specific training for teachers grounded in the science of reading. Since the *Standards* were written in 2017, this provides an opportunity for further analysis to ensure that the *Standards* are effectively preparing literacy professionals for today’s classrooms with the most up-to-date knowledge. Mandates, training, and certifications in the science of reading may provide new content knowledge (CK) required of reading/literacy specialists. In terms of pedagogy, the shift from balanced literacy to structured literacy approaches will introduce new pedagogical knowledge (PK). As previously stated, the technological knowledge (TK) needed for successful instruction in today’s classrooms is constantly evolving. Therefore, the component of the TPACK lens added a valuable framework to this study to appropriately analyze the *ILA’s Standard 5* (learners and the literacy environment). In addition, the key literature reviewed provided helpful insight to guide this study in determining how a reading/literacy specialist could combine multiple-modes of knowledge to plan literacy instruction using a multimodal text set.

Chapter 3: Methodology

Statement of Purpose

The purpose of this practitioner inquiry focused on the curricular design process was to describe the technological pedagogical content knowledge of a middle school reading/literacy specialist in practice designing a multimodal text set unit of study. Throughout the research process, technological pedagogical content knowledge was generally defined with the acronym TPACK and included the technological knowledge (TK), pedagogical knowledge (PK), and content knowledge (CK) needed to design 21st century instruction. For this study, a specific lens provided a portrait of how a middle school reading specialist used multiple-modes of knowledge to design curriculum and guided inquiry using a multimodal text set for literacy instruction.

Research Questions

1. How does a reading/literacy specialist integrate technological, pedagogical, and content knowledge (TPACK) processes with curriculum design to guide inquiry using a multimodal text set?
2. What does self-reflection by a reading/literacy specialist on the integration of knowledge processes involved in the curricular design of multimodal paired text instruction reveal?
3. How does a reading/literacy specialist use the language of ILA's *Standard 5* for self-reflection to plan and implement instruction with digital technologies?

Qualitative Research Approach

A practitioner inquiry (PI) research methodology was applied to this qualitative investigation. In a traditional practitioner inquiry, a teacher/practitioner will engage in action research to investigate a classroom-based issue, and as a result, collect student data. However, this study contained a specific lens on the practitioner as a curriculum designer. All data collected was focused on the design process and practitioner self-reflection. Therefore, no student data was collected in this practitioner inquiry emphasizing curricular design.

As the researcher, I also served as the only participant, or practitioner, in this study. “Having the practitioner take on the role of researcher contrasts with conventional research on K-12 teaching and teacher education where practitioners are the topics of study, the objects of someone else's inquiry, or the informants and subjects of research conducted by those outside the situation” (Cochran-Smith & Donnell, 2012, p. 508). I selected practitioner inquiry as the method for this study because it “...offers a systematic and intentional process for teachers to gain first-hand knowledge on effective, authentic literacy practices” (Buelow et al., 2023, p. 306). Working within the context of middle school as a reading/literacy specialist, I engaged in action research throughout the study in relation to the three research questions presented.

Role of the Researcher

In this research study, I had a dual role. First, I served as the main participant in the study. This role consisted of working as the middle school reading/literacy specialist and performing all responsibilities for planning, implementing, and reflecting upon literacy lessons that incorporated a multimodal text set. Secondly, I was also responsible for the data collection related to the study

and all reflections of myself as the participant. The dual role of the researcher and participant fit into the context of the design of the study as an action research project and practitioner inquiry investigation.

Context/Setting of the Study

The selected site for my study was a small, public middle school in southern New Jersey. It is located about thirty miles east of Philadelphia. The middle school serves approximately 350 students in grades 5-8. The school is one of two schools in the school district. I chose this site for practitioner inquiry because it is my current place of employment as a middle school reading specialist. However, it is important to note that since this study focused on the curricular design process, and I was the only participant as the researcher and the practitioner, no student data was collected at the selected site.

This setting aligned with the goals of the study. First, the research questions aimed to seek understanding of a secondary middle school reading/literacy specialist in practice. Secondly, since it is my place of employment, a practitioner inquiry is possible to provide my insight during the curricular design process and reflections from after implementation.

Study Participant

Serving as the only participant in the study, I am 39 years old and have worked for eighteen years at a New Jersey public middle school. For the last eleven years, I have worked specifically as the middle school reading/literacy specialist for grades 5-8. Each year, I additionally teach any ELA classes as needed. I have a bachelor's degree in elementary education

and a master's degree in reading/literacy education with a reading specialist certification. This year, I am currently the professional learning community data coach for the middle school English Language Arts department. For this study, I obtained the appropriate permission from my school district and the Board of Education to conduct a practitioner inquiry research study. The Institutional Review Board at Indiana University reviewed the practitioner inquiry study and determined that it was not in need of further review, as my study was considered to be "Not Human Subjects Research".

Data Collection Procedures

There were four main forms of data planned for collection in this study. Data Collection Research Plan (Appendix A) contains a detailed description and timeline of each data piece.

Lesson Plan Documents- The reading/literacy specialist developed a formal, written lesson plan for each module within the text set unit of study. Each plan included the lesson objectives, materials, state standards, procedures, assessment, etc. The lesson plan documents also included information about use of technology, plan for instructional delivery, and targeted content for learning. The formal lesson plans guided the development of the Screencastify video recordings to showcase lesson planning procedures. A lesson plan template is available in Appendix B.

Video Recordings of Lesson Planning- The program Screencastify was used to capture video recordings of a reading/literacy specialist completing a think aloud to explain lesson planning procedures and modeling using the computer and voice recording. After filming, videos were uploaded to a private YouTube channel. Videos were then imported to VideoAnt and annotated with the reading/ literacy specialist's personal reflections of technology integration

into literacy lessons. Video recordings lasted approximately 20-25 minutes and four total videos were recorded during the study.

Self-Reflection Rubric- The practitioner completed four “Reading Specialist Self-Reflection Rubric” Google Documents (Appendix C) during the study. After lesson implementation, the practitioner completed a self-reflection rubric via Google Docs. The design of the rubric was grounded in the TPACK framework and prompted the reading/literacy specialist to reflect on the use of technological, pedagogical, and content knowledge in the lesson. The rubric also contained an open-ended response portion to prompt for further analysis of the lesson and self-reflection of teaching. The open-ended response portion guided the reading/literacy specialist in specific reflection related to ILA’s *Standard 5*. A total of four self-reflection rubrics were collected during the study.

Review of Artifacts- In order to provide a comprehensive portfolio for the practitioner inquiry study of the reading/literacy specialist’s curricular design process, artifacts and documents were collected. These additional artifacts for the study included: double-entry notes/reflections, lesson resources, Google Site, Google Classroom, and curriculum units. Both print and digital documents and artifacts were reviewed.

Data Analysis Procedures

For this qualitative study, a reflexive thematic analysis was completed using Braun and Clarke’s (2006, 2022) method of data analysis. This approach involved six phases of thematic analysis. In this practitioner inquiry, the reading/literacy specialist served as the researcher and participant engaged in the design process; therefore, was able to provide a first-hand account and experience for study.

Before, during, and after a qualitative study, a researcher is left with a plethora of information to make sense of. It can become overwhelming; therefore, a process is needed in order “... to bring meaning, structure, and order to data” (Anfara et al., 2002). The phases in thematic analysis involve coding, categorizing, and connecting into larger themes. Coding can be illustrated at the text-level and “...is not a precise science; it's primarily an interpretive act” (Saldaña, p. 4, 2015). In this study, after the collected data was coded with multiple passes, the data was then organized and grouped into initial themes to look for connections and patterns.

In the beginning, initial themes shifted and developed. Ultimately, finalized themes are what became the findings and were directly related to my research questions. “A theme captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set” (Braun & Clarke, 2006). A researcher engaging in reflexive thematic analysis then uses the data to tell a story through connections of shared meaning.

Methods to Establish Quality

In qualitative studies, researchers need to be transparent about their research process to show *how* they arrived at their final conclusions. In any given qualitative study, researchers make many decisions from the beginning to the end. Being transparent about the process builds credibility. “Explicitly and methodically reporting how you went about making these selections, the challenges you encountered, and how you overcame these challenges will go a long way toward building a sense of trustworthiness about your research” (Yin, 2016, p. 86). To obtain credibility with the coding process, I completed three rounds of coding. All coding data and

coding excerpts were then exported from the CAQDAS program into Google Docs to allow for categorizing and analysis. All information was saved and password protected.

Another layer of trustworthiness related to the researcher is considering their own positionality and subjectivity. Positionality involves building credibility with your audience. Peshkin (1988) writes that subjectivity can be present throughout the entire research process. Therefore, a researcher should be mindful of their own positioning to see what “new learning” occurs and to be completely transparent in the process. To assist with this reflection, a positionality statement appears in this study.

Potential Ethical Issues

Before the data collection phase of the study began, potential ethical issues were addressed. First, I formally submitted all paperwork to the Institutional Review Board (IRB) at Indiana University to ensure all permissions for the research were in place. This research study was about myself as a practitioner and all data collection was related to myself as the only participant. No student data was collected in this research study. Therefore, the research was determined to be “Not Human Subjects Research” by the Institutional Review Board and did not require further review. Documentation of this review is included in Appendix G.

Secondly, I successfully gained local access permission to conduct a practitioner inquiry research study at the selected site, which is my current place of employment. I followed all procedures and requirements to seek the needed approval from my school district and Board of Education. After submitting a letter requesting permission, I received formal approval to conduct this practitioner inquiry research study from the school district Board of Education at their meeting held on November 21, 2022.

During the study, I worked hard to ensure that the research did not interfere with the normal operations of the educational environment. This was accomplished by only conducting the work of the study at appropriate times. Since all data that was collected for the practitioner inquiry research study was related to myself as the reading/literacy specialist as the only participant, data from the curricular design and reflections was collected outside of school contract hours.

Structure of Findings

The findings from this research study are presented in this formal report that blends my analysis as the researcher with interpretations. First, I shared how I approached the work of this study by providing the background of my context as the instructor. Next, I described the presenting issue of the study. Then, I connected the issue to data collected, and from there, described any evidence that confirms or disproves any assertions that can be made. The overall assertions from my practitioner inquiry study are included in a final synthesis section of the information interpreted from the themes. Finally, the structure of the findings is concluded with implications for future practice and a closing to share how I was personally challenged to improve my practice. However, it is important to remind readers that this study focuses on my experience as just one reading/literacy specialist, which could serve as a limitation of the research.

Expected Outcomes/Significance

When considering all research questions presented, it was expected that reading/literacy specialists integrate multiple knowledge systems to meet the needs of learners in today's rapidly changing digital world. It is important to consider how a reading/literacy specialist can use the language of ILA's *Standard 5* and self-reflection to plan and integrate digital technologies in order to move the field forward with paired text instruction in the literacy classroom.

Ultimately, a goal for the research study was to determine how a reading/literacy specialist combines multiple-modes of knowledge to plan 21st century literacy instruction using connected texts. The Common Core State Standards are redefining and redesigning today's literacy classrooms and instruction. Teachers are navigating the process of learning how to use both print and digital texts for instruction, which can be confusing and often challenging. Research suggests that teachers are currently not maximizing digital tools to full "*Curricular Integration*". Therefore, more research is needed in order to determine the best practices and strategies of helping literacy teachers to achieve full integration of digital technologies within their instruction.

In addition, this practitioner inquiry focusing on the design of literacy curriculum continued to identify ways that university preparation programs and district professional development can effectively support reading/literacy specialists. Through a review of literature, there is room for continued studies in how contemporary reading/literacy specialists can enhance literacy learning in the field since the development of the updated standards with digital technologies. I hope that my practitioner inquiry and current work as a middle school reading specialist can add to this expanding field.

Chapter 4: Current Context and Problem of Practice

Instructor Context

In my current role, I serve as the reading specialist for grades 5-8. The main responsibility for this position is to provide targeted assistance to students in need of extra literacy support identified through multiple-measures of data analysis. However, each year I additionally teach any extra section(s) of English Language Arts classes as needed to support scheduling and class sizes. Typically, I teach any grade-level sections of classes that include students receiving basic skills services to provide support as the reading specialist. When serving in this dual-role (ELA teacher and reading specialist), a secondary teacher is provided for one class period to provide additional support.

During the 2022-2023 school year, I was assigned to teach a 7th grade English Language Arts class, in addition to my role as the school reading specialist. In a typical school day, most of my instructional day is spent providing supplemental or in-class reading support to grades 5-8. However, during this particular school year, two class periods per day were dedicated to teaching a 7th grade English Language Arts class.

Usually, the two ELA periods are blocked together for a total of 80 minutes of instruction. However, during the 2022-2023 school year, I had the two 7th grade ELA periods separated throughout the day, each lasting about 40 minutes. Each of the two periods were structured to reflect a writing and a reading workshop. The curriculum used at the seventh grade level is district-developed and aligned to the New Jersey Student Learning Standards.

For the context of this study, I implemented the multimodal text set inquiry unit that I created during the period dedicated to reading instruction. However, all work and data collection

related to the study occurred after school hours, as this study was a practitioner inquiry focused on the reading specialist's curricular design process and reflection.

New Jersey Student Learning Standards

As an English Language Arts teacher in the state of New Jersey, I need to ensure that I fully comprehend the state anchor standards and progress indicators for each grade level that I instruct. In 2010, New Jersey adopted the Common Core State Standards (CCSS); however, after several years, most stakeholders throughout the state agreed that changes to the English Language Arts standards needed to occur. In 2016, the standards were officially updated and renamed the *New Jersey Student Learning Standards* (NJSLS). At the beginning of the 2017-2018 school year, the standards went into effect; however, the standards were still very similar to the original CCSS.

In the Common Core State Standards and the New Jersey Student Learning Standards, an emphasis is placed on both literature and informational texts. This recognizes the value of nonfiction and encourages the teaching of literacy across the curriculum to incorporate all content areas. Both sets of standards also emphasize an increase in text complexity. As students progress through the grade levels, the standards define a grade-by-grade “staircase” that reflects expectations for increasing text complexity.

However, one of the most notable shifts in the standards is the emphasis placed on the ability for students to integrate knowledge and ideas from multiple texts. “Whatever they are reading, students must also show a steadily growing ability to discern more from and make fuller use of text, including making an increasing number of connections among ideas and between texts...” (NJ.gov, 2022). This new skill directly relates to Anchor Standard 9 from both the

CCSS and NJSLA. In this anchor standard, students are expected to analyze how two or more texts support themes or topics in order to build knowledge or to compare the author's perspectives. Even though the standards require this skill to be taught through different progress indicators at each grade level, "...the CCSS are largely silent on curriculum design and instructional planning to support how they should be taught" (Boche & Werle, 2019, p. 43).

Additionally, both the Common Core State Standards and the New Jersey Student Learning Standards call for students to cite specific textual evidence to support ideas. This requires students to read closely and to examine texts for supporting details that relate to inferences that they can draw from one or more texts. An emphasis that includes writing will be included when students are asked to cite text evidence. "NJSLA.W stresses the importance of the writing-reading connection by requiring students to draw upon and write about evidence from literary and informational texts" (NJ.gov, 2022). This Anchor Standard proves that writing and reading are no longer viewed as isolated skills.

As an English Language Arts teacher in New Jersey, the updated New Jersey Learning Standards are of interest and concern to me. The 7th grade ELA class that I was assigned to teach during the 2022-2023 school year was a class where I was required to implement the rigorous standards. I wanted to make sure that I was doing everything I could to help students meet grade-level expectations and to prepare students appropriately for the annual New Jersey Student Learning Assessment (NJSLA), which is the state standardized assessment held each spring semester. Part of the NJSLA is an assessment called the "Research Simulation Task".

On the Research Simulation Task portion of the New Jersey Student Learning Assessment, students are prompted to read several connected informational texts on a common topic and sometimes view a multimedia presentation, such as a video. Following each

informational text and multimedia presentation, students answer a series of multiple-choice questions. Next, they are prompted to synthesize information from all of the sources to answer multiple-choice questions about all of the multimodal texts. Finally, students are provided with a writing prompt in which they synthesize information from all of the multimodal texts in order to write an essay that includes textual evidence from all sources of information.

As I reflected on how I would adequately prepare my 7th grade students for the NJSLA and Research Simulation Task, I saw this as a call to action to incorporate more lessons focused on paired texts into my instruction.

Paired Texts & Intertextuality

The concept of language arts teachers using paired texts to enhance reading instruction helps students begin bridging ideas across texts. “Using paired texts in the classroom supports the concept of intertextuality—the process of readers making connections across multiple texts...” (Boche & Werle, 2019, p. 43). Planning lessons and units with intertextuality in mind can help teachers begin to reach the levels of complexity established in the updated standards. Up until now, traditional reading lessons have largely focused on using individual texts that students view through one lens. The idea with using paired texts is to help students see that texts can be analyzed through multiple perspectives. “Most importantly, utilizing paired texts in a classroom setting helps students learn how to transfer what they have learned in one context (e.g., nonfiction texts) to a new context (e.g., fiction texts) and should include making meaning across any number of additional sources of information” (Boche & Werle, 2019, p. 44). This can also be achieved by comparing and contrasting multiple informational texts with non-traditional texts such as videos.

According to Boche & Werle (2019), paired text instruction also teaches students that no text exists in isolation. When learning to conduct research, we can teach students how to appropriately analyze texts for credibility and look for multiple viewpoints on a topic. “Thus, the concept of intertextuality posits that no text stands completely on its own; every text is interwoven with other texts, whether by words, illustrations, or various other forms of media” (Ciecierski, 2017, p. 285). If students understand how texts can be related, they are more likely to read with a critical lens and deepen their comprehension as they work to construct knowledge and build their own understanding.

Text Sets

For classroom teachers, an instructional tool that lends itself to incorporating paired texts into lessons is to create and implement a text set into literacy instruction. A text set is a collection of curated sources that includes a variety of texts, genres, and multimedia resources to support the development of a common topic or theme. “The use of multiple texts provides learners with deeper and more nuanced understanding because it offers learners the opportunity to refine their understandings by making comparisons and links between texts” (Ciecierski & Bintz, 2017, p. 479). Literacy teachers can design text sets to be used for individual lessons or for larger units of study. “When creating larger units centered around broad themes and overarching essential questions, utilizing multiple texts shows our students that they cannot simply be expected to find the “answer” from one text” (Boche & Werle, 2019, p. 54). This teaches students to value the concept of reading multiple texts to synthesize information as they continue on a path of inquiry.

Teachers can design text sets to match their instructional objectives, which includes varying the type of texts used in the text set. “A highly flexible format of instruction, adaptable

to a wide variety of content areas and grade levels, units of study that contain fictional and informational texts on the same topic can support students' comprehension by helping to build their background knowledge, vocabulary, and motivation" (Soalt, 2005, p. 682-683). However, as the standards place a large emphasis on informational texts, teachers may want to consider building text sets that include increasingly complex informational texts. In order to help students build background knowledge for complex texts, teachers can include multimodal elements within the text sets, "...including digital books and videos to support their growing ability to compare and contrast information between sources, stories, and reading passages" (Boche & Werle, 2019, p. 50). As I began to consider the informational and fictional texts that I would include in a paired text unit for my 7th grade ELA class, I also wanted to ensure that I found multimodal elements to include as well.

The challenges presented by the CCSS and the NJSLS highlight the need for enhanced instruction focused on the integration of resources. This resulting problem of practice motivated me as an ELA teacher and as a reading/literacy specialist to examine my own teaching pedagogy and knowledge as I design literacy instruction. Specifically, how I use technology and multimodal resources to design and teach connected literacy lessons within a text set unit of inquiry. Drawing from connected networks of technology, pedagogy, and content knowledge, I hoped to improve my practice as a reading/literacy specialist.

Designing a Multimodal Text Set

When looking at Standard 5 of the *Standards for Specialized Literacy Professionals*, I saw an opportunity as a reading/literacy specialist to blend the teaching expectations for curriculum and instruction regarding "*Learners and the Literacy Environment*" with the student

learning outcomes expected in the CCSS and the NJSL. I believe that intentional lesson planning and curricular design by a reading/literacy specialist can have a direct impact on student learning and achievement. In this case, I viewed the planning and design of a multimodal text set as having the ability to guide students towards successfully integrating knowledge and ideas from multiple sources.

For this study, I was inspired by a professional development resource that I came across in 2017 called *“The HyperDoc Handbook: Digital Lesson Design Using Google Apps”* by Highfill et al. (2016). “A HyperDoc is the teaching pedagogy involved when making important decisions about what to teach and how to teach with technology to redefine the overall student experience” (Highfill et al., 2016, p. 7). It is essentially a digital document and lesson plan that is thoughtfully created by a teacher and shared with students containing curated resources and hyperlinks to guide students through a learning experience. Most often, Google Apps such as Docs, Slides, and Forms are used as the learning platform to contain the curated resources. A digital HyperDoc takes time and effort to create, but the resulting learning experience can be rewarding. “Sitting down to create a HyperDoc is an opportunity to craft a meaningful, powerful experience for students” (Highfill et al., 2016, p. 23). In addition, a HyperDoc provides an instructional method that uses technology as a way to shift instruction from teacher-led to student-led.

Highfill et al. (2016) suggest five steps to creating a HyperDoc. The five steps are listed below in Table 4. Each step will then be explained in further detail as I applied the process of designing a HyperDoc to creating a multimodal text set for this research study.

Create a HyperDoc in Five Steps (Highfill et al., 2016)	
1.	Determine your objectives.
2.	Select which learning cycle you will use.
3.	Select your packaging.
4.	Build the workflow.
5.	Design your HyperDoc.

Table 4: Create a HyperDoc in Five Steps
Highfill et al. (2016)

1. Determine your objectives

With any lesson or unit that I plan, I always want to make sure that I start with the lesson objectives in order to ensure that the content of the lesson remains at the center of the instruction. As I began my instructional planning for the multimodal text set involved in this practitioner research study, I knew I would begin with reviewing the 7th grade ELA New Jersey Student Learning Standards since that would be the intended grade level that I would be planning the text set unit of study for. First, I reviewed the anchor standards and the progress indicators for “Reading: Informational Text”. Since preparing students for the Research Simulation Task on the NJSLA was a major concern for my instruction, I knew that I wanted to include most of the informational text standards in my instructional lesson planning.

Next, I also reviewed the anchor standards and progress indicators for “Reading: Literature”. At least one of the tasks that I planned to include in the text set would be a pairing of an informational task and a fictional reading passage related to the same topic, so both sets of standards would need to be included. Additionally, I reviewed the writing, language, and speaking and listening standards at the seventh grade level. After reviewing all applicable learning standards, I mapped out an instructional plan for skills and standards that would be

included in the text set unit. In order to establish a workable plan, I decided to organize the skills/standards into four modules. For further review, the full document of text set skills and standards is included in Appendix D.

2. Select which learning cycle you will use

An instructional goal that I had was to continue my regular reading workshop instruction, while implementing the digital HyperDoc text set unit of study. For this to occur, I continued with the reading workshop cycle of an anticipatory set/lesson introduction, direct instruction, guided practice, independent practice, closure, and assessment. I created a lesson plan template, which I used to plan each lesson in the text set unit. The lesson plan template is included in Appendix B. However, before I was able to start crafting my lesson plans for this unit, I needed to decide on a thematic topic.

I wanted the multimodal text set unit that I designed to be highly engaging and guide students through an inquiry process, so I knew that it would be rooted in a content area. I came across an informational text article in one of our class magazines that provided the initial inquiry-based spark for the text set unit. It was an article about Amelia Earhart called “*Vanished*”. This article led to the development of an essential question for the overall unit: *Why are people drawn to stories of the unknown?* Once I had the essential question, I was getting excited. “Even when we’re delivering the ‘same ol’ district-mandated curriculum,’ creating HyperDocs makes us feel alive again” (Highfill et al., 2016, p. 24). I knew I was planning reading lessons and getting ready to teach grade-level standards, but it felt like I was on the edge of creating something new and exciting.

3. Select your packaging

The next big decision that I had to make was how I would package or present the multimodal text set unit of study that I was designing. I wanted to create a HyperDoc that students would find motivating and easy to use. “HyperDocs move away from large blocks of text on a standard piece of white paper to an online document that is succinct, easy to comprehend independently, and engaging” (Highfill et al., 2016, p. 26). Little did I know, my technological and pedagogical knowledge base regarding the perfect platform to use had already been a few years in the making.

In March 2020, the Covid-19 pandemic forced school systems around the world to switch to online learning systems within a matter of days. At the time, many teachers—including myself—were unfamiliar with the new distance learning systems that we were using, but rose to the occasion and began moving traditional literacy lessons to online learning platforms. During the next school year, my district operated on a hybrid schedule for half of the school year with live streaming for students that were learning completely through distance/online learning. As my comfort level and confidence grew with lesson planning for live streaming and distance learning, so did my skill set. In order to manage three different cohorts of in-person and virtual learning cohorts, I learned how to create a Google Site. My daily lessons, instructional videos, learning activities, and assessments were posted for each cohort on their designated page on my Google Site. I was able to hyperlink all resources directly from the Google Site to each Google Classroom. Students learned the routine of accessing the website each day for instruction, whether they were learning in-person, live streaming, or asynchronously at home. The system worked well, and I learned how to manage teaching middle school students learning in-person and online simultaneously.

For this practitioner inquiry project focused on curricular design, when I had to make the decision of how to package the text set unit of study, I knew I would once again turn to creating a Google Site. The features of a Google Site, including the ability to embed hyperlinks, Google Forms, images, and videos, etc., made it the most effective selection for the multimodal text set unit of study.

4. Build the workflow

Another factor that contributed to my decision to use a Google Site for the construction of the multimodal text set unit of study was the ease of workflow connecting to Google Classroom. My district uses Google Classroom as our main learning management system for technology related learning tasks. Students are extremely familiar with all tasks and features involving Google Classroom, and this is how daily work gets submitted for each class. However, I knew that if I was to post all of the curated resources, activities, and assessments related to the multimodal text set to Google Classroom, it could become overwhelming for students and contribute to organizational issues about what tasks actually have to be completed. One, cohesive platform was needed that could be tailored to the learning unit and customized specifically to the instructional goals. Google Sites pairs effortlessly with Google Classroom, so it was easy to make the connection with all web tools and to establish the foundation for the text set unit of study.

5. Design your HyperDoc

Once I had the platform selected, the objectives and standards identified, and the essential question planned, it was time to put my designer hat on. This is where I found the fun, but

equally difficult work, really started. I began with designing the overall thematic topic and subtopics for each of the four modules. Building off of the established essential question, I continued to plan inquiry-based subtopics, which I then organized into the four text set modules. I decided to create a set of paired texts with a similar topic for each module. The overarching thematic topic for the text set unit of study became, “*Mysteries of the World*”, and I began to curate informational texts, videos, photographs, slideshows, short stories, blog posts, digital books, websites, magazines, etc. that would combine as multimodal resources in a text set unit of study. From there, I organized all of the curated resources into four modules. Table 5 represents the paired topics of each module, as well as the curated multimodal resources.

Multimodal Text Set Guided Inquiry Unit Plan <i>“Mysteries of the World”</i>				
<i>Essential Question: Why are people drawn to stories of the unknown?</i>				
	Module #1	Module #2	Module #3	Module #4
Content Topics	<ul style="list-style-type: none"> • Bigfoot • The Loch Ness Monster 	<ul style="list-style-type: none"> • The ‘Lost’ City of Atlantis • The Bermuda Triangle 	<ul style="list-style-type: none"> • Extraterrestrial Life (Paired Informational and Fiction Texts) 	<ul style="list-style-type: none"> • The Mary Celeste Ship • Amelia Earhart
Paired Texts	<ul style="list-style-type: none"> • Digital Background Builder and Vocabulary Slideshows • Print and Digital Informational Text Articles with Audio Support • E-Books • Video • Virtual Bulletin Board 	<ul style="list-style-type: none"> • Print and Digital Informational Text Articles with Audio Support • E-Books • Videos • Photograph • Maps • Virtual Bulletin Board 	<ul style="list-style-type: none"> • Digital Vocabulary Slideshow • Video • Digital Informational Text Article with Audio Support • Digital Short Story with Audio Support • NASA Website-Photo Slideshow 	<ul style="list-style-type: none"> • Videos • Digital Informational Text Articles with Audio Support • Digital Vocabulary Slideshow • E-Books • National Archives Page • Library of Congress Blog Post • Digital Learning Stations

Table 5: Multimodal Text Set Guided Inquiry Unit Plan

Once I had the unit plan complete, I set to work on designing the Google Site. I wanted the aesthetics to be engaging, and I also wanted the website to be student-friendly and easy to use. Using a digital HyperDoc can achieve this goal as it “...can instantly engage and entice learners through its use of colors, layers, images, videos, and text arrangement” (Highfill et al., 2016, p. 37). In order to make the website visually appealing, I used Canva to create the website banners and buttons. Additionally, I wanted to keep the website fairly simple, so it had five main pages including a homepage and a web page for each of the modules within the text set unit of study. Figure 2 below represents the homepage of the Google Site.



Figure 2: Google Site Homepage- “*Mysteries of the World*” Text Set

Each of the module web pages was organized to reflect my instructional plan. When lesson planning the first module, I thought back to the work of Lupo et al. (2019) and their Quad Text Set Framework. In this framework, a “hook” text is used to engage readers, an easier text is then introduced to build background knowledge, a visual/multimodal text is implemented to continue with concept development, and finally a challenging, complex text is then introduced after sufficient scaffolding with the other three texts first to build content knowledge. Seeing

value in this approach, I wanted to apply this same type of framework to my own multimodal text set unit of study, so I decided that each module that I designed would also have four “tasks”. Each task would scaffold students through a guided process of reading and interacting with the paired texts through various resources in order to arrive at the fourth task, which would ultimately contain the more complex text. By that point, my hope would be that my instructional planning within the module would have provided enough background knowledge for reading success. Figure 3 below represents an example of a module web page and a sample task with hyperlinked resources.

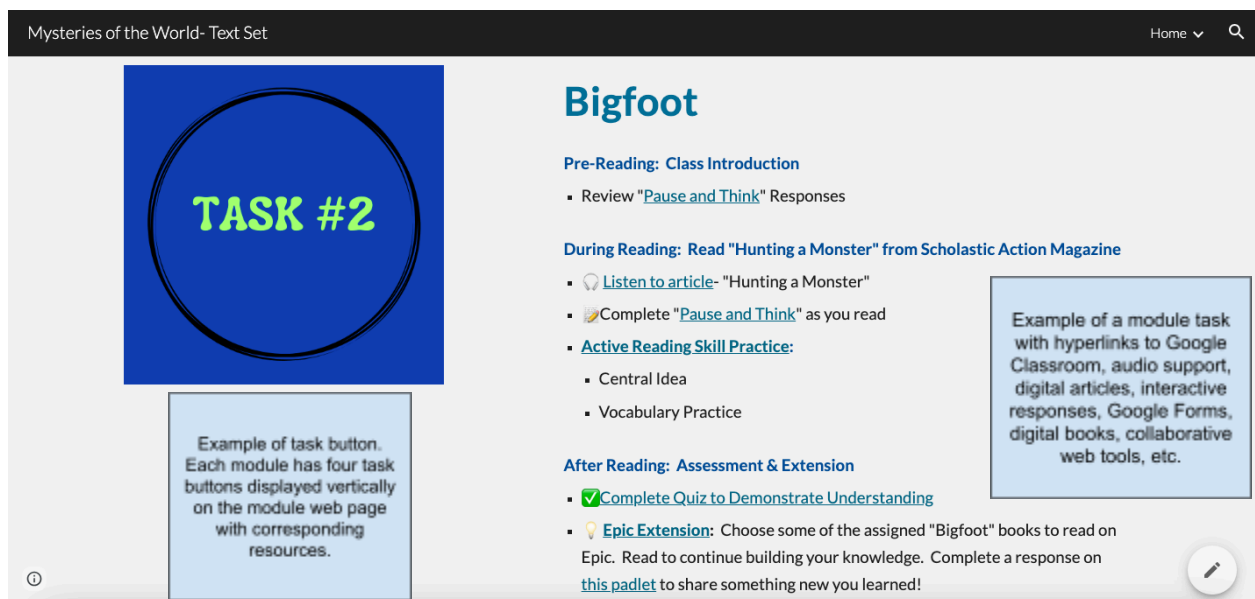


Figure 3: Google Site Module Web Page and Task Example

As I finished designing the Google Site and preparing the multimodal text set unit of study, I was eager to continue documenting my lesson planning process through video recorded think alouds that I would then be able to use for reflection. Combining these video think alouds with my lesson plans, double-entry notes, video annotations, and self-reflection rubrics would be an opportunity to think deeply about my own teaching practice. I began the work of practitioner inquiry to examine my instruction as a reading/literacy specialist with a goal of looking closely

at how I use my knowledge systems of technology, pedagogy, and content knowledge to plan instruction and guide inquiry in the literacy classroom. I was excited to specifically analyze this knowledge in relation to planning literacy instruction with a multimodal text set as I set forth on a reflective journey, and I looked forward to the insights that this study would hopefully yield.

Chapter 5: Analysis of Research-Based Response

Data Collection

The text set unit of study for the practitioner inquiry emphasizing curricular design was created to consist of four modules. Each module was designed to include multimodal resources and paired texts connected within a larger, unified text set topic. The table below represents the timeline for the text set unit of study implementation in my 7th grade English Language Arts classroom during the spring semester of 2023.

Implementation Timeline	
Module #1	<i>March 9-20, 2023</i>
Module #2	<i>March 21-31, 2023</i>
Module #3	<i>April 3-19, 2023</i> <i>*Note: Spring Break April 7-16, 2023*</i>
Module #4	<i>April 20-27, 2023</i>

Table 6: Text Set Implementation Timeline

Data was collected before, during, and after the implementation of the text set unit of study by the practitioner. Seeing as the study was a practitioner inquiry focused on lesson planning and reflection by myself as the reading/literacy specialist as the only participant, no student data was collected. Additionally, no data was collected during instructional time. The information below represents detailed results and artifacts of the data collection process.

Lesson Plan Documents- I developed formal lesson plans for each module within the text set unit of study. Each plan included the lesson objectives, New Jersey Student Learning Standards, Common Core State Standards, lesson materials, technology, target skills/strategies, and a detailed description of each task in the module. The lesson plan procedures for each task

included an anticipatory set/introduction, direct instruction guided practice, independent practice, closure, and assessment. In total, four lesson plans were developed to correspond to the four modules of the text set unit of study. The formal lesson plan template is included in Appendix B.

Video Recordings of Lesson Planning- For video recordings, I used the completed lesson plans to develop four Google Slides presentations. Each module presentation contained an outline of the full instructional plan, including all four tasks. The purpose of the Google Slides was to create a tool that I could use during each video recording and “think aloud” of my lesson planning procedures. I wanted to have a visual displayed on the screen that would help me to demonstrate my thinking as I talked through my lesson planning procedures while filming the video recordings. Figure 4 below represents an example of the Module #1 lesson planning Google Slides for video recording.

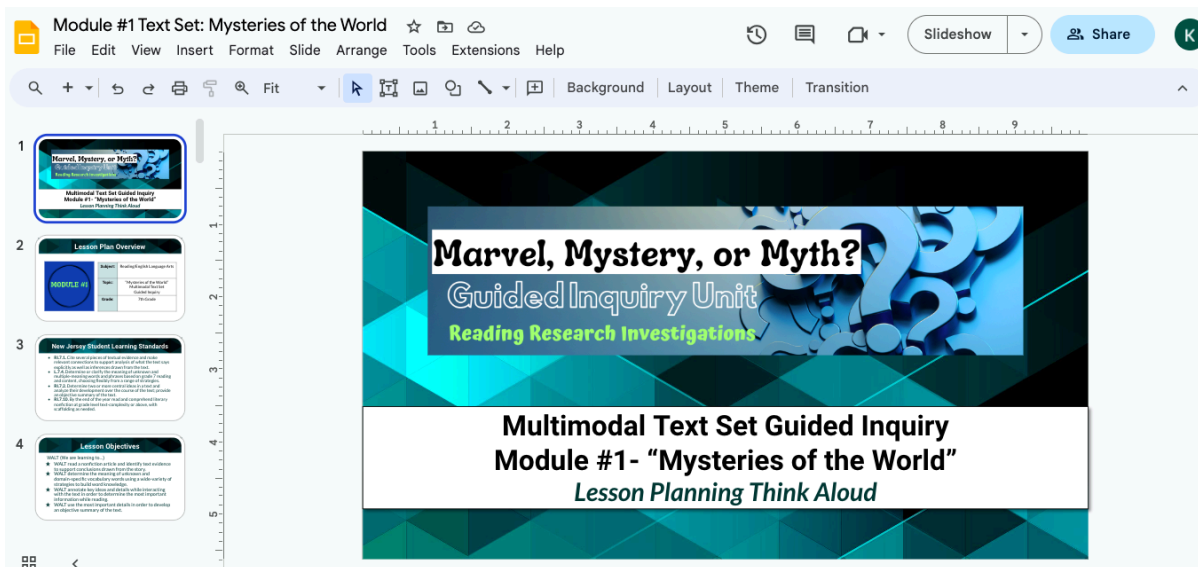


Figure 4: Example of Lesson Planning Google Slides for Video Recording

Lesson planning “think aloud” videos were recorded using the program Screencastify, which is a screen recorder for Google Chrome. This is a digital tool that I became familiar with during the Covid-19 pandemic when I was teaching students that were learning virtually at

home. At the time, my school district paid for a membership because we had to record and post instructional videos for students that were participating through distance learning. However, I liked the tool so much that I continue to pay for a monthly subscription. The lesson plans and Google Slides presentations guided the “think alouds”, and I was able to document my lesson planning procedures using Screencastify and video recordings. Each video recording lasted approximately 20-25 minutes. Figure 5 below showcases a screenshot of a video recording using Screencastify.

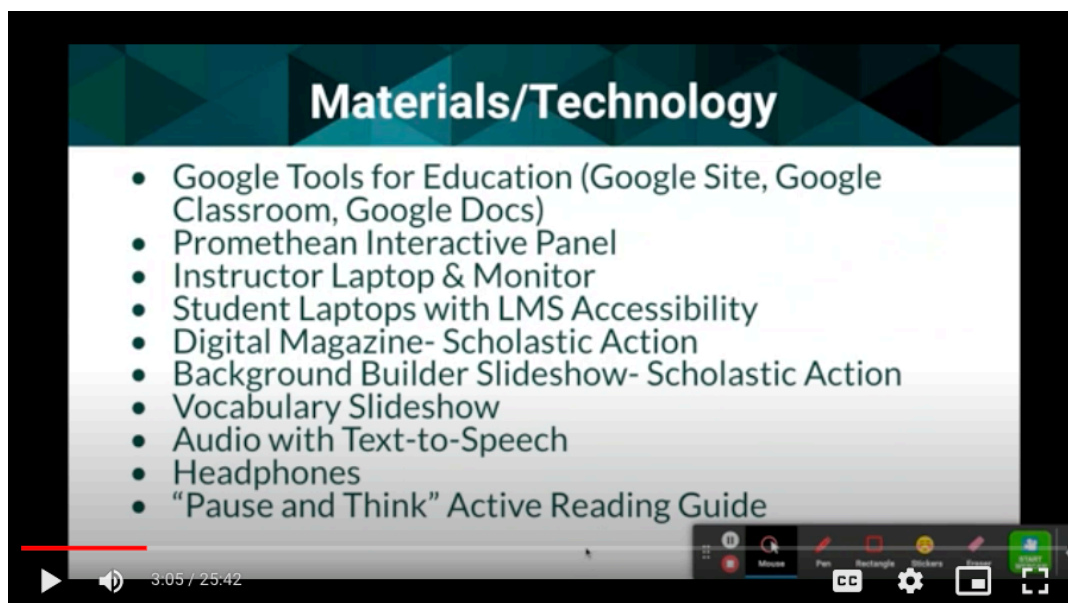


Figure 5: Screenshot of Screencastify Video Recording of Lesson Planning Procedures

After teaching each of the modules in the text set unit of study, the Screencastify videos were uploaded to a private YouTube channel. This was my first time creating and using a YouTube channel, so it took some practice at first with learning how to adjust the settings to a private channel.

Once the videos were uploaded to YouTube and adjusted with the proper settings, I was able to import them to a program called VideoAnt. Produced by the College of Education & Human Development at the University of Minnesota, VideoAnt is a web-based video annotation

tool available online for free. I imported four Screencastify videos and used VideoAnt to record video annotations with my personal reflections of my teaching and my application of technological, pedagogical, and content knowledge to my instruction. I completed this process for all four modules and videos. In total, approximately 40-45 annotations were made per module video. Each list of video annotations was then able to be exported as a PDF document to be prepared for data analysis.

Self-Reflection Rubric- After instruction, I completed a “Reading Specialist Self-Reflection Rubric” Google Document for each module in the text set unit of study. This self-reflection rubric was grounded in the TPACK framework and prompted for evaluation of my instruction in each module by specifically reflecting on my use of technological, pedagogical, and content knowledge. Additionally, the rubric contained an open-ended response portion to prompt for further analysis; however, this was guided by *Standard 5* of the International Literacy Association’s *Standards for Literacy Professionals*. I added the layer of *Standard 5* to the open-ended prompt to look at my instruction in each module through the focus of differentiated instruction, print and digital materials, digital technologies, and a literacy-rich learning environment. A template of this document is available in Appendix C.

Review of Artifacts- Throughout the practitioner inquiry exploring the curricular design process, other artifacts and documents were collected. These additional artifacts for the study included: double-entry notes/reflections, lesson resources, Google Site, Google Classroom, and curriculum units. Print and digital documents and artifacts were reviewed and collected in this study. All digital artifacts were securely stored on my password protected Google Drive and all print-based artifacts were collected and stored in a dedicated project binder.

Data Analysis Process

For this practitioner inquiry investigating a reading/literacy specialist's curricular design process, a six phase reflexive thematic analysis was applied to explore patterns in shared meaning across all datasets (Braun & Clarke, 2022). I was familiar with the earlier work of Braun & Clarke (2006) regarding thematic analysis. However, I came to this study with an updated curiosity of their reflexive thematic analysis. According to Braun & Clarke (2002), "...reflexive TA offers guidelines rather than rules for the process of analysis" (p. 34). I liked this concept and the fluid, non-linear structure. The word "phases" is intentionally used instead of "steps" to reflect the recursive nature of the analytic process. "You're moving along a trajectory from dataset to developed analysis, but that often involves going sideways, backwards, and sometimes even around in circles, as you move from the start to the end of the process" (Braun & Clarke, 2022, p. 36). The authors note that you are on adventure in your process through a reflexive thematic analysis, and I certainly felt that my journey was an adventure. As a practitioner inquiry study where I served as both the participant and the researcher, I was extremely close to the data. It was an extra challenge to be reflective and critical.

The six phases in Braun & Clarke's (2022) reflexive thematic analysis include: Phase 1: *Familiarizing yourself with the dataset*, Phase 2: *Coding*, Phase 3: *Generating initial themes*, Phase 4: *Developing and reviewing themes*, Phase 5: *Refining, defining and naming themes*, and Phase 6: *Writing up*. In the following sections, I will tell the story of how I proceeded along the journey of data analysis to arrive at three major themes.

Reflexive Thematic Analysis

Data Familiarisation

For this study, I decided to use computer assisted qualitative data analysis software (CAQDAS), specifically a program called Dedoose. I selected this program because I was familiar with it from a previous course project and felt comfortable with the software as a novice qualitative researcher. As I began to embark on the data analysis process, I imported all of the data collected into the software program that I had downloaded onto my Macbook. Some of the files were large, so it did require some extra time for uploading. Once I had all files imported, I moved into data familiarization.

In this first phase of a reflexive thematic analysis, a researcher should strive to develop deep knowledge of the dataset. In addition, a researcher should also begin to critically question ideas within the dataset. “This means developing a way of reading the data that involves both closeness and familiarity (immersion) and distance (critical engagement)” (Braun & Clarke, 2022, p. 43). The information recorded at this step is not for an audience and can reflect the researcher’s “stream of consciousness”.

I moved through the data familiarization phase of reflexive TA by using the feature of the memo tool on Dedoose. Four memos were created and labeled with “Module #1”, “Module #2”, “Module #3”, and “Module #4”. I read through each piece of data imported and began to make notes. Each note was recorded on the digital memo from the module that it corresponded to. Information that I noted on the memos reflected ideas that I felt related to the research questions, connections that I could make, or areas to question.

Coding Process

After reading through the dataset once and recording initial memos, I moved into the coding phase. “In reflexive TA, coding is a *process*—it’s how you work with data in this phase—and codes and code labels are *outputs* of this process” (Braun & Clarke, 2022, p. 53). Keeping in mind that it would be a tedious process, I started coding anything that seemed significant and created codes as I went along. I kept my research questions in mind and naturally codes began to build. I developed both semantic and latent codes. There were times when I felt a semantic code was needed to capture surface-level topics, but I also tried to include a few latent codes to look for underlying meaning. “Semantic and latent codes are not a dichotomy, but instead represent ends of a continuum of ways of looking at data” (Braun & Clarke, 2022, p. 58). Both types of codes can have value, especially during initial coding.

My process involved three rounds of reading and coding each individual piece of the dataset that I imported into Dedoose. The multiple passes allowed for the coding process to evolve. One helpful piece of advice that I had received is to not always start each round of coding with the same piece of data in order to avoid over analysis on one piece of data versus another. I found this to be true because I noticed my coding improved as I progressed. Since I started coding with all data related to Module #1, I needed to make sure I returned to Module #1 with the same amount of analytic focus with coding that Module #4 received when I returned for another round of coding. Braun & Clarke (2022) note that coding “is an *organic* and *evolving* process, an open process, in reflexive TA” (p. 54). I found that with each round of coding, I noticed something new, and the structure of reflexive TA allowed for each idea to be captured through the coding process.

Generating Initial Themes

After coding, I then moved to the phase of a reflexive thematic analysis where I began to generate initial themes. In this phase, I began to cluster together similar codes and looked to see if I needed to promote an important code to a principal theme. “This exploration considers each cluster: on its own terms; in relation to the research question; and as part of the wider analysis” (Braun & Clarke, 2022, p. 79). From my three rounds of coding of the dataset, I developed 29 codes, which I began to sort in search of shared meaning. The construction of a thematic table was helpful with this process.

At this stage, I decided to promote “Curriculum Design” to a principal theme because I noticed that seven other codes could be clustered together with it. Next, I moved “Integrating Digital Technologies” to a theme and combined eight other codes into this category. Six codes were specifically focused on reflection, so I clustered these codes together and assigned a theme of “Reflection for Growth”. I then promoted “Scaffolding Instruction to Support Readers” to a theme and listed “Gradual Release of Responsibility” underneath. Even though this category was only two codes, I still felt it was relevant to keep active. I was left with three codes that I did not feel were related to any other clusters, nor did I feel strongly that they were related to my research questions, so I listed them at the bottom of the thematic table in a section called “Miscellaneous Codes”. Table 7 below represents the initial thematic map that was developed after coding and analyzing for shared meaning.

Initial Thematic Map			
Curriculum Design	Integrating Digital Technologies	Reflection for Growth	Scaffolding Instruction to Support Readers
Aligning instruction to state standards	Digital e-books enhancing a text set	Reflecting on assessment	Gradual release of responsibility
Building background	Digital e-books provide	Reflecting on content	

knowledge to support reading	instant access	knowledge	
Curating resources for paired text instruction	Digital e-books to practice with text features	Reflecting on e-book choices	
Instructional objectives	Enhancing and building background knowledge with videos	Reflecting on pedagogy	
Integrating complex texts	Improving assessment by using technology	Reflecting on standards	
Using a text set to differentiate reading material	Print and digital resources	Reflecting on technology	
Using a text set to teach multiple standards	Technology enhancing my teaching		
	Using knowledge of technology to design instruction		
Miscellaneous Codes: <ul style="list-style-type: none"> ● Barrier of technology use ● Creating community in the classroom ● Determining prior knowledge 			

Table 7: Initial Thematic Map

Developing and Revising Themes

After I had developed an initial thematic map, I moved into phase four of a reflexive thematic analysis, which is developing and revising themes. “The purpose here is to review the viability of the initial clusterings, and explore whether there is any scope for *better* pattern development” (Braun & Clarke, 2022, p. 97). At this point, I knew that my initial map would need revising. I took a few days away from looking at it to clarify my thinking. I knew it was important for me in this section to be prepared to let codes and themes go if they were not serving my purpose or research questions appropriately.

When I returned to look at my initial map, I was looking for areas that were in need of “—refining boundaries, clarifying central organizing concepts, or slightly expanding or

narrowing a theme” (Braun & Clarke, 2022, p. 99). First, I decided to combine “Curriculum Design” and “Scaffolding Instruction to Support Readers”. I renamed this theme “Curriculum Design to Scaffold Instruction”. I removed the codes “Instructional Objectives” and “Aligning Instruction to State Standards” from this section because I no longer felt that they fit this category. They were moved to the bottom of the thematic map. I made no changes to the second column on the thematic map, leaving “Integrating Digital Technologies” intact. However, I reflected on my research questions to make changes to the third column. Seeing as the research study involved a multimodal text set and many of the data extracts involved evidence relating to technology, I renamed the last theme to “Reflecting on Digital Technologies”. As a result, I removed the codes “Reflecting on Content Knowledge” and “Reflecting on Standards” in order to cluster codes related to reflection and technology in this section only. Table 8 below represents the revised thematic map that was developed after reflection and analysis.

Revised Thematic Map		
Curriculum Design to Scaffold Instruction	Integrating Digital Technologies	Reflecting on Digital Technologies
Building background knowledge to support reading	Digital e-books enhancing a text set	Reflecting on assessment
Curating resources for paired text instruction	Digital e-books provide instant access	Reflecting on e-book choices
Integrating complex texts	Digital e-books to practice with text features	Reflecting on pedagogy
Using a text set to differentiate reading material	Enhancing and building background knowledge with videos	Reflecting on technology
Using a text set to teach multiple standards	Improving assessment by using technology	
Gradual release of responsibility	Print and digital resources	
	Technology enhancing my teaching	
	Using knowledge of technology to design instruction	

Discarded Codes:

- Barrier of technology use
- Creating community in the classroom
- Determining prior knowledge
- Reflecting on content knowledge
- Reflecting on standards
- Instructional objectives
- Aligning instruction to state standards

Table 8: Revised Thematic Map

Refining, Defining and Naming Themes

After revising my initial thematic map, I moved into phase five of a reflexive thematic analysis. At this stage, I refined the names of each principal theme in order to match the key idea represented. In terms of the thematic names, I wanted to avoid “topic themes”. In a reflexive thematic analysis, themes should capture your analysis in relation to the topic. When looking at my revised thematic map, I noticed I had topic themes, so I revised my map once again to refine the names. Table 9 below represents the finalized thematic map with improved principal theme names.

Finalized Thematic Map		
Design Curriculum to Include Supports for Scaffolding and Differentiation	Consider the Potential of Digital Resources Within the Literacy Curriculum	Self-Reflection on the Design Process Reveals Areas for Growth with Digital Technologies
Building background knowledge to support reading	Digital e-books enhancing a text set	Reflecting on assessment
Curating resources for paired text instruction	Digital e-books provide instant access	Reflecting on e-book choices
Integrating complex texts	Digital e-books to practice with text features	Reflecting on pedagogy
Using a text set to differentiate reading material	Enhancing and building background knowledge with videos	Reflecting on technology
Using a text set to teach multiple standards	Improving assessment by using technology	
Gradual release of responsibility	Print and digital resources	

	Technology enhancing my teaching	
	Using knowledge of technology to design instruction	
Discarded Codes: <ul style="list-style-type: none"> ● Barrier of technology use ● Creating community in the classroom ● Determining prior knowledge ● Reflecting on content knowledge ● Reflecting on standards ● Instructional objectives ● Aligning instruction to state standards 		

Table 9: Finalized Thematic Map

Overview of Major Themes

Once I had settled on refined names for the principal themes, I began to define each theme in order to identify the central organizing concept found within each. Table 9 below provides an overview of the three major themes conceptualized from the coded dataset.

Theme	Description of Theme
<i>Design curriculum to include supports for scaffolding and differentiation</i>	This theme explores the core idea throughout the dataset that literacy teachers have the ability to combine systems of knowledge in order to design curriculum that is in alignment with the gradual release of responsibility. This can include planning curriculum to include a variety of texts that are presented in more than one format to support learning and provide differentiation.
<i>Consider the potential of digital resources within the literacy curriculum</i>	This theme expands the idea of 21st century teaching and learning by suggesting that digital resources offer potential as an essential component of literacy curriculum. Through the lens of a text set unit of study, this core idea shows the value of considering digital resources as a tool for successful reading instruction and assessment.
<i>Self-reflection on the design process reveals areas for growth with digital technologies</i>	This theme acknowledges that literacy teachers can use self-reflection on the design process to critically analyze lesson planning and implementation of a text set unit of study to identify missteps with digital technologies. By

	specifically reflecting on knowledge systems using the TPACK framework, target areas to guide future technology instruction can be identified.
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Table 9: Overview of Major Themes

Major Themes

In this section, I will detail how each theme was developed through analyzing and connecting patterns of shared meaning in the dataset. “The final phase of doing reflexive TA, then, is about deep *refining* analytic work to shape the detail and flow of the analysis” (Braun & Clarke, 2022, p. 118). Using extracts from pieces of data throughout the text set unit of study, I will highlight how I used reflection and critical analysis to conceptualize three major themes identified below.

Theme #1: Design curriculum to include supports for scaffolding and differentiation

Sometimes I think of curriculum and lesson design as art. Just like an artist, and if given the freedom to do so, teachers have the ability to create something new and exciting from a blank canvas. As a teacher, I’ve always enjoyed the creative process involved in lesson planning. When you have the opportunity to design something that can motivate and engage learners in your classroom, it can be rewarding. However, instructional units can also be designed for other purposes as well. From analyzing the dataset in this study, I discovered evidence showcasing how curriculum design can also provide scaffolding and differentiation for instruction. In relation to the text set unit of study, I found evidence of this theme through the design of the text set modules, the inclusion of print and digital resources, and by the pedagogical approaches used to implement instruction.

First, the design of the four text set modules created a structure that enabled instruction to flow from an introduction to more complex texts. Within each module, the four tasks provided a consistent framework for the curriculum to be designed around paired texts that related to an overall unified topic. In the Module #2 TPACK Self-Reflection Rubric, I shared how the curricular design of the modules enhanced scaffolding of instructional objectives.

As I designed each task in a module, I started to notice a consistent pattern in my lesson design. I created four tasks per module for a set of paired texts. On Days 1 and 3, I typically introduced a new text. The follow-up days in the module (Days 2 and 4) of instruction were extension activities to continue implementing the reading skill/strategy from the mini-lesson. This scaffolding process helped to introduce the text and reinforce the instructional objective.

Evidence of this theme was present throughout the dataset. I continued to design each module with four tasks, where Tasks 1 & 2 were paired together and Tasks 3 & 4 were paired together. The idea to design the text set unit of study in this manner came from the concept of the “Quad Text Set” framework by Lupo et al. (2019). In this framework, texts are layered to build knowledge as instruction is scaffolded towards the most complex text. With this idea in mind, I designed each module to introduce the most complex text, or target text, during Tasks #3 and #4. I found evidence of this being a successful process through the use of scaffolding when I reviewed my completed Module #4 TPACK Self-Reflection Rubric.

For Module #4, I kept with the design of four learning tasks per module. Each module contained paired texts with multimodal resources aligned to instruction to help scaffold and support the learning process. I think this framework worked well throughout the text set unit to support the inquiry process.

My reflections at two different points at time throughout the study reveal that I did not have to deviate from my original design of four modules with four tasks per module. Additionally, the data extract supports the theme that this specific choice in terms of curricular design provided the necessary scaffolding for successful learning.

Second, an analysis of the dataset reveals that the inclusion of both print and digital resources within the curriculum provided differentiation. Many of the resources that I curated to include within the text set unit of study were either free online or from online websites that my school district has a subscription to. One benefit is that many of the online articles could also be printed as PDF documents. This would allow students to have a print-based copy of the reading material. Additionally, many of the Scholastic articles that we read were part of the monthly print-based Scholastic magazines. A review of the Module #4 Video Annotations from the dataset shared my viewpoint regarding print and digital resources.

I was happy that I had access to the print copies of the magazine for this article, and I was also able to provide access to the digital copy. I think it is the best case scenario whenever a teacher is able to provide access to both print and digital text to differentiate instruction and accommodate all reading preferences.

In my experience, adolescents have different preferences when it comes to digital versus traditional print versions. One may think that students growing up in a digital society would prefer screen reading; however, I have many students that typically prefer reading print-based materials. I think it is important to expose students to both types of modes, which is another benefit of using a multimodal text set for instruction.

Another piece of evidence in the dataset supporting the theme is related to using texts at various reading levels. When considering how to differentiate instruction, one of the more

traditional methods in terms of reading is to provide texts at multiple reading levels. A text set can serve as an instructional framework to support this practice. I reflected on how I used leveled texts in my completed Module #1 TPACK Self-Reflection Rubric to differentiate instruction.

For example, in terms of content, the informational articles were provided at varying reading levels within the text set.

Next, I found evidence in the dataset regarding how the curriculum design of instructional delivery supported the scaffolding of texts included in the text set. For example, many of the lesson plans included the approach of Interactive Read Aloud. During this shared reading experience, I was able to model the key reading skill identified in the lesson objective. A review of my Module #1 Double-Entry notes found evidence in support of this theme.

The Interactive Read Aloud can support students in a classroom at different reading levels. Since many of the texts that I planned on using in this text set would be considered complex texts, I knew this strategy would help to scaffold the reading process for students. I also know the strategy of Interactive Read Aloud to be helpful with modeling the use of different reading strategies through the gradual release of responsibility.

In this case, Module #1 served as the introduction to the text set unit of study. It was an important time in my instruction for setting up a strong foundation for the text set unit. The Interactive Read Aloud helped me to gradually move the instructional process through the “*I Do, We Do, You Do*” structure. This scaffolded process was additionally reflected in each module’s lesson plan template in order to assist with curricular design.

Additionally, another piece of evidence found in the dataset to support the theme refers to the selection of texts with accessibility features to differentiate the reading process. For example, in Module #2, I implemented a lesson from the online reading website called CommonLit. The

following data extract reveals evidence from my completed Module #2 TPACK Self-Reflection Rubric to support the theme.

The reading passage that I selected to use included features that allowed readers to increase the font size to their reading preference, as well as included digital annotation tools such as highlighting and the ability to create notes in the margin. In addition, throughout Module #2 of the text set, resources were presented in both auditory and visual modes. Several of the reading passages in the module included text-to-speech for independent reading and headphones were provided.

Several features are noted here to showcase differentiation. First, readers have the ability to digitally increase the font size of the passage. Second, the CommonLit passage included reader-text interaction tools such as a web-based highlighter and digital annotations. In addition, the articles are provided with the text-to-speech feature for any students to listen to the article read aloud, if needed. Designing a text set to include articles with differentiated features like CommonLit can accommodate students with reading difficulties and disabilities.

Lastly, another piece of evidence present in the dataset regarding this theme was related to how curriculum can provide differentiation with assessment. I found an example of this when reviewing my completed Module #1 TPACK Self-Reflection Rubric.

I provided a Google Form assessment at differentiated levels for the first informational article in the text set. I was able to assign the two different versions of the quiz to individual students on Google Classroom depending on students' academic level.

Literacy teachers can and should use their knowledge of technology to think creatively when designing curriculum to include new types of assessments in order to meet the needs of all learners. Creating tiered or differentiated assessments in the classroom will help to provide data

specific to skills and strategies that are areas of need. In Module #1, I also found success with using Google Classroom to assign differentiated assessments, which can be noted in the curricular design.

Theme #2: Consider the potential of digital resources within the literacy curriculum

As students progress through the grade levels and move into the middle school years, content area reading instruction becomes increasingly more complex. Informational texts related to science and social studies topics can be difficult to comprehend if students do not have sufficient background information. However, pairing a digital resource with an informational text can help to supplement and build the necessary background knowledge for grade-level comprehension of complex texts. In review of this study's dataset, evidence was conceptualized to support the notion of considering the potential of digital resources within the curricular design of literacy instruction. In addition, evidence was noted to also consider the potential of digital resources for assessment, as digital resources are common in most classrooms for daily practice of reading skills and strategies.

In order to launch the text set unit involved in this study, a dedicated space online where all text set materials could be hyperlinked needed to be created. As this was a digital, multimodal text set, success largely depended on students having access to reading materials online. The completed Module #1 TPACK Self-Reflection Rubric detailed my decision-making with this digital resource.

Since this module represented the beginning of my text set design, I knew that I would need a centralized location for all of the resources that I would be using in the text set. I decided to use my prior knowledge and create a Google Site as the "home" for the

multimodal text set. All resources and hyperlinks moving forward in the text set would be linked to the Google Site.

The Google Site enhanced my text set instruction because it became a consistent part of my daily lesson plan delivery. I did not have to pivot from this platform at all throughout the unit and continued to hyperlink all resources from each individual module page. A review of my Module #3 Video Annotations represents my continued reflection of how the Google Site contributed positively to instruction.

The consistent use of the Google Site was conducive to the success of the text set delivery. All materials and digital resources were hyperlinked from the Google Site, which contributed to the flow of each lesson, a consistent routine, and access to materials.

It might seem that an instructional platform or website would not have as much as an influence on reading instruction, but in today's 21st century classroom, it needs to be part of an educator's daily decision-making. Classrooms are becoming increasingly digital and in many classrooms, especially middle school, students are consistently using devices. Therefore, digital resources—such as platforms for reading access—need to be considered.

Next, another example of how digital resources can impact reading instruction and assessment is with the use of videos. Building a text set with informational text and videos to teach about a topic can help to support students with content area learning. In this study, I designed each of the four modules to incorporate a few videos per module to increase engagement and build background knowledge. As detailed in my Module #1 Double-Entry Notes, I shared how the concept of using a video to engage readers and build background knowledge is reflected in the “Quad Text Set” concept by Lupo et al. (2019).

At the start of the second half of Module #1, I used a video as the “hook” and introduction to the paired text topic. In keeping with the philosophy of the “quad text set framework”, a video is suggested as one of the texts to use as a way to engage students in the topic and provide a scaffold to background knowledge.

I also used videos throughout the text set unit of study to enhance background knowledge about topics. Videos can be helpful for literacy teachers if they do not feel that they have expert content knowledge in advanced science and social studies topics. For example, if students are going to be reading a passage about bats and “echolocation”, a short YouTube video could help to supplement content area instruction. In Module #2, I used a digital resource to build background knowledge before students read the complex text from Scholastic. This was reflected in my notes on the Module #2 TPACK Self-Reflection Rubric.

Before introducing the paired text from Scholastic, I also showed a YouTube video about the Bermuda Triangle to continue enhancing background knowledge. I think the combination of the print and digital resources was helpful to the construction of knowledge needed in order to read and comprehend the complex texts about the Bermuda Triangle.

The dataset also presents evidence of e-books being used as a digital resource to support the design of reading instruction. In a few of the text set unit of study modules, I selected informational e-books from the web-based reading platform. Direct links to the e-books were hyperlinked to the text set Google Site. A review of my completed Module #1 Video Annotations provided evidence supporting the theme.

Using technology to arrange the Epic books lesson extension was quick and easy, while also providing additional reading material on the content topic to continue building knowledge.

When designing the text set unit of study, I also included digital resources that would extend learning about each topic beyond the included paired texts in the module. The extension materials served as digital resources to help readers make text-to-text and text-to-world connections through multimedia resources. For example, at the end of Module #3, I wanted to include resources that would enhance students' learning about extraterrestrial life. This reflection was noted in my completed Module #3 TPACK Self-Reflection Rubric.

At the end of the module, I added an additional resource as an extension for content learning. It was a link to NASA's website, specifically a resource related to "20 Intriguing Exoplanets". This website is beneficial because it was a multimodal tool to support understanding of the literary text.

Another example of a digital extension to support the curricular design process was at the end of Module #4. The focus of the latter part of the module was to read a complex text about a mysterious disappearance from history. The extension was noted in my Module #4 TPACK Self-Reflection Rubric.

In this module, I also incorporated a few websites to extend learning about Amelia Earhart including a National Archives website with digital records and a Library of Congress blog post with newspaper clippings. I think including additional technologies enhanced the text set and deepened reading comprehension of the informational text.

The design process was also strengthened by the creation of digital resources to pair with instruction. For example, in Module #4, I created a digital Discussion Web activity as a Google

Form. I was then able to link the Discussion Web Google Form directly to the Google Site platform where I had been linking the text set resources. In my Module #4 Double-Entry Notes, I reflected on the value of this activity.

Creating the Discussion Web as a digital activity allowed for the lesson to flow smoothly and instant access to the lesson material. Moving forward, I plan to create more Discussion Web activities as digital resources.

Additionally, I completed a Guided Writing lesson in Module #3 to model responding to a prompt about reading. Even though it was a writing lesson, it was also a reading lesson because I was guiding instruction through the process of writing about comprehension of text. This process was made easier due to the “Guided Draft” that I had created and shared through Google Classroom. I reflected this idea in my completed Module #3 TPACK Self-Reflection Rubric.

Another digital resource that I created in this module to support the instruction of lesson objectives was a Google Doc Guided Draft. This document supported instruction during the guided writing portion of the module and with the objective of writing about reading.

Including digital resources within the curricular design requires more than just assigning digital activities to students. If instruction is to truly be enhanced, teachers need to have a certain level of technological knowledge and comfort with using digital tools to deliver instruction. Whenever there is an opportunity to learn something new related to technology, I try my best to pick up a new skill to develop my knowledge. Before implementation of this text set unit of study, I learned a new technological skill with the Promethean interactive panel in my classroom in regards to the digital ink tools. When reviewing the dataset, I found an example in the Module #4 Video Annotations of how the new skill that I had acquired supported the present theme.

I was able to record the answers directly on the PDF copy of the active reading guide that I had displayed. One of the most valuable technology tips that I learned this spring is how to write directly on a PDF document with the ink tools on the Promethean panel in a way so that when you move the PDF, the ink moves with the document.

This technological skill actually became a skill that I applied directly to my teaching of content. Throughout the text set instructional unit, I would have PDF copies of the print-based activities displayed on the Promethean Interactive Panel. As a result, I was able to enhance my reading instruction by using the digital ink tools to model reading skills on the exact PDF copy of the student activity during direct instruction and guided practice.

Perhaps my favorite way throughout the entire text set unit of study of how digital resources were able to influence reading instruction was with the creation of digital learning stations. On the Module #4 TPACK Self-Reflection Rubric, I reflected on the framework of the learning stations and implementation.

The structure of the digital learning stations included four different tasks, and I organized each task with a different Google Form that was accessed by a hyperlink on the text set Google Site. I felt that my lessons flowed smoothly because of the ease of the hyperlinks directly from the text set website to the needed resources for instruction.

I was inspired to create “digital learning stations” by an idea that I saw on Instagram from another teacher. I felt really proud about how the learning stations turned out, and I think it was a great way for readers to demonstrate their understanding of content and to reflect on their learning. Creating digital resources and building online “stations” in one, centralized location from the Google Site was an effective way to end the text set unit of study.

Theme #3: Self-reflection on the design process reveals areas for growth with digital technologies

As a teacher, I never want to stop learning and growing. I will continue to challenge myself with planning in-depth lessons aligned to state standards, integrating all the latest technologies, and changing up my teaching style to try new practices of instructional delivery. It takes a lot of time and effort to plan a lesson for even just one day, which means it can be hard to sit back and be critical of your own teaching practice. However, I am grateful that I have had field experiences throughout graduate school with dedicated mentors that have coached me with encouragement to understand that critical self-reflection can lead to positive outcomes.

When I started to look at the dataset from this study, I was originally engaging in self-reflection about multiple topics. Through refining my thematic map, I found shared meaning in a pattern that self-reflection on my design process was leading me to conceptualize that my main area of growth was grounded in my implementation of digital technologies.

First, I noted connections in the dataset regarding my implementation of digital technology related to e-books. There is evidence to suggest that although I used e-books, I did not use them effectively, for two different reasons: choice and complexity. My Module #2 Double-Entry Notes suggest a misstep for e-books related to choice.

I could have read through all of the e-books with a more critical eye to determine which were the most effective for the lesson and limited the amount provided. I gave too many choices that it became overwhelming and wasted some instructional time.

In this module, I assigned any e-book that I could find on the related topic and linked it to the text set. I was excited because I was finding several options of e-books, so I felt that my curated e-book library was growing. In reality, what actually happened here is that I provided too

many choices. This was a good lesson for me as a teacher because I learned that it is important to find a balance in a “just right” number of e-books within a text set. You want to have enough, but not too many choices in that it overwhelms students.

Another example I arrived at through self-reflection on my curricular design process was related to the reading level of the e-book that I selected. In this situation, I found that I had to make some instructional changes early in the module. I shared about this experience in the Module #2 TPACK Self-Reflection Rubric.

I found myself making some instructional adjustments early on in this module. After realizing that some of the digital e-books I selected to start the module with were too complex, I found an informational article on the same topic to use as a shared text.

Once I noticed that the e-books were too complex for the early point in the module, I switched to an informational text that aligned with the instructional objective. I then scaffolded the reading process and implemented an Interactive Read Aloud to guide students through reading the shared text. I learned to ensure that the e-books that I select for the text set fit with the instructional level of the readers or contain appropriate scaffolds to support the reading of complex texts.

Next, I also reflected on my use of the collaborative web-based platform called Padlet. In Modules #1 and #2, I incorporated Padlet into my lesson plans and curricular design. It operates much like an online bulletin board, and I linked the Padlet directly to the text set Google Site. As a security measure, I kept the feature turned on that I as the teacher would need to approve all posts before they post “live” to the Padlet. My reflection below is included on my notes from the Module #2 Video Annotations.

In reflection, I was not completely satisfied with how the Padlet developed, but since it was my first time using the technology tool, I know there is room for improvement.

I think anytime that we first use a digital technology tool, there is a learning curve involved. I knew the basics of how to use a Padlet, but I must admit that I did not feel extremely knowledgeable with all the features. Looking back, I used the web-based platform in a very basic manner, and I did not use any collaborative features. This is an opportunity to redesign and rethink my implementation for the future.

Perhaps my most difficult day of instruction of the text set unit of study came during Task #1 of Module #2. It was one of those lessons that you want to just throw away and start over the next day, which is pretty much what I ended up doing! The instructional objective was teaching about text structures, specifically the “description” text structure, including headings and subheadings. The lesson activity included digital note taking. I found evidence of this theme in my Module #2 TPACK Self-Reflection Rubric.

I also feel that this module could have been improved with how I used technology to impact instruction. For the first task involving the digital e-books about the Lost City of Atlantis, the activity I planned was note taking using Google Docs. However, I did not create a template for the note taking, and I think if I had used Google Docs to create a template for the activity, the lesson would have been more effective.

This example shows that an area for growth is to combine more of my pedagogical knowledge with my technological knowledge. Designing an active reading guide to accompany the lesson using Google Docs could have improved my instruction and provided a foundation for modeling the lesson objective using technology.

Next, through self-reflection on my curricular design process about how I introduced key vocabulary at the beginning of some of the lessons, I feel that I used the digital vocabulary slideshow in too much of a teacher-led manner. The vocabulary slideshows are curated resources that are pre-prepared to accompany the Scholastic articles in the text set. I found evidence of this reflection present in my completed Module #3 Video Annotations.

Looking back, I would like to incorporate a more collaborative activity with vocabulary. I realized that I can assign this slideshow as a link directly to Google Classroom, which I think is a great resource. For example, I could include a warm-up where students access the slideshow with a partner to complete an activity.

I displayed the vocabulary slideshow on the Promethean interactive panel and used the slideshow to show pictures and definitions of each word. While this was helpful information, and I was technically using digital technology, I was not using it in the most effective manner.

Finally, self-reflection reveals growth is needed with digital technologies in relation to video selection. I found evidence of this theme when reviewing my completed Module #3 Video Annotations from the dataset.

The video was interesting and contained valuable information, but was a bit too long. I think if I was to repeat this lesson, I would work on finding a shorter video clip to supplement as a resource.

This video clip reminded me to focus on choosing videos for instruction that I think will not only “hook” or engage students in the lesson topic, but will maintain their attention. It is important to find videos that are strong on content knowledge and brief in delivery of that knowledge. I think teachers can also find creative ways to launch videos in a text set. For example, a document could be posted with different videos hyperlinked like a menu. Students

could pick and choose which videos they want to watch as they complete certain tasks within the text set. This represents a creative way to incorporate videos into a text set, rather than an entire class watching one video at one time.

Summary

Through the use of reflexive thematic analysis, three core themes were conceptualized from my analysis and in review of the dataset. Working through the six phases of reflexive TA provided an opportunity to explore answers to my research questions and to gain new understandings of my practice as a reading/literacy specialist. I can use this information to guide my ongoing literacy instruction, make improvements to my integration of digital technologies, and to develop implications for future practice and research.

Chapter 6: Synthesis and Implications

Synthesis of Study

This practitioner inquiry study emphasizing the curricular design process was completed in order to thoroughly explore and answer the three research questions presented. In a review of the three major themes conceptualized from the dataset, a few takeaways are important to highlight when considering how this study could be helpful to today's literacy educator. The key areas of focus explored through practitioner inquiry involved the application of technological, pedagogical, content knowledge (TPACK), multimodal paired texts, and the International Literacy Association's *Standard 5*. My experience as both the researcher and the participant in this practitioner inquiry provided me with the ability to share a perspective with direct knowledge related to the topics of focus. My synthesis related to the key areas and their connection to the research questions is presented below.

TPACK

When I first learned about the TPACK framework by Mishra and Koehler (2006) a few years ago, I was drawn to the graphic representation of the three processes regarding technology, pedagogy, and content knowledge. Teaching is a complex art and the framework recognizes that instruction is composed of more than one knowledge process. At the center of effective instruction is the integration of multiple knowledge networks working together and in equal distribution. Therefore, when designing the study for myself as a literacy teacher, it was important to me that I viewed my reflective work through the lens of the TPACK framework.

Mishra and Koehler's (2006) concept of TPACK was present throughout the study in terms of the data collected. At the completion of each module, I completed a "Reading Specialist

Self-Reflection Rubric” that was designed to incorporate the three types of knowledge processes identified in the framework (*technological, pedagogical, and content*). Each part of the rubric prompted for reflection upon my curricular design process and instruction in relation to the three types of knowledge processes. Overall, the rubrics provided insight into how I applied my own knowledge of technology, pedagogy, and content into designing curriculum and guiding inquiry using a multimodal text set.

For example, the lowest score that I gave myself on the self-reflection rubric and notes for improvement were in Module #2. In this module, I identified that I experienced difficulty with how some of the technological tools that I used were impacting instruction. As a result, the content did not get delivered as successfully. Breaking down my self-reflection into separate areas of knowledge through the TPACK lens enabled me to pinpoint more specific areas that needed improvement rather than a general statement about the lesson needing revised. When individual areas are assessed, teachers can recognize that perhaps one area being remediated can actually make other areas of instruction work in harmony.

The highest score on my self-evaluation rubric and most positive reflections were listed on the Module #4 Self-Reflection Rubric. As my instruction with the text set unit of study grew, so did my confidence. By the end of the unit, I was more comfortable with implementing technological tools into the text set unit. This technological competence helped to foster the successful delivery of the instruction. From this, I was able to see a direct connection between how my technological knowledge enhanced how I presented my instruction, such as through the creation of digital learning stations.

Through my experience, and after using the TPACK framework for reflection, I was left with a feeling that literacy teachers hold a certain amount of power related to curriculum design.

Lesson planning is an elaborate process involving numerous choices that impact student learning. Systems of knowledge can be combined to design instructional experiences that can have a direct impact on supporting student understanding of content. It is exciting, but also challenging, to think about the type of power that teachers have in terms of designing instructional experiences. Therefore, we should always be striving to improve our practice as literacy educators. Based on my own research and participation in this study, I encourage literacy teachers to be reflective practitioners, and use a framework like TPACK, as a critical reflection tool.

Paired Texts

The heart of this study included the construction of a multimodal text set unit of study. In keeping with Lupo et al. (2019) and the Quad Text Set Framework, the multimodal text set in this study was designed to include four modules, each with four tasks per module. My goal was to include paired texts, both print and digital, all related to an essential question and a common theme/topic. It was important to extend beyond just two paired texts because if we limit students “...this may contribute to a ‘one-off’ approach to reading for which students are not aware of a larger theme/essential question if they are not asked to continually make connections across the multiple texts they read” (Boche & Werle, 2019, p. 53). The text set unit of study that I created supported the use of intertextual connections as students engaged with multimodal texts across the four modules. As a result, I can conclude that digital resources are an asset to supporting adolescent reading instruction.

One type of digital text that I found to be helpful in engaging readers is the use of a video or other type of multimedia presentation as a way to introduce a topic in the text set. For this type

of “hook” at the beginning of a paired text lesson, I used various resources such as introductory videos and digital slideshows with photographs. The multimodal slideshows were helpful with introducing key vocabulary terms that would appear within informational texts. Instead of moving directly into the nonfiction article, I was able to provide a “hook” as a way to engage students and introduce the paired text topic.

In addition, I also used digital texts to build background knowledge before reading challenging informational texts within the text set. “Because students come to the classroom with varying levels of background knowledge, having an instructional tool to help them acquire background knowledge for new concepts is important” (Ciecierski & Bintz, 2017, p. 479). Including digital videos within the multimodal text set enabled students to engage with learning about the informational topic before reading the nonfiction text. This provided an important scaffold as I carefully guided students through learning content and engaging in the text set unit of study.

As students are exposed to both print and digital texts, their ability to process and make connections across multimodal texts will continue to grow. “The resulting fluid movement between genres helps children become more sophisticated and diverse readers who are prepared to encounter a variety of genres of discourse in school, home, and eventually the working world” (Soalt, 2005, p. 681). In order to adequately prepare students to be successful with the type of reading that they will encounter in today’s society, paired text instruction needs to be emphasized in literacy classrooms.

ILA's Standard #5

Working as a reading specialist, I've had the opportunity to become very familiar with the International Literacy Association's *Standards for Literacy Professionals*. However, like most standards, they can become overwhelming and lose connection to actual implementation very quickly if not fully internalized. Therefore, a goal that I had for this study was to examine one of the standards more closely, as it specifically related to the implementation of a multimodal text set. I selected Standard 5 (*Learners and the Literacy Environment*) to use for investigation in my practitioner inquiry study focused on the literacy design process. Standard 5 has an overarching standard and four sub-standards that are directly connected with the labels 5.1, 5.2, 5.3 and 5.4.

When planning how I would integrate the sub-standards into the study, I read through all of Standard 5 several times. I noticed several keywords with the overall standard and sub-standards that were emphasized: *Differentiated Instruction*, *Print and Digital Materials*, *Digital Technologies*, and *Literacy-Rich Learning Environment*. Seeing an opportunity for reflection, I decided to include these four categories on the Reading Specialist Self-Reflection Rubric that I created for each module. At the bottom of the rubric, when writing my final reflection through the lens of the TPACK framework, I was prompted to reflect on each sub-standard category of Standard 5.

The results of these reflections provided helpful insight for my understanding of the ILA's Standard 5. The ILA and sub-standards of Standard 5 are clear in their direction for reading/literacy specialists to use digital technologies, but not as clear in suggesting how exactly to do that. My reflections indicate that I integrated technology, but identified areas for improvement. As Hutchison & Reinking (2011) identified, literacy educators should be striving for full "*Curricular Integration*" and not just "*Technological Integration*". Through practitioner

inquiry with an emphasis on curricular design and self-reflection in this study, I was able to analyze some of the missteps that I made regarding technological integration. This empowered me to identify areas for growth with digital technologies, which will set me on a path for professional development and will lead to improving my practice as a literacy teacher overall. If literacy educators can use self-reflection to critically examine specific areas of professional standards, potential areas for professional development can be identified, leading to improved practice.

Implications for Future Practice

As a result of this practitioner inquiry that specifically explored the design process of curriculum, I have been able to identify implications for future practice and research. Throughout my experience and reflections, I was able to learn a lot about myself as a reading/literacy specialist and about the process of planning and implementing a multimodal text set unit of study. It was important to me that I use my experience to make adjustments to my instruction moving forward and to share my new understanding with other educators. I wanted to use my experience to create a tool that other educators may find helpful if wanting to implement text set instruction in their own literacy classrooms.

P.O.W.E.R. Plan

Therefore, I decided to take components of my research study and create a condensed framework that would help with the professional development aspect of implementing a multimodal text set unit into instruction. My research study was designed around the concept of planning a text set, implementing instruction, and then reflecting afterwards through the lens of

technology, pedagogy, and content knowledge processes. An emphasis was placed on the “before” curricular design phase and the “after” reflection phase. In order to create a framework that would be user-friendly and conducive to time management for teachers, I made modifications to the structure of the implementation plan. For example, a “unit of study” for this framework would be considered one module, instead of four modules, as in my research study. After some revisions, I named the framework the “P.O.W.E.R. Plan”, representing my concept for a professional development framework focused on multimodal text set integration.

The P.O.W.E.R. Plan title contains an acronym for what I feel are the five major components for a reflective practitioner to work through when integrating a multimodal text set unit of study into instruction. Each word in the acronym P.O.W.E.R. stands for: *Plan*, *Organize*, *Workshop*, *Evaluate*, and *Reflect*. Table 10 below represents each component and related tasks in the framework.

P.O.W.E.R. Plan Multimodal Text Set Professional Development Framework	
Component	Tasks
<u>P</u>lan	<ul style="list-style-type: none"> ● Determine lesson objectives and target standards ● Identify a theme/topic for the text set and construct an essential question ● Curate multimodal texts from multiple sources to begin building the text set ● Develop a formal lesson plan to think through the instructional delivery of content
<u>O</u>rganize	<ul style="list-style-type: none"> ● Organize texts within a cohesive structure ● Decide upon a workflow for connecting texts ● Design digital components of the text set
<u>W</u>orkshop	<ul style="list-style-type: none"> ● Engage learners in the text set workshop of study (<i>days and/or weeks</i>) ● Facilitate a guided inquiry as learners work through all lessons and components of the

	multimodal text set to investigate the essential question
Evaluate	<ul style="list-style-type: none"> • After implementation of the text set workshop of study, self-evaluate implementation by thinking about technology, pedagogy, and content knowledge.
Reflect	<ul style="list-style-type: none"> • Complete a final self-reflection to expand upon the knowledge processes applied and any new understandings from practitioner experience with the text set workshop of study.

Table 10: Initial Thematic Map

Plan- The first step is to identify the lesson objectives and the learning goals. What are students expected to learn? Along with the objectives, determine the standards that align with the instructional targets. Next, develop a theme and/or topic for the text set unit of study. Due to the flexible nature of a text set, it can be integrated into any subject or content area. Once the theme or topic is selected, an essential question should be developed that will serve as the inquiry focus for the text set. The essential question will also be an anchor for all of the texts within the unit of study. After the objectives, standards, and the essential question have been decided upon, the next step is to begin curating multimodal texts. Teachers can and should use a variety of resources, such as print and digital resources to enhance the text set. It's important to gather resources during the initial planning stage in order to make sure that a cohesive plan of paired texts is established from the onset of the instructional unit. The final step in this part of the framework is to develop a formal lesson plan that will help the teacher to think through the instructional delivery of the content. The lesson plan template has been adjusted for the P.O.W.E.R. Plan framework to account for one "unit" of study. It also now includes a box to list

all of the texts within the text set and the essential question. The revised formal lesson plan template is included in Appendix E.

Organize- The next step in the P.O.W.E.R. Plan framework for professional development with implementing a multimodal text set is to organize the curated texts within a cohesive structure. This involves a process of deciding upon the order that each text will be presented. If aligning text set instruction to the Quad Text Set framework by Lupo et al. (2019), the idea is to scaffold support to help students build background knowledge as reading progresses towards the most complex or target text. The recommendation is to begin with a “hook” text to engage learners by using a text such as a video. From there, an accessible, or less complex, text can be provided to introduce more content and then an additional informational text to build content knowledge. Next, a teacher should decide upon the workflow for the connecting texts. Once the order of the texts has been arranged within the text set, the workflow references to how learners will engage with the texts. For example, teachers should consider if there are any digital documents, links, or resources that align with each text that will need to be organized and aligned to the text set instruction. In addition, this step in the framework also involves the teacher organizing and designing any digital components of the text set, such as a Google Site, that would serve as a platform for the unit of study.

Workshop- The third step in the framework is to begin the workshop of the multimodal text set unit of study. At this stage, the learners begin to engage in the text set workshop. It is important to note that this is the implementation phase of the text set unit and therefore will be the longest stage in the framework. Depending on the length of the unit plan, it may last days and/or weeks. The design of the lesson plan is to represent one unit of study; however, several connected lessons with multiple paired texts could potentially last a couple weeks depending on

the lesson objectives and goals of the unit. The role of the teacher is to facilitate a guided inquiry as learners work through all lessons and components of the multimodal text set to investigate the essential question.

Evaluate- The next step in the P.O.W.E.R. Plan framework occurs after implementation. The teacher will begin the process of completing the “P.O.W.E.R. Plan: Self-Assessment Rubric”. The first part of the rubric contains a self-evaluation rubric grounded in the T.P.A.C.K. framework by Mishra & Koehler (2006). I modified this part of the evaluation rubric in three ways from the rubric that I used in my research study. First, I simplified the categories to just represent the three types of knowledge processes (technological, pedagogical, and content), instead of the six categories that I included on the original rubric. My rationale for this is that within my research study, my completed rubrics and reflections were sometimes four pages long. For a teacher that is completing this type of evaluation and reflection for a professional development activity and not a research study, a simplified version of the rubric was needed. Second, I decreased the evaluation rating scale from four categories to three in order to provide a teacher with enhanced clarity of the benchmarks when completing the self-evaluation. Finally, I changed the column on the far right from “Reflection” to “Notes”. During the study, I found that the reflection component for each rubric category was sometimes redundant with the final reflection. The “notes” column will now allow for a teacher to jot quick notes about certain parts of the lesson to then reflect on later in the next stage of the framework. The self-evaluation component can be analyzed by viewing the top portion of the P.O.W.E.R. Plan Self-Assessment Rubric that is included in Appendix F.

Reflect- Finally, the last stage in the framework for professional development with a multimodal text set is a concluding self-reflection. The teacher will finish the process of the

“P.O.W.E.R. Plan: Self-Assessment Rubric” by moving on to the bottom portion to complete a self-reflection. This part of the rubric will prompt the teacher to reflect upon the combination of all three knowledge processes (TPACK) while integrating the multimodal text set unit of study. However, an additional prompt will be included to encourage reflection of the International Literacy Association’s *Standard 5: Learners and the Literacy Environment*. Keywords from the sub-standards of Standard 5 will be included in the reflection box to emphasize thoughtful reflection of differentiated instruction, print and digital materials, digital technologies, and a literacy-rich learning environment.

Recommendations for Practice

It is my hope that this framework could be used as a guide or tool to help aspiring literacy educators, as well as literacy teachers currently in practice. Using the P.O.W.E.R. Plan framework as a guide for professional development with multimodal text sets, I recommend three specific audiences for future practice: *Professional Learning Communities (PLCs)*, *Literacy Coaches*, and *Preservice Literacy Specialists*.

Professional Learning Communities:

Currently, many states and districts are turning to “in-house” professional development as a way to combat budget cuts. Over the last several years, professional learning communities or PLCs have become increasingly popular as a way for districts to build community among colleagues/department areas, while also providing professional development. PLCs have the ability to work together on common areas of interest to set goals, develop instructional plans, and debrief through supportive dialogue. Since the concept of text sets can be adapted to any content

or subject area, professional learning communities could work together on a shared project. In this manner, the P.O.W.E.R. Plan framework for professional development could be conducive to guiding PLC colleagues through the process of planning, implementing, and reflecting upon a multimodal text set unit of study, while working within a community of knowledgeable peers.

Literacy Coaches:

Another method of professional development that is becoming more popular in school districts is with the use of literacy coaches. Typically, many districts bring coaches in from consulting companies to work with teachers that are currently practicing in the classroom. In many cases, it can be uncomfortable having an outside observer visit a classroom and provide feedback on someone else's instruction without any relationship being established first. This type of professional development is often unsuccessful. In my opinion, we need to move away from the isolated observations and feedback model of literacy coaching.

For literacy coaching to be successful, it should be directed by the teacher. Coaches and teachers can meet for conversations where the teacher can identify goals for instruction. Through this conversation, a plan can be developed, and a literacy coach can guide the teacher through talking through the plan, developing resources, identifying potential barriers, etc. This type of conversation with a coach is much different than a mandated observation/feedback cycle.

If a teacher was to identify wanting to try instruction with planning and implementing a multimodal text set, a literacy coach could share the P.O.W.E.R. Plan framework as a resource. Working together, the coach and teacher could use the plan and the framework as a coaching conversation to work through all five of the steps. The coach and the teacher would meet before and after implementation of the lesson, and the teacher would independently implement the

lesson without the pressure of an observation. “It can facilitate and effect professional growth and enable literacy educators to work from a position of knowledge and strength” (Buelow et al., 2023, p. 306). The framework would provide the coach with a role (supporting the planning and organizing stages), as well as the priority role to the teacher to control his/her/their own learning with the entirety of the framework.

Preservice Literacy Specialists:

The final audience that I feel could benefit from using the P.O.W.E.R. Plan framework for professional development would be preservice literacy specialists. The International Literacy Association’s *Standards for the Preparation of Literacy Professionals* provides guidance for university preparation programs for developing literacy educators. Since this research study was initiated from Standard 5, which is also reflected in the self-assessment rubric, the P.O.W.E.R. Plan framework would support preservice specialists in their evolving knowledge of integrating digital technologies into literacy instruction. Through the implementation of a multimodal text set, preservice literacy specialists could show understanding of Standard 5, while also developing their knowledge of technology, pedagogy, and content.

Potential Limitations:

Implementation of the P.O.W.E.R. Plan may present a few roadblocks for the three audiences discussed. First, due to the amount of responsibilities current classroom teachers face and/or scheduling, professional learning communities (PLCs) may encounter time constraints. A recommendation would then be to implement the P.O.W.E.R. Plan as a PLC or grade-level/department team and collaboratively plan one text set unit of study together, instead of each PLC

member planning one individually. This method could also help to support any new teachers or early career teachers working within the PLC to effectively learn how to construct a text set unit of study if working together with colleagues. Second, literacy coaches may encounter a situation where they are working with school staff members that have limited print-based and digital access to materials for a text set. In this situation, a recommendation would be for the literacy coach to help by curating a list of free, open-access materials online to provide to school staff members to help with the construction of a text set unit of study. Finally, preservice literacy specialists may encounter already established programming and course requirements. A recommendation would be to see if the P.O.W.E.R. Plan could be blended with any coursework regarding the science of reading and building background knowledge to support students' comprehension. "Knowledge building" is an important aspect of students learning to read and comprehend text; therefore, the P.O.W.E.R. Plan could be helpful in this aspect of a preservice literacy specialist's coursework.

Concluding Remarks

This research study challenged my thinking and revealed new insights for how to improve my literacy teaching. I decided to engage in practitioner inquiry as a curriculum designer as both the researcher and the participant because I've always been the type of teacher that tries to grow from my experiences. My mom was a first grade classroom teacher for 33 years, and she taught me to never stop learning or trying to grow your craft. After teaching for 18 years, I get excited about learning something new, especially when it comes to technology or literacy curriculum design. I think this excitement comes from the hope that I could create something that would make the difference in the learning experience for a student.

As of this writing, I learned last week that there were updated *New Jersey Student Learning Standards* for English Language Arts just approved in October. The revised standards (2023) now integrate the Companion Standards for History, Science, and Technical Subjects into the writing standards for ELA. In addition, the English Language Arts standards will now include standards related to Climate Change education. Students will be reading and writing about complex content-area related topics. Therefore, as literacy teachers, we need to have instructional tools available that will support meaningful instruction in a variety of content-area domains.

Also emphasized in the updated standards are the significant digital and virtual shifts in communication by integrating and amplifying digital, graphic, and other multimodal text formats. This acknowledgment in the standards fits timely with this research study and the use of paired texts within a text set unit of study. It is clear that intertextuality will be a skill of focus moving forward in English Language Arts classrooms.

Overall, this research study has left me feeling empowered and excited. I see possibilities for new instructional approaches to be considered when designing literacy curriculum, and I am excited to try out different methods within my own literacy teaching. I would encourage more teachers to engage in practitioner inquiry as a way to continue learning about an area related to their own teaching passions. From my experience, self-reflection and critical analysis of practice is key to growing as an educator.

Appendices

Appendix A: Data Collection Research Plan

Appendix B: Lesson Plan Template

Appendix C: Reading Specialist Self-Reflection Rubric

Appendix D: Text Set Skills & Standards

Appendix E: P.O.W.E.R. Plan Lesson Template

Appendix F: P.O.W.E.R. Plan Self-Assessment Rubric

Appendix G: I.R.B. Documentation- “Not Human Subjects Research”

Appendix A: Data Collection Research Plan

Activity	Data Sources	Methods
<p>Lesson Plan Documents</p> <p>Duration: No Time Limit</p> <p>Frequency: 1 per module/4 total (4 modules)</p>	<p>Formal Lesson Plan Documents (Completed by Practitioner)</p>	<p>The reading/literacy specialist will develop a formal, written lesson plan for each module within the unit. Each plan will include the lesson objectives, materials, state standards, procedures, assessment, etc. The lesson plan documents will also include information about use of technology, plan for instructional delivery, and targeted content for learning. The formal lesson plans will guide the development of the Screencastify video recordings to showcase lesson planning procedures before implementation.</p>
<p>Video Recordings of Lesson Planning</p> <p>Duration: Approximately 10-15 minutes</p> <p>Frequency: 1 per module/4 total (4 modules)</p>	<p>Screencastify Recordings, YouTube Videos, VideoAnt Reflections (Completed by Practitioner)</p>	<p>Screencastify video recordings of reading/literacy specialist completing a think aloud to explain lesson planning procedures and modeling. Videos will be uploaded to a private YouTube channel. Videos will then be imported to VideoAnt to be annotated with reading/literacy specialist's personal reflections on effectiveness of technology integration into literacy lesson.</p>
<p>Self-Reflection Rubric</p> <p>Duration: No Time Limit</p>	<p>Reading Specialist Self-Reflection Rubric Google Document (Completed by Practitioner)</p>	<p>At the conclusion of each lesson that was implemented after the video recording of the planning process and</p>

<p>Frequency: 1 per module/4 total (4 modules)</p>		<p>design, the practitioner will complete a self-reflection rubric via Google Docs. The design of the rubric will be grounded in the TPACK framework and prompt the reading/literacy specialist to reflect on the use of technological, pedagogical, and content knowledge in the lesson. Rubric will also contain an open-ended response portion to prompt for further analysis of the lesson and self-reflection of teaching.</p>
<p>Review of Artifacts</p> <p>Duration: No Time Limit</p> <p>Frequency: Ongoing</p>	<p>Reading/ Literacy Specialist’s lesson plans, reflections/memos, lesson resources, Google Site/resources, and curriculum units. (Belonging to Practitioner)</p>	<p>Both print and digital documents and artifacts will be reviewed. The practitioner will record notes, memos, and reflections about the artifacts, which will be highlighted and coded to look for themes.</p>

Appendix B: Lesson Plan Template

*Text Set Lesson Plan- Reading/English Language Arts
 “Mysteries of the World”- Multimodal Text Set Guided Inquiry*

<u>Subject:</u>	<u>Topic:</u>	<u>Grade:</u> PERIOD TIME
New Jersey Student Learning Standards:	Common Core State Standards:	
•	•	
Objectives:		
•		
Materials/Technology:	Skills/Strategies:	
•	•	
Task #1		
Anticipatory Set/Lesson Introduction: • Direct Instruction: • Guided Practice: • Independent Practice: • Closure: • Assessment: •		
Task #2		
Anticipatory Set/Lesson Introduction: • Direct Instruction: • Guided Practice: • Independent Practice: •		

Closure:

-

Assessment:

-

Task #3

Anticipatory Set/Lesson Introduction:

-

Direct Instruction:

-

Guided Practice:

-

Independent Practice:

-

Closure:

-

Assessment:

-

Task #4

Anticipatory Set/Lesson Introduction:

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Direct Instruction:

-

Guided Practice:

-

Independent Practice:

-

Closure:

-

Assessment:

-

Extension Activity:

-

Appendix C: Reading Specialist Self-Reflection Rubric

Name:	Date:
Subject/Topic:	Grade:

Self-Reflection Rubric: TPACK and Literacy

Category/Criteria	1 Emerging	2 Developing	3 Proficient	4 Exemplary	Self-Reflection
TK (Technology Knowledge) <ul style="list-style-type: none"> • <i>Knowledge of standard and digital technologies, as well as operational skills</i> 					
CK (Content Knowledge) <ul style="list-style-type: none"> • <i>Knowledge of the subject matter for teaching and learning</i> 					
PK (Pedagogical Knowledge) <ul style="list-style-type: none"> • <i>Knowledge involving the scaffolding and processes involved in teaching and learning through various methods to deliver instruction</i> 					
TPK (Technological Pedagogical Knowledge) <ul style="list-style-type: none"> • <i>Knowledge of the variety of technologies and their capabilities for instruction and how technologies can impact instruction</i> 					
TCK (Technological Content Knowledge) <ul style="list-style-type: none"> • <i>Knowledge about how technology and teaching content can be</i> 					

<p><i>related, as well as how content instruction can be changed by implementing instruction with technology</i></p>					
<p>PCK (Pedagogical Content Knowledge)</p> <ul style="list-style-type: none"> • <i>Knowledge of which teaching approach best fits the content and how content can be differentiated through instruction and curriculum to support student learning</i> 					

Rubric criteria adapted from Mishra & Koehler (2006)

TPACK Self-Reflection (*Technological Pedagogical Content Knowledge*)

- *The overall intersection between three main components of teaching and learning: (technological knowledge, pedagogical knowledge, and content knowledge)*

When reflecting on Standard 5 of the *Standards for Literacy Professionals*, I can make the following connections to my implementation of TPACK in this module:

- **Differentiated Instruction:**
- **Print and Digital Materials:**
- **Digital Technologies:**
- **Literacy-Rich Learning Environment:**

Appendix D: Text Set Skills & Standards

Text Set Skills & Standards

“Mysteries of the World”- Multimodal Text Set Guided Inquiry

Module #1

Task	Skills	Standards
Tasks #1 & #2	<ul style="list-style-type: none"> ● Identify Text Evidence ● Central Idea and Details ● Vocabulary 	<p>RI.7.1. Cite several pieces of textual evidence and make relevant connections to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>L.7.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.</p> <p>RI.7.10. By the end of the year read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed.</p>
Tasks #3 & #4	<ul style="list-style-type: none"> ● Annotating Text ● Objective Summary ● Vocabulary 	<p>RL.7.2. Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.</p> <p>L.7.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.</p> <p>RI.7.10. By the end of the year read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed.</p>

Module #2

Task	Skills	Standards
<p>Tasks #1 & #2</p>	<ul style="list-style-type: none"> ● Text Structure ● Subheadings ● Vocabulary 	<p>RI.7.3. Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).</p> <p>RI.7.5. Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas.</p> <p>L.7.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.</p> <p>RI.7.10. By the end of the year read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed.</p>
<p>Tasks #3 & #4</p>	<ul style="list-style-type: none"> ● Analyzing Author’s Point-of-View or Purpose ● Editing in Context ● Writing About Reading 	<p>RI.7.6. Determine an author’s point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.</p> <p>L.7.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. L.7.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>RI.7.9. Analyze and reflect on (e.g. practical knowledge, historical/cultural context, and background knowledge) how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.</p> <p>W.7.9. Draw evidence from literary or informational texts to support analysis,</p>

		<p>reflection, and research.</p> <p>RI.7.10. By the end of the year read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed.</p>
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Module #3

Task	Skills	Standards
<p>Tasks #1 & #2</p>	<ul style="list-style-type: none"> ● Close Reading ● Text Structure ● Vocabulary 	<p>RI.7.1. Cite several pieces of textual evidence and make relevant connections to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RI.7.5. Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas.</p> <p>L.7.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.</p> <p>RI.7.10. By the end of the year read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed.</p>
<p>Tasks #3 & #4</p>	<ul style="list-style-type: none"> ● Making Inferences ● Identifying Tone ● Writing About Reading 	<p>RL.7.1. Cite several pieces of textual evidence and make relevant connections to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RL.7.2. Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.</p> <p>RL.7.3. Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).</p>

		<p>RI.7.4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.</p> <p>W.7.9. Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>RI.7.10. By the end of the year read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed.</p>
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Module #4

Task	Skills	Standards
<p>Tasks #1 & #2</p>	<ul style="list-style-type: none"> ● Determine Key Details ● Evaluating Evidence ● Peer Discussion 	<p>RI.7.3. Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).</p> <p>RI.7.8. Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.</p> <p>RI.7.9. Analyze and reflect on (e.g. practical knowledge, historical/cultural context, and background knowledge) how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.</p> <p>SL.7.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.</p> <p>RI.7.10. By the end of the year read and comprehend literary nonfiction at grade level</p>

		text-complexity or above, with scaffolding as needed.
Tasks #3 & #4	<ul style="list-style-type: none"> ● Vocabulary ● Text Features ● Mood ● Text Structure ● Inference ● Central Idea/Details ● Objective Summary 	<p>L.7.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.</p> <p>RI.7.1. Cite several pieces of textual evidence and make relevant connections to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RI.7.2. Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.</p> <p>RI.7.5. Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas.</p> <p>RI.7.10. By the end of the year read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed.</p>

Appendix E: P.O.W.E.R. Plan Lesson Template

<u>Subject:</u>	<u>Topic:</u>	<u>Grade:</u>
State Standards:		
•		
Objectives:		
•		
Materials/Technology:	Skills/Strategies:	
•	•	
Texts:	Text Set Essential Question:	
•	•	
Task #1		
Anticipatory Set/Lesson Introduction: • Direct Instruction: • Guided Practice: • Independent Practice: • Closure: • Assessment: •		
Task #2		
Anticipatory Set/Lesson Introduction: • Direct Instruction: • Guided Practice: • Independent Practice:		

-

Closure:

-

Assessment:

-

Task #3

Anticipatory Set/Lesson Introduction:

-

Direct Instruction:

-

Guided Practice:

-

Independent Practice:

-

Closure:

-

Assessment:

-

Task #4

Anticipatory Set/Lesson Introduction:

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Direct Instruction:

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Guided Practice:

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Independent Practice:

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Closure:

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Assessment:

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Extension Activity:

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Appendix F: P.O.W.E.R. Plan Self-Assessment Rubric

Name:	Subject/Topic:
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Self-Reflection Rubric: P.O.W.E.R. Plan

Category/Criteria	1 Developing	2 Proficient	3 Exemplary	Notes
TK (Technology Knowledge) <ul style="list-style-type: none"> • Knowledge of standard and digital technologies, as well as operational skills 				
CK (Content Knowledge) <ul style="list-style-type: none"> • Knowledge of the subject matter for teaching and learning 				
PK (Pedagogical Knowledge) <ul style="list-style-type: none"> • Knowledge involving the scaffolding and processes involved in teaching and learning through various methods to deliver instruction 				

Rubric criteria adapted from Mishra & Koehler (2006)

Self-Reflection (Technological Pedagogical Content Knowledge)

**Consider ILA Standard 5: Learners and the Literacy Environment*

<input type="checkbox"/> Differentiated Instruction	<input type="checkbox"/> Print and Digital Materials
<input type="checkbox"/> Digital Technologies	<input type="checkbox"/> Literacy-Rich Learning Environment

Appendix G: I.R.B. Documentation- Not Human Subjects Research

16700 - Not Human Research Determination

no-reply=kuali.co@mx3.kuali.co <no-reply=kuali.co@mx3.kuali.co>
on behalf of
Kuali Notifications <no-reply@kuali.co>

Thu 9/22/2022 9:14 AM

To: McLaughlin, Karen Elizabeth <karemcla@iu.edu>

If you are not responsible for the IU Kuali Protocols submission for this protocol, this is for informational purposes only and no action is required.

NOTICE OF IRB REVIEW NOT REQUIRED

Protocol #: 16700

Protocol Title: Reflections from the Field: A Middle School Reading Specialist's Development of TPACK to Guide Inquiry in the Literacy Classroom

PI: Damico, James

The above submission was reviewed and IU HRPP staff determined the project is not human subjects research and does not require further review.

Please retain a copy of this email in your research records. You will not receive a separate approval letter.

If you have any questions or require further information, please contact the IU HRPP via email at irb@iu.edu or via phone at (317) 274-8289.

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Resume/Curriculum Vitae

EDUCATION

Doctor of Education **May 2024**

Indiana University, *Bloomington, Indiana*

Major: Literacy, Culture, and Language Education (Online)

- Graduate Certificate in Dyslexia (Certificate Awarded: December 2022)

Master of Science in Education **May 2012**

Saint Joseph's University, *Philadelphia, Pennsylvania*

Major: Reading Specialist

Bachelor of Science in Education **May 2006**

University of Delaware, *Newark, Delaware*

Major: Elementary Teacher Education (K-8)

TEACHING CERTIFICATIONS

- Reading Specialist (PK-12)- New Jersey Standard Certificate
- Elementary Education (K-8)- New Jersey Standard Certificate
- Graduate Certificate in Dyslexia (Indiana University)
- Highly qualified in Elementary Education and Middle School Language Arts

PROFESSIONAL EXPERIENCE

Reading Specialist **September 2013-Present**

Tabernacle Township School District, Tabernacle, New Jersey

- Provide data-driven interventions to 5th-8th grade students in various areas of literacy
- Teach sections of 6th-8th grade English Language Arts literacy as needed to students with a wide-range of abilities
- Provide small group instruction to students in need of Tier 2 reading comprehension, spelling, and decoding interventions
- Maintain multiple measures of progress monitoring data for students receiving literacy support services

Literacy Practicum Supervisor/Coach & Adjunct Professor **Summer 2013-Present**

Saint Joseph's University, Philadelphia, Pennsylvania

- Courses: EDU705 (Literacy Practicum Supervisor/Coach) & EDU769 (Adjunct)
- Supervise and coach graduate students working within small-group settings with students to implement progress monitoring in response to assessment and instruction
- Assist graduate students with conducting reading assessments, using data to design intervention plans, and developing targeted instruction to meet the needs of each student

- Instruct an independent study course as needed for graduate students completing the literacy practicum and working towards Level I initial certification

7th GRADE ELA TEACHER

September 2006-June 2013

Tabernacle Township School District, Tabernacle, New Jersey

- Designed, planned, and implemented lessons aligned to the state standards in the areas of Reading: Literature, Reading: Informational Text, Writing, Speaking & Listening, and Language
- Implemented reading/writing workshop models including interactive read aloud, mini-lessons, underlying theme lessons, independent choice reading/writing, guided reading/writing, and sharing
- Participated in grade level, curriculum, IEP, and I&RS meetings, parent/teacher conferences, and professional development seminars

PRESENTATIONS

“Response Prompt Writing”, 2023 Convention- New Jersey Education Association, Virtual, New Jersey

- Virtual conference break-out session with over 150 participants providing an overview and modeling of the implementation of writing in response to higher-level thinking prompts. Models provided with both narrative and informational texts. *(November 9, 2023) Co-Presenters: Catherine Gibbons & Laura Richardson*

“Fueling Successful Writers”, EdCamp Literacy- West Jersey Reading Council, Rowan University, New Jersey

- Session providing an overview of best practices to support students with writing during the elementary and secondary grades. Writing strategies are presented with helpful graphic organizers for each type of writing. *(August 19, 2023) Co-Presenter: Catherine Gibbons*

“Higher-Level Thinking with Narrative and Informational Texts”, 2022 Convention- New Jersey Education Association, Virtual, New Jersey

- Virtual conference break-out session with over 160 participants providing an overview and modeling about the implementation of higher-level thinking strategies with narrative and informational texts. *(November 11, 2022) Co-Presenter: Catherine Gibbons*

“Guided Peer-Led Discussions”, 2022 Fall Conference- West Jersey Reading Council, Pennsauken, New Jersey

- Session providing an introduction with modeling of how to plan and implement a guided peer led discussion in a classroom using narrative text and accountable talk. *(October 19, 2022) Co-Presenters: Catherine Gibbons & Laura Richardson*

“Levels of Thinking in Comprehension Fueled from NAEP”, 2021 Convention- New Jersey Education Association, Atlantic City Convention Center, New Jersey

- Session providing an overview and modeling about thoughtful literacy and levels of thinking involved in reading comprehension. *(November 4, 2021) Co-Presenters: Catherine Gibbons & Laura Richardson*

“Higher Level Thinking: Help for Teachers to Engage Students in Higher Level Thinking”, Summer 2021 Workshop, Saint Joseph’s University

- Virtual presentation with colleagues discussing text responses and comprehension. *(June 25, 2021) Co-Presenters: Catherine Gibbons & Laura Richardson*

“The Roles of the Reading Specialist”, Education Symposium at Saint Joseph’s University

- Break-out session at Education Symposium at SJU, Philadelphia, Pennsylvania *(March 19, 2016)*
- Presented by the Tau Omega Chapter of Kappa Delta Pi, International Honor Society in Education

“Navigating Non-Fiction: Reading Strategies for Teaching Informational Text”, Alpha Upsilon Alpha/Philadelphia Reading Council Conference at Saint Joseph’s University

- Break-out session at conference, Philadelphia, Pennsylvania (*May 2, 2015*)
- Conference Title: Engaged Learning to Foster Thoughtful Response to Text

“Fostering Motivation and Independent Reading”, Alpha Upsilon Alpha/Philadelphia Reading Council Conference at Saint Joseph’s University

- Break-out session at conference, Philadelphia, Pennsylvania (*May 3, 2014*)
- Conference Title: Thoughtful Response to Guide Response to Instruction

“Progress Monitoring During Reading Instruction”, Alpha Upsilon Alpha/Philadelphia Reading Council Conference at Saint Joseph’s University

- Break-out session at conference, Philadelphia, Pennsylvania (*April 13, 2013*)
- Conference Title: Rethinking Literacy in the 21st Century and Beyond

ADDITIONAL EXPERIENCE

- West Jersey Reading Council Board Member (*August 2022-Present*)
- Middle School ELA Data Coach (*September 2023-Present*)
- Professional Learning Community Facilitator (*September 2021-June 2023*)
- Middle School Literacy Lab Coordinator (*Spring 2018 and Spring 2019*)
- Student Teaching Cooperating Teacher (*Spring 2012 and 2019-2020 School Year*)
- District ELA Curriculum Writing Cohort (*Multiple Years*)

HONORS AND AWARDS

Educational Services Professional of the Year

- District Recipient, (2022)
- District Recipient, (2016)

Alpha Upsilon Alpha Honor Society, Saint Joseph’s University

- Honor Society of the International Literacy Association, (2012)

Omicron Delta Kappa, University of Delaware

- National Leadership Honor Society, (2006)

AFFILIATIONS

- International Literacy Association
- West Jersey Reading Council
- New Jersey Education Association