

2023

Kindergarten Through Second Grade Teachers' Collaboration on Reading Instruction Through Virtual Communities of Practice

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Walden University

College of Education and Human Sciences

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NaKaydria Johnson

has been found to be complete and satisfactory in all respects,
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Walden University
2023

Abstract

Kindergarten Through Second Grade Teachers' Collaboration on Reading Instruction

Through Virtual Communities of Practice

by

NaKaydria Johnson

BS, Texas Tech University, 2003

MA, Walden University, 2012

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Education

Walden University

May, 2022

Abstract

Kindergarten through second grade (K–2) teachers have different experiences with support when teaching beginning reading. However, there is a problem with K–2 teachers having access to virtual collaboration to support beginning reading instruction. The purpose of this qualitative study was to understand the experiences and perceptions of K–2 teachers collaborating virtually on Google Platforms to support beginning reading instruction within a community of practice (CoP). The research questions were used to understand the interaction and accountability of K–2 teachers collaborating within a CoP. The conceptual framework was constructed from elements of CoPs and the social theory of learning because of social interaction and collaboration within a group. The research questions focused on the experiences and perceptions of k-2 teachers of beginning reading while collaborating using Google Platforms in a CoP. The basic qualitative study used convenience sampling with participant inclusion criteria of 3 years teaching beginning reading and experience with collaborating in Google Platforms. Data from the virtual, recorded interviews with the seven participants were coded using an open coding process which yielded categories, that were consolidated into three themes of shared learning, accessibility, and professional achievement. The findings highlighted that continuous interaction and collaboration were the benefits of collaborating in a CoP using Google Platforms, which can influence the quality of instruction in beginning reading and reduce negative perceptions and experiences when teaching beginning reading. Social change may occur if the collaborative environment can assist with meeting teachers' professional learning needs, which benefits the educational system.

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Dedication

I dedicated my dissertation to my family, who believed in me through this journey. Your encouraging words carried me through when I wanted to give. I am grateful for your unconditional love and support when I missed family events to conduct research. To my husband, Alex, words cannot express how thankful I am for you. You are a constant source of support and strength that kept me going. Thank you for being by my side during late nights, listening to me talk through a paper, proofreading, and inspiring me to be the best wife, passionate educator, and friend. You have been with me throughout this journey, and I love you more than anything. To my mother, Dorothy Hicks, you taught me at a young age to work hard and pursue my dreams. Thank you for being an example of strength and determination. I love you. Lastly, I want to say thank you to my friends. Thank you for being silent when I did not want to talk about my dissertation and listening when I needed you. Thank you.

Acknowledgments

My passion for education and student success led me to pursue this degree. I wanted to end this journey after my first assignment, but encouraging words helped me overcome my fears. Thank you to all the professors at Walden who helped me get to this point. The constructive feedback helped me develop into the researcher I have become. To my first chair, Dr. Narjis Hyder, thank you for motivating me to do my best. We did not finish this journey together, but I am thankful for you and your time. To my first chair, Dr. Barbara Hunter, thank you for your guidance and support. I did not think I would make it to this moment, and you were always available to converse with me to keep me going. To my second chair, Dr. Amy White, thank you for your direct feedback to help me reflect and make the necessary changes in my writing, thank you.

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Chapter 1: Introduction to the Study

Effective beginning reading instruction is imperative for students to read on a particular level and progress through reading levels each year. Research has shown that well-designed reading curriculum and effective instruction are linked with students' acquisition of beginning reading skills, such as phonics, phonemic awareness, vocabulary, comprehension, and fluency (Fountas & Pinnell, 2017; Lerkkanen et al., 2019). Educational research has investigated different ways to develop effective beginning reading instruction to ensure students read well in kindergarten through second grade (K–2). Research has found that each teacher approaches teaching beginning reading differently because of variations in instructional practices, perceptions, experiences, knowledge of teaching beginning reading skills, and strategies (Kim et al., 2017; Lerkkanen et al., 2019; Scarparolo & Hammond, 2018; Soodla et al., 2017).

With such variation in instruction, teachers need support via collaboration when teaching beginning reading instruction due to the complex pedagogical content of teaching reading. The complexity of teaching reading causes feelings of frustration when students do not acquire reading skills (Soodla et al., 2017). Collaboration is collective work that involves viewing curriculum, lessons, teaching practices, and goals (Lepareur & Grangeat, 2018). However, collaboration is interpreted and implemented differently from school to school. For example, schools vary in the time they allot for teachers to share lesson plans or communicate about teaching issues during the school day, and this time is often limited. Nonetheless, K–2 teachers collaborate in virtual learning environment through Google Platforms. Prior to each week of instruction, teachers use

Google Platforms to share and retrieve upcoming weekly lesson plans for each subject for each grade level. For example, K–2 teachers in the northern part of the state use Google Platforms in an online professional learning environment to support beginning reading.

While findings from research on teachers' collaboration have indicated different ways to support teacher collaboration in beginning reading instruction, the phenomenon of teachers using virtual learning environments to provide continuous collaboration with other teachers has not been studied. However, currently, technological tools that may enhance communication and collaboration among colleagues working in virtual learning environments such as online video resources, web portals, information websites, content-sharing networks, Twitter, and blogs do exist (Beach, 2018; Ekici, 2017; Schieffer, 2016).

Scarparolo and Hammond (2018) contended that it is necessary for K–2 teachers to focus directly on their instructional practices and knowledge of teaching beginning reading instruction, as they continue to find ways to support instructional practices for beginning reading instruction. A virtual collaborative environment with other colleagues teaching and sharing the same experience is beneficial and supportive, according to Scarparolo and Hammond. However, a gap exists in research on K–2 teachers teaching beginning reading instruction while collaborating virtually on Google Platforms to support reading instruction within communities of practice (CoPs). A CoP is defined as a group of people with the same goal. These groups may have a different focus or name, such as a professional learning community (Trayner, 2015).

The potential social implications of this study include bringing awareness of the benefits of using technology to collaborate and providing more specific insight for schools to use Google Platforms to assist with shared virtual interaction among teachers virtually. It will allow them freedom to communicate synchronously as well as asynchronously (Arasaratnam-Smith & Northcote, 2017; Erdogan, 2016). As more schools and districts search for additional ways to support teachers and instructional practices, this study could provide insights on collaboration through a virtual learning environment while serving as a tool to support beginning reading instruction.

Research has shown that teaching can become an isolating profession for various reasons, which can cause teachers to leave the profession (Gasse et al., 2017). Teachers may also feel overwhelmed with all the demands from schools and districts, which can result in their leaving the field of teaching. However, continuous collaboration accompanied with continuous support can reduce or even eliminate perceptions of isolation and burnout as teachers can address their instructional issues without fear of reprisal, or retaliation (Briscoe, 2017; Schieffer, 2016). Communication through collaboration among teachers might encourage them to continue in the field of teaching for extended periods, which, in turn, can positively affect school systems.

This chapter includes an overview of the study. The problem and purpose of this study, which addressed the lack of virtual collaboration for K–2 teachers teaching beginning reading instruction, is stated next. This chapter provides an in-depth description of how the social theory of learning and CoP supported the study; it also

describes the study and the qualitative methodology followed in this work. The key terms, definitions, assumptions, and scope and delimitations are also provided.

Background

Learning through a virtual learning environment has been revealed to be a tool for learning and communication in the workplace, as per research (Beach, 2018; Ekici, 2017; Herbert et al. 2016; Schieffer, 2016). A virtual learning environment is an innovative way for learning to occur amongst educators. A study conducted by Arnell (2014) highlighted that learning and interaction with colleagues in a virtual learning environment influenced practices and positively changed the viewpoint of collaboration. Hajisoteriou et al. (2018) reported that a virtual CoP offered teachers the support of others, which promoted leadership, collaboration, and ownership of learning. However, there is a gap in recent research on K–2 teachers' use of a virtual learning environment to collaborate on teaching beginning reading. There has been some research in which teachers reported growth in personalized learning from knowledge gained from the virtual learning environment (Beach, 2018 and Chada, 2018). Some participants have been willing to take risks in their learning and reach out to others globally. The supportive virtual learning environment has changed teachers' instructional practices. In another study, Herbert et al. (2016) examined an online learning environment with 14 teachers in a rural primary school that taught mathematics and science (but not beginning reading). The study concluded that participation, sharing materials, and the design of the environment improved learning. Furthermore, teachers gained knowledge when accessing virtual learning environments in areas pertaining to professional growth.

Colleagues collaborate with people who have similar views in the same area of concern or learning. Although the literature has shown that virtual learning environments have been used to support similar areas of instruction, such as math and science instruction, beginning reading instruction is not supported (Ekici, 2017). Bastug (2016) found that teachers required continuous support in literacy instruction as they reflected on their varying perceptions and experiences with teaching reading and writing. Without continuous support, teachers held both positive and negative perceptions about proficiency in reading and writing.

Recent research articles on beginning reading instruction in Grades k-2 have examined different components of reading such as comprehension, fluency, vocabulary, and decoding due to the need for improvement in each area (Hu et al., 2017; Ilter, 2017; Pratt & Martin, 2017; Rasinski et al., 2017; Solari et al., 2017). However, a gap exists in the literature on how K–2 teachers perceive CoPs in a virtual learning environment as they teach the components of beginning reading instruction. Through this study, I addressed this gap by examining the experiences and perceptions of K–2 teachers collaborating virtually to support beginning reading instruction in districts and schools in the northern United States.

Problem Statement

In the effort to support beginning reading instruction, educators have employed school-wide commercial reading programs such as Success for All Readers, *Read Naturally*, and Achieve 3000. However, these commercial reading programs may not provide continuous and individualized support for teachers teaching beginning reading

instruction (Kuijk et al., 2016). Another effort to support reading instruction is a district- or state prescribed reading curriculum. Still, according to Wolfe (2015), sometimes, the specified district or state curriculum does not align with a school's reading instruction. It is not clear to what extent a virtual learning environment may contribute to K–2 teachers' experiences and perceptions of collaboration to support teaching beginning reading instruction within a CoP. Based on present literature, there is a problem with teachers having access to collaboration to support beginning reading instruction. Most of the research in this area has involved science and math instruction. Literature that should have been on teachers' experience and perceptions about using a virtual learning environment for collaboration in reading instruction was not found. Continuous support is a crucial factor in ensuring that teachers implement new knowledge into practice (Dagen & Morewood, 2016). To date, little research has been done on teachers' perceptions on teaching beginning reading instruction, and the research that does exist indicates that teachers approach teaching beginning reading instruction differently because of the variations in the perceptions held these by teachers.

Purpose of the Study

The purpose of this qualitative study was to understand the experiences of K–2 teachers collaborating virtually using Google Platforms to support reading instruction within a CoP. The teachers at the study site met face-to-face monthly and collaborated weekly using Google Platforms. They shared ideas, model reading lessons, materials, research articles, and personalized learning about teaching reading instruction and different activities to support beginning reading instruction. These activities needed to be

described by the teachers themselves so that their experiences and perceptions could be completely understood.

Research Questions

The CoP theory supported the research questions in this study. Wegner's (1998) CoP theory is the foundation of the virtual learning environment because of the interaction among teachers. Participation in a CoP takes accountability, communication, vulnerability, and interaction (Wegner, 1998, pp. 76–80). The base of the major premise of CoP is a group of colleagues collaborating with the same vision to transform their perspectives regarding a situation (Wegner, 1998, p. 6). This aligns with the second research question below. CoP also supports the development of teachers' understanding of their experiences as they have collaborated with other teachers to change instructional practices. This refers to the first research question below.

RQ1: What are the experiences of k-2 teachers when collaborating virtually using Google Platforms to support beginning reading instruction?

RQ2: How do k-2 teachers perceive a CoP as an influence on instructional approaches for teaching beginning reading?

Conceptual Framework

An element of the conceptual frameworks used in this study was the social theory of learning. According to Wenger (1998), the social theory of learning pertains to how people work and learn together in social interaction. Four premises are integrated to create social participation, which is the primary focus of learning through social interaction. These four premises are: (a) meaning, (b) practice, (c) identity, and (d)

community, are components of the virtual learning environment to foster engagement to change the participant over time (Wegner, 1998, p. 6). In virtual learning, people can record, review, ask questions during or after a presentation or blog, and seek further information to learn more about a topic. Group members learn when actively engaging and sharing experiences to develop their knowledge and skills.

CoPs, the other part of the conceptual framework of this study, along with Wenger's social theory of learning were relevant to this study and research questions because the participants were involved in sharing instructional strategies, considering that they actively engaged in sharing advice and feedback with colleagues within a collective, virtual learning environment while they developed knowledge and meaning. However, a group of learners is not always referred to as a CoP due to the variances in how such groups are known. For example, these learner groups are also known as *learning networks*, clubs, and thematic groups, according to Wenger-Trayner (2015). The three elements of a CoP are domain, community, and practice; these elements may, however, be different in different organizations due to factors such as size or location of the community, and mode of meeting (online or face to face). Further, the learning group can be formal or informal. A CoP learning environment flourishes when learners accept learning and challenge their thinking to gain knowledge (Wegner, 1998). Moreover, learning is effective when risks are taken in learning to contribute to personal growth.

In this study, CoP supports educational learning environments based on the shared visions that teachers require to change instructional practices to benefit student learning. This is because teachers may develop an understanding towards the collaboration,

interaction, and support provided within a virtual learning environment. Virtual collaboration furthers learning beyond the workplace as different teaching strategies are communicated and ideas are shared with a diverse group of people who share a common occupation teaching.

Nature of the Study

The topic of interest for this study was whether a virtual learning environment can be an ongoing collaborative tool for K–2 teachers teaching beginning reading instruction. A basic qualitative study was employed to seek the understanding of K–2 teachers through interviews. According to Merriam and Tisdell (2016), basic qualitative data and information are constructed through the participants of a study to find the meaning of the study. Qualitative data allow the opportunity to share stories and information about groups of people (Patton, 2015, p. 54).

Definitions

The key terms used in this study are defined as follows:

Communities of practice (CoPs): Groups of people who share a concern or an interest for something they do and learn how to do it better as they interact regularly (Wenger-Trayner, 2015).

Virtual collaboration: The process of learning and communicating through any form of technology. A virtual learning environment can support by sharing resources, videos of lessons, collaborative conversation, and addressing instructional issues (Beach, 2017; Schieffer, 2016).

Virtual learning environment: A group of people engaged in learning with others online (Schieffer, 2016). People can share resources, videos of lessons, and collaborative conversation, addressing instructional issues.

Google Platforms: A nation-wide tool that the majority of educators have access to as a platform for resources and collaboration.

Google Drive: Cloud storage that is used to store digital contents.

Google Documents: A digital word processing document for editing and creating documents.

Google Slides: A Google presentation tool.

Google Classroom: A digital classroom to store and retrieve documents for a group of people.

Assumptions

The following five assumptions were made in the context of this study: (a) the size of the sample population of K–2 teachers would support the study, (b) the K–2 teachers would fully participate throughout the entire study, (c) the participants would be truthful and willingly share their perceptions and personal experiences, (d) the virtual learning environment would be a support for beginning reading instruction, and (e) the participants would effectively navigate and collaborate in the virtual learning environment.

Scope and Delimitations

The problem addressed in this study revolves around the lack of continuous support for beginning reading instruction. Reading problems and deficits will continue to

have an educational impact without effective instruction (Calkins, 2017; Park et al., 2015). I chose K–2 teachers for the study because of my experience in teaching beginning reading instruction without any opportunities for collaboration with colleagues. The delimitation of this study was that the participants were from only one unique elementary site in an urban school district, which resulted in a limited number of participants. This public school was a public K–5 elementary school site with 15 teachers. Furthermore, the transferability for this study may be restricted to only traditional educational settings and not alternative ones such as home schools and private schools. The limited transferability is due to the topic of the study.

Limitations

The first limitation of this study was the possible weakness of a basic qualitative study. According to Merriam and Tisdell (2016), a basic qualitative study is designed to understand a phenomenon. A second limitation was that some of the participants might not have shared their authentic experiences, which is a critical element in a basic qualitative study. A third limitation was that this study was intended only for K–2 teachers teaching beginning reading instruction and not for other populations of elementary teachers, such as those teaching Grades 3–4 or secondary teachers. A fourth limitation was that the study was not for K–2 schools that did not have access to or collaborate in a virtual learning environment. The fifth limitation was that K–2 teachers must have a district laptop with access to an internet connection. Because I have the education and experience to teach beginning reading instruction, I addressed any bias by preparing interview questions that aligned with the study and recorded any biases or

thoughts that might have interfered with the study in a journal before and after the interview.

Significance

This study may contribute to changes in curriculum and professional learning programs, and professional development trainings to enhance reading instruction that can bring awareness to school districts. Moreover, it may contribute to educators using virtual platforms to support continuous collaboration with colleagues for growth in instructional practices and professional learning. The virtual learning environment may provide opportunities for teachers to collaborate with other teachers within the school, school district, and outside of the school district to change instructional practices.

Summary

Chapter 1 provided an overview of the introduction and background of the research problem, problem statement, research questions, purpose of the study, conceptual framework, significance of the study, nature of the study, and the limitations of the study. A gap exists in the literature on teachers collaborating in a virtual learning environment to support beginning reading instruction. In this chapter, I provided a summary of the topic, recent research supporting this topic, and the problem of the lack of continuous collaboration to support teachers in teaching beginning reading instruction. I also outlined the conceptual frameworks and described CoP and the social theory of learning, as well as the alignment of the research questions. In addition, the assumptions, limitations, significance, scope, and delimitations of the study were discussed in this chapter. Chapter 2 includes a review of the literature related to reading instruction, the

conceptual framework, collaboration, and virtual learning environments to support the study. An analysis of the research provided an understanding of the topic and the gap in the literature.

Chapter 2: Literature Review

Introduction

Beginning reading skills are crucial for K–2 students for their academic success. Essentially, beginner readers must think while reading to understand, using strategies when they need them to gain meaning from the text to become proficient readers (Pratt & Martin, 2017). The earlier students become proficient readers, the sooner they can read fluently and comprehensibly and build their vocabulary skills. According to research, in the absence of effective instruction, students with poor reading skills will continue to be poor readers (Park et al., 2015). Direct instruction on reading skills and strategies is imperative for students to understand how to process and apply those skills as developing readers (Kuijck et al., 2015; Pratt & Martin, 2017; Solari et al., 2017). It is important for schools to train teachers to ensure they have the adequate skills to provide beginning reading instruction.

To support teachers in teaching beginning reading, research has highlighted the need for teacher collaborations to ensure continuous learning and support from colleagues (Conradi et al., 2016; Konza & Main2016; Schieffer, 2017). According to Sjoer and Meirink (2016), collaboration amongst colleagues requires goal setting and a shared vision, as the teacher participants in their study developed an understanding of each other's different views. However, research on teachers' collaboration has some limitations as well. Previous studies have tended to focus on building collaboration through professional developmental activities for teachers to learn instructional techniques. The shortcomings of professional development trainings that present

obstacles to collaboration include (a) conflicting time commitments outside of the teaching day, (b) the expense of hiring presenters, and (c) little evidence of the application of knowledge derived from the professional development as well as follow-through by the presenters and the professionals themselves. These shortcomings of professional development trainings initiated the formation of (PLCs) where teachers worked collaboratively as they taught, using student data to make instructional decisions. PLCs provide opportunities for practice-based, continuous collaboration instead of a single event of professional development training that is not in the context of real classrooms (Tam, 2015). However, research has shown that, along with PLCs, there is a need for continuous collaboration to support instructional application in real classrooms (Seo, 2014). Effective professional development trainings and PLCs are beneficial to instructional practices that support new learning.

Learning virtually in an online community is a shared commitment through reflection, collaboration, learning, and the support of colleagues with consistent communication (Steeg, 2016). Innovative advancements in virtual learning environments have changed how teachers can collaborate virtually, which has allowed learning to go beyond the schools and expanded the number of available options for how and when to learn from others. Collaboration through virtual learning has become an accessible resource for educators, as it connects teachers in or outside a school, district, state, or nation. Teachers use virtual learning environments to share teaching strategies, resources, and tools for collaboration. However, a gap still exists in the literature on the experience

and perceptions of K–2 teachers teaching beginning reading instruction and collaborating virtually, specifically with respect to technology being used as a support tool.

In this chapter, I provide a summary of the search strategies used to collect literature for this study. I also describe the theoretical foundation of CoPs and refer to recent research. This chapter also includes a discussion of the four premises of CoPs (i.e., people as social beings, knowledge, active engagement, and the meaning of CoPs) and the key variables for the study. I then provide background information on reading, define the different components of reading, and provide an overview of the type of instruction needed for reading.

Literature Search Strategy

To conduct this literature review, I used the Walden University Library’s search engines to identify peer-reviewed articles in the EBSCO host, Education Search Complete, and ERIC databases. Articles on the topics of education, professional development, and online learning were located for the literature review. The keywords used were *professional learning community, literacy, reading coaches, instructional coaches, instruction, reading, online learning, virtual learning, elementary education, reading teacher, elementary reading, professional learning, collaboration, online collaboration for elementary teachers, and teaching reading*. I began searching for *professional learning communities and learning environments* and found several articles on these two topics. During the search, I came across the conceptual framework of CoPs, which supported the virtual learning environment. The search became narrow, and recurring articles began to surface after searching for virtual learning environments that

are used to support reading instruction. A significant amount of research supports the purpose and benefits of using an online learning environment. Additionally, I searched Google Scholar for peer-reviewed articles using the key words *distance education*, *reading specialist*, *web-based instruction*, *virtual learning*, *reading achievement*, *educational coaching*, *communities of practice*, and *teaching reading*. Next, I used Walden's dissertation database for further research on virtual learning environments, reading, and CoPs and found some dissertations that supported the topics.

Conceptual Framework

The conceptual framework for this study was based on Wenger's (1998) CoP and social learning theory and was designed to understand the operation of a community of learners with a shared vision. The concept of a CoP originated from Lave and Wenger (1991), who stressed the value of learning in a social environment as they individualized learning in mathematics through a CoP. The three elements of domain, community, and practice because of the interaction and learning of the group members is the foundation of a CoP. According to Wenger-Trayner (2015), domain refers to the members of a group who gather with the same interest; community refers to the relationships formed among the members to learn from each other; and practice refers to sharing of resources between members to enhance learning. Wenger expanded the knowledge of CoPs, which was developed through the lens of social learning focusing on knowledge, knowing, and knowers; as they learn through social interaction and use knowledge to understand new learning within a group of people (Wenger, 1998). According to Wegner, a CoP involves four premises of social learning: (a) people as social beings, (b) knowledge, (c) active

engagement, and (d) meaning that emphasizes social participation in a learning environment that is driven by a shared vision (p. 62). Additionally, people are involved in learning through social participation and gain meaning and knowledge (Wenger, 1998, p. 3). Learning requires participants in the community to be committed and actively involved, which is a crucial element for retaining and deepening knowledge (Tsai et al., 2010). Seo (2014) stated, “Members of the Communities of Practice developed a shared repertoire of resources such as tools, stories, routines, vocabulary, and symbols that in a way carry the accumulated knowledge of the community” (p. 338). Therefore, when collaborating in a CoP, participants experience self-reflection, examination, the application of knowledge learned, and adjustment to meet needs.

The social theory of learning supports four elements: practice, identity, meaning, and community connections to how people share learning through social interaction. Wegner (1998) identified learning as a social process that involves continuous interaction through social participation and referred to every person as a contributor to learning. Wenger emphasized that social relationships are different in learning communities such as CoPs because of shared interaction. Through shared interaction, teachers can contribute to the virtual learning environment on beginning reading instruction.

Rationale for Theory

The theory of CoPs, by Lave and Wegner (1998) supported this study because the teachers collaborated through Google Platforms to support beginning reading instruction. Research indicated that using the CoP as a structure for different professional learning environments has assisted with learning and developing skills for teachers (Patton &

Park, 2016; Smith et al., 2017). Teachers strive to build relationships, share knowledge, have conversations, and have a supportive environment, especially when interacting with other teachers on a topic. Moreover, Oliphant and Branch-Mueller (2016) reported that a CoP could provide a continuous supportive environment for professional learners, which is crucial because of constant changes in students, curriculum, and school expectations. Teachers within a CoP collaborate to enhance instructional practices.

Relevance to Research Question

The two research questions developed for this study were the following:

1. What are the experiences of K–2 teachers when collaborating virtually the using Google Platforms to support beginning reading instruction?
2. How do K–2 teachers perceive CoPs as an influence on instructional approaches for teaching beginning reading instruction?

A CoP was deemed appropriate for the research questions because of the social interaction within the CoP. According to Smith et al. (2017), from 2000–2014, CoPs were used in online learning through research in various studies, as well as to promote learning within a group of teachers. The group of teachers was able to use online learning to support their respective fields.

Literature Review Related to Key Variables

For this section, a search for literature on K–2 teachers teaching beginning reading was conducted using key variable such as teaching reading, collaboration, CoPs, virtual learning, and the influence of CoPs on instruction. The review of research described the key concepts of teachers teaching beginning reading instruction. The major

themes related to the literature analysis to support the purpose of the study were described.

Beginning Reading Instruction

Teaching Reading

Kindergarten students begin reading words in text by using basic phonics and phonemic awareness and additional reading skills, such as comprehension and fluency-- skills that are developed from first to second grade (Calkins, 2019). Teachers must understand their role in teaching beginning reading as they teach the five components of reading (Pratt & Martin, 2017). Effective instruction is the key to ensure that all students progress in reading from year to year.

For this reason, educators use different avenues to support reading instruction, such as professional development and reading programs. Professional developments and reading programs have been used to guide teachers in developing schedules for reading instruction, routines, and instructional practices for decades (Kuijk et al., 2016). According to Greenleaf et al. (2017), professional development is a vehicle for learning for teachers, but often the learning does not transfer through teaching to produce higher learning for students. Scarparolo and Hammond's (2018) study showed that professional developments can assist in providing instructional focus, but continuous support for teachers is needed for the sustainability of quality beginning reading instruction for students.

Past research has addressed a teacher's role in reading instruction and is consistent with recent research on a teacher's role as they teach students to read (Brenner

& Hiebert, 2010; Fountas & Pinnell, 2017, p.8; Hiebert & Pearson, 2010; Rasinski et al., 2017). Fountas and Pinnell (2017) stated, “Every teaching move is directed at helping students become self-initiating, self-regulating readers who are independent, flexible, and confident” (p. 361). Literature has shown that the reading strategies and skills that some struggling students need to analyze a text are provided through the teacher’s instruction (Fien et al., 2015; Iwai, 2016; Nelson, 2016; Ness, 2016; Pratt & Martin, 2017; Solari et al., 2017; Soodla et al., 2016; Wolfe, 2015). Frankel et al. (2016) defined reading as the process of gaining meaning from text. To gain meaning from text, readers must create an effective system to read and comprehend text. This system combines five essential components: phonics, phonemic awareness, vocabulary, comprehension, and fluency to build skills in a beginning reader (Calkins, 2019; Coyne et al., 2006; Fien et al., 2015; Pratt & Martin, 2017). Students who do not acquire these five components suffer when they come across reading difficulties, which can have a lasting impact. A considerable amount of research has addressed the five components of reading to provide a deeper understanding of the benefits of instructional practices.

The first component of reading is phonics. Fountas and Pinnell (2017) defined phonics as the ability to hear and manipulate sounds and know the connection between sounds and the spelling patterns in a word (p. 399). Noticing patterns in words is a fundamental skill for readers. Phonics should be taught daily in a primary classroom to accelerate reading behaviors and a better understanding of words, as it teaches students to break down words that reveal other words (Chapman et al., 2018; Fountas & Pinnell,

2017, p. 405). Phonics instruction furthers the opportunity for beginning readers to successfully read texts.

The second component is phonemic awareness, or the identification and manipulation of sounds. Phonemic awareness helps a reader to examine the accuracy of words that are read on the page. Fountas and Pinnell (2017) stated, “Ultimately, the reader must learn to use word-solving strategies in a smooth, automatic way while reading continuous text” (p. 58). Readers who cannot identify and manipulate sounds and understand words may encounter issues with reading (Fountas & Pinnell, 2017, p. 57). Understanding how the sounds work within words helps students work through unknown words while reading text (Bastug & Demirtas, 2016; Chapman et al., 2018). Graphophonemic awareness, which occurs when students recognize letters and their sounds, is applied by beginning readers as they decode new words (Fountas & Pinnell, p. 58). Beginning readers begin to read freely when their phonemic awareness skills are well developed.

The third component is fluency, which is the ability to move through text with accuracy, rate, and prosody (Bastug & Demirtas, 2016; Young et al., 2016). Improving fluency involves teacher-directed instruction (Ilhan, 2017; Rasinski et al., 2017). According to Bastug and Demirtas (2016), without fluency, students lack automaticity, which hinders overall reading. The lack of phonemic awareness and phonics skills disrupts fluency and the understanding of text read.

The fourth component is comprehension. Comprehension is the process of cognitively combining all reading skills to gain meaning from text. Phonemic awareness,

phonics, and fluency are paired with comprehension skills to develop beginning readers (Solari et al., 2017). Not teaching comprehension using direct instruction can lead to difficulties in reading that have a lasting effect on students' reading abilities (Conradi et al., 2016; Fedora, 2016; Sandberg et al., 2015; Snyder & Golightly, 2017). A study conducted by Ness (2016) highlighted that teachers modeling thinking out loud to build students' comprehension skills is important for reading development. Pratt and Martin (2017) made similar findings regarding the development of metacognitive skills for students to have a deeper understanding of text. Both researchers stressed the importance of verbalizing and thinking while reading for readers to find the meaning of text and to stimulate cognitive load (Calkins, 2019; Head et al., 2018). The acquisition of comprehension skills through direct instruction is critical for beginning readers to grasp meaning and continue developing as readers each year.

The fifth and final component of reading is vocabulary. Vocabulary involves understanding the meaning of words in a text. Recognition of vocabulary words is certainly important for the meaning of text, fluency, and deciphering words (Ilhan, 2017). Students often have to read and comprehend text containing several unknown words, which are learned and developed through reading exposure and teachers' introduction of new words in direct instruction. According to Fountas and Pinnell (2017, p. 401), students need direct instruction when they are being taught vocabulary to help them monitor, notice, use meaning, and use familiar words to solve unknown words. Direct instruction gives beginning readers the opportunity to develop reading skills without developing poor reading behaviors (Calkins, 2019; Goldstein et al., 2017; Ilhan, 2017).

Vocabulary instruction has a direct link to student comprehension. Therefore, direct vocabulary instruction is imperative to help students take away the deeper meaning of a text.

Struggling Readers

In grades K–2, struggling readers lack the self-regulation of reading strategies learned in phonemic awareness, phonics, and fluency. Such students are unable to consistently apply different comprehension skills to read across a variety of texts, due to which their reading deficits become evident (Pratt & Martin, 2017). This results in low-reading achievement for third through eighth grade students (Peterson et al., 2016; Rasinski et al., 2017). According to the 2019 National Assessment of Educational Progress (NAEP), reading levels for 4–8 grade students have declined since 2017 (National Center for Education Statistics, 2019). More effective instruction in beginning reading will result in fewer struggling readers in grades 4–8.

Teachers' Perceptions of Beginning Reading Instruction

Negative or positive perceptions can impact teachers' openness to try new teaching practices in the classroom. Ng and Leicht (2019) emphasized that teachers who teach reading struggle with being open to trying new instructional approaches. Their study suggested that teachers need the opportunity to connect current instructional practices with changing perceptions about new learning.

Numerous researchers have studied the instructional practices and perceptions of reading teachers with respect to teaching beginning reading. For example, Cekiso's (2017) study on teachers' perceptions of reading instruction indicated that teachers did

not feel prepared to teach beginning reading instruction because initial trainings were not in-depth enough for them to understand all the complex elements involved with that instruction. Awada and Gutierrez-Colon's (2018) study discussed the perceptions of teachers using different tools to support readers and teach them reading comprehension skills. Some teachers thought tools such as graphic organizers, visuals, or journaling were not helpful in assisting students with understanding reading. Others did not find value in teaching students how to predict or make inferences while reading. Apparently, teachers' perceptions greatly influence their instructional practices and strategies. However, despite teachers' perceptions, the findings showed that using tools such as graphic organizers could help students with comprehension.

Teaching reading has evolved through research, as research has sought to understand the components that early readers need to begin reading. For example, in the past, a developing reader was taught through sight words and not given direct reading instruction (Hiebert & Pearson, 2010). However, as sight words do not always adhere to the rules of phonics (e.g., "said"), researchers and educators have learned they should be taught directly and in the context of the text. Yet, as teachers evolve with the current findings of recent research on the components of reading, they require continuous support in implementing and providing research-based beginning reading instruction.

Furthermore, teachers have different perceptions of reading instruction, and current and past studies showed the impact of teachers' perceptions on teaching reading instruction (Ness, 2015; Ng & Leicht, 2019). Duggins and Acosta (2017) explored teachers' perceptions of using a read-aloud in the classroom with a standardized

curriculum. The results were that teachers understood the importance of a read-aloud, but the challenge was choosing the text, teaching points, and how to chunk the book (Giles & Tunk, 2015; Fountas & Pinnell, 2017, p. 377). Thus, teachers spent less time on reading a read-aloud due to lack of proper instruction guidance and time constraints.

Collaboration

Collaboration with others fosters growth in a learning practice, as it is a joint effort to work with other professionals for self-development. A collaborative learning environment helps the learner confront individual principles to acquire new learning (Darling-Hammond et al., 2009; Tam, 2015). The benefits of collaboration facilitate growth in content and professional learning (Arnell, 2014; Schiff et al., 2015). Gee and Whaley (2016) believed that collaboration helps with changes in instruction. Teachers can model a lesson, share resources, provide guidance for instructional weaknesses, and share knowledge as they teach in classrooms. However, teachers usually cannot leave their classrooms and observe their colleagues as they model, discuss, share, and guide them through beginning reading instruction, face-to-face. Therefore, this study aims to understand how K–2 teachers use a virtual learning environment to collaborate on supporting each other as they develop their skills for beginning reading instruction.

Professional learning is a continuous process that should frequently occur to advance the identity of teachers through self-learning. As schools are more diverse than in the past and education is evolving to meet the demands of the 21st century, there should be continuous professional learning to guide teachers through this evolution. For example, the increased use of technology in the classroom has transformed the approach

of delivering instruction that incorporates technology (Scheffield et al., 2018). Scheffield found that veteran primary and secondary teachers used digital technology as a tool for student learning, although the level of their knowledge of digital technology varied and they faced challenges. Yet, in a professional learning environment, Durksen et al. (2017) found that when teachers learned the program together and prepared for instruction, 93% of teachers felt equipped with teaching after practicing and collaborating with other teachers. However, some of the teachers were not as comfortable with or involved with collaborating with others.

Virtual Collaboration

Advancements in technology have provided innovative ways to communicate with people in different locations. For example, the development of online learning has fostered learning in a non-traditional way to reach people globally (Clark & Wilson, 2017). Virtual learning is a method of using different online resources to work with others (Schieffer, 2016). Online learning has been a tool for communication amongst colleagues in various professions such as education and higher learning. Additionally, through his study, Beach (2018) extended the research on virtual learning by exploring why teachers use online learning environments and found that they used it for resources, videos, websites, and content-sharing networks. Teachers have found ways to support instruction by sharing and exchanging knowledge through Twitter, blogs, wikis, and emails. Facebook, Instagram, Pinterest, and Wiki are other commonly used online resources to share resources, lessons, activities, or general information regarding instruction.

Recent research illustrates the benefits of learning in a virtual learning environment (Beach, 2018; Dagen & Morewood, 2016; Hammond, 2017; Romeu et al., 2016). Some benefits of collaborating in a virtual learning environment are social interaction, motivation, higher achievement, a sense of belonging, and communication (Chadha, 2018). Furthermore, participants reported the importance of online learning due to personal connections in learning. According to Hammond (2017), virtual learning led to a more in-depth understanding of instructional topics. Individual thoughts changed through interaction with others in a virtual learning environment. In a virtual learning environment, each person works to develop personal strengths and weaknesses, together with a shared vision.

Marchisio et al. (2018) conducted a study on asynchronous online learning with mathematics teachers using Moodle as the online environment. Before using Moodle, some teachers only read posts, viewed work samples, or communicated through blogs or different Platforms, but Moodle provided teachers with other activities and additional resources. The discussions within Moodle changed the participants' learning. They were not just sharing resources; teachers remained engaged in conversation and collaboration because of the comfortable environment created, which was an essential part of learning.

A virtual learning environment requires participation in learning for change to happen (Bugden et al., 2018; Rosell-Aguilar, 2018; Schieffer, 2016). More specifically, according to Cook et al.'s (2017) findings, having access to a collaborative learning environment assisted special education teachers with instruction as they applied the knowledge they learned about their students. They implemented the learning in the

classroom and gained access to different online resources. Bugden et al.'s (2018) study describes teachers in legal education and their experience participating in a virtual learning environment. Teachers reported hearing other viewpoints, social interaction, and contributing to the virtual learning environment decreased their feelings of isolation. Erdogan's (2016) study on science education in an online learning environment found that the learning environment changed the view of science instruction by creating a safe place where science teachers shared knowledge. The teachers embraced the online environment because they engaged in open conversations on different topics. This study is significant because the opportunity to learn changed the discussion.

Beach (2018) analyzed 45 elementary teachers in a multimethod study to find out why online learning environments support reading instruction. Participants used online video resources, web portals, information websites, content-sharing networks, and professional learning resources to support reading instruction. The findings showed teachers gained knowledge by accessing online learning environments.

Participating in a virtual learning environment has proven to be a resourceful tool for learning because it was self-directed in the past. Self-directed learning requires participants to be involved through communication, knowledge sharing, and interaction with other colleagues to reflect the change in their practice. Educators prefer accessing a virtual learning environment due to accessibility while traveling and a diverse population of learners. Schools are increasingly using virtual learning to support professional learning. A study by Pytash et al. (2016) noted the self-directed learning experiences of two women in a massive open online course (MOOC) where both students used other

sources of online platforms to connect. Participating in a learning environment allowed them to expand their learning with digital tools by exploring and asking questions through interaction was significant. The collaboration among other educators in the field made a difference in knowledge, and the two participants were able to share their gained knowledge beyond the virtual environment.

Studies on virtual learning environments have also discussed the challenges involved, such as understanding the program used to connect with others (Rosell-Aguilar, 2018; Schieffer, 2016). Despite the initial trials of being involved in a virtual learning environment, the results impacted participants' learning. Participants began formed a relationship through consistent interaction and trust. Reflection by the teachers was the key to change in the process of accepting and giving feedback.

Some research has shown the use of virtual programs to support students in reading as an intervention, not teacher collaboration, to support reading instruction. A study by Henry et al. (2012) highlighted the use of the empowerment model through a virtual learning program for peer collaboration to promote student motivation in struggling readers. Vereb et al. (2015) discussed a virtual learning program designed to improve teachers' ability to assess components of a reading lesson. A total of 59 participants showed improvement in analyzing the quality of reading lessons. However, the research also indicated that communicating and connecting with other teachers would be relevant and crucial for instructional changes. However, a gap exists in the research on K-2 teachers collaborating virtually to support beginning reading instruction.

To summarize, advanced technology has made virtual learning more relevant because of collaboration in different places. Collaborating with colleagues can accelerate learning (Arasaratnam-Smith & Northcote, 2018; Donnelly & Maguire, 2018; Herbert et al., 2016; Marchisio et al., 2018; Radford et al., 2017; Schieffer, 2016; Schiff et al., 2015). Thus, virtual learning has helped educators change instructional practices through collaboration and self-reflection.

Communities of Practice and Virtual Collaboration

CoPs support a community of people with concerns in a particular area (Gehrke & Kezar, 2017). CoP environments provide social interaction, various educational support environments, teaching, and learning from others (Arasaratnam-Smith & Northcote, 2017). Stoszkowski et al. (2017) observed 23 student coaches in an online blog for educational support. The participants reported interacting with others helped them reflect on learning practices to change. Not only did the participants become more reflective, but their knowledge of the CoP environment also increased. The informal environment structured in a CoP led to significant benefits for the students and a tool for learning. Time management was a barrier when blogging. Understanding the purpose of participating in the learning environment proved yet another limitation. Hence, a CoP is a collaborative environment and not controlled by one individual.

Further, CoP has influenced practice and instructional changes through shared knowledge, flexible partnership, accountability, and transformative learning. Swanson and Coddington (2016) studied high school teachers and undergraduate students as they aligned new math and science standards with instructional practices. A partnership

amongst the high school teachers was formed in the CoP environment, which built trust and respect between each other. Trust and respect developed a mentorship among the nine members who opened the door for learning to be shared, accepted, and applied, thereby transforming knowledge and practices (Donnelly & Maguire, 2018). Teachers in this study had to adjust their thinking within the CoP to create an environment for learning.

Donnelly and Maguire's (2018) selected participants as part of the National Forum (NF) for teaching and learning and to enhance teaching practices through a CoP. The findings from this study showed the empowerment of learning as teachers reported that connection with other professionals inspired creativity, challenged teaching, and changed instruction design. Knowledge is power when it has a purpose with meaningful interaction. Teachers must stay abreast of the changes in content and instructional practices to ensure success in learning for students for professional learning. Hood (2017) explored the creation of an online learning environment for educators; two teachers created an online learning environment for teachers. The qualitative study highlighted online engagement and how it improved instructional practices because of participation and access to the online platform. However, learning because some people are there to share, and others are there to receive knowledge learning is not consistent.

In conclusion, CoPs in education provide educators with opportunities to share knowledge in different settings, and social interaction helps to create a community of learners. A group of learners realized this necessary change while adapting personal teaching and views to a new perspective for professional growth (Arasaratnam-Smith &

Northcote, 2018). Furthermore, different-sized CoPs are suitable for virtual collaboration to support professional learning through learned knowledge.

Summary and Conclusion

The literature I reviewed in this chapter relates to the purpose of this study because it highlights educators' perceptions and experiences of using a virtual learning environment to engage and communicate on a specific topic and within a CoP. Additionally, I reviewed the literature on reading and a teacher's role in understanding reading. I described the literature search strategy I used to conduct this study. I also explained the theoretical framework and the critical variables of this study.

Some themes emerged from the literature review. The first theme is some teachers need support to teach reading (Berkeley et al., 2016; Chapman et al., 2018; Conradi et al., 2016; Coyne et al., 2006). Support for reading teachers is necessary because reading has been a concern for many decades due to the high number of students who read below average when they reach fourth grade (Solari et al., 2017). This theme emerged in the literature review on reading instruction and is essential because it shows that teachers need support in explicitly teaching beginning reading skills.

Professional learning is the second theme that emerged from the literature review. Some studies in the literature discussed the importance of a new approach to learning and professional practice transformation. Professional development trainings are not about correcting the instructional issues in education; it provides insight into exploring a new way to enhance professional learning and different methods to transfer knowledge in the classroom.

The third theme I found in past and present literature is collaborating within a virtual learning environment. Increasingly more people collaborate virtually compared to the past (Romeu et al., 2016; Teras, 2016). Educators are unfamiliar with self-directed learning because of school-designed professional development during or after school. Self-directed learning means being present and involved while learning. This theme is significant to this study because of its relation to the conceptual framework.

However, a gap exists in using a virtual learning environment as an ongoing collaborative tool for K–2 teachers teaching beginning reading. Research on the use of virtual learning environments for other areas of education was positive, but none of the studies explored ways to support teachers in teaching beginning reading instruction as an ongoing tool for collaboration (Beach, 2018; Bugden et al., 2018; Romeu et al., 2016; Seo, 2104). Given these points, this study explored beginning reading instruction through collaboration in a virtual learning environment.

Chapter 3: Research Method

Introduction

The purpose of this qualitative study was to understand the experiences and perceptions of K–2 teachers collaborating virtually on Google Platforms to support beginning reading instruction within a CoP. In this chapter, I discuss the research design and rationale for choosing a basic qualitative study to understand the experiences of K–2 teachers collaborating in a virtual learning environment to support beginning reading instruction. I also describe my role as the researcher, the methodology, as well as the reasons to establish credibility, transferability, dependability, confirmability, and ethical procedures.

I used the following research questions to understand the phenomenon in the study as described in Chapter 1.

RQ1: What are the experiences of K–2 teachers when collaborating virtually using Google Platforms to support beginning reading instruction?

RQ2: How do K–2 teachers perceive a CoP as an influence on instructional approaches for teaching beginning reading?

Qualitative researchers concentrate on understanding the experiences of people to acquire meaning in a situation (Merriam & Tisdell, 2016). According to Patton (2015), qualitative research contributes to making sense of the world. In Qualitative methodology, data collection occurs through tools such as observations and journal entries (Patton, 2015). These sources give meaning to and phenomenon, which is the center of a qualitative study. Furthermore, this type of research takes place in a real-world

setting that contributes to a deeper meaning of the phenomenon through the participants (Patton, 2015). A basic qualitative study was chosen because the meaning of the study was constructed through the experiences of people instead of statistical data from a quantitative study. Moreover, a basic qualitative study provides a rich descriptive data from participants.

Role of the Researcher

As the researcher, I selected and interviewed the participants and conducted the study in a school and district setting that was different from mine. I did not have direct relationships with or supervise the participants in the study. I was neither a participant in any of these settings nor a participant-observer, but was an “observer” only. Four participants worked in school districts where I was previously employed. However, we do not work in the same school district now. I have an extensive teaching background in elementary education and supporting teachers teaching beginning reading. I minimized biases by journaling any thoughts that might interfere with the data. The design of follow-up questions clarified or confirmed any information for the participants.

Methodology

Participant Selection Logic

The population for this study was K–2 teachers who teach beginning reading instruction in the United States. Utilizing purposeful sampling to recruit K–2 teachers from a school in northern Texas was the original plan, but recruitment issues due to the worldwide pandemic prevented me from doing so. Thus, I chose to pivot the recruitment of participants through social media and public sites. Convenience sampling allows a

researcher to select participants based on availability (Merriam & Tisdell, 2016).

Therefore, I used convenience sampling for this study due to the recruitment challenges induced by the pandemic. In addition, the inclusion criteria for selecting the sample of teachers were as follows: Participating teachers (a) had to be K–2 teachers teaching beginning reading instruction, (b) had to have participated in CoPs, and (c) had to be willing to participate in a virtual learning environment.

The Google Form served as a brief screener to ensure that participants met the criteria for the study. It contained contact information and questions about the inclusion criteria. The participants expressed their preferences for me to contact them to set up a date and time for the interview. Some chose for me to contact them by phone, and others chose email. We set a day and time, and I sent them the Zoom call information for the interview. Once I received their responses and agreement to participate, I selected the eight participants who had returned the Google Forms and interviewed them. However, one participant dropped from the study because she did not utilize Google Platforms to collaborate. Therefore, seven participants who met the above criteria remained. This group included one kindergarten teacher, two first-grade teachers, and five second-grade teachers, which made for an acceptable sample size. The responses to interview questions eventually became redundant to enable me to reach saturation for the sample size.

Instrumentation

For this basic qualitative study, the interviews were the primary data source to gather meaning in the study. Merriam and Tisdell's (2016) highly structured approach to interview question design indicated that it should be open-ended with careful wording

that transitioned into follow-up and probing questions. I used the open-ended, semi-structured interview approach. I developed the interview protocol in my advanced research course to find the codes and themes through data analysis. I originally designed eight questions from the literature on social interaction in virtual collaboration. After reviewing the questions, I deleted some redundant questions and added questions on reading instruction and the four premises of the social theory of learning. The four premises of social learning, (a) meaning, (b) practice, (c) community, and (d) identity, were used to design the eleven questions to understand the social interaction in a group of people within a CoP (Wenger, 1998, p. 5). The interview questions addressed the two research questions and provided further information on collaboration in a virtual learning environment (see Appendix A).

Procedures for Recruitment and Participation

The data collection process began in August 2020 and was completed in February 2021. I faced several challenges during participant recruitment because of the stress and demands of teaching through a pandemic. To recruit the participants, I placed an infographic on Twitter, and Facebook (see Appendix B) and emailed teachers (see Appendix C) explaining the purpose of the study, the inclusion criteria, and the interview process. To participate in the study, the teachers used a live link to the consent form and a brief screener in Google Forms that was linked to the infographic and email. The consent form informed the participants of my credentials and contact information. It also explained how their cooperation would assist with this voluntary study. I contacted the

participants to set a day and time for the interview. Once the participants were selected and scheduled, I conducted interviews on Zoom.

Procedures for Data Collection

The allocation for the Zoom interviews was 60 minutes. I used the phone for audio recording instead of the Zoom recording feature for transcription because it was efficient and convenient. I then emailed or mailed (depending on the participant's preference) an explanation informing the participant of the completed interview process, explaining the purpose of the follow-up questions, and verifying the transcript of their interview. I requested that participants check their transcriptions and notes for accuracy and clarity and report any inaccuracies or confusing portions. I offered follow-up interviews to clarify any information, but the participants did not request a follow-up interview or have any concerns about the transcripts. Two participants returned the transcript through email with spelling revisions for reading programs. I thanked the participants for participating in the interview and checking the transcripts. After receiving approval from the participants, I began the data analysis process.

Data Analysis Plan

Analyzing the data is a critical element in a study. According to Merriam and Tisdell (2016), a researcher controls the data analysis process during the interview by observing and taking descriptive notes. Then the actual coding is valid if completed after the interview. To transcribe the audio-recorded interviews in Microsoft Word, I used the data analysis method called step-by-step process analysis (Merriam et al., 2016). I hand-coded the first three interviews using the line-by-line coding method and wrote codes on

the side of each line with colored pens. I used previous codes for the other interview and added different codes when they surfaced. I found repetitive codes in the first three interviews because of similar comments. I used those codes from the first three interviews to analyze the other interviews in Dedoose, a qualitative analysis program used for coding interviews. Dedoose allowed me to create code names as I coded line by line. I clicked on the codes created to view how many times I saw each code through the interviews, which made it easy to access and reread. The data were organized into themes to understand the participants' experience and answer the research questions. The data were stored on an external flash drive in a locked cabinet to protect the data from being accessed or lost. Deleting all files and destroying data will happen after 5 years.

Issues of Trustworthiness

Trustworthiness is vital for the credibility of a study. According to Merriam and Tisdell (2016), “the role of a researcher is to monitor trustworthiness carefully and pay close attention to the findings” (p. 238). Monitoring trustworthiness requires a researcher to look at (a) credibility, (b) transferability, (c) dependability, (d) confirmability, and (e) ethical procedure (Patton, 2015, p. 680). The following sections address the criteria of trustworthiness.

Credibility

Multiple theories, member checks, and data collection created triangulation to establish credibility (Merriam & Tisdell 2016). The participants reviewed the transcribed transcript for accuracy and meaning. I explored research on beginning reading instruction, virtual learning environments, and the theory of CoPs and social theory of

learning to understand the phenomenon of the study through collaboration and social interactions within a virtual learning environment. Chapter 2 provided the literature on the explored research and limitations.

Transferability

Transferability is the question of whether the findings of a study, related to the sample size and population can be applied in other studies. The small sample of teachers from a large population and the use of only one platform to collaborate at different schools limited the transferability of the study's findings. All selected participants had taught beginning reading in Grades K–2 for 3 years in the United States and used Google Platforms and CoPs to collaborate to support their beginning reading instruction. Future researchers may analyze the details of this study to understand the support provided on beginning reading instructional practices through a virtual CoP.

Dependability

Another issue of trustworthiness is dependability, which requires researchers to document the research and data process. I recorded the process of data collection to add dependability. Pseudonyms were given to protect the confidentiality of the participants. After the interviews, I transcribed the interview notes and quoted what the participants stated within the interview. According to Patton (2015), results must be consistent with the data. Therefore, I requested that the participants check the transcripts of their interviews for clarity and accuracy.

Confirmability

The objective of confirmability is examining the data during the process of analysis. Auditing is a suggested strategy for ensuring audit trails (Patton, 2015, p. 685). I documented my thoughts during the interview, transcribed notes, monitored and adjusted my thoughts to any positive or negative outcomes of the data, and supported it with evidence. To address reflexivity, I frequently reflected and made notes in a journal about the research process and journey.

Ethical Procedure

Confidentiality of all the participants, the data collection process, and data analysis make ethics a critical component of research. Issues can occur at any time in a study, so a clear communication line must be established to address any problem promptly. For example, in this study, the participants might have become uncomfortable providing information about their school. I obtained consent and labeled the interviews with numbers for transcription purposes. Then, I used pseudonyms for the participants for data analysis. In addition, I provided my contact information to the teachers at the beginning of the voluntary process and assured them that they could withdraw at any point in the study. Storing the interview data on a password-protected flash drive and computer and the plan to destroy all printed and digital documents 5 years after the publication of the completed study ensured trust.

Summary

This chapter described the purpose of the study, the rationale for choosing a basic qualitative study design, my role as the researcher, the methodology for the recruitment

and selection of the participants, and procedures for collecting and analyzing data. I discussed the issues of trustworthiness, including credibility, transferability, dependability, confirmability, and ethics. I also provided a description of the procedure for preserving the confidentiality of the study, data collection, participants, and site. Chapter 4 includes the findings of the study.

Chapter 4: Results

The purpose of this basic qualitative study was to understand the experiences and perceptions of k-2 teachers using Google Platforms to support reading instruction within a CoP through virtual collaboration among k-2 teachers. Through the first research question, I explored the experiences of k-2 teachers collaborating in a virtual CoP using Google Platforms to support beginning reading instruction. With the second research question, I examined the teachers' perceptions of a CoP and its influence on instructional practices. In this chapter, I restate the research questions and describe the setting, participant demographics, and data collection and analysis. Finally, I present the evidence of trustworthiness and the results and conclude the chapter with a summary.

Research Questions

The research questions were as follows:

RQ1: What are the experiences of K–2 teachers when collaborating virtually using Google Platforms to support beginning reading instruction?

RQ2: How do K–2 teachers perceive CoPs as an influence on instructional approaches for teaching beginning reading?

Setting

The initial plan presented in Chapter 1 was to use one elementary school in one school district in the northern region of Texas. Due to the COVID-19 pandemic in March 2020, all schools in the district were closed to faculty and students; everyone participated in online learning. Therefore, contacting district personnel for approval to conduct this research was challenging. Eventually, the district refused to allow research to be

conducted until further notice. However, the Walden Institutional Review Board (IRB) approved changing to collect data in another school district in the northern part of Texas that taught students face to face. Unfortunately, no participant volunteered for the study. Consequently, with IRB approval, recruitment took place through Facebook, Twitter, and emails sent to public sites viewed by K–2 teachers within the United States.

Demographics

A total of eight volunteers responded, but data from only seven participants who used Google Platforms were considered. Each participant taught beginning reading at the time of data collection. Table 1 shows the seven participants by their pseudonyms, the title of their position, years of experience teaching, and gender.

Table 1

Demographics of Participants

Participants	Position title	Teaching experience	Gender
Teacher 1	Kindergarten	4	F
Teacher 2	First grade	16	F
Teacher 3	Second grade	12	F
Teacher 4	Second grade	15	F
Teacher 5	Second grade	7	F
Teacher 6	Second grade	9	F
Teacher 7	Second grade	15	F

All seven participants used Google Platforms as a virtual CoP to collaborate with others in their schools or districts. In addition, two of the seven participants used Facebook, Twitter, and email to supplement a virtual CoP on Google Platforms while supporting each other through beginning reading instruction. All the participants had more than 3 years of experience in beginning reading instruction. Two teachers

conducted all their beginning reading instruction virtually, three teachers taught face to face, and the remaining two teachers followed a hybrid schedule (virtual on some days and face to face on other days) during data collection.

Data Collection

As the original plan for data collection was not feasible, I had to seek IRB approval to modify the method of participant recruitment. IRB approval was granted (07-16-20-0264319), so I began recruiting in July 2020. Modifications to the recruitment plan included posting an infographic (Appendix B) and using social media. It took months to recruit seven participants, and the eighth participant did not meet the criteria for data collection. I reached saturation based on the rich data from the interviews with the seven participants; recruiting more participants was unnecessary.

Each participant had one scheduled Zoom interview with an average duration of 40 minutes. I used my phone to audio-record the responses to the semi-structured interview questions. The participants verified and approved the manually transcribed transcripts. One transcript needed one correction of a spelling error in the name of a reading program used to support reading instruction. After participants completed the interview and transcription check, I sent each participant a \$15 electronic gift card.

Data Analysis

Data analysis was a critical element of the study because coding was valid after the completed interviews. According to Merriam and Tisdell (2016), a researcher controls the data analysis process during an interview by observing and taking descriptive notes. Responses from the seven interviews were coded and organized into categories and

themes for each research question. The codes for the raw data and the coding process were stored on a flash drive, and notes were recorded in a journal.

I followed the data analysis method called the *step-by-step process analysis* (Merriam et al., 2016). First, I hand-coded the first three interviews using the line-by-line coding method. To do this, I used different colored highlighters and pencils to mark the initial codes in each line. Then, I wrote down notes and initial code names in the margins. As I coded, I noted similarities in the responses from the first three interviews to code the four remaining interviews.

Next, I used the codes created from the first three interviews to analyze the remaining interviews in Dedoose, a qualitative analysis program used for coding interviews. I uploaded the transcripts in Dedoose and continued to use the line-by-line coding method to code data from the first three interviews as well as the additional data from the other four interviews.

I reread all the transcripts after completing the coding process for all the interviews. Then, I wrote the codes down in a journal as I looked through the transcripts for similar responses and initial codes to the interview questions. A total of 167 initial codes were noted after I coded each of the seven interviews line by line.

After coding all the interviews, I examined the 167 initial codes and looked for common factors among the codes. I used Microsoft Word document (see Appendix D) to organize the coding cycles. Then, I collapsed the 167 initial codes into a coherent and distinctive total of 89 codes by grouping common phrases and codes as I was thinking about the purpose of the study and research questions in the second cycle. Next, while

thinking about common language from the interview and how the participants discussed their thoughts on students' reading, reading programs, instructional practices, and the use of Google tools, I grouped the 89 codes into seven categories and summarized the meaning of the codes condensed into the categories in the third cycle (see Appendix D). The seven categories were (a) teachers' perceptions on reading issues, (b) students' reading struggles, (c) students' learning experiences, (d) teachers' experiences, (e) collaboration benefits, (f) resources, and (g) Google support.

With the research questions in mind, I grouped the seven categories from the third cycle into three themes that related to the two research questions. Consequently, condensing the codes by research questions helped to develop themes that captured the voice of the data and addressed the answers to the research questions. I used words and phrases from the 89 codes and research questions to develop the themes. The three final themes were shared learning (Theme 1), accessibility (Theme 2), and professional achievements (Theme 3).

Evidence of Trustworthiness

Credibility

All interviews were conducted virtually because of the safety requirements of the COVID-19 pandemic. The virtual interviews allowed the participants and me to maintain social distancing in our environments. All the interviews were conducted on Zoom when the participants were not teaching and were in the comfort of their own homes during the interview.

Adjusting and readjusting the interview schedules was challenging because the participants often lacked time due to the added obstacle of teaching during the worldwide pandemic. The teachers needed additional time to prepare and record reading lessons and activities for face-to-face and virtual students to upload activities in Google Classroom or use technology tools for students to access. Therefore, creating the lessons and activities, recording them, and then uploading videos and activities required more of the teachers' time to prepare for instruction, leaving less time available for scheduling interviews.

Transferability

Some adjustments were made to the original data plan in Chapter 3 to increase transferability due to the constraints imposed by the pandemic. For example, the participants were recruited through school districts, social media, and public sites in the United States, rather than from one school in one school district, as per the original plan. As a result, the participants, who belonged to various schools, shared a variety of experiences and perspectives on virtual collaboration. To be more transferable, this study would need to be conducted in one school district, so that the resources, reading programs, and district guidelines on teaching reading would be aligned.

Dependability

I used transcript checking to confirm the interpretation of data for dependability. The participants read their transcripts to check for accuracy. They checked for discrepancies and answered any follow-up questions. I emailed the participants a summary of the findings with the research questions. I carefully read the interviews

several times to ensure that I limited my personal biases and kept observation notes from the interview.

Confirmability

To establish confirmability, I used the conceptual frameworks of CoPs and social learning theory, the research questions, and the literature, which I referenced before interviews to connect back to the study's purpose and control any personal bias that I might have had during the interviews. For the purpose of transparency, I kept notes of my thoughts and connections to the research questions during interviews, transcription, and coding (Appendix D), showing the process of condensing initial codes into categories and then into themes.

Findings

The findings are organized in this section so that they correspond with the themes that address the research questions. The emerging themes from this study were analyzed from the data of the words, phrases, or sentences that frequently appeared during the coding process. Themes 1 and 2, which were shared learning and accessibility, addressed RQ1. Themes 2 and 3, which were accessibility and professional achievements, addressed RQ2.

Theme 1: Shared Learning

Shared learning is collaboration among participants within the virtual CoP. People in a CoP engage in shared learning to improve their skills by learning together (Wenger-Trayner, 2015). The theme of shared learning answered RQ1 because all participants discussed what they contributed to the learning environment with created

resources and shared knowledge of beginning reading instruction. The knowledge gained from the virtual learning environment was a vital piece of learning for each participant because they shared multiple ways in which they learned or created something to share in the virtual learning environment. In this study, teachers used Google Platforms to discuss and share different resources about beginning reading instruction. They used Google Docs, Google Classroom, Google Slides, Google Sheets, and Google Meet for collaboration.

Teachers had more positive experiences than negative ones when they collaborated virtually. A positive experience was having unlimited access to organized resources in Google Drive. Teacher 1 reported, “Google Docs helped us share thorough lesson plans and materials.” Google Drive helped the teachers create, edit, and store the documents to support instruction. Another positive experience for all the teachers was collaborating in a virtual learning environment. All the teachers collaborated through shared resources and conversations about instruction.

Another positive experience was that teachers could share learning on a broader scale by meeting district support people on Google Meet who were available to discuss and share ideas about best practices in beginning reading instruction. The only negative experience that the participants voiced about virtual collaboration was that the teachers felt overwhelmed by the large group size. For example, Teacher 7 stated, “I just listen when it is a large group and take notes to share with my team.” Therefore, communication proved a challenge when they tried to share instruction practices with so many points of view during the meeting.

Teachers also reported that they collaborated both asynchronously and synchronously, because it seemed as though communicating and collaborating through Google Platform was always in “real time”. The teachers could share learnings conveniently and did not have to meet as frequently in person because continuous collaboration and clarifications could take place through the Google Doc using the “comment” function. For example, Teacher 3, as she described “synchronous” shared learning, expressed that by using the “comment” function, she could conveniently “bounce ideas with other teachers at any time and to try to figure out different and new ways to teach.” By using the “comment” function either synchronously or asynchronously, teachers were able to not only share different lesson plans, but also share ideas, videos, student data, and resources to support reading instruction. In fact, Teachers 2, 5, and 6 reported that they shared the same experiences by sharing and using Google Drive for lesson plans and ideas. However, Teacher 1 indicated,

We use Google Slides for reading instruction. The videos and Google slides helped align our instructional practices with each other. We were able to understand what was happening in other classrooms in the building despite not having time to view each other teaching.

Furthermore, shared learning seemed to be a significant factor in continuous, dynamic interaction within the CoP. For example, shared learning helped the teachers change their approach to teaching phonics instruction or supporting comprehension. In addition, the teachers’ point of view as they shared learning through Google Platforms highlighted their various influences on instructional practices. For instance, all the

teachers reported that interacting with others made them think about things they never thought about before and helped them view it from a different perspective. Continuous interaction was significant in changing perspectives, which influenced instructional practices.

Trust was an essential factor in shared learning in a CoP. The teachers felt comfortable sharing with others in their school and district because of their collegial relationships. Teachers 2 and 3 reported collaborating through Google Platforms frequently because of the positive relationships developed. For example, Teacher 3 reported that she shared more through Google Platforms than through Facebook and Twitter because of the little trust and relationships built on Facebook and Twitter. She explained:’

“I collaborate with my team because we share the same kids. The teachers want to know what I teach, and it gives me more confidence to share. I know they will use it and know they value it. I know they would tell me different ideas and how to change it. We have a more personal connection. I am more comfortable, and it has more of a return investment.”

The key to collaboration was trust and the development of relationships to learn and grow with colleagues.

The teachers were willing to accept feedback and learn from colleagues. Continuous interactions made the participants feel safe to disagree, agree, or share what they learned from teaching in their classrooms. Teacher 6 reported, “My team provides feedback because we have worked together for so long. No one gets their feelings hurt

addressing issues as a group.” According to the participants, Google Platforms enhanced beginning reading instruction. All the teachers felt comfortable sharing the difficulty of teaching young children to read as they struggled to teach phonics, phonemic awareness, comprehension, vocabulary, and fluency, especially during the pandemic when reading instruction was provided virtually. Teacher 5 reported, “Sometimes I struggle with understanding how to work with lower readers compared to working with higher readers.” Therefore, to solve this problem, the teachers created instructional documents on these topics to support instruction. They provided feedback to one another while discussing instructional challenges to build a sense of trust.

In conclusion, shared learning enhanced the participants’ knowledge through virtual collaboration in a CoP through shared resources, points of view, experiences, and instructional practices. The continuous flexibility of collaborating asynchronously and synchronously played a role in the interaction for impacting instructional practices. Trust was the foundation of the collaboration, as the participants felt free to express themselves and share their knowledge to teach beginning reading instruction with no judgment.

Theme 2: Accessibility

The advantage of utilizing Google Platforms to collaborate is having access to other resources after a video call, so accessibility fits into RQ1 and RQ2. All the participants highlighted the number of resources accessed and utilized in whole or small-group instruction. Therefore, accessing resources was beneficial to collaborating virtually through Google Platforms because it kept the teachers on the same page throughout the instructional day. Even though all the teachers are different, collaboration allowed them

to find common ground. For example, Teacher 4 shared, “We all process information in different ways and at different times and thinking through things in other places allowed me to access the documents later to share or comment on the previous discussion.”

Google Platforms gave them a medium to connect. At any time, the teachers accessed instructional materials through Google Drive. Google Drive was a good tool for making resources accessible conveniently.

All teachers reported that access to created documents and sharing with colleagues led to further conversations about teaching beginning reading and instructional practices related to components of beginning reading instruction. Teacher 6 stated, “My literacy coaches provide feedback on our plans. They would leave comments in the plans if they saw something that needed to be changed.” Once the teachers discussed instructional resources as a group, they chose the best, most accessible resources to benefit small and whole-group instruction to meet the different needs of the students. The teachers organized the resources cohesively into folders for easy access. For example, guided reading templates, a template on the progression of teaching phonics, comprehension strategies, and graphic organizers; were always accessible to the teachers. Teacher 2 reported, “Google Slides are pretty versatile and easy to navigate, so we load our documents and lesson plans.” Teacher 1 reported a similar experience, “We used Google Drive to keep all of our resources, such as guided reading and phonics lessons and our Texas Essential Knowledge and Skills (TEKS) calendar.” Google Platforms provided a secure place for the teachers to create, upload, and store reading resources to support instruction.

In conclusion, convenient access to resources for colleagues and the safe storage of resources were valuable to the participants. Accessibility means the ability to obtain and retrieve information. The participants were not constrained by an inconvenient schedule when utilizing Google Platforms to share instructional materials, videos, and other resources within the virtual learning environment. The resources were accessed and shared with others within the school and district, and they were accessible, organized, and easy to locate without any concern about losing materials.

Theme 3: Professional Achievements

Through their interviews, the teachers showed their accomplishments after collaborating in a CoP. However, the teachers also expressed frustrations with teaching reading and creating activities to support reading instruction. The reading curricula provided by the district did not always direct teachers on how to teach different components of beginning reading instruction. Therefore, all the teachers spent time creating materials or searching for lessons online. They reported that using Google Platforms, especially Google Drive, helped streamline their beginning reading instruction. as they sought change and reflected on the need for changes. For example, Teacher 5 reported, “Watching the videos helps me get ideas or affirm that I was teaching things right.” A part of my professional achievements was access to recorded lessons on Google Drive.

Most teachers communicated a need for personal growth in phonics instruction because it is a complex skill and vital for reading. For example, helping students understand graphophonemic awareness (letter-to-sound relationships) can be challenging.

Teaching beginning reading instruction requires explicit teaching and a systematic approach to help students to progress from year to year. Teachers 1 and 4 reported that they struggled with teaching phonics, as they realized the importance of teaching phonics after teaching beginning reading for more than two years. Interestingly, Teacher 1 had the least experience with teaching, but she became the leader in reading instruction and supported her team in phonics instruction. In addition, teacher 3 created step-by-step documents to teach phonics with her team, so she modeled and shared her expertise about teaching beginning reading instruction.

However, Teacher 7 spoke about the influence of learning from other colleagues. She reported, “Watching videos definitely changed my instruction, and then I pick up little things I used in small groups or mini lessons.” The desire to develop readers drove professional achievement. The participants learned to teach different components of beginning reading through collaboration and motivation to understand beginning reading instruction by researching beyond personal CoPs.

In conclusion, beginning reading instruction is challenging to teach. The teachers felt they needed more information about teaching reading, as the districts did not offer professional development training. They collaborated and utilized video lessons from colleagues to discuss and share best practices to develop their skills in teaching. Furthermore, sharing knowledge and resources within the virtual learning environment enhanced leadership skills. All the teachers shared their expertise in instructional areas. Collaboration seemed to streamline and improve beginning reading instructional practices for all the participants through sharing resources using Google Platforms.

Findings For Research Questions

Research Question 1 was on k-2 teachers' experiences virtually collaborating using Google Platforms to support beginning reading instruction. The themes that emerged to address RQ1 were shared learning and accessibility. All the teachers shared their experiences using Google Platforms to develop reading skills that helped students grow as readers. They all applied something learned during collaboration to support instructional practices. Google Drive, Google Slides, Google Documents, and Google Classroom were frequently used for collaboration on and supporting beginning reading instruction. The participants collaborated through Google Platforms and promoted continuous conversation around instructional resources. All the teachers shared resources such as lesson plans, videos, and activities to support reading instruction. Teaching beginning reading instruction improved by watching the recorded lessons of other teachers. The trust and the relationships built through collaboration helped the teachers share different points of view and provide feedback on the resources added to Google Drive. The teachers felt safe and accepted in the CoP. This trust helped all the participants to adjust and align instructional practices and motivated the participants to continue to collaborate.

The second theme, accessibility, was crucial because the participants referred to Google Platforms as a resource tool for teachers to use when collaborating virtually to support instruction. The teachers had a positive viewpoint on accessing the resources shared by everyone at any time. Participants could plan individual, whole, or small group lessons to meet the needs of students on personal time. The safely stored resources added

to Google Drive encouraged continuous conversations about instruction, which led to learned knowledge and an understanding of best instructional practices.

Research Question 2 was to understand k-2 teachers' perceptions of a CoP and its influence on instructional approaches to teaching beginning reading instruction. The foundation of a CoP is trust within the group to share knowledge, acknowledge feedback, and apply feedback to make the necessary changes for professional growth. The data analysis indicated a positive influence on professional growth while collaborating in a CoP, despite the lack of professional development training on how to teach beginning reading. Teaching beginning reading instruction is challenging without the district providing a commercial reading program that teaches all five components of reading instruction, phonics, phonemic awareness, vocabulary, comprehension, and fluency to build skills in a beginner reader.

Professional growth related to accessibility to resources. All the teachers accessed resources on Google Platforms and communicated with each other to influence instructional approaches and learn how to improve beginning reading instruction. They all thought having access to all resources was conducive to change. The safe and permanent resources in Google Drive led to deeper instructional conversations to improve instructional approaches for student success. They were willing to return and view recorded lessons or documents to implement during beginning reading instruction.

In conclusion, the participants had many of the same experiences collaborating virtually in a CoP. The collaboration contributed to professional growth as all the participants reflected on their instructional practices to change instruction in the

classroom or help colleagues learn more about beginning reading instruction to meet the needs of the students in reading. Accessibility to resources contributed to professional growth because it saved time, and they did not have to reinvent the wheel with resources stored in Google Drive.

Discrepant

The complexity of teaching reading was evident in the responses from the participants. There was only one discrepancy from the study because teacher 4's interview was repetitive and did not answer the research questions. She emphasized her instructional process to teach struggling readers. However, she offered limited information on collaborating with colleagues in a virtual setting. Teacher 4 was teaching face-to-face with the students, but she was concerned about teachers teaching beginning reading virtually and the lack of reading by the students. She tried to support a first-year teacher teaching beginning reading with the stress of helping struggling readers.

Summary

In this chapter, I introduced the purpose and research questions, described the setting of the research, and included the participants' demographics. I also explained the data collection process and the data analysis and presented the evidence of trustworthiness about credibility, transferability, dependability, and confirmability. Finally, I described the emerging themes that answered each research question.

I used the research questions to understand the perceptions and experiences of Grades k-2 teachers' virtual collaboration to support beginning reading instruction in a CoP. Findings indicated that experiences varied, but the participants found benefits of

virtual collaboration through shared learning and accessibility. Teachers shared and accessed different reading resources through Google drive. The perception of a CoP on beginning reading instruction was the second research question. Participants were surprised by the level of virtual collaboration and the continuous interaction with people inside and outside the school walls and online professional platforms. Google Platforms improved instructional practices. For example, the participants communicated about the resources often. Most of all, the trust built during collaboration fostered a sense of ownership, acceptance, and pride for professional achievements and changes in instructional approaches. Chapter 5 includes the interpretation of the findings, limitations, recommendations, implications, and a conclusion of the study.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this qualitative study was to understand the experiences and perceptions of K–2 teachers using Google Platforms to collaborate virtually within a CoP to support reading instruction. The nature of the study involved in understanding the phenomenon of a virtual collaborative environment as an ongoing tool for K–2 teachers to access to improve beginning reading instruction. Current studies suggest that considerable amounts of effort were researched on improving K–2 reading to support learning in Grades 4-6. Explicit direct instruction in reading skills and strategies correlates with proficient readers (Jiang & Logan, 2019). The research questions for this basic qualitative study were as follows:

- RQ1. What are the experiences of k-2 teachers when collaborating virtually using Google Platforms to support beginning reading instruction?
- RQ2. How do K -2 teachers perceive CoPs as an influence on instructional approaches for teaching beginning reading?

The critical findings of this study emerged from three themes to answer the research questions. The emerging themes from RQ1 were shared learning and accessibility, and the themes emerging from RQ2 were accessibility and professional achievement. In this chapter, I report the interpretation of findings, limitations, recommendations, and implications of the study.

Interpretation of the Findings

To interpret the findings of this study, I used the conceptual framework of the social theory of learning and CoPs to address the research questions. I also interpreted the themes using literature from Chapter 2. The findings of this study signify the experiences of K–2 teachers who teach beginning reading instruction.

Social Theory of Learning Interpretation

The social theory of learning refers to the ongoing social interaction among a group. Members in the group are active contributors to the learning (Wegner, 1998, p. 5). The four premises of the social theory of learning are (a) meaning, (b) practice, (c) identity, and (d) community (Wegner, 1998). My findings extend the research findings of the social theory of learning as social participation, as effective learning in social context that requires participation from all members. Social participation is an element of a CoP because it provides the foundation of interaction, relationship, and learning together in a collaborative group in which members are willing to learn or help others (Hyder et al., 2020).

The first component of the social theory of learning is meaning or the experiences formed within the group. Participants were then able to use their experiences to support each other in teaching beginning reading instruction, and their shared experiences helped others make changes to their instructional practices (Steege, 2016). Data collected from this study indicated that trust and positive relationships were the key to teachers learning from each other. These opportunities for trust and relationships gave participants time to support and learn from others, as suggested by Wegner (1998). The findings of this study

were aligned with Wenger's thoughts of people gaining a deeper understanding of more complex concepts from the knowledge learned from one another. For example, the participants shared their passion for phonics or comprehension strategies. Accessibility of Google Drive was a key factor in the participants gaining meaning from resources during collaboration.

Members of the group utilized learning to support instruction in the second component of the social theory of learning, which is practice. All the participants in this study noted how they applied new learning to their instructional practice. Gee and Whaley (2016) and Smith et al. (2017) reported that collaboration changes instruction through modeling and sharing resources while working in a group. The participants' access to online resources to support instructional practices was an advantage.

The fourth component of the social theory of learning is identity. Identity is the process of becoming a learner within an environment. The virtual learning environment caused the participants to reflect and make instructional changes to benefit students' learning. Most of the participants made instructional changes after viewing other resources or videos that addressed instruction for the students. The findings of this study support Wenger's social theory of learning because the participants were able to develop a sense of community by being involved in communicating, sharing, and learning from other teachers. The sense of identity has formed the desire to share knowledge and experiences to improve learning. Recent studies have shown that some members of a CoP are not active participants (McLoughlin, Patel, O'Callaghan, & Reeves, 2018). However,

all the participants were actively involved in the virtual learning environment through shared learning.

The fourth component of the social theory of learning is community. Members were involved and accepted in the community through continuous interaction to develop relationships. A study completed by Marchisio (2018) highlighted the development of a community as teachers worked together in an online environment called Moodle. Trust fostered growth and understanding of the strengths and weaknesses that empowered the teachers to contribute. This study confirms Marchisio's findings because all the participants contributed to the community and shared resources. Most participants became leaders within the virtual learning environment to support other colleagues. The findings confirm what was reported by Bugden et al. (2018), who shared the experience of teachers' growth through open dialogue when participating in a virtual learning environment. The open dialogue through Google Platforms helped all the participants to transfer knowledge to teach beginning reading instruction.

Communities of Practice Interpretation

Research has shown that participating in a CoP can influence active engagement and collaboration for change (Beach, 2018). A learning community that seeks knowledge to develop its areas of need forms a CoP through mutual respect for everyone to grow. The analysis showed that building trust was a key reason that the participants were open and willing to share knowledge and accept feedback to promote growth. It was eye-opening to watch videos of a lesson taught by other colleagues. The participants applied strategies in their classroom. A study completed by Smith et al., (2017) had the same

findings of the teachers developing skills through communication. The analysis also showed that all the participants shared a moment of empowerment after learning in the virtual learning environment.

The study completed by Wegner (1998) indicated that social learning supports the idea that an interactive learning environment is effective. Participants utilized different resources to help each other develop skills for beginning reading instruction. The principal and district personnel highlighted one participant because she supported campus phonics instruction. The participant would share videos and instructional material with other grade levels to teach the process of teaching phonemic awareness and phonics. For example, the other participants were willing to share knowledge to improve their instructional practices or align their instruction to meet the student's needs in beginning reading instruction. Research conducted by Chada (2018) indicated that communication and a sense of belonging happen through interacting in a virtual learning environment. My study extends research because the participants communicated asynchronously and synchronously to consistently engage in communicating effectively.

Furthermore, the themes of shared learning, accessibility, and professional achievement worked together to build community, meaning, practice, and identity to support the participants to teach beginning reading instruction. The participants shared learning and experiences to help others in the group. A common need supported continuous interaction to enhance collaboration and foster the relationship. Participants brought learning from other virtual learning environments to support the learning in the CoP.

Research indicated that a virtual CoP could extend learning synchronously and asynchronously to promote social and shared learning (Chadha, 2018). All the participants emphasized that using Google Drive to store and communicate information asynchronously and synchronously saved time. Clark and Wilson (2017) claimed that people in virtual learning environments communicate with various educators around the globe. Google Platforms transformed collaboration in the school and across districts for professional growth through Google Drive or Google Chat. Research completed by Bugden et al. (2018) highlighted collaboration in a virtual learning environment that fostered learning and decreased the sense of isolation. Some participants expressed the importance of watching a recorded video of colleagues because it was never an option to watch a colleague teach. The findings of this study confirmed the study completed by Bugden et al. because of the professional benefits, and it highlighted that collaboration could contribute to change.

Reading Instruction Interpretation

Teaching reading is a systematic approach for all students to master the skill of reading. Phonics, phonemic awareness, fluency, vocabulary, and comprehension are crucial reading skills to develop successful readers. The research highlighted the efforts to maximize the number of proficient readers by utilizing different reading programs and professional development training to support instruction (Jiang & Logan, 2019). Most of the participants discussed a curriculum that was used to teach small group reading but not a reading program to support whole group teaching. It was clear that the participants utilized different resources and instructional approaches to teach beginning reading.

Research completed by Pratt and Martin (2017) indicated that effective reading instruction begins with the teacher's experiences and knowledge. Most of the teachers utilized different resources to understand how to teach phonics and relied on their colleagues for continuous support in the virtual learning environment, confirming Scarparolo and Hammond's (2018) experiences of teachers sustaining quality instruction. The participants were concerned about students reading below grade level. They felt as though they learned from others using Google Platforms. Furthermore, it is evident that teaching beginning reading instruction is dependent on the teacher's knowledge. Professional development trainings are necessary and can provide teachers with the knowledge and skills to teach students to read. The alignment of instructional practices with valuable resources may possibly decrease the large number of struggling beginning readers with teacher knowledge and skills.

The different perceptions and approaches to teaching beginning reading are the reasons for the large number of students who do not read at grade level (Dagen & Morewood, 2016). Some relied on the district reading program while others continued to educate themselves on the right approach. Surprisingly, only one participant discussed any professional development on beginning reading instruction at their school, but all the teachers mentioned a district type of reading curriculum they had access to for supporting beginning reading instruction, with most of the teachers utilizing the small group reading material. Teacher 1 used reading resources to support her whole group reading instruction. Students who do not acquire the all the components of reading will continue to struggle with reading (Calkins, 2019).

The five components of reading were discussed, but the participants spoke about phonics instruction. The participants understood the importance of explicitly teaching phonics to develop reading, comprehension, and fluency.

Limitations of the Study

The limitations of this study occurred during the design. First, the participants were K–2 teachers from different parts of the northern United States instead of one elementary school in one school district. However, teachers in a specific area of the United States may have different experiences than other teachers, so transferability is an issue. On the other hand, the randomly selected participants showed commonalities among the participants with varied years of experience, the school district reading curriculum, and learning expectations. Grades 3–5 teach beginning reading instruction because students read below grade level, but the study is limited to K -2 teachers.

I shared similar work experiences with the participants, so there was a possibility of bias as I interviewed. I am a kindergarten teacher who collaborates using Google Platforms for instructional reasons, and I have experience teaching beginning reading instruction. I referenced the purpose of the study and research questions as I transcribed the interview to control personal biases and interpretations as I transcribed the interview.

Another limitation was conducting the interviews on Zoom because of the COVID-19 pandemic. One of the participants was interviewed with her camera off, so her body language or mood was not visible. I noted the change in her voice or tone when she answered questions, as the tone of her voice showed concern or excitement. The other participants' cameras were on, but I did not glean anything from their body language. For

example, I noted inflection in participants' voices when they discussed students' learning and teaching different components of beginning reading instruction. I did not impose my interpretation of the responses to the questions.

In conclusion, the limitations of this study could possibly influence its transferability because the k-2 population was selected from public sites in the United States. The study does not apply to Grade 3–5 teachers who may teach struggling readers. I shared the same work experiences as the participants utilizing Google Platforms for instructional reasons. Moreover, all interviews took place on Zoom instead of face to face.

Recommendations for Further Research

In summary, participants expressed challenges about students not progressing in reading or preparation time. The findings suggested that collaboration in Google Platforms was a positive experience because of the time saved. Each participant used a different approach to teach beginning reading in small groups. According to research, a systematic approach is imperative to teach beginning reading instruction (Calkins, 2017). However, the participants did not use the same instructional practices to teach comprehension, phonics, or fluency. Investigating how collaboration can support teachers' development of a systematic approach to teach beginning reading is a recommendation for further research. The findings suggested that Google Drive was a tool used by the teachers to share and store resources within the school or district to adjust or enhance instructional practices.

Implications for Social Change

The results of this study may have implications for how virtual collaboration amongst teachers can support beginning reading instruction. This study could potentially influence school districts and the possibility of increasing collaboration. The findings indicate that teachers had positive experiences collaborating virtually with each other because of the positive impact on professional growth, relationships, and building a community of learners. The results of the study have the potential to open dialogue about beginning reading instruction among different schools within a school district and across countries using Google Platforms. The findings from this study could help administrations change and design professional development for beginning reading instruction to support the instructional needs for teaching beginning reading instruction to meet the needs of struggling beginning readers.

Conclusion

In conclusion, teaching K–2 reading has been researched for decades to understand the deficit in reading in Grades 3–6 (Jiang & Logan, 2019). I noted in the problem statement that commercial reading programs may not provide continuous and individualized support for teachers teaching beginning reading instruction. Research has summarized why beginning readers read below grade level (Cekiso, 2017). The experiences of teachers play a role in reading development.

Furthermore, the results of this study highlighted that all the participants found value in collaborating in a virtual CoP to support beginning reading instruction. Google Platforms open the possibilities to help teachers collaborate despite the stress due to non-

readers, lack of time, and instructional issues. The participants utilized learning in a virtual CoP to change instructional practices.

Shared learning had a positive effect on the knowledge about teaching beginning reading. Access to resources and teaching materials assisted the teachers with ideas to implement in the classroom, promoted ongoing conversations, and shared knowledge promoted professional growth. Educators need to find practical ways for teachers to collaborate with all the demands of teaching. The reported findings from this study can provide deeper insight into the perspectives and experiences of teachers collaborating on Google Platforms as they teach beginning reading or any other subject.

References

- Al-Dhafiri, M. (2015). Teachers' perceptions of developmentally appropriate practices in teaching and writing for first grade students in Kuwait. *Reading Improvement, 52*(3), 100-111.
- Arasaratnam-Smith, L. A., & Northcote, M. (2018). Community in online higher education: Challenges and opportunities. *Electronic Journal of e-Learning, 15*(2), 188-198.
- Arnell, R. M. (2014). Teacher beliefs on personal learning, collaboration, and participation in virtual communities of practice (Publication No. 3666822) [Doctoral dissertation, Walden University]. ProQuest Dissertations and Theses.
- Awada, G., & Gutierrez-Colon, M. (2018). Multiple strategies approach and EFL reading comprehension of learners with dyslexia: Teachers' perceptions. *International Journal of Instruction, 11*(3), 463-476. <https://doi.org/10.12973/iji.2018.11332a>
- Bastug, M. (2016). Classroom teachers' feelings and experiences in teaching early reading and writing: A phenomenological study. *Education 3-13, 44*(6), 736-750. <https://doi.org/10.1080/03004279.2015.109927>
- Bayerlein, L., & McGrath, N., (2018). Collaborating for success: An analysis of the working relationship between academic and educational development professionals. *Studies in Higher Education, 43*(6), 1089-1106. <https://doi.org/10.1080/03075079.2016.1215417>
- Beach, P. (2018). Examining elementary use of online learning environment: An exploratory study. *Journal of Research on Technology in Education, 50*(1), 34-47.

<https://doi.org/10.1080/15391523.2017.1383216>

- Berkeley, S., Regan, K., Dimitrov, D., Guckert, M., & Ray, S. (2016). Teachers' basic knowledge of reading instruction: Insights from a teacher preparation program. *Teacher Educators' Journal*, 9, 23-48.
- Brenner, D., Hiebert, E. (2010). If you I follow the teachers' editions, isn't that enough? Analyzing reading volume in six core reading programs. *The Elementary School Journal*, 110 (3), 347-363.
- Briscoe, P. (2017). Using critical reflection framework and collaborative inquiry to improve teaching practice: An action research project. *Canadian Journal of Action Research*, 18(2), 43-61.
- Bugden, L., Redmond, P., Greaney, J. (2018). Online collaboration as a pedagogical approach to learning and teaching undergraduate education. *The Law Teacher*, 52(1), 85-99. <https://doi.org/10.1080/03069400.2017.1332951>
- Calkins, L. (2019). *Units of study for teaching reading with colleagues from the reading and writing project*. Heinemann.
- Cekiso, M. (2017). Teachers' perceptions of reading instruction in selected primary schools in the Eastern Cape. *Reading & Writing Journal of the Reading Association of South Africa*, 8(1), e1-e8.
- Chada, A. (2018). Virtual classrooms: Analyzing student and instruction collaborative experiences. *Journal of Scholarship of Teaching and Learning*, 18(3), 55-71. <https://doi.org/1014434/josot/v.18i32.22318>
- Chapman, W. J., Greaney, T. K., Arrow, W. A., & Tunmer, E. W. (2018). Teachers' use

of phonics, knowledge of language constructs, and preferred word identification prompts in relation to beginning readers. *Australian Journal of Learning Difficulties*, 23(1), 87-104. <https://doi.org/10.1080/19404158.2018.1467937>

Clark, H. C., & Wilson, P. B. (2017). The potential for university collaborative and online learning to international geography education. *Journal of Geography in Higher Education*, 41(4), 488-505.
<https://doi.org/10.1080.03098265.2017.1337087>

Conradi, K., Amendum, J. S., & Liebfreund, D. M. (2016). Explaining variance in comprehension for students in a high-poverty setting. *Reading & Writing Quarterly*, 32, 427-456. <https://doi.org/10.1080/10573569.2014.994251>

Cook, R., Jones, B., & Huisinga, S. (2017). Online professional learning networks: A viable solution to the professional development dilemma. *Journal of Special Education Technology*, 32(2), 109-118.
<https://doi.org/10.1177/0162643417696930>

Coyne, D. M., Zipoli, R. R., & Ruby, F. M. (2006). Beginning reading instruction for students at risk for reading disabilities: What, how, when. *Intervention in School and Clinic*, 41(3), 161-168.

Dagen, S. A., & Morewood, A. (2016). Strengthening early literacy through online collaboration and mentoring. *Young Children*, 71(4), 20-25.

Donnelly, R., & Maguire, T. (2018). Supporting teaching and learning transformation through the national professional development framework: Establishing and recognizing an inclusive community of practice for all teachers in Irish higher

- education. *The All Ireland Journal of Teaching & Learning in Higher Education*, 10(1), 3391-3397.
- Duggins, S., & Acosta, M. (2019). Reading aloud in an era of common core: An exploratory study of the perspectives of primary teachers serving African American children in the low-income communities, *Journal of Early Childhood Literacy*, 19(2), 252-278. <https://doi.org/10.1177/1468417716980>
- Durksen, L., Klassen, M., & Daniels, M. (2017). Motivation and collaboration: The key to developmental framework for teachers; professional learning. *Teaching and Teacher Education*, 67, 53-66.
- Ekici, I. D. (2017). The use of Edmodo in creating an online learning community of practice for learning to teach science. *Malaysian Online Journal of Educational Sciences*, 5(2), 91-106.
- Erdogan, N. (2016). Sociocultural perspective of science in online learning environments. *International Journal of Education in Mathematics, Science and Technology*, 4(3), 256-257. <https://doi.org/10.18404/ijemst.20679>
- Fedora, M. P. (2016). Single and double deficits in early readers in rural, low-wealth communities. *Reading & Writing Quarterly*, 32(2), 101-126. <https://doi.org/10.1080/10573569.2013.866529>
- Frankel, K. K., Becker, L. C. B., Rowe, W. M., & Pearson, D. P. (2016). From “what is reading”? to “what is literacy?”. *Journal Education*, 196(3), 7-17.
- Fountas, C., & Pinnell, G. (2017). Guided reading; Responsive teaching across the grades. Heinemann.

- Gasse, R., Vanlommel, K., Vanhoof, J., & Van Petegem, P. (2017). The impact of collaboration on teachers' individual data use. *School Effectiveness and School Improvement, 28*(3), 489-504. <https://doi.org/10.1080/09243453.2017.1321555>
- Gee, D., & Whaley, J. (2016). Learning together: Practice professional development to enhance mathematics instruction. *Mathematics Teacher Education and Development, 18*(1), 87-99.
- Gehrke, S., & Kezar, A. (2017). The roles of STEM faculty communities of practice in institutional and departmental reform in higher education, *American Educational Research Journal, 54*(5), 803-833. <https://doi.org/10.3102/002831217706736>
- Giles, M. R., & Tunks, K. (2015). Teachers' thoughts on teaching reading: An investigation of early childhood teachers' perceptions of literacy acquisition. *Early Childhood Education Journal, 43*, 523-530. <https://doi.org/10.1007/s10643-014-0672-3>
- Goldstein, H., Ziolkowsk, R., Bojozyk, K., Marty, A., Schneider, N., Harping, J., & Haring, C. (2017). Academic vocabulary learning in a first through third grade in low-income schools: Effects of automated supplemental learning. *Journal of Speech, Language, & Hearing Research, 60*(11), 3237-3258. https://doi.org/10.1044/2017_JSLHR-L-17-0010
- Greenleaf, C., Litman, C., & Marple, S. (2017). The impact of inquiry based professional development on teacher's capacity to integrate literacy instruction in secondary subject areas. *Teacher and Teacher Education, 71*, 226-240.
- Hajisoteriou, C., Karousiou, C., Angelides, P. (2018). Interact: building a virtual

community of practice to enhance teachers' intercultural professional development. *Educational Media International*, 55(1), 15-33.

<https://doi.org/10.80/09523987.2018.1439709>

Hammond, M. (2017). Online collaboration and cooperation: The recurring importance of evidence, rationale and viability, *Education and Information, Technologies*, 22(3), 1005-1024. <https://doi.org/10.1007/s10639-016-9469-x>

Head, N. C., Flores, M., & Shippen, M. (2018). Effects of direct instruction on reading comprehension for individuals with autism or developmental disabilities.

Education and Training in Autism and Development Disabilities, 53(2), 176-191.

Henry, A., Castek, J., O'Byrne, W., & Zawilinsk, L. (2012). Using peer collaboration to support online reading, writing, communication: An empowerment model for struggling readers. *Reading and Writing Quarterly*, 28(3), 279-306.

<https://doi.org/10.1080/10573569.202.676.431>

Herbert, S., Campbell, C., & Loong, E. (2016). Online professional learning and rural teachers of mathematics and science. *Australasian Journal of Educational Technology*, 32(2), 99-114.

Hood, N. (2017). Conceptualizing online knowledge sharing: What teachers perceptions can tell us, *Technology, Pedagogy, and Education*, 26(5), 573-585.

<https://doi.org/10.1080/1475939x.2017.1348980>

Hu, H., Oslick, E. M., & Wake, D. (2017). Innovative web. 2.0 technologies to support struggling readers. *Journal of Educational Technology Development and Exchange*, 10(1), 55-71.

<https://doi.org/10.55901/JERAP.2020.10.127>

- Hyder, N., Adcock, A., & Brown, D. (2020). An overview of virtual communities of faculty practice. *Journal of Educational Research Practice*, 10(1), 420-426.
- Ilhan, I. (2017). Teaching word meaning to students at different reading ability: A controlled assessment of the contextual based vocabulary instruction on reading comprehension. 42, 437-463. <https://doi.org/10.153901EB.2017.6482>
- Ilter, I. (2017). Improving the reading comprehension of primary-school students at frustration- level through the paraphrasing strategy training: A multiple-probe design study. *International Electronic Journal of Elementary Education*, 10(1), 147-159. <https://doi.org/10.26822/iejee.2017131894>
- Iwai, Y. (2016). The effect of explicit instruction of strategic reading in a literacy methods course. *International Journal of Teaching and Learning in Higher Education*, 28(1), 110-118.
- Jiang, H., & Logan, J. (2019). Improving reading comprehension in the primary grades: Mediated effects of a language -focused classroom intervention. *Journal of Speech, Language, and Hearing*, 62(8), 2812-2828
- Kier, W. M., & Khalil, D. (2018). Exploring how digital technologies can support co-construction of equitable curricular resources in STEM. *International Journal of Education in Mathematics, Science, and Technology*, 6(2), 105-121. <https://doi.org/10.18404/ijemst.408932>
- Kim, J., Kang, S., Kuusinen, C., & Park, K. (2017). Exploring the relationship between teacher collaboration and learner-centered instruction. *Korean Educational Development Institute*, 14(1), 3-24.

- Konza, D., & Main, S. (2015). The power of pedagogy: When all else fails. *The International Journal of Learning: Annual Review*, 22, 9-29.
- Kragler, S., Martin, L., & Schreier, V. (2015). Investigating young children's use of reading strategies: A longitudinal study. *Reading Psychology*, 36, 445-472.
<https://doi.org/10.1080/02702711.2014.884031>
- Kuijk, V. M. F., Deunk, M. I., Bosker, J. R., & Ritzema, S. E. (2016). Goals, data use, and instruction: The effect of a teacher professional development program on reading achievement. *School Effectiveness and School Improvement*, 27(3), 135-156. <https://doi.org/10.1080/09243453.2015.1026268>
- Lepareur, C., & Grangeat, M. (2018). Teacher collaboration's influence on inquiry-based science teaching methods. *Education Inquiry*, 9(4), 363-379.
<https://doi.org/10.1080/20004508.2018.1428037>
- Macia, M., & Garcia, I. (2016). Informal online communities and networks as a source of teacher professional development: A review. *Teaching and Teacher Education*, 55, 291-307.
- Marchisio, M., Barana, A., Fioravera, M., Fiaaore, C., Brancaccio, A., Esposito, M., Pardini, C., & Rabellino, S. (2018). Online asynchronous collaboration for enhancing teacher professional knowledges and competences. *eLearning & Software for Education*, 1, 167-175. <https://doi.org/10.12752/2066-026X-18-023>
- McConnell, J. T., Parker, M. J., Eberhardt, J., Koehler, J. M., & Lundeberg, A. M. (2013). Virtual professional communities: teachers' perceptions of virtual versus face-to-face professional development. *J Sci Technol*, 22, 267-277.

- McLoughlin, C., Patel, D. K., O'Callaghan, T., Reeves, S. (2018). The use of virtual communities of practice to improve interprofessional collaboration and education: findings from an integrated review. *Journal of Interprofessional Care*, 32(2), 136-142. <https://doi.org/10.1080/13561820.2017.1377692>
- Merriam, S., & Tisdell, E. (2016). *Qualitative Research: A Guide to Design and Implementation*. 4th edition. Jossey-Bass.
- National Assessment of Educational Progress. (2019).
<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=NCEE20194007>
- Ness, M. (2016). Learning from k-5 teachers who think aloud. *Journal of Research in Childhood Education*, 30(3), 282-292.
<https://doi.org/10.1080/02568543.2016.1178671>
- Oliphant, T., & Branch-Mueller, J. (2016). Developing a sense of community and the online student experience. *Education for Information*, 32, 307-321.
<https://doi.org/10.3233/EFI-160979>
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed). Thousand Oaks.
- Patton, K., & Parker, M. (2017). Teacher education communities of practice: More than a culture of collaboration. *Teaching and Teacher Education*, 67, 351-360.
<https://doi.org/10.1016/j.tate.2017.06.013>
- Park, Y., Chaparro, A. E., Preciado, J., & Cummings, D. K. (2015). Is earlier better? Mastery of reading fluency in early schooling. *Early Education and Development*, 26(8), 1187-1209. <https://doi.org/10.1080/10409289.2015.1015955>

- Petersen, D. B., Allen, M. M., & Spencer, T. D. (2016). Predicting reading difficulty in first grade using dynamic assessment of decoding in early kindergarten: A large-scale longitudinal study. *Journal of Learning Disabilities, 49*(2), 200-215.
<https://doi.org/10.1177/002221414538518>
- Pratt, M. S., & Martin, M. A. (2017). Exploring effective professional development strategies for in-service teachers on guiding beginning readers to become more metacognitive in their oral reading. *Reading Horizons, 56*(3), 30-51
- Pratt, M. S., & Martin, M. A. (2017). The differential impact of video-stimulated recall and concurrent questioning methods on beginning readers' verbalization about self-monitoring during oral reading. *Reading Psychology, 38*(5), 439-485.
<https://doi.org/10.1080/02702711.2017.1290726>
- Pytash, E. K., Hicks, T., & Ferdig, E. R. (2016). Connecting and collaborating within and beyond a massive open online course. *Journal of Adolescent & Adult Literacy, 60*(2), 195-206. <https://doi.org/10.1002/jaal.549>
- Radford, L. M., Connaway, S. L., Mikitish, S., Alpert, M., Shah, C., & Cooke, A. N. (2015). Shared values, new vision: Collaboration and communities of practice in virtual reference and SQA. *Journal of the Association for Information Science and Technology, 68*(2), 438-449.
- Rasinki, T., Paige, D., Cameron, R., Stewart, R., Julovich, B., Prektert, D., Rupley, W., & Nichols, W. (2017). Effects of intensive fluency instruction on the reading proficiency of third-grade struggling readers. *Reading and Writing Quarterly, 33*(6), 519-532. <https://doi.org/10.1080.10573569.2016.1250144>

- Romeu, T., Guitert, M., & Sangra, A. (2016). Teacher collaboration network in higher education; reflective visions from praxis. *Innovations in Education and Teaching International*, 53(6), 592-604. <https://doi.org/10.1080/14703297204.1025807>
- Rosell-Aguilar, F. (2018). A professional development and community of practice tool for teachers. *Journal of Interactive Media in Education*, 6, 1-12. <https://doi.org/10.5334/jime.452>
- Sandberg, S., Hellblom, T., & Garpelin. (2015). Teachers' perspective on how to promote children's learning in reading and writing. *European Journal of Special Needs Education*, 30(4), 505-517. <https://doi.org/10.108008856257.2015.1046738>
- Slavin, R., Lake, C., Davis, S., & Madden, N. (2011). Effective programs for struggling readers: A best-evidence synthesis. *Educational Research Review*, 6, 1-26.
- Scarparolo, E. G., & Hammond, S. L. (2018). The effect of professional development model on early childhood educators' direct teaching of beginning reading. *Professional Development in Education*, 44(4), 492-56. <https://doi.org/10.1080/19415257.2017.1372303>
- Scheffield, R., Blackley, S., & Moro, P. (2018). A professional learning model supporting teachers to integrate digital technologies. *Issues in Educational Research*, 28(2), 487-510.
- Schieffer, L. (2016). The benefits and barriers of virtual collaboration among online adjuncts. *Journal of Instructional Research*, 5, 109-125.

- Schroeder-Moreno, S. M. (2010). Enhancing active and interactive learning online- lessons learned from an online introductory agroecology course. *NACTA Journal*, 54(1), 21-30.
- Seo, K. (2014). Professional learning of observers, collaborators, and contributors in a teacher-created online community in Korea. *Asia Pacific Journal of Education*, 34(3), 337-350. <https://doi.org/10.1080/02188791.2013.86004>
- Silinskas, G, Pakarinen, E, Niemi, P, Lerkkanen, M, K, Poikkeus, A, and Nurmi, J. (2016). The effectiveness of increased support in reading and its relationship to teachers' affect and children's motivation. *Learning and Individual Differences*, 45, 53-64.
- Sjoer, E., & Meirink, J. (2016). Understanding the complexity of teacher interaction in a teacher professional learning community. Understanding the complexity of teacher integration in a teacher professional learning community. *European Journal of Teacher Education*, 39(1), 110-125. <https://doi.org/10.1080/20611968.2014.994058>
- Smith, U. S., Hayes, S., & Shea, P. (2017). A critical review of the use of Wenger's community of practice (CoP) theoretical framework in online and blended learning research, 2000-2014. *Online Learning*, 21(1), 209-237. <https://doi.org/10.24059/olj.v21i1.963>
- Snyder, E. & Golightly, F. A. (2017). The effectiveness of a balanced approach to reading intervention in a second grade student: Case study. *Education*, 38(1), 53-67.

- Solari, J. E., Denton, A. C., & Haring, C. (2017). How to reach first-grade struggling readers: An integrated instructional approach. *Teaching Exceptional Children, 49(3), 149-159.*
- Soodla, P., Jogi, A., & Kikas, E. (2017). Relationships between teachers' metacognitive knowledge and students' metacognitive knowledge and reading achievement. *European Journal of Psychology Education, 32, 201-218.*
<https://doi.org/10.1007/s10212-016-0293-x>
- Stegg, M. S. (2016). A case study of teacher reflection: examining teacher participation in a video-based professional learning community. *Journal of Language and Literacy Education, 12(1), 122-138.*
- Stoszowski, J., Collins, D., & Olsson, C. (2017). Using shared online blogs to structure and support informal coach learning. Part 2: The participants view and implications for coach education, *Sports Education and Society, 22(3), 407-425.*
<https://doi.org/10.1080/13573322.2015.1030382>
- Swanson, L. H., & Coddington, L. R. (2016). Creating partnerships between teachers and undergraduate interested in secondary math & science education, *Teaching and Teacher Education, 59, 285-295.*
- Tam, C. F. A. (2015). The role of a professional learning community in teacher change: A perspective from beliefs and practices. *Teachers and Teaching, 21(1), 22-43.*
<https://doi.org/10.1080/13540602.2014.928122>
- Teras, H. (2016). Collaborative online professional development for teachers in higher education, *Professional Development in Education, 42(2), 258-275.*

<https://doi.org/10.1080/19415257.2014.961094>

- Tsai, I., Laffey, M. J., & Hanuscin, D. (2010). Effectiveness of an online community of practice for learning to teach elementary science. *Journal of Educational Computing Research*, 43(2), 225-258.
- Vereb, A; Carlise, J., & Mihocko-Bowling (2015). Online case studies as a professional development opportunity for teachers of elementary reading. *Journal of Teaching and Teacher Education*, 23(1), 107-131.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge University Press.
- Wenger-Trayner, E & Wenger-Trayner, B. (2015). *Communities of practice a brief introduction*. <https://wenger-trayner.com/wp-content/uploads/2015/04/07-Brief-introduction-to-communities-of-practice.pdf>
- Wolfe, S. C. (2015). Talking policy into practice: probing the debates around the effective teaching of early reading. *Education*, 42(5), 498-513.
<https://doi.org/10.1080/03004279.2013.828765>
- Young, C., Valdez, C., & Gandara, C. (2016). Using performance methods to enhance students' reading fluency. *The Journal of Educational Research*, 109(6), 624-630.
<https://doi.org/10.1080/0022067.2015.116599>

Appendix A: Interview Questions

Warm up question: Could you tell me about your experience teaching beginning reading?

1. Tell me about your experience participating in the virtual learning environment that supports beginning reading instruction.
2. What were your perceptions as you went through the process of participating in the virtual learning environment?
3. What do you do and discuss when you collaborate?
4. What were your experiences with contributing to the learning environment?
5. How often do you collaborate?
6. What's happening when you are collaborating?
7. Tell me about your experience participating in the virtual learning environment that supports beginning reading instruction?
8. What instructional changes did the virtual learning environment foster?
9. Tell more about your communication and interaction in a virtual learning environment?
10. How did you hold yourself accountable in the virtual learning environment?
11. Did being in a CoP meet or go beyond your expectations?
12. What happened within the CoP?

Appendix B: Infographic

DO YOU GET SUPPORT FROM TEACHERS ONLINE ABOUT READING INSTRUCTION?



I'M NAKAYDRIA JOHNSON A PHD STUDENT CONDUCTING A STUDY ABOUT K-2 TEACHERS WHO COLLABORATE WITH OTHER TEACHERS ABOUT READING INSTRUCTION.

I'm looking for teachers who:

- **teach K-2**
- **have 3 years experience teaching beginning reading instruction**
- **Connect with teachers with Google Platform or other professional learning network**

I'd love to hear about your experiences.



Interested?
I would need 60 minutes of your time for a phone or Zoom interview

For more Information

Click on Link

Appendix C: Email to Participants

Are you a k-2 teacher who collaborates and connects with teachers within Google platforms to discuss beginning reading instruction? If so, I'm interested in hearing about your experiences.

My name is NaKaydria Johnson, a doctoral student at Walden University, working on my dissertation study, and I am a classroom teacher. The title of my qualitative study is Supporting Reading Instruction through a Virtual Learning Environment.

I am looking for participants who:

- are k-2 teachers
- have 3 years of experience teaching beginning reading instruction
- use Google platforms to collaborate and connect with other teachers within to discuss beginning reading instruction (Google Classroom, Google Docs, Google Meet, or Google Hangout)

If you fit the inclusion criteria and decide to participate, participation includes an hour-long audio recorded, virtual (Zoom) interview. If you decide to participate, you will receive a \$15 Amazon gift card via email as thanks for your time. The first 10 participants who fit these criteria and accept this invitation will be accepted for the study. If you are interested in learning more about this study, please follow this link to the Informed Consent so you can decide whether or not you'd like to participate.

[INFORMED CONSENT](#)

Thank you for your consideration. If at any time you have questions about this study, please feel free to email or call.

NaKaydria Johnson, PhD Candidate

Walden University

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Appendix D: Coding Cycles

Themes	Categories	Common Phrases and Words for Codes
shared learning district	teacher perceptions on reading issues	curriculum concerns lack of time different reading platforms need better phonic program face pace standards from the schedule testing progression of teaching teaching reading phonics programs phonemic awareness comprehension parent support skills to teach phonics comprehension reading decoding phonemic awareness
shared learning others	student learning struggle	learning phonics fluency online platforms reading strategies classwork station work testing vocabulary support new teachers progression of strategies creating videos positive influence adjusting learning for time management talking with colleagues administration support sharing perspectives

Shared learning	student learning experiences	monitoring students
		<p>reading improvement sharing data new teacher approaches learning access to material reflection personal satisfaction teacher support motivation acceptance relationships feedback</p>
accessibility	collaboration benefits	<p>teaching material data teaching strategies phonics strategies reading strategies comprehension</p>
strategies		<p>professional leaning sites/people instructional resources live document saves on time access anytime</p>
accessibility	resources	<p>continuous interaction material saved for years growth in technology share in same school share in different schools share with district engaged in conversation communicate in Google classroom resources</p>

Accessibility	Google Support	shared document stored document organized document classroom
communication		different platforms communication anachronously synchronously stored classroom
resources		
Professional Achievement documents	teacher experiences	created Google videos lesson plan ideas guided reading plans reading strategies virtual platform work small group plans Google slides online books/material student tracking
document		teaching strategies