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K-12 Community of Inquiry: A Case Study of K-12 Online Social Studies Teacher Practice in a Virtual School

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K-12 Community of Inquiry: A Case Study of K-12 Online Social Studies Teacher Practice in a
Virtual School

By
Kyle W. Sanders

A Dissertation
Presented in Partial Fulfillment of the Requirements for the
Degree of
Doctor of Education in Instructional Technology
in the
Bagwell College of Education
Kennesaw State University

Dr. Anissa Lokey-Vega, chair

Dr. Laurie Brantley-Dias

Dr. Julia S. Fuller

Kennesaw, GA

2019

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Dedication

To my wife, Benita.

Thank you for suffering in noble silence as I worked through this journey. Your quiet dignity, your looks that said more than a thousand words, the slits of your eyes which were more eloquent than a thousand Shakespeares - your ability to help me understand your needs and your wants in hushed whispers - wordless intimations - ensured I would always prioritize what was *really* important: the needs of my family. The way you ceaselessly labored to maintain the household, always bending over to pick up the detritus of family life, always ensuring the robot vacuum cleaner was charged and properly disgorged, guaranteed me the invaluable time I needed to complete this academic adventure in a timely fashion.

And to my neighbors who endured the unseemly yard of a doctoral candidate. I am truly sorry.

And to you, dear reader, thank you for reading this.

And to my dog who was always ready to take a nap – whose tail always clapped the ground when I walked near her – my perfect listener, my inimitable audience.

And to my children: thank you for sleeping blissfully throughout the night and never waking up. Thank you for never elbowing me in the face as I fitfully slept after working on this dissertation until three in the morning. Thank you for projectile vomiting across the living room and teaching me how to serve my fellow man.

And to my hair: thank you for always humbling me.

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I also want to thank the other members of my dissertation committee: Drs. Laurie Brantley-Dias and Julia Fuller. Without their invaluable insights and suggestions, this work would have been impossible to complete.

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I'd also like to thank Vivaldi and Roberto Cacciapaglia whose music pulses throughout this document and is embedded in the ink.

Abstract

Teaching practices, rationales, and roles of experienced online social studies teachers at one fully online high school in the southeastern United States were examined using the descriptive case study method. Three male teachers and one female social studies teacher, all with three or more years of experience in the online classroom, were studied using interviews, observations, and document analysis. The resultant data was then coded according to open and theoretical coding methods. Results demonstrated the teaching practices, rationales, and roles of experienced online social studies teachers. Results led to an adaptation of the Community of Inquiry framework to the K-12 setting entitled the K-12 Community of Inquiry framework. In addition, the author presents an Expanded Online Learner Support Roles (EOLSR) framework that addresses seventeen roles of K-12 online teachers. Further research is needed to identify practices of K-12 fully online teachers for all subject areas and to verify the applicability of the K-12 Community of Inquiry framework and the EOLSR framework.

Keywords: Virtual school, Community of inquiry, Online teachers, Online teacher practices, Virtual pedagogy

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION AND STATEMENT OF THE PROBLEM	10
Background and Rationale	10
Problem Statement	18
Purpose of this Study	19
Conceptual Framework.....	19
Research Questions.....	27
Significance of the Study.....	27
Terms and Definitions	28
Summary	30
CHAPTER 2: REVIEW OF THE LITERATURE	31
Research on Effective Pedagogy of Face-to-Face Teachers.....	31
Research on Pedagogical Practices of Effective Face-to-Face Social Studies Teachers.....	36
Research on Best Practice in the K-12 Online Classroom	39
Research on Social Studies Teaching in the Online Classroom.....	41
Research on Best Practices of Postsecondary Online Faculty	42
Literature Review Synthesis.....	49
Summary	51
Conclusion.....	52
CHAPTER 3: METHODOLOGY	53
Research Design.....	54
Participants and Participant Selection	55
Unit of Analysis	58
Researcher Positionality.....	60
Data Collection.....	63
Data Analysis.....	69
Trustworthiness	76
Ethical Considerations.....	81
Limitations.....	83
Summary	84
CHAPTER 4: RESULTS.....	85

Theme 1: Teacher Practices	86
Theme 2: Teacher Rationales	118
Theme 3: Teacher Roles	122
Summary	143
CHAPTER 5: CONCLUSION AND IMPLICATIONS.....	144
Situating the Results	145
Teacher Practices	145
Teacher Rationales.....	162
Teacher Roles	163
Implications.....	166
Contributions to Research on K-12 Online Teaching	168
Suggestions for Further Research	168
Limitations.....	169
Conclusion.....	170
REFERENCES.....	171
APPENDICES.....	191
Appendix A Alignment of Online Teacher Practices with iNACOL Standards.....	191
Appendix B Pre-Observation Semi-structured Interview Protocol	197
Appendix C Observation Field Notes Record	198
Appendix D Post-Observation Semi-structured Interview Protocol	199
Appendix E Sample Informed Consent Letter.....	201
Appendix F Codebook	203
Appendix G Interview Coding Protocol Table	217

LIST OF FIGURES

Figures

Figure 1.1 Relationships of Key Concepts in the Conceptual Framework	26
Figure 2.1 Community of Inquiry Theoretical Framework.....	43
Figure 3.1 Criterion for Selecting Research Participants	57
Figure 3.2 Data Collection and Triangulation Flow Chart	76
Figure 5.1 K-12 Community of Inquiry	154

LIST OF TABLES**Tables**

1	Online Learning Support Roles (OLSR) Framework	23
2	Alignment of Online Teacher Practices with iNACOL Standards	191
3	Number of Pages of Data Gathered from Each Individual Participant and Source	59
4	Pre-Observation Interview Questions Aligned with Research Questions	64
5	Post-Observation Interview Questions Aligned with Research Questions.....	68
6	Data Collection Techniques Aligned with Research Questions	73
7	31 Practices of Participants.....	86
8	Expanded Online Learning Support Roles (EOLSR) Framework.....	123
9	Alignment of Participants' Practices with K-12 Community of Inquiry Framework	154
10	Expanded Online Learning Support Roles (EOLSR) Framework.....	165

CHAPTER 1

INTRODUCTION AND STATEMENT OF THE PROBLEM

K-12 online teaching has grown exponentially in the past two decades (Lokey-Vega & Barbour, 2016). Millions of K-12 students are served by thousands of online teachers in the United States (Gemin, Pape, Vashaw, Watson & Evergreen Education, 2015; Lokey-Vega & Barbour, 2016). However, research has not kept up with the growth of K-12 online schooling. Indeed, insufficient research exists in the field of K-12 online learning (Barbour, 2012; Barbour, 2015; Rice, 2006; Zweig & Stafford, 2018).

Background and Rationale

The origins of K-12 online learning lie in correspondence and distance education programs (Watson & Murin, 2014). In the late 1990s and early 2000s many new online courses appeared in order to expand course catalogs. Watson and Murin (2014) note, in 2004 “the K-12 online learning world was mostly contained within a few well-defined dimensions: there were state virtual schools and fully online charter schools, but there was essentially no blended learning and very little district-level activity” (p. 2). As communications technology expanded, so did online learning.

In the middle 2000s K-12 online learning expanded rapidly. Rice (2006) explains in 2001 only 40,000 – 50,000 students were served by state virtual schools. By 2003, their numbers had doubled to 100,000 students who were served in 16 states. By 2006, Rice reported online schools existed in nearly every state. Enrollment figures corroborate Rice’s research. From student enrollments in the tens of thousands in the early 2000s, to 2018 when over four million students used online courses in the United States, online school enrollment has grown exponentially (Gemin, Pape, Vashaw, Watson & Evergreen Education, 2015; Lokey-Vega & Barbour, 2016). Today, well over 310,000 students are served in fully online schools (Watson & Murin, 2014). This growth is expected to continue.

Teacher Importance

A wide-body of research has firmly established teachers as the most important school-controlled factor that influences student outcomes in education (Darling-Hammond, 2000; Darling-Hammond & Youngs, 2002; Hattie, 2009; Hattie, 2011). Research has found a succession of excellent teachers can greatly improve student learning. However, a succession of poor teachers can severely negatively impact student learning (Hanushek, 2009). Clearly, the quality of teachers matters.

Effective teachers in face-to-face classrooms are well-organized, have extensive content and pedagogical knowledge, and provide high-quality feedback. According to Ko and Sammons (2013), there are ten empirically-based strategies high-impact teachers regularly use. They are listed below. Effective teachers:

- Are clear about instructional goals.

- Are knowledgeable about curriculum content and the strategies for teaching it.
- Communicate to their students what is expected of them, and why.
- Make expert use of existing instructional materials in order to devote more time to practices that enrich and clarify the content.
- Are knowledgeable about their students, adapting instruction to their needs and anticipate misconceptions in their existing knowledge.
- Teach students meta-cognitive strategies and give them opportunities to master them.
- Address higher-level as well as lower-level cognitive objectives.
- Monitor students' understanding by offering regular appropriate feedback.
- Integrate their instruction with that in other subject areas.
- Accept responsibility for student outcomes (Ko & Sammons, 2013, p.2).

In addition, high-quality teachers foster positive student-teacher relationships (Spilt, Hughes, Wu, & Kwok, 2012). It is important for face-to-face teachers to understand and use effective strategies (Hattie, 2009; Hattie, 2011). Reviewing the literature on high-quality teaching, Cooper, Hirn, and Scot (2015) note high-quality teachers “are aware of and engage in empirically derived high-probability strategies” (p. 1). High-probability strategies are teaching strategies that are validated through research and have an effect size over .40 (Hattie, 2009). Given the limited state of research in the field of online pedagogy, online teachers are unable to use high-probability strategies that are designed for their classrooms because research has not demonstrated what strategies are effective in the online classroom.

Online teacher practices.

Numerous researchers have noted there are unique skills needed to effectively teach online (Barbour, 2012; Dawley, Rice, & Hinck, 2010; DiPietro, Ferdig, Black, & Preston, 2008; Ferdig, Cavanaugh, DiPietro, Black, & Dawson, 2009). Barbour, Siko, Gross, and Waddell (2013) found face-to-face teaching strategies can be adapted to the online classroom but preparation is needed to transfer the skills. Ferdig et al. (2009) identified 32 best practices of K-12 online teachers, many of which are unique to the online classroom. For example, the best practice “uses technology to deliver content” is necessary in the online classroom while it is optional in the face-to-face classroom. In their investigation of sixteen Michigan online teachers, DiPietro et al. (2008) identified 37 unique practices for effective online teachers. Many of the practices involve organization of course structure and regular communication with students and guardians.

Archambault (2011) conducted a survey of 596 online teachers and found teachers needed an extensive understanding of technology in order to succeed in the online environment. In addition, online teachers need a thorough understanding of their content area. Finally, Archambault (2011) found online teachers believe a key teaching practice in the online classroom is to adapt face-to-face teaching strategies to the online classroom. However, the research on best practices in K-12 online learning is severely limited and more research is needed (Archambault, 2011; Barbour, 2012; Barbour, 2015; Rice, 2006).

Previous research regarding online teacher practices.

The state of research regarding fulltime online teachers is even more limited than the field as a whole. It is well-documented that teaching online is different from teaching face-to-face (Barbour, 2012; Barbour, 2015; Barbour, 2018; Cavanaugh, 2013; Mcallister & Graham, 2016). Because of the unique nature of teaching in the K-12 online environment, teachers need unique skills in this environment (Barbour, 2012). However, there is a lack of knowledge concerning online teachers and their teaching practices (Archambault, 2011). Reviewing the literature on online teachers, Ferdig, Cavanaugh, DiPietro, Black, and Dawson (2009) found the field of K-12 online teaching lacks “a strong body of research knowledge that investigates the elements of pedagogy and practice used by successful virtual school educators” (p. 480). In her literature review on teaching practices of postsecondary teachers, K-12 online teachers, and face-to-face teachers, DiPietro noted an absence of work “that focuses on the instructional practices of K-12 virtual school teachers” (DiPietro, 2008, p.44). In the years since DiPietro’s review, scholars have only confirmed the limited nature of the literature regarding K-12 online educators’ teaching practices (Barbour, 2011; Barbour, 2017; Kosko, Sobolewski, & Amiruzzaman, 2018; Pulham, Graham & Short 2018; Repetto, Spitler, & Cox, 2018). These scholars have called for research into the teaching practices of online educators.

There are general and specific calls for research in the area of K-12 social studies online education. General calls for research appeal for the research and identification of the pedagogical practices of all online teachers (Barbour, 2011; DiPietro et al., 2008; Ferdig et al., 2009; Rice, 2006; Zweig & Stafford, 2018). Since these calls for action include social studies online teachers, it follows that the study of online social studies teachers meets the general call for

research. In addition, there are specific calls for research that identify the need for research into social studies online education and educators. In this section I review both general and specific calls for research.

General calls for research into the key practices of online teachers are widespread throughout the literature on K-12 online education (Barbour, 2011; Barbour, 2017; Ferdig et al., 2009; Rice, 2006). For example, Barbour (2011) writes: “the limited amount of research literature into teaching K-12 students in an online environment is still very much in its infancy” (p. 505). Barbour goes on to note, “There is a general paucity of research into virtual schooling and K-12 online learning in general” (p. 510). Consider another example. In their review of the literature regarding K-12 online teacher competencies, Pulham, Graham and Short (2018) found very little research has set forth appropriate strategies for online teachers. In their conclusion, the authors note:

The increasing demand for online and blended teaching in K-12 schools should increase the focus on research-based, empirically grounded practices that are needed to transform education. Rigorous studies based on real classroom observations and interviews with professionals at school districts ... will aid in this process (p. 49).

This case study met the research call of Pulham et al. when they call for classroom observations and interviews with professionals at school districts.

DiPietro et al. (2008) call for research into the specific content areas of K-12 online teachers – including social studies teachers. They write:

More research needs to be done that explores best practices within the context of specific content areas. There may be similarities between teaching face-to-face and online, teaching online secondary and online elementary, and teaching online math vs. online English. However, there are obviously differences; more research needs to explore these best practices (p. 28).

Another specific call comes from Heafner & Handler (2018). After their comprehensive review of the literature on social studies education in the online and blended classroom, the authors called for further research into the practices of online social studies teachers. Heafner and Handler (2018) explain, “Scholarly and empirical research pertaining to this particular style of learning and associated instruction is significantly limited ... Notably, our review is void of empirical studies of online learning” (pp. 335 - 337). The authors go on to call for empirical research in all forms of online learning in the K-12 setting. It is evident that for Heafner and Handler further research is needed in social studies online education.

In summation, consider the call for research from Zweig and Stafford (2018). In their review of every chapter in the *Handbook of Research on K-12 and Blended Learning* the authors write: “each of the current chapters suggests that there is a critical need for more research specifically focused on K-12 online learning” (p. 697). It is evident that for many of the researchers cited in this section, research in K-12 online learning and teaching practices is “a critical need.” The research is not limited because studying online teaching practices is unimportant. It is limited because scholarship has not kept up with the rapid growth of online learning. To put the current need for research in K-12 online teaching practices succinctly: What

do we know about online K-12 teacher practices? The answer is very little. This investigation helps address this research gap.

The lack of research into teaching practices of online educators is an important area of study for online students, parents of virtual students, and K-12 online educators for a number of reasons. First, teachers are the most influential school-controlled element for promoting student learning outcomes (Hattie, 2009; Hattie, 2011). In this regard it is important to note that research has never validated K-12 online educator standards such as the iNacol standards (Adelstein & Barbour, 2017). This study helps empirically validate standards for online teachers. As the standards are refined and improved through research, students may receive improved instruction. In addition, by identifying strategies teachers use to engage and interact with students and parents, current online K-12 educators may benefit from reflecting-on and incorporating these strategies into their own practice. The research on collaboration in this investigation may also improve parental capacity to serve as instructional partners with their students and online teachers. In fact, this investigation found parent and guardian collaboration with virtual school employees and learners to be an essential element in facilitating student learning. In summary, research into teaching practices of online educators is needed to validate the standards that regulate the profession, provide online educators with examples and strategies they can consider and adapt to their practice, and help stakeholders improve the capacity for parents and guardians to serve as instructional aids for their online students.

In this section, I reviewed the background of online learning and provided a rationale for this study. I reviewed the calls to action for research in social studies online education. I first presented the general calls for research into the online teaching of content areas. Next, I

presented the specific calls to action for research into social studies online education. Finally, I emphasized the needs of online students, parents, and educators for further research in K-12 online learning. While a base of research regarding online pedagogy is beginning to develop, there are many areas for further research. For example, little research to date has explored online social studies teachers (Heafner & Handler, 2018). This study meets this need.

Problem Statement

With the rapid and continued growth of online school enrollment, there is an urgent need to prepare teachers for the online classroom. In addition, teachers who work in the online setting need empirical strategies for improving their instruction. Current research has not identified effective practices of online teachers (Archambault, 2011; Barbour, 2013; Barbour, 2012; Zwiig & Stafford, 2018). Furthermore, very little research has set forth appropriate strategies for online teachers (Pulham, Graham, & Short, 2018). In addition, no research has explored the teaching practices of social studies online teachers (Heafner & Handler, 2018). Moreover, little research has explored the first-hand perspectives of social studies online teachers (DiPietro et al., 2008; Heafner & Handler, 2018; Rice, 2006). In order to improve the effective use of teaching strategies that positively influence student learning in online classrooms it is necessary to identify the strategies teachers are currently using. If research does not identify what teachers are doing, it will be impossible to improve their practice. Research is needed to determine the best practices in teaching social studies online. By understanding the practices of experienced online social studies teachers, this study helps identify the current teaching practices of experienced online teachers which may help researchers identify strategies to improve online educators' teaching practice. In addition, as DiPietro et al. (2008) note, this research may benefit designers

of online educator professional development and endorsement programs. Accordingly, there is a critical need to explore the practices of K-12 online teachers.

Purpose of this Study

The purpose of this investigation was to understand the teaching practices, rationales, and roles of experienced K-12 online social studies teachers in one bounded case. For the purpose of this study, experienced teachers are those with three or more years of experience teaching social studies in an online setting. While a strong research base exists surveying the andragogy of postsecondary online educators, the research base for K-12 online pedagogy is much more constricted (Allan & Seaman 2009; Anderson, Rourke, Garrison & Archer, 2001; Barbour, 2012; Barbour, 2013; DiPietro et al., 2008; Naidu, 2013; Pulham, Graham, & Short, 2018; Rice, 2006; Stavredes & Herder, 2013). There is a clear need for research in K-12 online pedagogy.

As DiPietro et al. (2008) noted in their study of K-12 pedagogical practices, the implications of the research derived from this investigation are numerous. First, the study results can be useful for designing professional development programs. Also, the study's findings may benefit policy and legislation regarding online schooling. Finally, this research helps identify and disseminate best practices of K-12 online teachers. The results of the research aid in the development of best practices within online schooling.

Conceptual Framework

A conceptual framework is “an overarching argument for a work” (Ravitch & Riggan, 2012, p. 8). For Maxwell (2006), a conceptual framework is

the system of concepts, assumptions, expectations, beliefs, and theories that supports and informs your research ... it is a written product that explains the main things to be studied – the key factors, concepts, or variables – and the presumed relationships among them (p. 39).

According to Maxwell (2006), the most important component of a conceptual framework is the role it plays in forming a conception about the phenomenon under study. It helps researchers develop their goals, formulate research questions, and select research methods. In short, a conceptual framework is “an argument for the importance and method of a study” (Ravitch & Riggan, 2012, p. 9).

Key Concepts

There are three key concepts in the conceptual framework of this study. First, the Community of Inquiry theoretical framework provides a number of useful categories for understanding the practices of online teachers (Garrison & Akyol, 2013). Second, Nacu, Martin, and Pinkard (2018) developed the Online Learning Support Roles framework which identifies and explores a number of roles online teachers should fulfill in order to effectively support students in the online environment. Finally, the theory of social constructivism helps elucidate the relationships between the concepts due to its support of the other three concepts in this conceptual framework. The three key concepts and their relationships with one another are developed in the next section of this study.

Social constructivism.

Social constructivism is a learning theory which emphasizes the connection between social interactions and student learning outcomes (Richardson, 1997). Knowledge is “socially constructed because meaning can only be constructed through the use of language in a social context” (Richardson, 1997, p. 8). In social constructivism student knowledge is constructed as the teacher and student interact with one another (Powel & Kalina, 2009). According to Blaik-Hourani (2011), social constructivism develops inquiry skills and facilitates students constructing opinions about the world.

There are numerous traditions regarding social constructivism (Elder-Vass, 2012). However, there are some key concepts that all social constructivist theorists agree on. For the purposes of this study, I followed the realist social constructivist school of thought, drawing off the work of Berger & Luckman (1971) and Searle (2010). For this tradition of social constructivism, reality exists independent of the human mind but reality depends on the beliefs of individuals. Institutional reality is created by “representing it as existing” (Searle, 2010, p. 93). Humans “construct phenomena through communicative interactions that alter the way we think about the world and thus alter features about the world that depend on the way we think.” (Elder-Vass, 2012, p. 55). For the field of education, teachers and students socially communicate in order to construct thoughts about the world that conform to an institutional reality. An institutional reality is the reality created by an institution that regulate our behaviors but also allow new social capabilities. Money, marriage, and sports are all examples of institutional reality. The same is true of schools.

Searle's conception of intentionality is also important for this investigation. For Searle, societies and institutions create common intentionality among participants. Intentionality is beliefs, desires, and intentions shared by a group (Elder-Vass, 2012; Searle, 2010). Social constructivism helps researchers understand the intentionality of frameworks such as the Online Learning Support Roles framework by allowing researchers to understand the beliefs and desires the framework-writers seek to inculcate in students and educators.

For Powel and Kalina (2009), it is imperative that teachers understand and apply constructivist theories in their classrooms "to develop an effective learning environment" (p. 242). A key emphasis of constructivism is the role of inquiry. Inquiry learning is defined as "an approach in which the teacher presents a puzzling situation and students solve the problem by gathering data and testing the conclusion" (p. 246). Constructivism emphasizes the role of teacher facilitation as students create their own personal understanding of concepts. The theory emphasizes the student need to engage in activities which caters to their own personalities and interests. A key aspect of most constructivist theories is the role of the teacher. The teacher acts as a facilitator and helper, not as a ruler or dictator. In summation, social constructivism stresses the role of inquiry learning, teacher facilitation, and the need to design activities that meet the unique needs and attributes of all students in a classroom.

Community of Inquiry framework.

The Community of Inquiry framework formed a key concept of this investigation's conceptual framework. Garrison and Akyol define a community of inquiry as "a group of individuals who collaboratively engage in purposeful critical discourse and reflection to construct personal meaning and confirm mutual understanding" (p. 106). According to the

Community of Inquiry theoretical framework there are three key categories of teachers' practices which are effective in the online postsecondary classroom. The categories are social presence, cognitive presence, and teaching presence. Figure 2.1 illustrates the Community of Inquiry theoretical framework (Garrison & Akyol, 2013). A key barrier in postsecondary online instruction is lack of nonverbal cues (Oyarzun et al., 2017). Many of the strategies and characteristics of the three presences help overcome the lack of nonverbal cues in the online environment. Key elements of the Community of Inquiry framework are examined in the second chapter of this case study.

Online Learning Support Roles framework.

The Online Learning Support Roles framework was developed to explore “how educators provide supports for student learning in online contexts” (Nacu, Martin, Pinkard, & Gray, 2014, p. 283). There are ten roles for online educators: audience, encourager, evaluator, friend, instructor, learning broker, model, monitor, promoter, and resource provider. The roles are presented with their definitions in Table 1 (Nacu, Martin, & Pinkard, 2018, p. 1034).

Table 1

Online Learning Support Roles (OLSR) framework

Online learning support role	Definition
Audience	View what youth are doing online
Encourager	Encourage youth about work or participation
Evaluator	Provide grades, ratings, badges, or other formal assessments
Friend	Exhibit personal approachability/friendship/mentorship, including

	social posts, off-topic conversation
Instructor	Directly teach a concept or skill or provide an assignment. Provide prompts and/or feedback to further student thinking or work
Learning broker	Connect youth with learning opportunities (people, activities, etc.).
Model	Share own creative work/process
Monitor	Impose or suggest rules of behavior online (language, behavior, plagiarism, etc.)
Promoter	Showcase youth participant work
Resource provider	Provide learning resources (examples of work, how-to guides, link to sites, etc.)

Note. Adapted from “Designing for 21st century learning online: A heuristic method to enable educator learning support roles,” by D. Nacu, C.K. Martin, and N. Pinkard, 2018, *Education Technology Research and Development*, 66, p. 1034.

The framework was designed based on previous research which demonstrated the influential roles played by adults in facilitating student learning in schools (Nacu et al., 2018). The framework has been used to understand adult support in the online environment, as an anchor for professional development, and as a tool for coding observations. However, while researchers have found the framework useful for understanding educator-learner interactions, the authors note “much more research is needed to validate” the framework (Nacu et al., 2018, p. 1034).

The support roles framework helps researchers understand the roles teachers use in the online classroom to facilitate student learning. By studying what teachers actually do in the online classroom, this investigation helps validate the framework and makes research-based changes in the framework. Moreover, the Online Learning Support Roles framework provides valuable categories for the coding and understanding of qualitative data.

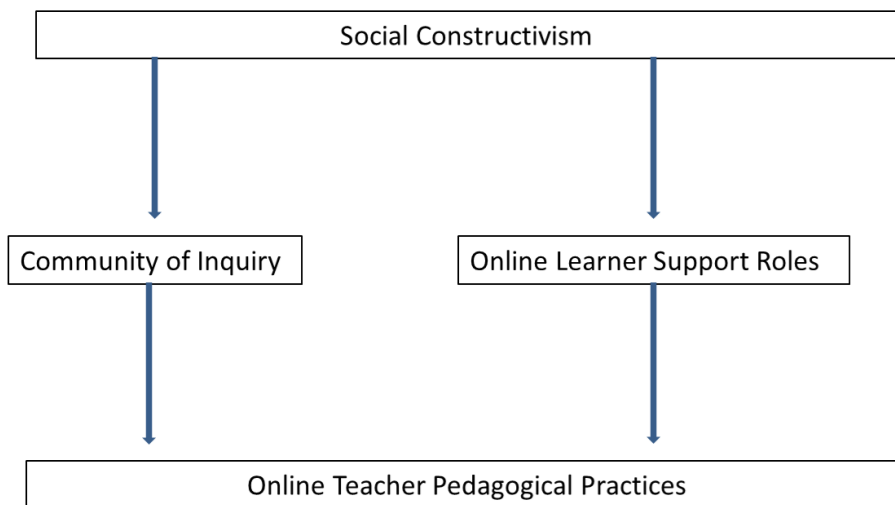
The relationship between the three concepts.

There are relationships between the three key concepts of this investigation's conceptual framework. First, social constructivism forms the broad theoretical foundations for the Community of Inquiry theoretical framework and the Online Learning Support Roles framework. For example, the Online Learning Support Roles framework is grounded in the theory of social constructivism. The framework's purpose is to conceptualize "interactions between educators and youth in online environments" (Nacu et al., 2018, p. 1033). The roles can be viewed as the ten key methods teachers use to facilitate student knowledge construction through social interactions with students. Throughout the ten roles, the teacher serves as a facilitator of student knowledge construction – a key aspect of constructivist learning theories (Powel & Kalina, 2009).

Another relationship between the three concepts of this conceptual framework is the concepts all provide key indicators of what online social studies teachers should be doing in the online classroom. Consider an example. The Online Learning Support Roles framework offers ten key roles online social studies educators should be using to facilitate student learning. The roles highlight key strategies the educator may use in the online environment to help students construct knowledge. Finally, social constructivism provides a theoretical framework for helping

teachers understand the way students learn. For example, by providing students opportunities for peer-to-peer interactions, teachers can facilitate student knowledge construction according to the theory of social constructivism. The relationship of the three concepts of this investigation is represented graphically in Figure 1.1.

▪ **Figure 1.1** Relationships of Key Concepts in the Conceptual Framework



Note Figure demonstrating the relationships of the key concepts in the conceptual framework

In summation, the three concepts of this conceptual framework relate to each other in two key ways. First, social constructivism provides a theoretical foundation for both frameworks. Second, all of the concepts highlight key competencies of online social studies teachers. For example, providing opportunities for peer-to-peer interactions is a key component of social constructivism (Powel & Kalina, 2009). It is also recommended by the Community of Inquiry

framework. Finally, facilitating peer-to-peer interaction is a key aspect of the learning broker role in the Online Learning Support Roles framework.

Research Questions

The following research questions were developed in alignment with the three key concepts of the conceptual framework. The goals of the questions are to examine the teaching practices, rationales, and roles experienced online social studies teachers use in their teaching practice.

1. What are the practices of experienced online social studies teachers?
2. Why are experienced online social studies teachers using these practices?
3. What roles do teachers have in the online social studies classroom?

Significance of the Study

This study impacts a number of areas in K-12 online learning. First, the study sheds light on social studies pedagogy in the K-12 online setting. Social studies classes are a core subject area and enroll extensive numbers of students in the K-12 online environment (Heafner & Handler, 2018). However, research in blended, supplemental, technology-mediated, and full-time online social studies programs is limited. This study is an empirical study of social studies education in the K-12 online setting that addresses the limited research base.

Second, pre-service educator preparation programs benefit from this investigation. While standards for teaching online do exist, they are not research-based. What research does exist is often not conducted in the fully online environment but is based on supplemental online courses (Barbour, 2015). The goal of qualitative research is to promote understanding so the reader may be able to understand the results and judge if the results are applicable to their unique setting

(Creswell, 2014; Merriam, 1998). Consequently, this study provides valuable understanding about the practices of experienced online teachers in a particular setting that pre-service educator preparation programs can use to inform their instruction. In a similar manner, current administrators, leaders, stakeholders, and teachers in online schools may also benefit from the methods and results of this study.

Third, this study is useful for researchers exploring full-time online programs. As Barbour (2015) notes, there is a gap in the research base regarding full-time online teaching strategies. It follows that policy-makers and researchers interested in full-time online learning may benefit from this study's findings.

Finally, this study may be useful for researchers exploring how teacher content areas interact with instructional strategies. The teachers in this study provide examples of strategies they employ in the social studies online classroom. By comparing these strategies to those outlined by studies such as DiPietro et al. (2008), researchers will have a better picture of the practices used in the K-12 environment as a whole and practices used by specific content areas. Since most training of online teachers is done in professional development sessions, designers of professional development for online educators will be able to cater their instruction to the unique needs and strategies of the content area of online teachers (Barbour, 2011).

Terms and Definitions

There are a large number of terms to describe blended and online learning, "including 'e-learning,' 'hybrid courses,' 'asynchronous learning,' 'web-based learning,' and 'virtual learning,' thus adding to the confusion when defining and researching this particular field of

education” (Larkin, 2015). For Barbour (2018), it is imperative for K-12 online learning researchers to carefully define the domain their research covers. In the following list, I provide the working definitions of the terms used in this study.

Experience - Experience is time in a given profession. In the field of education, experience ceases to increase teacher effectiveness after three years (Capella et al., 2015; Clotfelter, Ladd, and Vigdor, 2007; Darling-Hammond, 2000; Rivkin, Hanuskeh & Kain, 2005).

Hybrid Learning - Course that blends online and face-to-face delivery. Substantial proportion of the content is delivered online (30-79%), typically uses online discussions, and typically has a reduced number of face-to-face meetings (Allen & Seaman, 2013).

Online Learning - Delivers instruction and content primarily over the Internet. Students can participate in online learning through one course (supplemental) or a fully online school or program (Allen & Seaman, 2013; Watson & Murin, 2014).

Social Studies - “Social studies” is an umbrella term encompassing a variety of instructional areas, for example, geography, history, and economics. There is a general framework for United States social studies education – with younger grades focusing on community and social life and secondary grades becoming increasingly specialized in content areas, for instance, political science (Barton & Avery, 2015; Marker & Mehlinger, 1996; Nelson, 2001; Thornton, 1994).

Supplemental Programs - Provide a small number of courses to students who are enrolled in a school separate from the online program (Watson & Murin, 2014).

Teacher Quality – Drawing from the literature regarding highly-qualified teachers in NCLB, a highly qualified teacher has a bachelor’s degree, teacher certification, and the teacher is certified to teach in their content area (DiPietro et al., 2008).

Summary

This chapter provided an argument for why a study of the practices of K-12 social studies online teachers is worthwhile. I discussed the lack of research into the pedagogy of K-12 online teachers generally and social studies online teachers specifically. I argued this study makes a valuable contribution to K-12 online learning research. I demonstrated how this paper is significant for pre-service online teacher preparation programs, researchers into K-12 online pedagogy, stakeholders in online schools, and policy makers and researchers seeking empirical knowledge about the K-12 fully-online environment. This study gathered data from experienced K-12 online social studies teachers and analyzed and reported it using the descriptive case study method. In the chapter that follows, a literature review is presented framing the present study. After the literature review, a chapter focusing on methodology follows.

CHAPTER 2

REVIEW OF THE LITERATURE

In the pages that follow I review the literature on the pedagogical practices of K-12 face-to-face teachers, K-12 face-to-face social studies teachers, K-12 online teachers, K-12 online social studies teachers, and online postsecondary educators. Next, a synthesis of the literature is discussed. Finally, a summary of the relevant research is provided.

Research on Effective Pedagogy of Face-to-Face Teachers

Pedagogical practices are “strategies that teachers implement to facilitate the content knowledge development of students” (DiPietro, 2008, p. 28). Effective face-to-face teachers exhibit numerous strategies that promote student success. Researchers have identified a number of characteristics and practices of high-impact educators. It is important to note that it is difficult to distinguish between disposition and practice as the two are linked. For example, if a teacher uses strategies that promote positive teacher-student relationships, they very likely have a disposition that chooses to use the strategy. Consequently, I argue practice and disposition, pedagogy and characteristics, are linked. The most important characteristics and practices are promoting student engagement, fostering a positive teacher-student relationship, teacher content and pedagogical knowledge, educational experience, classroom management and organization,

fostering positive emotional climates, and using instructional methods that are both engaging and challenging (Capella, Aber, & Kim, 2015; Darling-Hammond, 2000; O'Neill, 1988; Shulman, 1986; Sinyolo, 2018; Wiseman, Davidson, & Brereton, 2018). I examine each feature in the space below.

One important aspect of effective pedagogy is promoting student engagement (Capella et al., 2015; O'Neill, 1988). Pianta, La Paro, and Hamre (2008) found effective teachers offer emotional support, classroom organization, and instructional support. Emotional support is when the teacher fosters a positive classroom environment, allows students to express themselves, and responds to the needs of students (Pianta & Hamre, 2009). Classroom organization is achieved through clear expectations, classroom management, responding to student interests, using variety in instructional practices, and effective routines. Finally, instructional support is when teachers provide fast, high-quality feedback to students, use modeling to complete instructional tasks, and foster student conceptual development (Hattie, 2009; Hattie, 2011; Pianta & Hamre, 2009).

In their review of research on teaching, Capella et al. (2015), note the link between a positive teacher-student relationship and a host of positive student outcomes. Years of research have shown the importance of supportive, positive teacher-student relationships for student emotional development and academic achievement. The link between positive student-teacher relationships and student achievement is stable in both elementary and secondary settings (Baker, 2006; Capella et al., 2015; O'Neill, 1988). Although in his meta-analysis of 1,000 articles regarding positive student-teacher relationships, Cornelius-White (2007) found large variations in the reported correlations. Cornelius-White noted the mean correlation was positive and more effective than the average teacher intervention.

Teacher knowledge is an important characteristic of effective teachers. Such teachers have extensive pedagogical and content knowledge (Darling-Hammond, 2000; Mishra & Koehler, 2006; O'Neill, 1988; Shulman, 1986, Sinyolo, 2018). Teacher content knowledge especially influences student outcomes in math, science, and all subjects taught in high school (Capella et al., 2015). After examining over 2,500 students, Monk (1994) found teacher content knowledge was positively related to student achievement. In their review of the literature regarding content knowledge, Mishra & Koehler (2006) found teacher content knowledge was critically important for teachers to be successful. Farmer (2018) found students who perceive their teacher as having a strong content knowledge were more motivated to achieve learning goals. Teacher content knowledge is an important component of effective teachers.

Experience also makes teachers more effective, especially compared to teachers with less than two years of experience (Capella et al., 2015; Clotfelter, Ladd, and Vigdor, 2007; Darling-Hammond, 2000; Rivkin, Hanuskeh & Kain, 2005). Rivkin, Hanushek and Kain (2005) found a link between teacher experience and successful student outcomes in the first three years of a teacher's career. After three years, teacher experience was not correlated with significant improvements in student outcomes. It is important to stress that the effect of teacher experience is not significant after three years – this indicates a difference between experience and expertise. In the field of education, experience ceases to increase teacher effectiveness after three years. Expertise is the skills and knowledge of a particular field. In education expertise is the professional skills and knowledge required to facilitate content knowledge development in students. This means it is possible to have a less effective teacher with twenty years of experience while a teacher with five years of experience can be more effective in promoting student learning. This is a difference of expertise.

Competent teachers are experts in classroom management and organization (O'Neill, 1988). Capella, Aber, and Kim (2015) define classroom management as the “safety, organization, and productivity of the classroom environment” (p 289). Emmer and Stough (2001) highlight five key aspects of classroom management. They are:

1. An understanding of current research and theory in classroom management and students' psychological and learning needs.
2. The creation of positive teacher-student and peer relationships.
3. The use of instructional methods that facilitate optimal learning by responding to the academic needs of individual students and the classroom group.
4. The use of organizational and group management methods that maximize on-task behavior.
5. The ability to use a range of counseling and behavioral methods to assist students who demonstrate persistent or serious behavior problems.

Summarizing these attributes of classroom management, Emmer and Stough note effective classroom management involves “establishing and maintaining order, designing effective instruction, dealing with students as a group, responding to the needs of individual students, and effectively handling the discipline and adjustment of individual students” (2001, p. 104).

Another aspect of effective teaching is the efficient management of routines and transitions (O'Neill, 1988). For example, Livingston and Borko (1989) found novice teachers, defined as those with fewer than three years of experience, spend an inordinate amount of time regulating transitions and have disorganized lessons compared to their more experienced peers. Even though experienced teachers often have well-thought out plans and efficient classroom

routines, they are not afraid to deviate from the lesson plan if needed (Westerman, 1991). In contrast, novice teachers exhibit a tendency to stick to the lesson plan even when a lesson is ineffective. Surveying the literature on classroom management, Capella, Aber, and Kim (2015) found students with an experienced teacher with effective classroom management skills consistently demonstrated more positive behaviors, time-on-task, and improved learning outcomes than students with inexperienced teachers.

High-impact teachers foster a positive classroom emotional climate (O'Neill, 1988). Classroom emotional climate is the amount of warmth, positivity, and respect in a class environment (Capella et al., 2015). Barth, Dunlap, Dane, Lochman, and Wells (2004) examined 65 classrooms in 17 schools and reported classrooms with negative classroom environments experienced more classroom disruption and less academic focus than classrooms with positive environments. Additionally, they found positive classroom climate promoted self-esteem, self-sufficiency, student happiness with school, better behavior, and academic performance. However, the research on the effect of a positive classroom environment in secondary grades is less established and requires further study (Capella et al., 2015).

Another aspect of high-quality pedagogy is engaging and challenging instructional material (Capella et al., 2015; Sinyolo, 2018; Wiseman, Davidson, & Brereton, 2018). Fredricks, Blumenfeld and Paris (2004) found a positive correlation between student engagement and student learning and behavioral outcomes. In addition, engagement helps decrease the likelihood of students dropping out of school. Yair (2000) found highly-engaging instruction mitigates student boredom and promotes positive student outcomes.

Research on Pedagogical Practices of Effective Face-to-Face Social Studies Teachers

There is no agreed-upon definition of social studies (Barton & Avery, 2015). This reflects the widely diverging political and educational philosophies inherent in American policy makers (Nelson, 2001). However, scholars consistently agree that “social studies” is an umbrella term encompassing a variety of instructional areas, for example, geography, history, and economics (Barton & Avery, 2015; Marker & Mehlinger, 1996; Nelson, 2001; Thornton, 1994). There is also a general framework for American social studies education – with younger grades focusing on community and social life and secondary grades becoming increasingly specialized in content areas, for instance, political science (Barton & Avery, 2015; Nelson, 2001).

Social studies educators teach a wide-variety of content and are concentrated in secondary schools. In their review of the literature regarding K-12 social studies educators, Barton and Avery (2015) found many researchers have criticized the field of social studies education for failing to provide consistent findings and lacking a focus. Other scholars note the unique qualities of social studies educational research – especially the contribution to social studies education from scholars in a wide-variety of fields.

In this section I present the key practices of effective social studies teachers. Effective social studies teachers foster deep understanding of content, create and nurture a positive classroom environment, are resilient in the face of change and difficult working conditions, use primary resources in the classroom, facilitate inquiry-based learning in their classrooms, scaffold instruction, make frequent and purposeful use of discussion, and use a large number of sources with students. Each practice is discussed in the space below.

While the research-base is limited, research shows effective social studies educators exhibit a number of pedagogical practices (Levtisk, 2008). First, effective social studies teachers emphasize deep understanding of their content as opposed to cursory knowledge of the content area. In Grant's (2003) extensive case study of social studies teachers, he found effective educators know their subject deeply, understand the needs and backgrounds of their students, and have a deep appreciation for their content area. In their examination of New York City social studies teachers, Croce and Thornton (2002) found skilled teachers were adept at using questioning to foster understanding of content. They also found experienced teachers adapt state-mandated changes in curriculum into their own teaching practice while novice teachers struggled to adapt their teaching practice to curriculum changes. This demonstrates novice social studies teachers struggle to adapt their teaching practice to changing curriculum; it does not show that adapting their practice fosters deeper understanding for students.

Effective social studies teachers foster a positive classroom environment (Antosca, 1997; Levtisk, 2008). While the research on social studies' classroom climate is less robust than other content areas, the effect of classroom climate has been examined in a number of studies (Hardwood, 1991; Levtisk, 2008). Ehman (1980) defines positive climate in a social studies context, "When students have an opportunity to engage freely in making suggestions for structuring the classroom environment, and when they have opportunities to discuss all sides of controversial topics, the classroom is deemed open" (p. 108). Antosca (1997) found social studies teachers who did not address student misbehavior fostered a poor classroom climate – a climate where students could not freely engage in class and were limited in their ability to discuss topics.

Research supports the use of inquiry-based instructional strategies centering on real-world problems as an instructional strategy with deep impact in the social studies classroom. In their study of 75 seventh-grade girls in an inquiry-based classroom, Mitchell and Elwood (2012) found students gained a deep insight and interest in social studies content based on the inquiry approach. Their research also suggests students were more civically engaged as a result of inquiry-based practice. Hernández-Ramos and De La Paz (2009) conducted a quasi-experimental study where eighth-grade students used project-based learning to make multimedia presentations on 19th century U.S. history. The authors report students demonstrated an increase in historical knowledge vis-à-vis the comparison group who did not engage in the content with project-based learning. Feldman, Pasek, Romer, and Jamieson (2007) studied the impact of community-based projects on student political consciousness and involvement at one Philadelphia high school. The authors found inquiry-based projects increased political involvement and consciousness of all students. Barton and Avery (2015) identify several key aspects of inquiry-based instruction. First, there is a focus on problems for which there isn't one particularly correct solution. Next, inquiry features learning wherein students construct their own knowledge. Moreover, inquiry necessitates a detailed analysis of data and research. Inquiry-based instruction also centers on finding good answers but not necessarily one right answer to problems. Finally, the strategy calls for grounding answers for problems in evidence.

Social studies teachers who engage in inquiry-based learning must scaffold instruction. Scaffolding is necessary to help students engage with the content and complete the lessons (Mitra & Serriere, 2012). Scaffolding is assistance educators provide students in order for students to complete a task. Without scaffolding, students often become confused or frustrated, making effective scaffolding a necessary practice of high-quality social studies teaching (Girard

& Harris 2012). Important scaffolding strategies in social studies include explaining unfamiliar processes, presenting and modeling academic-task-appropriate language, helping students achieve learning-tasks, and sharing expertise (Mitra & Serriere, 2012).

Another key element of social studies pedagogy is discussion (Barton & Avery, 2015). Discussion is defined as “in-depth, substantive exchange of perspectives among students and between teachers and students about significant issues” (p.1005). Discussion is central to social studies education because it fosters key democratic skills such as listening, engaging in discussion, weighing evidence, and explaining personal views to other people (Barton & Avery, 2015; Parker, 2010). Moreover, discussion often connects to students’ social identities which make the content more engaging for students (Goldberg, 2013). Kahne and Sporte (2008) studied over 4,000 Chicago students and found students who engaged in meaningful classroom discussions were more likely to be committed to civic participation and voting.

Another pedagogical strategy effective social studies educators use is engaging students with numerous sources (Barton & Avery, 2015). Students who read texts from an identifiable author tend to empathize and be more engaged in the narrative (Paxton, 2002). One way social studies teachers engage students is by using multiple-texts to present the content (Nokes, Dole, & Hacker, 2007). Teachers also use film, primary sources, and artwork to increase student interest, empathy, and content understanding (Barton & Avery, 2015).

Research on Best Practices in the K-12 Online Classroom

Researchers agree that the pedagogical skills needed to teach in the online classroom are unique but are often similar to the competencies needed in the face-to-face setting (Barbour,

2012; Barbour, 2015; Barbour, Siko, Gross, & Waddell 2013; Davis & Niederhauser, 2007; Mcallister & Graham, 2016; Moore, 1993). As Pulham, Graham and Short (2018) note, many scholars are concerned that online teacher competencies are not substantially distinguished from face-to-face competencies. Moreover, the literature on effective online teaching practices and skills is limited (Barbour, 2011; Barbour, 2012; Barbour 2015; Barbour, 2017; Kosko, Sobolewski, & Amiruzzaman, 2018; Pulham, Graham & Short 2018; Repetto, Spitler, & Cox, 2018; Rice, 2006). This section reviews this literature.

Online educators must be organized, communicate with students, and create positive climates in their classrooms. Davis and Niederhauser (2007) reviewed the literature and found online teachers need to be highly organized and must use a wide-variety of communication tools to be successful. In her qualitative study of online classrooms, Weiner (2003) noted it was essential for online teachers to stay connected to their students, offer well-designed lessons, respond immediately to student messages, and create a positive learning environment that fostered student comfort.

One study that explicitly examined the pedagogy of experienced online teachers was conducted by DiPietro, Ferdig, Black, and Preston (2008). In their examination of 16 online teachers with three or more years of experience, they documented a number of online teacher practices. In addition, Ferdig, Cavanaugh, DiPietro, Black, and Dawson (2009) conducted a synthesis of advocacy organizations' standards and found a number of best practices for K-12 online teachers. DiPietro et al.'s and Ferdig et al.'s online teacher practices are synthesized, listed, and aligned with the International Association for K-12 Online Learning's (2011) *National Standards for Quality Online Teaching* in Table 2 which can be found in Appendix A.

While both sets of authors acknowledge more research is needed to identify best practices of K-12 online teachers, the practices the authors identify form a synthesis of current research and standards on online teacher practices.

In addition to research examining online teaching competencies, advocacy organizations have set standards for online teaching and course design. These standards indicate what online teachers should know and be able to do, and what online teachers should be able to demonstrate for evaluation purposes. The advocacy organization standards for online teaching include NEA's *Guide to Teaching Online Courses*, iNACOL's *National Standards for Quality Online Teaching* (2011), and the *Standards for Quality Online Teaching* developed by the Southern Regional Education Board (2006). The *Standards for Quality Online Teaching* were developed for the higher education setting. However, these organizations' standards are not based on published research and are not validated from a research perspective (Adelstein & Barbour, 2017). As DiPietro et al. (2008) noted regarding these standards, they adapt practices from the face-to-face setting and commend them for the online setting. This ignores the unique nature of the online environment. The current standards point to a need for further research regarding online educators' unique pedagogical strategies.

Research on Social Studies Teaching in the Online Classroom

There are currently no studies identifying best practices of online social studies teachers (Heafner & Handler, 2018). However, two studies have examined online discussion in the fully online social studies K-12 classroom. Busbin (2013) compared online discussions to face-to-face discussions and found students in online discussion formats expressed themselves more than students in face-to-face classrooms. Online discussion forums were especially well-suited to

female students who participated much more than in face-to-face discussions. Busbin concludes, “When examining participation rates, the online deliberation provided a more fair and equitable platform for participation in comparison to face-to-face deliberations, both numerically and demographically, the participation rates appeared to be more balanced” (p. 89). In a similar fashion, Larson (2003) found more students participated in discussions in the online classroom, thus making online social studies discussions more democratic. For Busbin and Larson, the benefits of discussion in the online classroom are clear. However, more research is needed to establish the benefits of discussion in the online classroom. Consequently, the limited research base suggests online social studies teachers should use discussion in the online classroom.

Research on Best Practices of Postsecondary Online Faculty

There are a number of pedagogical practices effective postsecondary instructors use in the fully online classroom (Kurtz, Beaudoin, & Sagee 2004; Oyarzun, Conklin, & Barreto 2017; Savery, 2010). Each practice is presented in this section. According to the Community of Inquiry theoretical framework there are three key categories of teachers’ practices which are effective in the online postsecondary classroom. The categories are teaching presence, social presence, and cognitive presence. Figure 2.1 illustrates the Community of Inquiry theoretical framework (Garrison & Akyol, 2013). A key barrier in postsecondary online instruction is lack of nonverbal cues (Oyarzun et al., 2017). Many of the strategies and characteristics outlined in the following sections help overcome this barrier.

▪ **Figure 2.1** Community of Inquiry Theoretical Framework



Note Adapted from “The community of inquiry theoretical framework,” by D.R. Garrison & Z. Akyol, 2013, *Handbook of distance education*, pp. 104-120. Copyright 2013 by Routledge Press.

Teaching presence.

Teaching presence is a vital element for effective postsecondary instruction (Borup, West & Graham, 2012; Garrison & Akyol 2013; Kurtz et al., 2004; Savery, 2010). Teacher presence is “the design and facilitation of cognitive and social processes for the purpose of realizing intended outcomes” (Oyarzun et al., 2017, p. 107). Garrison and Akyol (2013) define teacher presence in a similar fashion in their discussion of the Community of Inquiry framework:

“teaching presence is what the participants (usually the instructor) do to create a purposeful and productive community of inquiry” (p. 110). Garrison and Akyol define a community of inquiry as “a group of individuals who collaboratively engage in purposeful critical discourse and reflection to construct personal meaning and confirm mutual understanding” (p. 106). According to Savery (2010), teacher presence is essential for students to know the instructor is ready and willing to aid them even though the class does not meet face-to-face. There are three elements of teacher presence. They are design and organization, facilitating discourse, and direct instruction (Anderson, Rourke, Garrison, & Archer, 2001; Oyarzun et al., 2017).

According to the Community of Inquiry theoretical framework, there are a number of important strategies teachers must use in order to effectively design and administer their courses (Garrison & Akyol, 2013). First, teachers must make explicit the classroom norms and expectations during the planning process so students and teachers can understand and conform to them (Anderson, Rourke, Garrison, & Archer, 2001). Second, teachers must build curriculum materials including instructional notes, timelines for student work and projects, and groups of activities for the course. Third, the teacher provides guidelines and tips for navigating the course. The teacher also serves as an important model for effective communication in the community of inquiry. It is also imperative that students are provided with a sense of the entire design of the course – this will help students understand how their current work leads to overall learning goals.

Facilitating discourse is when teachers “maintain the interest, motivation, and engagement of students in active learning” (Anderson, Rourke, Garrison, & Archer, 2001, p. 7). There are a number of practices teachers use to facilitate discourse. First, teachers regularly read and comment on student postings (Anderson, Rourke, Garrison, & Archer, 2001; Oyarzun et al.,

2017). Next, the teacher supports appropriate interaction by modeling appropriate behavior and encouraging student responses. It is imperative for teachers to embed positive comments directly into responses to student postings. This fosters a positive learning environment. Another key instructional strategy of effective online teachers is “chunking” learning – presenting instruction in distinct modules (Clark & Mayer, 2016). Chunking learning promotes student engagement by not overwhelming students with large amounts of information. Finally, teachers facilitate discourse by ensuring students stay on task to meet their learning goals. This ensures student communications are both timely and significant to the learning goal.

Anderson, Rourke, Garrison, and Archer (2001) define direct instruction as the strategies teachers use to “provide intellectual and scholarly leadership and share their subject matter knowledge with students” (p. 8). There are a number of teacher practices that facilitate direct instruction (Anderson, Rourke, Garrison, & Archer, 2001). First, teachers model scholarly work and interaction in the classroom. Second, the teacher must use his or her pedagogical and content knowledge to scaffold instruction for the students. In addition, teachers inject comments at the appropriate point to scaffold student learning, provide relevant information for students, and organize activities which allow students to construct their own knowledge. Additionally, teachers provide technological tips and troubleshooting to ensure students are able to fully engage with the community of inquiry.

Another key strategy of direct instruction is timely, regular feedback (Anderson, Rourke, Garrison, & Archer, 2001; Oyarzun et al., 2017). Feedback should be catered to the “specific needs” of students (Oyarzun et al., 2017, p. 110). Romero-Hall and Vicentini (2017) believe providing effective feedback for online assessments requires instructors provide learners with

grades and give them feedback to facilitate understanding of how the material was graded and how they can improve. Another important element of effective feedback is peer-based feedback. Peer feedback allows students to expand their own understanding of concepts while they evaluate their peers' work (Romero-Hall & Vicentini, 2017).

The three elements of teacher presence are interrelated and should not be viewed as discrete categories. Benefits of teacher presence include increased student perception of learning and the development of a community in the online classroom (Akyol, Garrison, & Ozden, 2008; Brook & Oliver, 2007; Swan & Shih, 2005). The Community of Inquiry framework supports the design of materials and organization in the course, facilitating discourse, and direct instruction of the student.

Social presence.

Social presence is “the degree of salience or awareness between two or more communicators through a communication medium” (Oyarzun et al., 2017, p. 114). Garrison and Akyol (2013), echoing Garrison's earlier research, provide a more detailed definition of social presence as

the ability of participants to identify with the group or course of study, communicate purposefully in a trusting environment, and develop personal and affective relationships progressively by way of projecting their individual personalities (p. 107).

According to Akyol, Garrison, and Ozden (2009), there are three aspects to social presence: affective expression, open communication, and group cohesion. Each aspect is examined in the space below.

Day, Bogle, Swan, Matthews, & Boles, (2013) define affective expression as “participants’ abilities to express their personalities in virtual environments” (p. 397). Teachers facilitate affective expression by using and supporting the use of humor in the classroom (Day et al., 2013). In addition, teachers allow all members of the community of inquiry to share personal beliefs and values. Clark and Mayer (2016) provide three personalization principles in order to facilitate social presence. However, in this study I will refer to personalization as humanization due to conflicting constructs involving the term “personalization.” Humanization principles include using a conversational style of voice, being friendly, and using polite wording for advice and feedback. Another strategy that promotes affective expression is when teachers allow all members of the community to share personal anecdotes in the online classroom.

Open communication is “a climate wherein which students feel free to express themselves” (Day et al., 2013, p. 397). Teachers encourage open communication in the online classroom using a number of strategies (Day et al., 2013). First, teachers explain to participants the unique nature and attributes of online discourse. Teachers also establish and model rules of netiquette. In addition, teachers support all student discussion in a course. Finally, another strategy that supports open communication is the design and implementation of ice-breaker activities at the beginning of online courses.

Another aspect of social presence is group cohesion. Group cohesion is “a sense of group commitment, a feeling that the class is a community in which participants interact around shared intellectual activities and tasks” (Day et al., 2013, p. 397). Group cohesion is fostered by online educators in two ways (Day et al., 2013). First, teachers develop and use interactive and

collaborative activities in the online classroom. Second, instructors must provide timely and regular help and direction for students.

Cognitive presence.

Drawing heavily from the work of Garrison, Anderson, and Archer (2001), Day et al. define cognitive presence as “the extent to which learners are able to construct and confirm meaning through course activities, sustained reflection, and discourse” (2013, p. 399). According to the Community of Inquiry framework there are four phases involved in cognitive presence (Arbaugh, 2007; Day et al., 2013; Garrison et al., 2001). The four phases comprise the Practical Inquiry Model and include the following: a triggering event, exploration, integration, and resolution. Each phase is examined in the space below. A triggering event is defined as “an issue, problem, or dilemma that needs a resolution” (Day et al., 2013, p. 399). Garrison et al., (2001) also identify four phases of the Practical Inquiry Model. Teachers use triggering events to promote student interest. This naturally leads to the phase of exploration. In exploration, students search for information to resolve the issue, problem, or dilemma. Teachers support exploration by guiding students to resources that allow them to resolve the challenge. The next phase is integration. This is the phase where connections between resources and information are made and students try to construct viable answers to a problem. This leads to the final phase - resolution. In this phase, students select and test the most viable solutions to reach a conclusion to the problem. Teachers facilitate integration and resolution by modeling testing and information-organizing behavior. Resolution concludes the Practical Inquiry Model at which point the classroom returns to the triggering event phase.

In this section I reviewed the key elements of effective instruction in the postsecondary online setting through the lens of the Community of Inquiry theoretical framework. The three key elements of the framework include: social presence, cognitive presence, and teaching presence. Various strategies were discussed which facilitate the three elements.

Literature Review Synthesis

Researchers have noted teaching in the online classroom is different from teaching in the face-to-face setting (Barbour, 2012; Barbour, 2015; Barbour, Siko, Gross, & Waddell 2013; Davis & Niederhauser, 2007; Mcallister & Graham, 2016; Moore, 1993). However, there are commonalities and differences between face-to-face teaching and online teaching practices in the K-12 setting. I address both differences and commonalities here.

Comparing face-to-face and K-12 online teaching practices.

In this section I compare and contrast teacher instructional practices in the face-to-face and online environment. This discussion is solely concerned with attributes and instructional strategies of effective teachers. There are a number of commonalities regarding face-to-face teachers and online teachers. First, both face-to-face teachers and online teachers use strategies to foster a positive, safe classroom environment and facilitate positive classroom management (Capella, Aber & Kim, 2015; DiPietro et al., 2008; Emmer & Stough, 2001; Ferdig et al., 2009). Second, both face-to-face teachers and online teachers emotionally support students to promote classroom engagement (Baker, 2006; DiPietro et al., 2008; Ferdig et al., 2009; Pianta & Hamre, 2009). Third, both effective face-to-face teachers and online teachers have extensive pedagogical and content knowledge (DiPietro et al., 2008; Ferdig et al., 2009; Mishra & Koehler, 2006).

There are key differences between teaching practices in K-12 online classrooms compared with face-to-face classrooms. One difference is the need for online educators to monitor, facilitate, and troubleshoot student technology-use (DiPietro et al., 2008; Ferdig et al., 2009). While these skills may be beneficial for face-to-face teachers, they are essential for online teachers as students receive their instruction entirely embedded within technology. Another difference is face-to-face teachers deviate from lesson plans when a lesson is not going well (Westerman, 1991). This has not been confirmed as an effective practice in online classes. A third difference is the need for online teachers to consciously stay in touch and communicate with their students using technology according to clear time tables and using an established framework (DiPietro et al., 2008; Ferdig et al., 2009; Weiner, 2003). A final difference between online teaching practices and face-to-face teaching practices is online educators model, promote, and enforce online communication etiquette (DiPietro et al., 2008; Ferdig et al., 2009). This practice had not been verified in the research base for K-12 face-to-face educators.

Comparing K-12 online and postsecondary online teaching practices.

The appropriateness of using postsecondary online teaching methods in the K-12 online classroom has not been established by research (Barbour, 2018; Lokey-Vega et al., 2018). Nevertheless, there are key commonalities and differences in the research base of the two domains. In this section I compare the practices of K-12 online and postsecondary online teachers.

There are a number of similar practices used by postsecondary and K-12 online educators. First, both groups of teachers foster key elements of teacher presence, especially the element of student encouragement (Borup, West & Graham, 2012; DiPietro et al., 2008; Ferdig

et al., 2009; Kurtz et al., 2004; Savery, 2010). Second, both groups of teachers face and attempt to overcome a similar barrier: the lack of nonverbal cues in the online classroom (DiPietro et al., 2008; Oyarzun et al., 2017). Finally, a key practice of both groups of teachers is instructor immediacy – the attempt of the instructor to reduce the transactional distance between the instructor and the student (DiPietro et al., 2008; Oyarzun et al., 2017).

A number of differences exist in the literature regarding K-12 and postsecondary online teachers. Postsecondary online teachers use learner-centered approaches to instruction (Oyarzun et al., 2017). This practice has not been established in the limited research base on K-12 online instruction. Another difference between postsecondary and K-12 online teaching practices is the use of humanization principles in postsecondary classes (Clark & Mayer, 2016). This practice has not been explored in the K-12 online literature base. A final difference between the practices of both groups is technology monitoring and troubleshooting is essential for K-12 online educators but not for postsecondary teachers (DiPietro et al., 2008; Ferdig et al., 2009).

Summary

There are a number of insights from the research on face-to-face teaching, K-12 online teaching, and postsecondary teaching that are relevant for this investigation. One insight is the key role the teacher plays in student academic outcomes. Teachers have the single-largest impact on student learning of any element that schools control (Darling-Hammond, 2000; Hattie, 2009; Hattie, 2011). Sanders and Horn (1998) summarize their research regarding teacher impact on student-learning this way: “the effectiveness of the teacher is the major determinant of student academic progress” (p. 247). It necessarily follows that research should account for the practices of effective teachers. While much research has focused on the teaching practices of effective

teachers in the face-to-face setting, very little research has identified the unique practices of K-12 online teachers (Barbour, 2011; Barbour, 2017; Ferdig et al., 2009; Kosko, Sobolewski, & Amiruzzaman, 2018; Pulham, Graham & Short 2018; Repetto, Spitler, & Cox, 2018; Rice, 2006; Zweig & Stafford, 2018). This study examines the teaching practices of experienced online social studies teachers in the bounded case of social studies courses in a K-12 online school.

Conclusion

In this chapter I reviewed the relevant literature on pedagogical practices in face-to-face teaching, face-to-face social studies teaching, K-12 online teaching, K-12 online social studies teaching, and postsecondary online teaching. Next, I synthesized and summarized the literature. In the next section I will discuss the data methods of this descriptive case study.

CHAPTER 3

METHODS

In this section of the investigation I present the methods I employed to answer the research questions. This study used the descriptive case study method (Merriam, 1998). The descriptive case study method was chosen because it is an appropriate method of investigation when little research has investigated a phenomenon before. Descriptive case studies provide insight and data for further theory building.

Case studies fundamentally study single units of a phenomenon. In fact, for Merriam, the “single most defining characteristic of case study research lies in delimiting the object of study, the case” (1998, Case Study Defined section, para. 2). This investigation focused on the teaching practices of online social studies teachers in one full-time online high school in the southeastern United States. Consequently, the case is bounded by focusing only on social studies teachers in one virtual school.

This investigation built on and adapted the work conducted by DiPietro et al. (2008). However, there are many differences between this investigation and DiPietro et al. For example, DiPietro et al. conducted a grounded theory qualitative study. In contradistinction, my investigation used the methods of descriptive case study to identify the practices of online social

studies educators. Di Pietro et al. only used interviews to answer their research questions. In contrast, this study used interviews, document analysis, and observations to answer the research questions and ensure triangulation. Consequently, this study can be understood as inspired by DiPietro et al.'s work; it is not a replication.

Research Design

In this section I provide a complete description of the methods of this case study. First, I discuss the context and background of the study. Next, information regarding participants is presented. Then, a section regarding researcher positionality is provided. The following segment describes the data collection portion of this investigation. Afterwards, a section details the data analysis methods of the study. The next section deals with issues of trustworthiness. A following section elucidates the ethical issues surrounding the investigation. The penultimate section discusses limitations to this descriptive case study. Finally, a summary of the chapter is provided.

Research setting and context.

The setting of this investigation was one fully online public charter high school in the southeastern United States. The school, hereafter entitled Southeastern Virtual School, was established in 2007 and has a full-time enrollment of over 13,000 students. The school was chosen for this case study because of its large size – the large staff size facilitated the inclusion of an adequate number of participants in this investigation. Moreover, the school was chosen because the researcher was given access to interview and observe teachers in the school. The school is authorized by a State Charter Schools Commission. Approximately 69% of students qualified for free and reduced lunch in the 2015-2016 academic year. The average class size is large with classes averaging 50 students per class. For each student enrolled, the school receives

5,000 dollars, much less than the 9,000 dollars per student paid to traditional schools. All teachers are certified by the state licensing agency. Southeastern Virtual School employs approximately 131 teachers (Southeastern Capital Newspaper).

Observations took place at participants' workspaces and in their virtual classrooms. Participants used computers and the internet to connect with colleagues, stakeholders, and students. I observed participants as they taught synchronously, updated asynchronous courses, communicated with stakeholders, planned instruction, and met with colleagues.

Participants and Participant Selection

This study used a purposeful sampling strategy to select participants (Merriam, 1998; Palinkas, Horwitz, Green, Wisdom, Duan, & Hoagwood, 2015). Purposeful sampling is widely used in qualitative research "for the identification and selection of information-rich cases for the most effective use of limited resources" (Palinkas et al., 2015, p. 534). Purposeful sampling is the process where a researcher selects participants "that are especially knowledgeable about or experienced with a phenomenon of interest" (Palinkas et al., 2015, p. 534). The specific type of purposeful sampling used in this investigation was criterion sampling. Criterion purposeful sampling is when the researcher identifies and selects all the cases that meet pre-determined selection criteria. Following the guidelines of Bryant and Charmaz (2007), the use of criterion purposeful sampling helped ensure participants were excellent informants. Bryant and Charmaz define excellent informants as participants who are experts in the phenomena under study (2007).

Following the example of DiPietro (2008), this investigation used experience and certification status to sample participants. Certification status is an important predictor of teacher

effectiveness (Darling-Hammond, 2000). Likewise, teacher inexperience – defined as less than three years of teaching experience, is another predictor of teacher effectiveness (Capella et al., 2015; Darling-Hammond, 2000). DiPietro (2008) explains the rationale for sampling in this manner:

Prior teaching experience and certification status served as the primary criteria used for sampling participants to identify successful K-12 virtual school teachers. Experience was defined by 3 years of virtual school teaching and was closely tied to certification status, the second criteria. The time period of 3 years was selected based on the requirements outlined by Title XI of the No Child Left Behind (NCLB) act for highly-qualified instructors (p. 50).

However, this study deviates from DiPietro's original sampling method because an additional criterion for participant inclusion was added: the participants had to be certified social studies teachers who had taught social studies online for at least three years. Figure 3.1 graphically represents the participant selection criteria.

▪ **Figure 3.1.** Criterion for selecting research participants

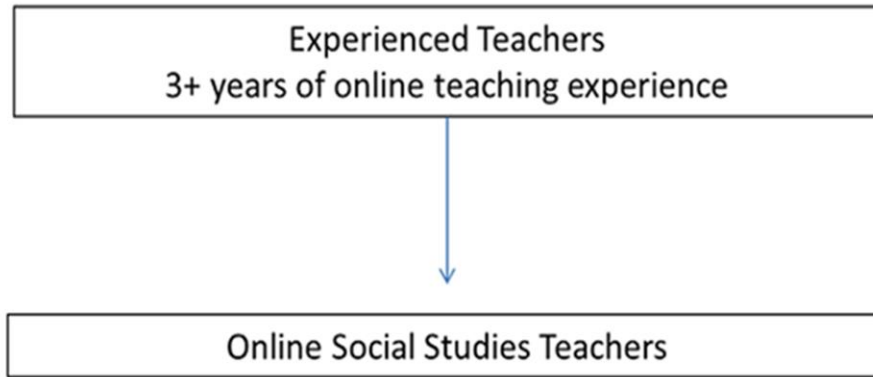


Figure 3.1 Criterion for selecting research participants. Adapted from “Best practices in teaching K-12 online: lessons learned from Michigan Virtual School teachers,” by DiPietro, M., Ferdig, R. E., Black, E. W., & Preston, M, 2008, *Journal of Interactive Online Learning*, 7, pp. 10–35.

I facilitated participant recruitment by issuing a call to participation for teachers who met the criteria. In case study research, the first step in establishing the sample size is identifying a bounded system (Merriam, 1998). Based on input from committee members, I recruited four teachers for inclusion in this investigation. First, I identified participants from the bounded system according to a sampling strategy. The bounded system in this investigation was one fulltime online high school. All teachers in the bounded system who met the criteria of participation were asked to participate in the case study. There were 12 teachers who met the inclusion criteria. The goal of recruitment was to reach data saturation. For qualitative studies, data saturation is achieved when “there is enough information to replicate the study, when the ability to obtain additional new information has been attained, and when further coding is no

longer feasible” (Fuchs & Ness, 2015, p. 1408). For Bowen, data saturation occurs when the researcher gathers data until no new themes emerge (2000). By interviewing and observing four participants, and by conducting document analysis, the researcher was able to provide enough information for the study to be replicated and further coding ceased to produce any further themes. Consequently, the data was saturated.

There were a number of characteristics of participants that should be noted in this section. First, one participant was female while three participants were male. Second, all participants were Caucasian. Third, all participants ranged in age from thirty to fifty years old.

Unit of Analysis

The unit of analysis of this investigation was the individual participants. In this section I will introduce the participants in this investigation. Afterwards, table 3 provides the amount of data in page numbers gathered from each individual.

Mary has taught online for five years. She is in her thirties. She has taught a variety of subjects within social studies but she has never taught a subject outside of social studies. She is certified to teach all social studies subject areas in Georgia secondary schools. Before working in the online classroom, Mary was a high school social studies teacher in the face-to-face environment. Mary has taught World History, Geography, and Economics in the online setting.

Peter has taught online for more than six years. During his time teaching online, Peter has only taught social studies. He is certified to teach social studies. Before transitioning to the online classroom, Peter was a face-to-face classroom teacher. Peter is in his early forties and

enjoys his vocation as an online educator. He has taught a variety of classes in his online teaching experience, including: US history, Economics, and Geography.

Mike has taught social studies online for more than six years. Before coming to the online environment, Mike taught in the face-to-face classroom. Mike has taught a number of social studies courses including Geography, World History, and Economics. He is certified to teach social studies. Mike is in his late forties. He enjoys his vocation.

Tommy has taught social studies online for four years. Tommy has never worked in the face to face environment. However, he did complete his student teaching in the face-to-face setting. Tommy is certified to teach social studies in Georgia. Tommy is in his early thirties. Tommy has taught two courses during his time as an online educator: US history and Geography.

Table 3

Number of pages of data gathered from each individual participant and source

Participant	Number of Transcribed Pages of Data
Mike	16
Tommy	14
Mary	34
Peter	15
Documents	16

Researcher Positionality

For Glesne, the terms positionality and subjectivity are similar and connected (2016). Positionality and subjectivity help researchers reflect “upon how their theoretical perspectives, values, and commitments lead them to interpret in particular ways” (p. 153). Positionality is “a researcher’s social, locational, and ideological placement relative to the research project or to the other participants in it” (p. 298). Positionality is influenced by “embodied factors” such as race or gender. Subjectivity is defined as “aspects of one’s personal history and attributes that form the basis for personal perspectives, beliefs, and feelings” (Glesne, 2016, p. 300). Subjectivity is not bias but an important component in interpreting data in qualitative research (Glesne, 2016). It is important to be aware of your “subjective self.” Self-awareness of the researcher’s own beliefs and values make researchers aware of their own perspective and how their perspective influences their research. In this section I address both my positionality and my subjectivity.

My positionality or “embodied factors” are my race, gender, and class. I am a middle-class, heterosexual male of the Caucasian race. I identify as a heterosexual and a male. In addition, I am the father of four children. I care deeply for my family and the students I serve in schools. Politically and socially I am a communitarian. Communitarianism is a “social ethic described as ‘communitarian, egalitarian, democratic, critical, caring, engaged, performative (sic), and social justice oriented’” (Glesne, 2016, p. 295). This means I do not believe I should impose my values on other individuals in a totalitarian manner. Instead, I am devoted to political pluralism and a commitment to let others live according to their own particular, decisive commitments. This is known as political liberalism (Rawls, 2005). According to political liberalism, society should allow other worldviews to operate provided they do not hurt other

individuals. In other words, it seeks to allow the maximum scope for human freedom, provided human freedom does not harm the wellbeing of others (Rawls, 2005). Of course, there are disagreements about the political meaning of the word “wellbeing.” It is outside the scope of this study to resolve this dilemma. Indeed, it is doubtful that a definition of the word “wellbeing” can be rationally resolved in a way that is agreeable to the vast majority of members of a society (MacIntyre, 1984).

My position of political liberalism should not be confused with neoliberalism. Neoliberalism is essentially an economic doctrine (Stieger & Roy, 2010). Advocates of neoliberalism “share a common belief in the power of the ‘self-regulating’ free markets to create a better world” (p. 20). Political liberalism is not an economic doctrine but a theory of justice; it is essentially political and moral; it is concerned with worldviews and application of justice in society (Rawls, 2005). Politics is separate from the economic domain and is concerned with the systems of protection and obligation all human societies create.

Following the suggestions of Glesne (2016), I used a number of strategies to understand my own subjectivity. First, I wrote about my personal views, perspectives, and emotions in research memos throughout the progression of my study. Second, I used a researcher’s journal to record memos documenting my thoughts and ideas as I analyzed the data. Third, I was aware of how my research is “autobiographical – how my personal history is engaged by my research” (p. 149). Finally, I inquired into and reflected on my values and past background in order to make them transparent.

Consequently, my past history and values are presented here. One important bias I have as a researcher is my career as a teacher. For over ten years, I have taught in public schools –

ranging from the elementary to the middle school setting. I have enjoyed my tenure as an educator and am happy with the interactions and impact I have made with my students. Facilitating student learning and working with the same students for many years has been the most rewarding aspect of my career.

Another element of bias in my research is my experience as a doctoral candidate. Because I believe educational technology can be essential for student success, I chose to complete a doctoral degree in instructional technology. My program of study has only strengthened my view that instructional technology is essential for student learning and successful teaching practice (Mishra & Koehler, 2006).

Another potential bias of this investigation is my deep friendship with many online teachers. Online teachers are members of my personal family and are personal friends whom I care about. I believe these educators are effective teachers. I have seen their classrooms and teaching practices and I believe they provide a valuable service that should be seen as one part of a spectrum of learning services offered to K-12 students. In other words, I believe K-12 online learning is an important part of a much-larger program of public educational services. For example, I know of one family who must travel widely for their career. Their children travel with them. Without online learning, it would be very difficult for these children to live with their family and maintain a stable educational experience.

Finally, one more potential bias may be the value I place on advocacy. One of the reasons I chose to pursue a doctoral degree was my desire to serve as an advocate for my students and their families. As a classroom teacher, my influence over the educational system was surprisingly limited. Moreover, my knowledge of the major trends, theories, and worldviews in

the field of education was limited. By pursuing a doctoral degree, I hoped to gain a thorough understanding of the field of education and use this understanding to advocate for the unique needs of students at the local, regional, national, and global levels.

Data Collection

According to Merriam (1998), there are three sources of data used in case study research: interviews, observations, and document analysis. It is important to note that data collection in a case study is recursive. This means data collection is “an interactive process in which engaging in one strategy incorporates or may lead to subsequent sources of data” (Merriam, 1998, Three Case Studies section, para. 2). In addition, recursive data collection also means data is transcribed, analyzed, and coded while data collection is still taking place. In the pages that follow, I discuss how my study used interviews, observations, and document analysis to identify the teaching practices, rationales, and roles of experienced online social studies teachers.

Pre-observation interviews.

After all participants provided consent, the next step in the investigation was to conduct the first interview. During the interview, the researcher used a handheld digital recorder to record the interview. Interview sessions lasted a maximum of 50 minutes. The interviews were semi-structured and the interview protocol served as a guide for the conversation (Glesne, 2016). All participants participated in one pre-observation interview for a total of four pre-observation interviews.

The semi-structured interview protocol allowed participants to inject their own experience and values into the interview, based on their beliefs about effective pedagogical

practices. The first six interview questions were designed by DiPietro et al. (2008) and align with research questions one and two. The interview questions are provided in Appendix B and are listed in Table 4.

Table 4

Pre-Observation Interview Questions aligned with Research Questions

Pre-Observation Question	Alignment with Research Question
What are the pedagogical practices you use to teach social studies virtual school courses?	Question 1 alignment
Why are you using these practices?	Question 2 alignment
Drawing from your experience teaching different courses within your content area, do the pedagogical practices you use change based on the virtual school courses and the focus on the content included within it (e.g. history, economics, geography, etc.)? [This question is asking about different virtual courses teachers have taught. It is not asking about their experience teaching face-to-face courses.]	Question 1 alignment
If so, how do these practices differ, and why do you use different ones?	Questions 1 and 2 alignment

How do you use different technologies (such as discussion boards, chat tools, wikis, etc.) within the virtual school courses to support your pedagogical practice? Question 1 alignment

How do you use technologies not built into your online course environment (such as web based tools & resources) to support your pedagogical practices? Question 1 alignment

Why do you use these technologies? Question 2 alignment

The researcher used a semi-structured interview protocol to adapt each interview to the idiosyncratic dialogue taking place between the interviewer and the researcher (Glesne, 2016). Following the directions of Glesne, unwritten and unplanned questions were used to further understand participant knowledge regarding their teaching practices. The goal for the unwritten, semi-structured questions was to bring the participant's unique knowledge into the session and make it available for analysis.

Following the suggestions of Merriam (1998), all interviews were transcribed verbatim by me before data analysis. After transcription, I "solicited an external individual to listen to each recording and compare it to the transcript to ensure the accuracy of the transcript" (Barbour, 2009). Anonymity of participants was preserved by using pseudonyms for all participants in the transcripts.

Observations.

Another research tool which was used in this investigation was 27 hours of observation. Mike was observed for two hours. Peter was observed for two hours. Tommy was observed for two hours. Peter and Mary were observed for two hours as they collaboratively worked together. Mary was observed for 19 hours. Online classroom observations took place at participants' residences and synchronous classrooms. The researcher made observations while teachers met one another, planned instruction, communicated with stakeholders, and taught students. The researcher observed teachers as they taught online – students were not in the physical building with the teacher. Using examples from Merriam (1998) to guide data collection, I observed the following: the setting, the participants, the activities and interactions, conversations, subtle factors such as informal activities, and my own behavior and reactions to the observations. I documented these observations in field notes (see Appendix C for example).

Observation times and days were chosen in consultation with participants. There were two goals for observations. First, I wanted to observe a typical day for online social studies teachers. Second, I wanted to observe participants as they synchronously taught students. In addition, the researcher wanted to observe participants as they communicated with students and stakeholders, as they started their day, as they taught their virtual classes, and as they completed a number of tasks that impacted their pedagogical practice. For example, if two teachers discussed a strategy they used to meet a learning standard, I wanted to observe the interaction.

According to Merriam (1998), observation is effective when it does four things: “serves a formulated research purpose, is planned deliberately, is recorded systematically, and is subject to checks on validity and reliability” (Observation in Research section, para. 1). Characteristics of

effective observation include: writing descriptively, taking field notes in a disciplined manner, separating detail from important matter, and rigorously validating observation through such constructs as triangulation (Merriam, 1998). A key role of observation is to triangulate emerging findings resulting from interviews and document analysis. Another attribute of observation is it allows researchers to glean information they otherwise would not be able to collect about a phenomenon. This is because some participants will not want to discuss certain topics but valuable information about a topic can be found through observation.

In addition, informal conversations during observations were documented using field notes. Merriam (1998) notes how case study research builds off previous data collection. For example, insights gained from interviews can manifest in observations or informal conversations. These informal conversations were part of the observation portion of data collection and were useful for building understanding of the case.

Post-observation interview.

After the observations the researcher conducted post-observation interviews. Post-observation interviews took place during the week of observation. Interview sessions lasted a maximum of 50 minutes. Each participant participated in an one-on-one post observation interview. There were a total of four post observation interviews. The purpose of the post-observation interviews is to understand the reasons teachers used some strategies and did not use other strategies. In addition, further information was gleaned from participants in order to answer the three research questions. The post-observation interview semi-structured interview questions are provided in Appendix D and are listed in Table 5.

Table 5

Post-Observation Interview Questions aligned with Research Questions

Post-Observation Question	Alignment with Research Question
Describe your role in the online classroom.	Question 3 alignment
Describe the roles an online teacher is expected to fulfill in the online social studies classroom.	Question 3 alignment
Describe the strategies you used today in your classroom.	Question 1 alignment
Are there any strategies you typically implement that I was not able to observe today?	Questions 1 alignment
Why did you use the strategies I observed today?	Question 2 alignment
[This question inserted strategies I thought I would see observed. For instance, based off the Online Learning Support Roles framework I would expect to see teachers using encouragement strategies. However, if I do not see encouragement take place, I asked the teacher why he or she did not use encouragement strategies].	

Is there anything else you'd like to tell me Question 1, 2 and 3 alignment
about online strategies for social studies
teaching and learning?

Informed consent.

Following the guidelines established by DiPietro (2008), the researcher gathered informed consent from the participants using an informal conversation. During the informed consent conversation, the researcher provided a copy of the consent letter to the participant and explained the study to the participant (see Appendix E for sample informed consent cover letter). Afterwards, the researcher answered any questions the participant had regarding participation in the investigation. Following the advice of Glesne (2016), the researcher established rapport with the participant during the informed consent process. This was achieved by allowing the participant to ask questions about the research and the researcher.

Data Analysis

In this investigation, the goal of interview analysis was to construct a synthesis from the participants regarding pedagogy in the online classroom. Accordingly, “the process of data collection was synchronous and recursive” (DiPietro et al., 2008, p. 15; Ruona, 2005). The coding of data began after the first interview. The goal “of coding is to identify those concepts that are repeatedly present in the data and is what ultimately leads to the synthesis” (DiPietro et al., 2008, p.15).

Following the suggestions of Decuir-Gumby, Marshall, and McCulloch (2011), this study used open and theoretical coding to code data at the “level of meaning” (p. 145). This method of coding allows text to be analyzed on a number of levels, including line, sentence, or paragraph levels. “From this perspective, the ‘lumping’ and ‘splitting’ of text could occur at different locations, enabling a code to be made up of a line, sentence, or paragraph, as long as the essence is the same” (Decuir-Gumby et al., 2011). By “essence” I mean the intrinsic quality of having a meaning regarding teacher pedagogy and teacher roles in the online classroom. For Blair (2015), open coding “is an approach whereby the analysis of text allows the researcher to find the answers within; theory is developed from the data rather than imposed upon it” (p. 17). Decuir-Gumby et al. (2011) refer to this method of developing codes as data-driven codes. In this process, the researcher codes the data in “every way possible” and asks the following questions of the data: “‘What is this data a study of?’, ‘What category does this incident indicate?’, ‘What is actually happening in the data?’, ‘What is the main concern being faced by the participants?’, and ‘What accounts for the continual resolving of this concern?’” (Bryant & Charmaz, 2007, p. 275). By using level of meaning open coding, the researcher retains their focus as they engage with the data.

This study also uses theory-driven coding methods (Decuir-Gumby et al., 2011). Theory-driven coding is used when a researcher codes data based off a previous theory. In the case of this investigation, the theory used is Nacu et al.’s (2018) online learning supports roles. Ten codes were created based on the ten roles enumerated in the Online Learning Support Roles theory (see appendix F for codebook). Next, I reviewed and revised the codes in context (Decuir-Gumby et al., 2011). My goal was to create clear, concise codes that were aligned with the data. I also ensured that my definitions of the ten codes were clear and specific, using the definitions

developed by Nacu et al. (2018). The last step in the theory-driven coding process was determining reliability. In order to establish reliability, the researcher provided a sample of coding a transcript to a peer. The peer reviewed the theory-driven codes and then provided confirmation that the theory-driven codes were reliable.

The researcher provided key definitions of the coding process in order to establish a clear understanding of codes, categories, and themes. For the purposes of this investigation a code is “tag or label for assigning units of meaning to the information compiled during a study” (Ruona, 2005, p. 241). It is an iteration of a category. A category is a grouping imposed on the coded segments, in order to reduce the number of different pieces of data in the analysis. According to Ruona (2005) categories should reflect the purpose of the research. A theme is a higher-level of categorization, used to identify a major element of the content analysis. A category is a subset of data regarding a part of a theme. For example, in the theme “teacher practices” a category was “cognitive presence.” The category cognitive presence is an indicator of the subset of codes that relate to the community of inquiry concept of “cognitive presence.” The three themes in this analysis were teacher practices, teacher rationales, and teacher roles.

After the initial level-of-meaning coding, the resulting codes were analyzed to form core categories. These core categories were then analyzed using the constant comparative method. In this method, the indicators of a theme are constantly compared in order to form categories or codes (Bryant & Charmaz, 2007; DiPietro et al., 2008; Ruona, 2005). Constant comparison involves three actions. First, “incidents are compared to other incidents to establish the underlying uniformity and varying conditions of generated concepts” (Bryant & Charmaz, 2007, p. 278). Next, the resultant “emerging concepts” are compared (p. 278). The goal of this step is

saturation. The last step in the constant comparison process is when “emergent concepts are compared to each other with the purpose of establishing” an integration between concepts (p. 278). Throughout the recursive process of data analysis, memo taking was used to facilitate the coding process. For Bryant and Charmaz memos “are theoretical notes about the data and the conceptual connections between categories” (2007, p. 281). Memos served the data analysis process by focusing and capturing the ideation of emergent and substantive codes and categories from the data.

The constant comparison process continued until no new indicators emerged from continued coding and comparison. An indicator is a fact that indicates the state or property of something. Next, saturation was achieved and coding was used to describe the “synthesis of consistent themes or categories” from the data (DiPietro et al., 2008, p. 15). At this point, coding of the interviews was concluded.

A codebook was used in this investigation. For DeCuir-Gunby, Marshall, and Mculloch (2011) a codebook is “a set of codes, definitions, and examples used as a guide to help analyze data” (p. 138). A codebook is an important aid for researchers because codebooks provide a clear definition of themes from the data. New codes were added as the data was analyzed and codes emerged from the data. An example of the codebook used in this study is provided in Appendix F.

Following the recommendations of Ruona (2005) and Merriam (1998), this investigation used Microsoft Word to analyze and code data. According to Ruona, there are a number of steps researchers must follow when coding data using Microsoft Word. First, the data is prepared. Second, the researcher familiarizes themselves with the data. Third, the data is coded using the

constant comparative method. Finally, the researcher uses the coded data to generate meaning. Ruana provides detailed step-by-step instructions for using the Microsoft Word platform to complete each step. An example is provided in Appendix G.

Throughout the research process, I also analyzed the documents using Merriam’s analysis questions. Codes were developed based off the answers to Merriam’s analysis questions. The resultant document analyses were compared with key activities, interactions, and events I observed during the data collection phase. Finally, all the data sources were merged to form “a detailed description and analysis of the case” (Merriam, 1998, Power Relationships in Adult Higher Education Classes section, para. 8). A graphical representation of this process can be found in Figure 3.2. In addition, Table 6 documents the alignment of data collection techniques with the research questions.

Table 6

Data Collection Techniques Aligned with Research Questions

Research Questions	Primary Data	Secondary Data
1. What are the practices of experienced online social studies teachers?	Interviews Observations Document analysis	Research journal Informal conversations
2. Why are teachers using these practices?		
3. What roles do teachers play in the online classroom?		

Document and document analysis.

This study also used document analysis as a data collection tool. For the purposes of this investigation a document is a written message. Some documents were “living documents,” documents that are updated on a regular basis. These living documents were captured at a specific point in time and were not followed throughout their various updates. For example, the document “Course Announcements” was often updated on a weekly basis. For this study, the researcher captured these living documents at a specific point in time, thereby creating a permanent record of the document. Documents can be in digital or paper form. For this study, video and audio were not considered documents. Rather, video or audio that is used in a teacher’s workday was recorded during the observation phase of this investigation. Before, during, and after observations, documents were collected in order to provide triangulation for research findings. Documents included teacher schedules, school directives, planning documents, and planning guides. 17 documents were collected. Following the guidelines of Merriam (1998), I analyzed the documents using these questions in order to establish trustworthiness (Using Documents in Qualitative Research section, para. 6):

- What is the history of the document?
- How did it come into my hands?
- What guarantee is there that it is what it pretends to be?
- Is the document complete, as originally constructed?
- Has it been tampered with or edited?
- If the document is genuine, under what circumstances and for what purposes was it produced?

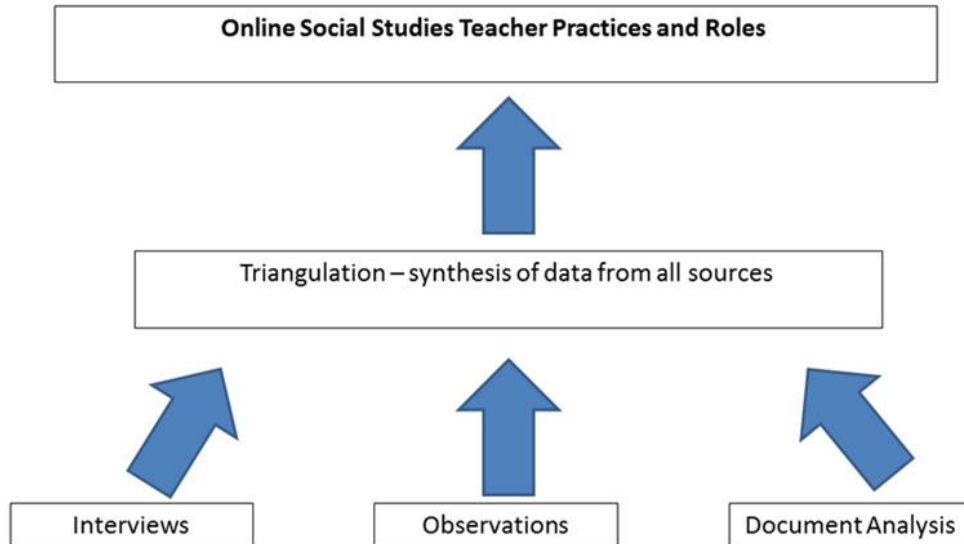
- Who was/is the author?
- What was he trying to accomplish? For whom was the document intended?
- What were the maker's sources of information? Does the document represent an eyewitness account, a secondhand account or a reconstruction of an event long prior to the writing, an interpretation?
- What was or is the maker's bias?
- To what extent was the writer likely to want to tell the truth?

In addition to the document analysis questions provided by Merriam, I created additional questions aligned with my research questions. These questions were created based off the feedback of the researcher's dissertation committee. The additional questions are:

- What roles does the document assign teachers?
- What pedagogical practices does the document mandate or suggest for teachers?
- What justification does the document provide for using certain pedagogical practices?

By asking the above questions of the documents, I gained valuable information regarding the teaching practices of online social studies teachers. Figure 3.2 provides a graphical summary of the data collection and data analyses techniques used in this investigation.

▪ **Figure 3.2** Data Collection and Triangulation Flow Chart



Trustworthiness

For qualitative research, trustworthiness is the standard for interpretive inquiry. According to Glesne (2016), trustworthiness has to do with the rigor of a study and how well the research was conducted. Glesne (2016) and Creswell (2014) identify eight criteria for establishing trustworthiness. The criteria are prolonged engagement, triangulation, thick description, negative case analysis, member checking, clarification of research bias and subjectivity, peer review, and audit trail. This study focuses on five of the eight criteria: member checking, clarification of research bias, triangulation, thick description, and audit trail.

Member checking is when researchers share emerging descriptions and themes with research participants in order to garner their opinion and feedback about the themes (Creswell,

2014; Glesne, 2016; Merriam, 1998). Member checking establishes credibility by having participants check descriptions and themes from the data to ensure participants feel they are accurate (Creswell, 2014). Credibility seeks to answer the question: “how congruent are the findings with reality?” (Shenton, 2004, p. 64). This study used member checking after preliminary data analysis to ensure participants agree with the themes from their case (Creswell, 2014). This provided participants with an opportunity to review their contributions and provide feedback. In this step, I did not provide raw transcripts for members to check. Rather I “took back parts of the polished or semi-polished product, such as major findings, the themes, and the case analysis” (Creswell, 2014, p. 202). In this step of the investigation, I emailed the major findings which emerged from the data analysis portion of this study to participants. I asked participants to comment on the findings and provide their opinions about the accuracy of the findings. All four participants responded to my email query. All four believed the findings accurately reflect the practices, rationales, and roles of experienced online social studies teachers.

Credibility was further established in this investigation using a number of methods. First, the researcher adopted research methods that are well established (Shenton, 2004). Next, the researcher became familiar with the research culture by reviewing documents from Southeastern Virtual School and meeting with participants before the study began. Credibility was further established through the use of triangulation and thick description. The study also used frequent debriefing sessions between the researcher and his dissertation chair to ensure credibility.

In order to safeguard dependability, the investigator ensured “the processes within the study are reported in detail, thereby enabling a future researcher to repeat the work” (Shenton,

2004, p. 71). For qualitative inquiry, dependability is “demonstration that findings are consistent and amenable to replication” (Christenbery, 2017). It is important to note that a researcher who repeats this investigation may not achieve the same results as qualitative research is frozen in the ethnographic present. By providing a detailed methodological description which allows the study to be repeated by another researcher, this investigation ensures the dependability of the research.

Another criteria employed in this study to aid trustworthiness is clarification of researcher bias. For Glesne (2016), clarification of researcher bias is when researchers reflect on their “subjectivities and upon how they are both used and monitored” (p. 53). Clarifying bias is an important aspect of confirmability (Shenton, 2004). In order to meet the criteria of establishing and mitigating researcher bias, this study used a subjectivity statement to clarify the author’s biases. By reflecting on my biases, I was able to put my biases aside “so that I might understand the phenomenon under study without imposing prior biases” (DiPietro, 2008, p. 61).

The third technique employed to establish trustworthiness in this study was triangulation. For Shenton (2004), triangulation is an important component of confirmability. Confirmability ensures “as far as possible that the work’s findings are the result of the experiences and ideas of the informants, rather than the characteristics and preferences of the researcher” (p. 72). For Glesne (2016) and Creswell (2014), triangulation involves using multiple cases, informants, or more than one data-gathering method to understand a research question. Triangulation is “the act of bringing more than one source of data to bear on a single point” (Marshall & Rossman, 2016, p. 262). Because all of the participants of this study were drawn from one school, the study’s findings may not be transferrable to other virtual schools. However, since data was collected using multiple methods and from multiple participants, triangulation “can be used to both

increase the validity and transferability of the study's findings" to other virtual school settings (DiPietro, 2008, p. 65). According to Creswell, "if themes are established based on converging several sources of data, then this process can be claimed as adding to the validity of the study" (p. 201). Moreover, I ensured triangulation by using data sources from interviews, documents, and observation. By using data from multiple sources to build a coherent justification for the key themes which emerge from the data, I ensured the findings are triangulated (Creswell, 2014). By synthesizing the data from multiple sources of data, my investigation met the criterion of triangulation.

In qualitative research, transferability is an important consideration analogous to the quantitative research construct of external validity. Qualitative inquiry is concerned with thick, in-depth descriptions of phenomenon and not universal aspects of phenomenon. Nevertheless, transferability is an important component of trustworthiness (Marshall & Rossman, 2016). The goal of qualitative transferability is to provide a thick description of a process in order for someone unaffiliated with the study to conclude if the findings are transferable to another setting (Lincoln & Guba, 1985). A thick description should "transport readers to the setting and give the discussion an element of shared experience" (Creswell, 2014, p. 202). Following the suggestion of DiPietro (2008), this study used "thick descriptions of the contexts, along with memos and notes documenting the researcher-participant interaction to indicate the potential usefulness of the study's findings" (p. 63). Consequently, this case study facilitates transferability.

Following the suggestions of Larkin (2015), the researcher created an audit trail comprised of a number of documents. As Larkin notes, an audit trail is "a regular trail of correspondences between the researcher and dissertation committee which documents the

development of research” (p. 97). Documents comprising the audit trail include interview questions, meeting schedules between the researcher and the committee, and lists of criteria to be completed by the researcher. An audit trail is critical in order to allow “any observer to trace the course of the research step-by-step via the decisions made and procedures described” (Shenton, 2004, p. 72). This investigation’s audit trail contributes to its trustworthiness.

In addition, a peer reviewer was used to strengthen inter-rater reliability following the suggestions of Larkin (2015). The peer reviewer in this study was a former graduate student who has a “scholarly concentration in the field of Instructional Technology” (Larkin, 2015, p. 98). As Larkin notes, peer-reviewers provide a different perspective for the researcher and help the researcher challenge their assumptions about their data due to their immersion in the project.

The last step in the coding process was determining reliability. In order to establish reliability, the researcher provided a sample of coding a transcript to a peer. The peer reviewed the theory-driven and open codes and then provided confirmation that the theory-driven and open codes were reliable.

Establishing inter-rater reliability followed the process developed by Decuir-Gumby et al. (2011). The focus of inter-rater reliability was to establish consensus among raters. The peer reviewer coded several pages of an interview and then engaged the researcher in a discussion of “when and how specific codes had been applied” (p. 150). Some codes were applied consistently by the researcher and the peer reviewer. These codes were then established as reliable. With problematic codes that were not applied consistently between the researcher and the peer reviewer, the researcher and peer reviewer discussed and refined the codes until the two coders

had 100% agreement. Finally, both coders coded the same subsample document in order to ensure coding remained consistent.

In consultation with the peer reviewer, the researcher took the initial codes and collapsed them. Codes were collapsed according to the process documented by Larkin (2015). During the collapsing process, I looked for patterns among the codes and grouped similarly coded data into new codes. This led to several initial codes being collapsed. Finally, the new codes were analyzed in order to group them into categories. First, the 44 initial practices codes were collapsed to 31. Next, the 11 justification codes were collapsed to 7. Third, the 18 initial roles codes were collapsed to 16.

Ethical Considerations

There are many ethical concerns to consider for this study. According to the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research there are three ethical principles for research involving humans: “respect, beneficence, and justice” (Glesne, 2016, p. 159). Accordingly, this case study must meet the three ethical principals in order to be ethically sound.

This study meets the principal of respect through informed and voluntary consent (Glesne, 2016). In this study, participants were given an informed consent letter that provides information on the researcher, the research supervisor, the study, and the institution associated with the study. The informed consent letter was approved before data collection began during the Institutional Review Board process.

The second ethical principal my study aligns with is beneficence. Beneficence was maintained throughout the study by completely respecting the privacy of the participants (Glesne, 2016). If participant identities were leaked, it might harm participants physically, economically, or emotionally (Glesne, 2016). Accordingly, participants were never identified during any part of this investigation. Moreover, in writing up the results of the study, I used pseudonyms for schools, locations, and participants (Glesne, 2016). By using pseudonyms and maintaining participant anonymity, my study met the ethical principal of beneficence.

Following the suggestions of Pourreau (2016), after I prepared the transcripts, I encrypted the original recording, field notes, and transcript files. Next, I electronically stored them on a password-protected portable jump drive that I stored in a locking file cabinet behind a locked office door at my personal residence. The residence is also locked from entry by non-residents. Only I have access to the filing cabinet and only I have access to the original recordings and transcripts because the files are encrypted. I also removed all identifying markers of individuals and institutions from the interview transcripts. All data will be destroyed “by erasing all files from the password protected jump drive” no later than Friday, August 27, 2021 at 11:59 PM Eastern Standard Time (Pourreau, 2016, p. 66).

The final ethical principal my study aligns with is justice. Justice in research involving humans is ensured by keeping participants safe from harm (Glesne, 2016). By ensuring participant anonymity, I help ensure no harm comes to them. Moreover, I met the principal of reciprocity by identifying issues of importance to participants, allowing “interviewees to ... both enjoy and find useful their roles as information providers” (Glesne, 2016, p. 168). By

maintaining participant privacy and identifying issues of importance to participants, I ensured my study aligns with the ethical principal of justice.

Limitations

As DiPietro (2008) noted in her study, there are a number of limitations inherent in the design, conceptual framework, methods, and participant sampling of this investigation. The limitations of this study are examined in this section.

Conceptual framework.

In qualitative research, the beliefs and attitudes of the researcher ground the interpretation of the collected data. In order to mitigate this limitation, the researcher used researcher-participant rapport, clarified and made transparent researcher bias, triangulation using multiple data sources, and member checking to ensure the views in the final report reflect the actual views of participants (DiPietro, 2008).

Participant selection.

As DiPietro (2008) noted in her study design, the selection and sample of participants has a number of limitations. First, the act of participating in the study imposes a number of requirements on participants that may have influenced participants to volunteer to participate in the study. For example, participants were asked to engage in an interview that lasted for about fifty minutes. Moreover, participants were asked to engage in member checking to ensure correct representation of participants' views. Another limitation of the study was the definition of experienced online teachers used in this study. Because there is no current definition regarding experienced online teachers, I used what little research there is to construct an ad-hoc definition

for this study. As DiPietro writes: “it is important to acknowledge that this definition of successful online teachers may be incorrect or lack certain aspects of successful virtual school teachers” (2008, p. 65).

As with all qualitative research, a limitation of this descriptive case study is generalizability (Merriam, 1998). Qualitative researchers have addressed the problem of generalizability in many ways (Creswell, 2014; Merriam 1998). The goal of qualitative case studies is to provide a holistic description and analysis of a bounded phenomenon (Merriam, 1998). The generalizability and applicability of case study research can be judged by the reader.

Summary

In this chapter I presented the data collection methods of my study. First, I reviewed the research design and data collection methods. Second, I discussed the data analysis portion of this study. Third, I explicated strategies to ensure trustworthiness in the investigation. Finally, I discussed ethical considerations of the investigation and limitations inherent in the study design. In the next chapter I will discuss the key findings of the investigation.

CHAPTER 4

RESULTS

The research questions of this case study sought to examine the teaching practices, rationales, and roles experienced online social studies teachers use in their teaching practice. As described in chapter three, this study used thematic coding and open coding to answer the research questions (Blair, 2015; Decuir-Gumby et al., 2011; Merriam, 1998). This investigation sought to answer the following research questions:

1. What are the practices of experienced online social studies teachers?
2. Why are experienced online social studies teachers using these practices?
3. What roles do teachers have in the online social studies classroom?

For this investigation I interviewed and observed four online social studies teachers at one online high school. Their pseudonyms are Mike, Tommy, Mary, and Peter. The participants represented 25% of the social studies teacher population. The participants taught a wide-variety of subjects including United States History, Geography, World History, and Economics. When transcribed, the pre and post interviews produced 48 single-spaced pages of qualitative data. In addition, the researcher observed the participants for 27 hours which produced 31 additional single-spaced pages of data. Finally, document analysis was conducted on seventeen documents

comprising checklists, directives, lesson plans, and participant-created student learning targets. The document analyses yielded 16 additional single-spaced pages of qualitative data. Data from all sources was then coded using the methods of Ruona (2005) and Barbour (2009). Three themes were developed during the coding process. The three themes were: teacher practices, teacher rationales, and teacher roles. Each theme is examined in the space below.

Theme 1: Teacher Practices

This investigation identified 31 practices of experienced online social studies teachers. This study sought to provide a holistic picture of participants' pedagogy. Accordingly, the 31 practices cover both the synchronous and asynchronous teaching practices of participants. In addition, the practices identified in this investigation cover all aspects of a teacher's practice, including: strategies, classroom management, and instructional planning. Table 7 provides a list of the 31 practices. The practices were organized into four categories: cognitive presence, teacher presence, social presence, and collegial presence. Three of these categories correspond to the Community of Inquiry framework. However, one category, collegial presence, is not part of the Community of Inquiry framework and was added to the framework in order to account for a number of teacher practices that did not correspond to social, teacher, or cognitive presence. In this section, I present the practices of experienced online social studies teachers.

Table 7

31 Practices of Participants

Teacher Practice	Description
Small group	Students work in small groups with peers and/or teacher.

One on one teaching	Students work one on one with the teacher.
Communication	Participants communicate with colleagues, stakeholders, parents, and students using a variety of technology.
Feedback	Participants provide timely, frequent feedback to students.
Data-driven instruction	Participants use data to guide instructional planning and practices.
Formative assessment	Participants use formative assessments to assess students for learning.
Summative assessment	Participants use summative assessments to assess student learning.
Curating and use of supplemental materials/technology	Participants research, select, implement, and teach supplemental materials and technology in their courses.
Collaboration	Participants work with colleagues to promote student learning.
Humanize yourself	Participants use a conversational style of voice, being friendly, and using polite wording for advice and feedback. Another strategy of humanization is when teachers allow all members of the community to share personal anecdotes in the online classroom.
Building personal relationships	Participants actively work to create relationships with stakeholders in their school community, especially students.
Time management	Participants manage their time in order to complete all of their instructional tasks in a timely manner.
Student-led instruction	Participants provide opportunities for students to lead instruction in one-to-one, small group, and whole group setting.
Discussion	Participants provide for in-depth, substantive exchange of perspectives among students and between teachers and students about significant issues.
Foster positive learning environment	Participants offer emotional support to students.
Use real-world examples	Participants use real-world examples to teach a concept.
Accessing prior learning	Participants access student prior learning.
Chunking	Participants group content into topic-specific, focused pieces.
Differentiation	Participants differentiate content, process, and product in their courses.
Direct instruction	Participant directly teaches a skill, concept, or learning activity to students.

Incentives	Participants provide incentives such as candy or gift cards to students who complete an instructional activity or task.
Poll students	Participants use polling tools to assess student learning, desires, values, opinions, or needs.
Course management	Participants manage the course materials, layout, pacing, and access.
Inputting data	Participants input data.
Flipped classroom	Participants provide course materials that are accessible at any time, 24 hours a day, and seven days a week online.
Planning instruction	Participants plan instructional activities and assessments on a yearly, quarterly, weekly, and daily basis.
Hook student interest	Participants attempt to hook student interest in the learning content.
Modeling	Participants model how to use a tool or complete an activity.
Pacing	Participants ensure students pace themselves to ensure they learn the material in a timely fashion.
Classroom management	Participants manage the behavior of students in synchronous sessions. This can be done in whole group, small group, and one-on-one synchronous sessions.
Standards-based instruction	Participants use state standard to guide their instructional practices and set learning goals.

Category 1: cognitive presence.

A number of practices identified in this study contributed to cognitive presence of the educational experience. Cognitive presence is “the extent to which learners are able to construct and confirm meaning through course activities, sustained reflection, and discourse” (Day et al., 2013, p. 399). The practices that facilitate cognitive presence are listed below.

A key practice that was frequently mentioned by participants is small groups. Teachers would often use breakout rooms to set up small groups and target instruction to student needs.

Peter explains: “We have breakout rooms where we can set up mini-classrooms inside the classroom. So that’s useful because you can set up individual activities and gear those activities for a specific group (Peter, personal communication, p. 2)” In fact, Mary spent more of her synchronous teaching time providing small group and one-on-one instruction to students than engaged in whole-group instruction (Mary, observation, p. 1) . She estimated that she spent six hours in whole group instruction and nine hours in both small group and one-on-one instructional settings in a typical week. Sometimes Mary let students pick what small group they attend in order to facilitate differentiation of her teaching process. I observed this process at the end of one of Mary’s synchronous session and noted in my field notes:

Students choose the break out room they want to go to: challenge room, question/main room, and independent room. Mary gives students assignments. Students in the challenge room will reteach what they research in the challenge room. In the challenge room there are national geographic articles and videos about the culture and geography of Japan. Mary uses memes to enliven her class. For example, one is of Batman in the “I’ve got this room” a picture of Batman with the words: “I’m Batman. I work alone.” In this room, students work independently to complete their asynchronous assignments. In the question room, Mary answers student questions regarding the content (Mary, observation, pp. 7-8).

Likewise, Mike noted online teachers frequently use small groups as a teaching practice (Mike, personal communication, p. 3). Grouping students in small groups was a key instructional practice used by Mike, Mary, and Peter.

Student-led instruction was an additional practice frequently mentioned by participants.

For Peter, students often run their own break-out rooms to learn material. Peter noted:

Also (small groups) helps with like student-facilitated learning because then I can set up activities in a break out room and sort of help guide them towards sort of running their own room. Sort of set of instructions: this is what you need to do. And I've done that and they do quite well with it. (Peter, personal communication, p. 3)

In one class I observed, Mary had a small group of students review the rivers of East Asia and then had the students reteach the river systems of East Asia to the whole group. Peter, Tommy, and Mary used student-led instruction in their classrooms.

By far one of the most widely used practices participants implemented was discussion. Through observations and throughout interviews, discussion was one of the most frequently documented teaching practices in this case study. However, the technology of the online environment changes the way discussions are conducted in the online setting. For example, I frequently observed students respond to discussion questions using a variety of response methods: chat box, writing on the white board, and using the microphone. In the synchronous online environment students are provided with increased choice in how they participate in discussions but at the same time the teacher has more control of the discussion than in a face-to-face classroom. For example, during observations, teachers in this investigation would often use the chat box to go back to old questions students had posted during the synchronous sessions and answer the student questions. For Peter, synchronous discussion is better than brick-and-mortar discussion: "we can talk about the China one-child policy and sort of have a Socratic seminar and having the tools Blackboard provides definitely makes it easier" (Peter, personal

communication, p. 3). Following the pattern Goldberg (2013) identified in the brick and mortar social studies classroom, Mary uses the chat box to find and engage student interests in discussions. She noted:

Mary: If students are asking in chat and they want to know (about a topic) I want to make sure that I tell them what's going on.

Kyle: So you're engaging their personal interests?

Mary: Yes, because if they're asking then I know I've got their attention whereas they might not ask that same question later. (Mary, personal communication, p. 4).

It is evident that all participants used discussion in the online environment.

Many teachers reported using discussion boards in their course. Mike regarded discussion boards as the most important aspect of his course:

Discussion boards to me, if I said there were four major components of a course, number one, number one for me, is discussion. What I mean by discussion is more of generalized open-ended kind of discussion. It's not a homework-type, you know, how is change and demand different from the concept of demand? It's more of a generalized thing where I can explore and I can build. That way, when I've got people that are racing through the course I can take them further whereas the other folks, that are the more basic level, I can work with them at the level they're on - all within the same discussion.

Kyle: So you can use discussion boards as an extension activity for those students that are going really fast?

Mike: Definitely. All within the same discussion and those discussions that I'm carrying on with those more advanced students are viewable by all the other students. It's all in the same discussion. You know and I could say Hey, check out, and I do this, I use those discussion boards, check out Pedro's answer on this one, check out Jim's answer on this thing. See what so and so posted on this thing. So we're all reading it. So, not just the advanced are getting something out of it but I can stretch my basic people a little bit by saying, showing them: look what we're talking about over here. (Mike, personal communication, p. 2).

Barton and Avery (2015) demonstrated the importance of discussion in the face-to-face social studies classroom. For all the participants in this study, discussion is one of the central practices of their pedagogy.

Using real-world examples is a practice participants frequently demonstrated in their pedagogy. For example, Mary showed videos of destroyed towns when she discussed the climate of the Pacific Ocean in her synchronous session. She tied the destruction to the students' own lives and asks students how they would feel if their town was destroyed. Mike felt using real-world examples is essential for his pedagogical practices:

So when I teach I try to bring in a lot of real-life examples. So that you bring it down to earth so somebody can relate to. So, what I think the challenge is whatever the concepts you're teaching always try to relate it to something in that person's environment so they can connect with it instantly. (Mike, personal communication, p. 2).

Demonstrating the real-world application of learning to students was an important consideration for Mike and Mary in this investigation.

Many participants noted the need to access students' prior knowledge. Mike noted his desire to connect learning to students' experiences:

Kyle: You say you're trying to connect economics to their prior experience?

Mike: To their prior experience, to their understanding, to their day-to-day life, their everyday realities you know? To bring it (subject matter) down to earth and put it into words that the average person can connect with. (Mike, personal communication, p. 2).

Throughout observations, participants frequently connected current learning to prior learning. For example, while Mary discussed permafrost in a whole group setting, she reminded students of previous learning where the class learned about permafrost when they reviewed the geography of Russia. This pedagogical practice was frequently observed in Mary, Mike, and Tommy's synchronous sessions.

Participants also reported using hooking strategies to pique student interest regarding their coursework. This excerpt from my field notes demonstrates how Mary attempted to hook student interest in the coursework. I wrote:

Mary explains each lesson has a hook and a YouTube video. She broadcasts a picture of the world with a red area marked surrounding the Pacific Ocean and then asks the students what is happening in this pic? She also shares a video to highlight the theme: the YouTube video is about why there is a ring of natural disasters in the Pacific Ocean

region. The class starts at 1:30 but she'll have the video playing at 1:25. The video and the pic serve as the hook to hook the students' interests. (Mary, observation, p. 2).

In a similar fashion Peter attempted to hook student interest by relating learning to their interests. In an interview he noted, "If I can talk to them about something relatable to them at their level, then I usually hook them. I have them. They're interested" (Peter, personal communication, p. 3). For Mary, Peter, and Mike, hooking student interest was an important teaching practice.

Category 2: teaching presence.

A number of practices identified in this study contributed to the teaching presence of the educational experience. Teaching presence is "what the participants do to create a purposeful and productive community of inquiry" (Garrison and Akyol, 2013, p. 110). The practices that facilitate teaching presence are listed below.

A teaching practice that facilitated teaching presence was one-on-one instruction. Mary believed the amount of time she spent working with students one on one per week was extensive. In an interview Mary said, "Teachers are required to provide eight to twelve hours of learner conference and these are one-to-one sessions with students that we feel need the most help" (Mary, personal communication, p. 1). Mary went on to note the purpose of one-on-one teaching is to provide interventions for students who are struggling with specific content. Mary describes the purpose of one-on-one learning: "If a student doesn't master a concept, then we'll have learner conference (a one-on-one learning session), and go over that concept" (Mary, personal communication, p. 1). For Mike one-on-one sessions were one of his most-used teaching practices. Break-out rooms for one-on-one instruction were also used to maintain student

privacy. During one observation, Mary created ten different breakout rooms in order to work one-on-one with ten different students. Mary explained that she used ten different breakout rooms in order to preserve student privacy when she discussed their grades or work habits.

One-on-one sessions also serve as an important way for teachers to help students navigate the course. During one session I observed, a student was unable to access important learning materials on Desire2Learn, the asynchronous, module-based portion of the student's coursework. Mary guided the student step-by-step to the materials the student needed. My field notes record the process:

Mary told the student, "You need to complete constructed response one. Do this with me: Log into Geography on D2L and go to constructed response one. Once you are there, give me a green check mark to let me know, okay?" The student says she can't find the resource. Mary physically walks through the process from the homepage with the student step by step. Each step, the student gives a green check mark to make sure they are with Mary. Mary does this until the student gets to the resource. Mary does this repeatedly to ensure Student D gets to the resources Student D needs. (Mary, observation, p. 2).

For Mary and Mike, one-on-one instruction was an important aspect of their teaching practice.

Another practice participants often use in the online social studies setting is providing frequent, timely feedback to students. For Mike, feedback was an important aspect of his brick and mortar teaching which he adapted to the online setting. He noted:

Well, you need to make sure that you're giving detailed but not burdensome, brief detailed, feedback to all their efforts. So if it's a homework assignment you want to make

sure that you acknowledge the good parts they have in the submission ... I use what I call the sandwich method so if someone submits homework which could be a word document with multiple paragraphs, the first thing I do is I pick out the strong point. You did this this and this very well. However, you may want to go back and think about this, this, and this. So that's another key element to the online experience is giving detailed feedback so they know. (Mike, personal communication, p. 1).

In a similar fashion, Mary described the importance of providing timely feedback. She said, "I believe an effective teacher provides meaningful feedback, which I do" (Mary, personal communication, p.1). Southeastern Virtual believes feedback is an essential element of teaching practice in the online environment. In a written directive for teachers at the school, the following guidelines for feedback were provided: "Teachers will provide feedback on teacher graded work within two school days of receiving the submission. Teachers will have up to five school days for extended writing assignments, where more time for review and feedback are needed" (Southeastern Virtual School, Grading, Learning, and Attendance Plan). Providing meaningful feedback was an important practice of Mary and Mike in this investigation.

Still another practice of participants in this case study was data-driven instruction. Data-driven instruction is when teachers use student data to guide planning and instructional practices. For example, Peter believed using data to drive instruction was an important aspect of his teaching practices. In an interview he said,

You have to be a self-starter to do the research of okay, this is how these kids did on this assessment, this is where they're still lacking, what do I need to go back and do to fill in the gaps? So, for example, if they take a test and a particular group of kids mess up on

standard A then I can make a room just for standard A and that's it. (Peter, personal communication, p. 2).

In an interview exchange, Peter highlights the way his team uses data to meet students learning needs:

Kyle: Do you look at data with your colleagues and talk about how you can use that data to change or target and help students in your classrooms?

Peter: Yeah, definitely do. We have a weekly department meeting and we often look at data in there. We have a general data meeting every two weeks where we look at sort of the whole department's pass rate and contact logs and just bunch of different data points but yeah, we absolutely collaborate on data and then hopefully a teacher will take those conversations and then turn it into actions. And I can give you a good example of that: last Friday we had a data meeting and our lead (immediate supervisor) asked us to give her the pass rates for our advanced and proficient students but also provide the data for our basic and below-basic students. And although I always look at pass rates for the whole group, I had not looked at the pass rates for those individual groups within my groups, and so when I did that I found there were like sixteen people that I could move from one group to the other. So that was just one example I can give you of how we take data and actually do something with it. (Peter, personal communication, p. 4).

Another example of using data to drive pedagogy is Mary's use of data regarding how much content students have interacted with. During one observation she looked at the number of times her individual students had logged in to the Desire2Learn platform. She also observed the time

they had spent in the platform and the pages students viewed. She correlated this information with the grade students had in the course and used this information to reach out to students and remind them to stay on task and finish any assignments they may have forgotten. The message was targeted to the individual needs of the student based on their unique interaction with the content and their results based on formative assessments. Mary, Peter, and Tommy all used data to drive their instruction.

Closely tied with the use of data to drive instruction was the widespread use of formative assessments in the courses I observed. Mary noted in one interview that she “definitely believed” in the use of formative assessments. Mike would often use a practice quiz to quickly assess student learning. Teachers would often use informal formative assessments to assess student comprehension. For example, during one observation, Mike had his students use the chat box feature or white board feature in Blackboard to respond to the question: “In which kind of economy are prices determined by supply and demand and government input?” Mike was able to use the responses of students to quickly assess student learning. Tommy frequently used formative assessment to assess student learning in a lesson. For example, he had students make hashtags for things they had learned in a lesson or things they would like to learn. Mary, Tommy, Peter, and Mike all planned formative and summative assessments in their lesson plans. Indeed, formative and summative assessment planning was mandatory for all teachers at Southeastern Virtual School. As one written directive for teachers regarding planning learning targets noted, “Assessments are planned for the full semester and listed accordingly. Each assessment assesses the appropriate standard in a pre-planned fashion” (Southeastern Virtual School, Learning Targets). Teachers used specially-designed planning sheets to document the formative and

summative assessments they will use to address each standard during the semester. These documents were completed by all the participants in this study.

Summative assessments were another practice participants implement in their classroom. In their interviews, participants noted they must provide a summative assessment at the end of each unit in their courses. Each semester teachers were required to monitor students as they completed a variety of summative assessments. For example, all teachers at Southeastern are required to plan summative assessments for the full semester and list them in a form before the semester begins. Each assessment assesses the appropriate standard in a pre-planned fashion. The form is shared with school leadership. In addition, teachers were required to attend one live testing session each year. The session takes place over a two week time period. During these two weeks, teachers monitored students in person as they completed state-mandated testing. Properly monitoring the testing environment and ensuring the state-mandated tests are implemented with fidelity is another practice all the participants in this study fulfilled.

Another practice social studies teachers at Southeastern Virtual often use is curating and providing supplemental resources in their classrooms, especially technology resources. For example, in their lesson plan one educator planned to use a video of another teacher teaching, another video that reteaches the key concepts of the unit, written materials that extend understanding of the key themes of the unit, primary sources, interactive crossword puzzles, and Quizlet reviews to facilitate student understanding of the material. Another instance of the way teachers curate supplemental materials comes from an observation of Mary. During a lesson on the Pacific Ocean region, Mary used a YouTube video about the region to hook student interest. The video was about an area in the Pacific region called the “ring of fire” – an area of natural

disasters. She had the video playing as students entered the classroom. The video was highly engaging, showing the real-world impact and devastation of natural disasters in the region. Students asked numerous questions about the video as class began and Mary used it as a way to introduce and discuss the region. Teachers use supplemental materials for a variety of reasons. As Mary explains:

Within my lessons, I use Edpuzzle, Quizziz, Kahoot, Nearpod, Google geography app (not sure what is called), Google tours, Google maps, and more. We use quite a bit of instructional technology and that's just within Blackboard. Within Desire2Learn, I'll post gif's and those are used to explain specific concepts like, for example, a tsunami. I use Canva to create posters to remind students to get an assignment completed. I use Google surveys to get a feeling of what is working for students and what is not. We always start our class with a YouTube video explaining a specific concept that we are going over for that day (only about three minute video and it is just used as the kids are logging in). Sometimes it's an African music video because we are going over African cultures so it's just fun music videos that they can see as they're logging into the class. I've used bitmojis and CNN student news; Brainpop every now and then. Basically, we use a lot of instructional technology and as the new technology comes out, we'll play with it and see how it works within our class. (Mary, personal communication, p. 3).

The curating of supplemental materials is a practice noted by all participants in this study.

Time management was another aspect of teaching in the online environment some participants highlighted. Peter commented on time management, "Being a really good manager of your time is important, knowing how to make a schedule and stick to it" (Peter, personal

communication, p. 2). During observations, I often noted that teachers were highly organized – they had their own schedule and they stuck to it. For example, on Monday mornings, starting at 7:55, Mary always checks and responds to emails. In a similar fashion she had specific times during each week devoted to specific tasks, including: planning instruction, reviewing and using data for teaching, conferencing with stakeholders, meeting with students, updating her course, and teaching synchronous sessions. Mary and Peter were the only participants who regarded time management as an important aspect of their teaching practice.

Some participants noted the importance of chunking material into manageable units. In fact, all participants practiced chunking in their courses – grouping material in chunks by weeks and days. Mike felt it was an important element of his teaching practice:

I'm doing a lot more of that and I call it chunking, there's a lot more chunking in economics. You get into bite-sized pieces, topic-specific, very focused and you want to focus on that little piece. It's like teaching a new skill to someone. You don't just do a data dump on them, you get them to make one movement towards the end and another movement and another movement. So you're constantly making these incremental improvements or progress toward the ultimate and higher level learning objective. (Mike, personal communication, p. 2)

For Mike and Peter, chunking was an essential practice of their pedagogy.

Along with discussion and collaboration with colleagues, differentiation was one of the most frequently used practices participants implemented in their courses. For Tomlinson (2014), differentiation is when teachers differentiate the content, process, and product of their

instruction. Participants in this case study frequently demonstrated a commitment to differentiation. Mary explains her extension activities for students who already grasp the course material:

Then, of course, during my session I've got a challenge room so that after my lecture if a student has already completed my quiz then they can go into the challenge room and the challenge room is where there are enrichment activities. And it's different things every time so it might be where students have to put a puzzle of Africa together for example. And at the end of the lesson I try and either allow students to go to the challenge room or to the "I've got this room" so if they don't want to stay in the main room and hear me go over a concept again, for example, then they can go to the "I've got this room" and they can work on their quiz during that time without interruption. And if they have already done their quiz they can go to the challenge room. And if they have questions they stay in the main room. And we go over concepts or questions that students might not have grasped. (Mary, personal communication, p. 1).

For Peter, differentiation of instruction was an essential element of his pedagogy. He noted:

I think the main goal is to just try to differentiate the instruction, to you know, as a teacher I think you understand that not all students are the same. Not all of them can respond the same way. And so you're rarely going to find one tool that is going to serve everybody well. And so I try to find other things that kind of serve that need. So the main goal for using other technologies is to just engage the students and give them multiple ways to participate. (Peter, personal communication, page 5)

Mary, Mike, and Peter noted the importance of differentiation in their teaching practice.

A practice all participants in this study regularly implemented was direct instruction. Mary breaks down the amount of time she uses direct instruction: “I have to have 15 hours of live teaching availability per week. Six of those hours are live session actually teaching content and then the rest of it is learner conferences with one to one or small group sessions” (Mary, observation, p.1). It’s important to note that while observing participants, teachers did not simply use direct instruction in isolation but during direct instruction the teacher switched to other strategies while directly instructing students. For example, all teachers I observed incorporated discussion into their direct instruction. Likewise all participants incorporated formative assessments into their direct instructional time. Many participants would poll students and use the poll to assess student learning. Often participants would use polls to prompt discussions. Still other participants would use short three minute videos to illustrate a key point of the lesson. All participants regularly implemented direct instruction.

An additional key practice during direct instruction was to incorporate modeling into the lesson. Participants often used direct instruction and modeling strategies while working in small groups and one-on-one settings. During these smaller settings, I observed online educators teaching students how to navigate the Desire2Learn platform, showing students how to find information using a map, and teaching students self-efficacy skills such as using the instructional calendar to track and complete their assignments. During whole group instruction, participants focused more on teaching specific content. For example, during one observation of Mike, he compared and contrasted market, traditional, command, and mixed market economies using a table as an instructional aid. He also gave examples of each economy and provided illustrations

such as political cartoons that emphasized the unique characteristics of each economy. Clearly, for the educators who participated in this study, direct instruction was an important practice in their pedagogy.

Another unique teaching practice to online learning was the use of incentives in the online classroom. Some teachers actually used postal service to mail incentives to students. Others use digital incentives. This is how Peter describes the incentive process he used:

Peter: So for example, if every once and while when I'm doing Kahoot games, I'll actually offer a prize for the winner, and so when I do that, it's usually like an amazon gift card.

Kyle: Great. Can you tell me a little bit about that amazon gift card idea? Do the kids really respond to that?

Peter: Yeah, they do big time. I started doing that years ago, when I first started virtual school. I've done it for other things too. So I'll tell the kids you know, if I can get so many people to participate or so many players, I'll offer a prize for the winner, whoever that winner is. And so that always motivates them. You know because kids are like everybody else; everybody likes to spend money so it's pretty exciting for them to win. And then to have their teacher email them a gift card and then they can just go buy whatever. So yeah, I think it's effective. (Peter, personal communication, p. 5)

Both Mary and Peter used incentives in their teaching practice.

Most of the participants frequently polled students during their instruction. Because participants used polling in a large variety of ways, polling students became a discrete category

during data analysis. Participants used polling to assess prior knowledge, hook student interest, as a formative assessment, in order to understand student values and opinions, and as an extension of discussion. Sometimes the polls were part of a values-based question which was meant to elicit discussion. Other times teachers used the polling tool in Blackboard software to ensure students were ready to move on in the lesson. However, polling was always done using the software embedded in the Blackboard synchronous classroom. For example, Peter used the polling tool to find out how students felt about their preparation for a major upcoming summative assessment. Students responded to the quick poll using the polling tool. They wrote “A” for totally prepared, “B” for middling prepared, and “C” for totally unprepared and very worried about the upcoming test. Most students typed “B” into the polling tool. The entire class could see the anonymous results and Peter used the results to discuss the upcoming assessment. I observed polling in Mary, Peter, and Tommys’ synchronous sessions.

Course management is a practice that is unique to online learning. Teachers in the online classroom are often called on to manage the course – to actually manage the Desire2Learn platform. While managing the Desire2Learn platform is not the only aspect of course management, it is an important one. For example, one school-level directive called for teachers to “Lock all modules for 11:59 pm” and “summer school classes setup by 6/2” (Southeastern Virtual School, email to teachers). Another email to social studies educators instructed teachers about setting up their course at the start of the year:

- a. Prior to the first day of school, post a welcome announcement that includes some highlights for the semester, a little info about you, your contact info, and a video of yourself. Send a conditionally released announcement every Friday afternoon to notify

students that they are required to attend live sessions the next week – this would go to your kiddos with less flexibility. Give them a preview of the exciting material to come, and remind them of the engagement policy requirements. Keep it positive and friendly!

b. Use announcements for other general class info and targeted communication for students – remind them to take a test, send a scaffolded study guide, or send kudos to the kids who passed the initial assessment.

c. Use {firstname} in announcements to draw students' attention to their own names.

(Southeastern Virtual School, email to faculty)

Participants in this investigation often included pictures and videos of themselves in their course and synchronous sessions. In the online classroom teachers must manage the course calendar, regularly manage course announcements, set up conferences, embed supplemental material in the Desire2Learn platform and update the content within the platform. This is a large part of a teacher's workload. Mary estimated she spent twenty-five percent of her time managing the course in this manner. Mary, Tommy, and Mike all noted the importance of course management for their instructional practice.

Another aspect of course management is inputting data. For example, teachers take regular attendance of their synchronous sessions and input the data into a spreadsheet. Moreover, teachers frequently input grades into the grade book. In addition, teachers input data into an excel sheet. This planning document requires teachers to document student data and the interventions they will implement for the student. Course management was a key practice for all the participants in this study.

Another key aspect of every participant's pedagogy is flipping the classroom (Bergman, 2012). By flipped classroom, I mean teachers provide access to differentiated course materials 24 hours a day, seven days a week, which students can access according their unique, personalized needs. As Bergman notes, the definition of flipped classroom is not easy to define. There is no one definition of flipped classroom. The participants in this investigation flipped the classroom using a number of practices. First, teachers provided a number of ways students can access the learning content twenty-four hours, seven days a week – often using videos. For example, in one teacher's lesson plan, they provided a large number of flipped classroom practices. So for the learning target: "I can define scarcity and explain what it is." The teacher provided a module on the material in the Desire2Learn platform. The material is again presented in a YouTube video, a video of a Southeastern Virtual teacher teaching the material, and external practice is provided through a website. To assess this material, students were tasked with completing a vocabulary quiz and taking a formative assessment and then completing a summative assessment. Another way teachers practice flipping their classroom is by providing recordings of all of their synchronous sessions for students to access anytime and anywhere.

Planning instruction is a practice all participants demonstrated in this case study. According to the school handbook, all teachers are required to create lesson plans for each week of instruction. In addition, teachers are required to create a larger, overarching plan for the entire semester. The larger plan calls for a number of essential elements. An excerpt from the instructional plan illustrates the elements teachers must provide in the plan (Southeastern Virtual School, Instructional Plan):

- a. Teachers store resources and materials in the plan to align them to instructional goals.

- b. Teachers align lesson plans with state standards and lay out how every standard will be taught, practiced, and assessed.
- c. Teachers identify which standards must be taught synchronously and which can be taught asynchronously.
- d. Teachers can plan a balanced assessment plan.
- e. Because the document is not static/carved in stone, teachers can make modifications based on data or scheduling changes.
- f. Students and learning coaches can view lighter versions of the document: a PDF with upcoming lessons and assignments, and a living document in which synchronous session recordings are posted.

Planning instruction was an important part of the participant's day. For instance, during one observation, Mary worked on a PowerPoint for her synchronous session for an hour and a half. It's important to note that Mary did not simply work on the PowerPoint for the entire hour and a half but she also responded to colleague and student questions as they came in. In addition, she took one five minute break. Still, planning and preparing the PowerPoint for the synchronous session consumed a large part of Mary's work day. During this time, Mary had to embed and test numerous videos and hyperlinks, and ensure she planned the small groups at the end of the lesson. All participants in this investigation planned instruction using the appropriate school-mandated planning documents.

Modeling is a strategy most of the participants in this study used regularly. For example, Mary modeled how to use a map for students to identify nations in East Asia. She emphasized

the importance of reading the key to correctly use the map. In a similar fashion Peter projected a map of the United States on the whiteboard and modeled how to find certain states. Then Peter had students work to identify states on the map. Tommy provides yet another instance of modeling. He used a map of Georgia to highlight the growth, urbanization, and suburbanization of the Atlanta-metro area – a region where many of his students lived. He showed students how to read the map using the legend, modeling the concepts of urbanization and suburbanization. For Mary, Tommy, and Peter, modeling was an important aspect of their teaching practice.

Many participants helped students learn pacing strategies. For example, in one class Mike responded to student concerns about their inability to find a mandatory quiz. My field notes record his response: “You should have taken quiz two by now. Make sure you complete reflections 1 – Fundamentals. All of these quizzes are dependent, they only display when you’ve done certain things like the previous work” (Mike, observation, p. 1). Likewise Peter reminded students about the importance of pacing themselves:

Peter reviewed what students should have already done and what they should be doing. He projected a calendar on the whiteboard so students could see it as he discussed their work. He reminded students they needed to stay on task because if they get behind they may not be able to catch up. He also directed students where they could access this lesson and the previous recorded lesson. (Peter, observation, p. 1).

For these participants teaching students to pace themselves is an important part of their pedagogical practice. According to internal documents, teachers are required to frequently update students regarding the dates and times of live sessions and are enjoined to remind

students to attend the sessions. For Tommy and Peter teaching pacing strategies was an important element of their teaching practice.

Participants in this study used state standards to guide their instruction. At Southeastern Virtual teachers are required to focus on at least one standard for each lesson and all of the teachers who participated in this study complied with this directive. This was evident in both their lesson plans and in their actual teaching. Usually teachers started the synchronous class by briefly referring to the standard they were covering in the class that day. All participants used state standards to guide their instruction.

Category 3: social presence.

Numerous practices identified in this investigation contributed to social presence of the educational experience. Social presence is “the degree of salience or awareness between two or more communicators through a communication medium” (Oyarzun et al., 2017, p. 114). Participant practices that facilitate social presence are provided in the space below.

One key aspect of online pedagogy mentioned or demonstrated by all participants was teacher communication. One participant lists the various ways they communicate with students: “Communication is key, and I do communicate with my students often over the telephone, through email, through Blackboard connect, texts, and through the Desire2Learn announcements” (Mary, personal communication, p. 1). For Mike, maintaining an open line of communication with students was a primary practice of his teaching. Consider this exchange from his pre-observation interview:

Mike: Communication means you're very active in discussion, very responsive to emails, posting announcements, even if they're just an announcement for the day

Kyle: So you're saying your goal is to be really responsive? To be just a click away, super responsive to the students?

Mike: I would say that is the primary teaching strategy. You want to establish that up front. Another thing that I value is immediacy of response to any outreach by a student, whether it's a request for assistance, whether its submission of an assignment, posting the discussion. Back to the thing about what instant messaging has done to us as a culture. We all expect to be able to contact someone and to have them respond immediately and by immediately I mean a few hours. But that's back to that thing: being a click away. You got to be in there and tracking all through the day – start off early in the morning, stay in there, keep going back. (Mike, personal communication, p. 4).

For every participant, communication with students and stakeholders was an essential element of online pedagogy.

At Southeastern Virtual School, teachers were taught to follow the rules of netiquette when communicating with stakeholders. In one document outlining proper communication with stakeholders, school leaders emphasized the need to comply with the Family Educational Rights and Privacy Act and follow netiquette. The document also noted the central role learning coaches play in the online setting and the need to maintain consistent communication with the learning coach. The school provided a sample “Weekly Update” email that highlights a number of

teaching practices regularly used by online teachers. The email is quoted below (Southeastern Virtual School, Communication Plan).

Good afternoon |student.preferredOrFirstname|,

I hope you enjoyed your long weekend!

This week, we are entering Instructional Cycle 5 and beginning standard 18. Assignments you should complete this week: SSUSH 18 Quiz.

Assignments you should have completed so far: SSUSH 13 Quiz, SSUSH 14 Quiz, Unit 7 Test, SSUSH 15 Quiz, SSUSH 16 quiz, SSUSH 17 Quiz, Unit 8 Test, Constructed Response 1, and Instructional Cycle 4 Vocab assignments.

Remember, you can always turn in missing work to improve your grade!

Know that I am here to support you. Call/text/email me 555-555-5555 :)

Keep on keeping on,

Your Name.

It is clear from this sample email that timely communication is expected from all teachers at Southeastern Virtual School.

The use of humanization strategies by participants is a practice they often use.

Humanization is when teachers exhibit personal approachability and discuss non-instructional topics in a friendly manner. The teacher opens up about his or her life in order to humanize themselves for the student. During my observations participants always interacted with students in a friendly manner, using a conversational tone. Peter explains the importance of humanization to his teaching practice in this interview exchange:

Kyle: So why do you use those practices? What motivates you? Why do you choose to build those relationships?

Peter: Because it makes it makes it (sic) more enjoyable for me. I enjoy knowing them and knowing personal things about their lives and their back story and why they're here. And I enjoy telling them things about my personal life. It kind of just, it makes it more pleasurable. (Peter, personal communication, p. 1).

Often participants tied humanization strategies directly into instruction. For example, when I observed Peter teaching the concept of urbanization in a synchronous class, he used his hometown as an illustration. He told the students where he was from and how urbanization had impacted his hometown and he connected it with his own feelings. He explained that in some ways it was good that his hometown was urbanized but in other ways it was bad. He gave specific examples such as more traffic to illustrate his point. For social studies teachers at Southeastern Virtual, humanization isn't just recommended; it is mandatory. A directive from the school illustrates the point: "post a welcome announcement that includes some highlights for the semester, a little info about you, your contact info, and a video of yourself" (Southeastern Virtual School, email to faculty). Humanization is an important part of teaching practice for all the educators I observed at Southeastern Virtual.

Tied with humanization is the teaching practice of building personal relationships. A key aspect of building personal relationships is reaching out to students. For instance, during an observation Mary reached out to struggling students. I noted during the observation she remained positive during her interaction with students. "Yeah buddy, how are you doing? Your other grades were great, you had an eighty and a ninety on the first two quizzes but you have to complete the quizzes you haven't done" (Mary, observation, p. 2). For Peter, it is important for online teachers to respect students: "Kids are smart. They pick up on whether the teacher wants

to be there or not and they pick up on whether you respect them or not” (Peter, personal communication, p. 1). For Mary, Peter, and Tommy building personal relationships was an important aspect of their professional practice.

Fostering a positive learning environment was also frequently cited as an important element of online pedagogy by participants in this investigation. According to Mike, a key aspect of fostering a positive learning environment is protecting students. He said:

So this brings us to another value which is the role of the instructor as the protector of the class. And by that I mean when someone who has shown a bit of hesitancy then becomes active and starts to step out there. And listen, if I’m noticing that someone is being hesitant, the other kids have noticed it too. Alright, so when that person begins to come out of the shell and to open up and participate, it is the critical role of the instructor to protect that person. So if folks try to tease them at times, or challenge them - it’s important for the instructor to protect them. So if they offer something no matter what it is, ‘Hey, my name is Ricky.’ (The teacher should immediately respond) ‘Hey, Ricky good to see you! Hey, I think the answer is so and so. Hey, Ricky glad to see you in there. You’re almost there. Think about this. You’re close.’ And pick out some part of what they said to confirm and encourage them. So when those backbenchers and fence sitters start to come out and actually enter in discussions or to speak up during live sessions, or to type in some input during the session I think it is a *critical* role for the instructor to reach out and protect them ... Make your corrections private. Make your praise public! (Mike, personal communication, p. 4).

Other teachers also remarked on the importance of fostering a positive learning environment. Throughout the observation portion of this study, teachers were frequently observed positively praising students. For example, Mary praised a student who identified a river in a whole group discussion, “Oh, you see it. You got it; you got it” (Mary, observation, p. 2). For Mary, Mike, and Tommy, fostering a positive learning environment was essential.

Classroom management was often used by teachers to ensure their synchronous sessions ran smoothly. Classroom management in the virtual setting is different from the brick and mortar setting because educators can control student access to microphones, chat functions, and the use of the whiteboard. This gives them a level of control that is not provided in the face-to-face setting. Peter noted these tools give him the ability to take away the audience of a student who might want to disrupt class in order to seek attention. In an interview Mary described how she used her controls to manage her synchronous classroom:

Well, we’ve got a chat so in the Blackboard platform the students can always chat; they can use the microphone if they wanted to and if we allow it of course. In smaller groups it’s easier and I tend to open the microphone in smaller groups more. In larger groups students have to raise their hand and then I’ll open up the microphone for them. (Mary, personal communication, p. 1).

However, there is more to classroom management than simply turning off student’s microphone privileges. The participants I observed were able to redirect students to stay on task. Consider this example from Peter’s classroom:

Peter asked the whole group: “Are there any questions before we begin, throw them in the chat real quick.” Students list questions in the chat box. During this time one student tried to redirect the lesson into an off-topic subject – the subject of rewards. Peter gently explained that “I’m not going to talk about rewards right now. I’m going to focus on the content so we’re going to move on.” (Peter, observation, p. 2)

During this interaction Peter acknowledged the student’s contribution to the chat the same way he had acknowledged other students’ comments. Peter then redirected the conversation in order to keep the class on track. Peter, Tommy, and Mary demonstrated the importance of classroom management in their teaching practice.

Category 4: collegial presence.

An additional practice of participants was frequent collaboration with the learning coach of the student. For the participants of this investigation, the learning coach was a parent or guardian. Participants frequently highlighted the importance of communicating and collaborating with the learning coach for student success. Mary recalls an incident where she worked with a learning coach to improve student learning:

In fact, I ran into this problem where a student wasn’t doing enough work and the learning coach thought he was doing his work. I showed her how she can check his progress to see what he has done and what he hasn’t done and she was shocked. (Mary, personal communication, p. 5)

Frequent communication with learning coaches is an important aspect of virtual teaching for the participants in this study. However, participants who taught 11th and 12th grades noted that parent

interaction was less central to their teaching practice than it was when teaching ninth and tenth grade. An interview interchange with Tommy illustrates the way teacher collaboration with guardians change as students move through high school.

Kyle: Can you tell me about the role of the learning coach and by that I mean the parent or guardian in those two different grade levels and age groups?

Tommy: Sure, I think the biggest key among both age groups is just helping to hold the student accountable because that is just one thing we can't do in this online environment. But the difference is I really feel like in ninth grade you lean on the parents a little more just as a, 'hey, I wanted to give you a little bit of a heads up about how your son or daughter is doing, how they're doing in the class, or you know, I just wanted to touch base.' But by the time they get into 11th and 12th grade, I really deal almost exclusively with the students. I mean obviously the emails that I send are still copied to the parent so they are still able to take active participation but I typically deal with just the students because by then they have typically taken ownership more and they can really see the light at the end of the tunnel. So by the time they get to 11th and 12th grade, I really don't have a ton of contact with the learning coaches because I can just deal with the students directly. (Tommy, personal communication, p. 2)

Collaboration with learning coaches is a key practice for the participants in this investigation. However, collaboration between learning coaches and teachers is diminished as students move into the upper grade levels of high school. Mary, Tommy, and Mike all noted the importance of regular communication with the learning coach in their teaching practice.

One of the most salient teaching practices participants used in this study to foster student learning was collaboration with colleagues. Participants reviewed and discussed data with colleagues. Principals made suggestions in order to help participants improve their instruction. Participants shared strategies and resources with colleagues, which were then implemented in the receiving teacher's course. Tommy describes the way he works with his co-workers this way:

I think team work makes the dream work is key here. I have a really close relationship with the other history teachers and the other teachers on our team. We work really well together but some of the ways that we work together is we create content together.

(Tommy, personal communication, p. 3)

All participants reported working with fellow-teachers, principals, leads, counselors, learning coaches, support personnel, and homeroom teachers to modify and improve their own instructional practices. It would not be an exaggeration to say that a teacher's colleagues directly influence, modify, and impact student learning in that teacher's course. In short, for the participants in this case study, teaching was a community endeavor.

Theme 2: Teacher Rationales

The process of coding the data and generating meaning from the data led to seven rationales for why teachers use the practices discussed in the previous section. The seven rationales were research-based rationales, personal experience-based rationales, school-mandated rationales, brick and mortar experience-based rationales, student-motivation rationales, teacher-presence rationale, and finally student-needs rationales. Each rationale will be examined in turn.

Some participants in this case study justified their practices by appealing to research. For example, when Peter was asked why he attempted to build personal relationships with students, he noted he believed research supported the practice. However, Peter was the only participant to justify his practices by an appeal to research.

For three participants, personal experience provided the justification for the practices they implemented in their classrooms. For example, when asked how she chooses to use technology in her course, Mary responded: “Basically, we use a lot of instructional technology and as the new technology comes out, we’ll play with it and see how it works within our class” (Mary, personal communication, p. 3). The implicit justification was effectiveness in her experience. In a similar manner, Mike justified his teaching practices by appealing to his personal experience. He noted: “I’ve done it (online teaching) for a number of years. I’ve been exposed to a number of learning management systems. I’ve used wikis. I’ve been through all that. But I think the best approach; I call it KISS, keep it smooth and simple” (Mike, personal communication, p. 2). Mike uses his own experience to justify his pedagogy. For Tommy, Mike, and Mary, personal experience justifies many of the practices they use in their courses.

All the participants in this study were observed implementing strategies to comply with school-based mandates. For instance, when Mary was asked why she uses supplemental resources in her instruction, she responded: “Our leadership definitely evaluates our courses and makes sure, she really pushes for supplemental resources and our leader stays on it. So if she notices that there is a decline in the overall grade then she asks for results” (Mary, personal communication, p. 2). Many internal policy documents call for mandatory implementation of various practices. Consider a few examples. One document notes, “Posting the instructional

cycle on the Desire2Learn platform is mandatory but teachers are also encouraged to share the information with students using email or posting in other places” (Southeastern Virtual School, email). I observed teachers post the instructional cycle on the asynchronous learning platform and email it to students. Another document mandated teachers create an instructional plan for each semester. All participants complied with this mandate.

A regular justification for pedagogical practices was the practice was regularly implemented in the brick and mortar setting. Participants would often explain that they adapted their practices from the brick and mortar classroom to their online courses. Peter makes this link explicit when he says, “I feel like if the virtual teacher does well and they understand the model and they care about their job and they care about their students, those same things they do in the brick and mortar classroom, which is physical, can still be done in a virtual classroom” (Peter, personal communication, p. 3). Peter, Mary, and Mike justified their teaching practices by an appeal to what is done in brick and mortar classrooms.

Participants often cited the need to motivate students in order to justify their pedagogical practices. For example, when Peter was asked why he implemented humanization strategies, Peter responded he believed it motivated students. For Mary, her incorporation of new technology into her course was a deliberate attempt to motivate students. Mary made this point in an interview exchange:

Kyle: Why did you use those strategies?

Mary: It engaged the kids.

Kyle: Okay, well getting back to why you use these strategies you said engagement. That's your primary consideration when you use these strategies?

Mary: Yes. You know, I mean, they could just read the text book, but we want them to gain enjoyment out of it and to enjoy the lesson and apply it to their own lives.

(Mary, personal communication, p. 3)

Mary, Peter, and Tommy cited student motivation as a rationale for their pedagogical practices.

In contradistinction, one participant noted the need to foster teacher presence as a rationale for his teaching practices. Mike noted his beliefs this way:

Showing the presence daily in the online classroom is a critical challenge. We want the students to feel that the student is just an email away. Or a click away, whether it's a discussion question within the course itself or an email question or message out of the online course we want them to have the sense that the teacher is as much active in the course as the student is, to have that sense that you're just a click away. (Mike, personal communication, p. 1)

For Mike, promoting teacher presence was a key consideration in the practices he implemented in his classroom.

The final rationale for participants' pedagogical practices was the need to cater instruction to student needs. For Tommy, responding to student needs is an important aspect of his pedagogy. In this interchange, Tommy highlights the way he changes his instructional practices based on the grade level of students he is teaching.

Kyle: Tell me about the differences between the upper grade levels you've taught and the lower grade levels, how has that affected your teaching?

Tommy: Well it's the ninth grade students we've had are usually very willing to engage but they're also very easy to get off topic and get off track. So I would say the younger grades it's more of a struggle to just keep them focused on the task or on the topic at hand. Once we've gotten into the 11th graders and 12th graders at this point, they know the drill. They understand what's expected of them, what they're supposed to do. And you give them a little more latitude. I feel like I can put my 11th and 12th graders into break out rooms and they're going to do the assignment; they're going to do the work, the vast of them. And you know I feel like you can go more in depth with 11th and 12th graders because they're so much more able to stay on topic. Whereas some of the ninth graders we have, their first year, I mean obviously their first year in high school, they may also be their first year in the online environment too. (Tommy, personal communication, p. 1)

Mary, Mike, and Tommy justified their practices by appealing to student needs.

Theme 3: Teacher Roles

Using theory-driven coding, I began this investigation with 10 roles derived from Nacu et al.'s online learning support role framework (2018). An additional seven roles for online teachers were identified using open coding. However, one code from Nacu et al., the role of promoter, was not observed in the qualitative data and was removed from the codebook. The role of promoter is when online teachers showcase youth participant work. In total, 16 roles were

identified from the data. Each role will be examined in the space below. The roles are listed and defined in Table 8.

Table 8

Expanded Online Learning Support Roles (EOLSR) framework

Online learning support role	Definition
Audience	View what youth are doing online.
Encourager	Encourage youth about work or participation.
Evaluator	Provide grades, ratings, badges, or other formal assessments.
Friend	Exhibit personal approachability/friendship/mentorship, including social posts, off-topic conversation.
Instructor	Directly teach a concept or skill or provide an assignment. Provide prompts and/or feedback to further student thinking or work.
Learning broker	Connect youth with learning opportunities (people, activities, etc.).
Model	Share own creative work/process.
Monitor	Impose or suggest rules of behavior online (language, behavior, plagiarism, etc.).
Resource provider	Provide learning resources (examples of work, how-to guides, and link to sites, etc.).
<i>Communicator</i>	Communicate with stakeholders to promote student learning.

<i>Technology Curator</i>	Research, select, implement, and teach technologies to promote student learning.
<i>Data Manager</i>	Compile, store, and use data to promote student learning and support the school's mission.
<i>Course Manager</i>	Manage a course's structure and content to facilitate student interaction and learning.
<i>Colleague</i>	Collaborate with vocational peers to promote student learning.
<i>Instructional Planner</i>	Plan asynchronous and synchronous instruction that promotes standards-based student learning.
<i>Facilitator</i>	Work as a partner with students to help students learn.

Note. Adapted and expanded from “Designing for 21st century learning online: A heuristic method to enable educator learning support roles,” by D. Nacu, C.K. Martin, and N. Pinkard, 2018, *Education Technology Research and Development*, 66, p. 1034. The additional roles added to the online learner support roles framework are italicized.

Category 1: roles from the Online Learning Support Roles framework.

The first role which was identified in this case study was the audience role. According to Nacu et al., teachers fulfill the audience role when they “look at what students are doing online” (2018). Mary commented regarding this role: “I’ve had students reach out to me wanting to complete the quiz again and when I go in and check and see how long they’ve spent on the quiz, they might have only spent a minute on it” (Mary, personal communication, p. 4). During observations, teachers frequently observed student activity online, using it to drive instructional decisions. For example, Mary looked at the number of times her individual students had logged in to the Desire2Learn platform. She also observed the time they had spent in the platform and the pages students viewed. All participants fulfilled the audience role.

The second role participants in this investigation fulfilled was the encourager role. When teachers take on the encourager role they encourage students to participate in an activity or in coursework. Peter compared his role as an encourager to being a cheerleader for the student. He noted, “I guess if I was going to use verbs to describe teaching, I like encourager, you know, uh, for lack of a better verb, maybe ‘cheerleader’ of the students” (Peter, personal communication, p. 1). This role was frequently observed during the data collection phase of this study. For instance, during one synchronous session, Peter asked for volunteers to read the school’s mission and vision. Students volunteered to read them. Peter praised the students who volunteered. To a student who hesitated after volunteering, Peter said, “No, you did good. You’re good. Thank you so much!” (Peter, observation, p. 1). All participants fulfilled the encourager role during synchronous sessions I observed.

School staff certainly demonstrated a belief that online teachers should take on the encourager role. During one of my observations, Mary responded to an email she had received from a colleague asking the teachers of one student to send an encouraging email to a specific student. Mary’s colleague wrote, “If you have a moment, could you send Student B an email with some words to encourage her to stay on track and pull her grades up. That just might help!” (Mary, observation, p. 3). Clearly, for this employee of Southeastern Virtual School, teachers are expected to meet the encourager role.

Yet another role participants fulfilled during this investigation was the role of an evaluator. An evaluator is someone who provides grades and feedback to students. For Mike, the role of evaluator was a central aspect of an online teacher’s vocation. In an interview he said:

Well, you need to make sure that you're giving detailed but not burdensome, brief detailed, feedback to all their efforts. So if it's a homework assignment you want to make sure that you acknowledge the good parts they have in the submission ... I use what I call the sandwich method so if someone submits homework which could be a word document with multiple paragraphs, the first thing I do is I pick out the strong point. So when I give them the feedback I start with the sandwich method. You did this this and this very well. However, you may want to go back and think about this, this, and this. You're on the right track. Let me know if I can be of any assistance. I'm just a click away. And I use that phrase, I'm just a click away. So I always reinforce that with them. So that's another key element to the online experience is giving detailed feedback so they know. (Mike, personal communication, p. 1)

Throughout this investigation, all participants frequently provided grades and feedback to students.

Participants in this study also fulfilled the role of friend. A teacher is a friend to their students when they exhibit personal approachability and friendship. For Peter this was an essential role of the online teacher. This interchange from an interview with Peter emphasizes the role of friend:

Peter: I have just always believed that if students like you they'll work for you. Kids are smart they pick up on whether the teacher wants to be there or not and they pick up on whether you respect them or not.

Kyle: It seems like you're saying to me that building relationships is one of the most important strategies you use in teaching.

Peter: Yeah, I would agree with that. Yes. I feel like if the virtual teacher does well and they understand the model and they care about their job and they care about their students, those same things they do in the brick and mortar classroom, which is physical, can still be done in a virtual classroom. (Peter, personal communication, p. 1).

Likewise, during an observation, Mary would often refer to students as "buddy" and used a conversational tone in her interactions with them. Peter, Tommy, and Mary all fulfilled the role of friend in their courses.

Another role all participants in this study exemplified was instructor. Teachers fulfill the role of instructor when they directly teach a concept or skill. One participant clearly believed she fulfilled the role of instructor when she said:

Within the small groups the students that aren't doing so well in class are required to come and we go over concepts that they might not have gotten during the core content session. And if a student doesn't master a concept, then we'll have learner conference, go over that concept, and he'll have another shot at the assessment. (Mary, personal communication, p. 1)

Teachers were often observed directly teaching concepts. For example, Mike directly compared the differences between command, market, and mixed economies. Another example comes from Tommy, when he directly taught netiquette to his students at the beginning of a lesson.

One of the most widely documented roles all participants fulfilled in this investigation was the role of learning broker. The learning broker connects students with activities, people, and resources that help them master content. For example, Mike used student peers to tutor their classmates. In a similar fashion, Mary used student peers to reteach material to their classmates. In addition, teachers provided numerous resources to facilitate student learning. In her interview, Mary identified some of the resources she provided for her students:

Within my lessons, I use Edpuzzle, Quizziz, Kahoot, Nearpod, Google geography app (not sure what is called), Google tours, Google maps, etc. We use quite a bit of instructional technology and that's just within Blackboard. Within Desire2Learn, I'll post gifs and those are used to explain specific concepts like, for example, a tsunami. We always start our class with a YouTube video explaining a specific concept that we are going over for that day. (Mary, personal communication, p. 3).

Every participant in this study took on the role of learning broker during the observational phase of the investigation.

Another role participants played in their online courses was the role of model. Teachers fulfill the modeling role when they share their own creative process or work (Nacu et al., 2018). During an observation, Mary took on the role of model. My field notes recorded:

Mary moves on to discuss climate and vegetation of East Asia, using a map to illustrate. Students must be able to use maps to answer questions on the summative assessment. Mary models how to use the map to identify climate regions. She emphasizes using the key to understand the map. She focuses student attention to the key. She asks them:

“What do we need to look at to understand the map?” Students answer with chat functions and Mary incorporates their responses into the lesson. (Mary, observation, p. 2)

Peter, Tommy, and Mary frequently fulfilled the model role.

The role of monitor was also fulfilled by all participants in this investigation. The monitor role takes place when a teacher imposes or suggests rules of behavior online. This role was especially observable during observations. For example, Peter distributed access to microphones and chat privileges as did Mary. Tommy reviewed principles of netiquette with his students. In an interview, Mike explicated the role of monitor:

So and that brings us to another value which is the role of the instructor as the protector of the class, or the protector of the group, or the protector of the assembly. And by that I mean when someone who has shown a bit of hesitancy than becomes active and starts to step out there. And listen, if I'm noticing that someone is being hesitant, the other kids have noticed it too. Alright, so when that person begins to come out of the shell and to open up and participate, it is the critical role of the instructor to protect that person. So folks will try to tease them at times, or challenge them. So it's important for the instructor to protect them. ... I think it is a *critical* role for the instructor to reach out and number one protect them. Make your corrections private. Make your praise public! (Mike, personal communication, p. 4).

I often observed participants positively praise the contributions of students in their classrooms. Further elucidating the role of monitor, Mary explained to me why she removed the chat privileges of one student. She explained the student was writing inappropriate remarks in the

chat box and consequently she took away his chat abilities. This is a clear example of a teacher imposing rules on their students.

The final role from Nacu et al.'s online learning support role framework identified in this case study was resource provider. This is a role that all participants frequently fulfilled. For example, in the participants' weekly lesson plans they were required to list supplemental materials they planned to provide students each week. In addition, I often observed teachers provide supplemental resources to the curriculum. In an interview, Mary lists some of the supplemental materials she frequently provides her students.

Our lead definitely evaluates our courses and makes sure, she really pushes for supplemental resources and our lead stays on it. Within my lessons, I use Edpuzzle, Quizziz, Kahoot, Nearpod, Google geography app (not sure what is called), Google tours, Google maps, etc. Within the Desire2Learn platform, I'll post gifs and those are used to explain specific concepts like for example a tsunami. I use Canva to create posters to remind students to get an assignment completed. We always start our class with a YouTube video explaining a specific concept that we are going over for that day. I've used CNN student news. Brainpop every now and then. Basically, we use a lot of instructional technology and as the new technology comes out, we'll play with it and see how it works within our class. (Mary, personal communication, p. 3)

I observed teachers provide the following resources to their students: primary source articles, news articles, re-teaching videos, recordings of synchronous sessions, review games using programs such as Kahoot and Quizlet, guided notes, test reviews, and supplemental texts.

Category 2: roles not found in the Online Learning Support Roles framework.

In addition to the roles identified by Nacu et al. (2018), seven more roles were identified in this investigation using open coding. The seven new roles were communicator, technology curator, data manager, course manager, colleague, instructional planner, and facilitator. Table 8 lists and defines each role. Each role is addressed below.

Teachers were frequently observed fulfilling the role of communicator in this study. Regarding the role of communicator, Mary noted it was an essential priority of her teaching. She said:

We are encouraged to keep in contact with students not just through email but through phone. That is a high priority. We also want to reach out to those students that are performing poorly and see what we can do to get them to a support session, to a learner conference, so that we can see what's going on with that student and help them raise their grades. (Mary, personal communication, p. 2)

Internal school documents consistently stressed the importance of communication with parents and students in order to achieve student success. All participants fulfilled the role of communicator in this investigation.

Another role participants in this study fulfilled was the role of technology curator. In this role, participants explored classroom technologies, tested technologies, managed technologies, used technologies throughout their courses, and taught their students how to use the technology the participant chose to implement in their courses. For the teachers I observed this was an important role because it influenced the practices they implemented in their classrooms. For

example, Mike explained his conservative approach to technology curation in this interview excerpt:

Kyle: Do you use any technologies not built into D2L or your learning management system?

Mike: I have in the past but I have found that it's better to keep it all in the LMS. Keep it all in the LMS, that way you're folks that don't have as much experience and maybe aren't as comfortable with (sic) so I'm a little hesitant about jumping out of the LMS and going to websites and stuff because I lose a little control and they may lose focus on what I'm trying to do. (Mike, personal communication, p. 3).

In contradistinction, Tommy used a large number of external technologies based off trial and error and a desire to differentiate his instruction to meet student needs. In an interview, Tommy explained:

Kyle: How do you use technologies not built into your online course environment like web based tools such as Kahoot or Quizlet, anything though, to support your teaching practices?

Tommy: I find Kahoot vital. We've actually as content team; we've made Kahoots for every standard that we teach. And it's posted into the Desire2Learn platform so the kids have access to them from day one until the end of the year so that anytime you have a standard seven quiz, they know that there is that folder and there's that Kahoot that they can play. And of course we play it in class as well but they know there's a resource that they have available to them at all time, same thing for Quizlet. We have a Quizlet. We have an Edpuzzle, little videos where, you can have questions related to the

content in the videos. We have it built within the platform but its content we have created, Ms. Z (another teacher) has created short, three-minute or less just crash course videos that have to deal with each standard. So we post those to the Desire2Learn module. So I think that the tools we are given in D2L and Blackboard are useful but it's definitely important to bring in some outside resources like that. (Tommy, personal communication, p. 6)

As these two interview quotations illustrate, the role of technology curator has a deep impact on the practices of online teachers and the experiences of online students in the digital classroom. All participants in this investigation fulfilled the technology curator role.

An additional role all participants often filled was the role of data manager. Throughout my observations of participants, they were often inputting data, using data to drive instructional decisions or practices, and discussing data. Internal documents frequently called for the mandatory compiling of student data. For example, teachers at Southeastern Virtual are required to input synchronous session attendance data. Another instance was observed when Mary used data from the Desire2Learn platform in order to identify students who had not finished their assigned work for the week. Mary then contacted the students who were late in completing their work using multiple methods of contact such as telephone and email. By using data to identify students who were late in completing their work, Mary ensured the students who had completed their work in a timely manner were not contacted. Data management processes similar to this were frequently observed during the observational portion of this investigation.

All participants in this investigation also fulfilled the role of course manager. A course manager manages the synchronous and asynchronous experiences of students in order to promote

student learning. For instance, Mary set up break-out rooms for students to work in small groups; a practice Peter also reported using. Another example comes from an interview with Mary:

Mary: We talked about the Desire2Learn course and adding all those supplemental materials into the platform and making the course easy to navigate.

Kyle: So you provide all those extra resources in the course on Desire2Learn?

Mary: Yes, so just talking about the asynchronous course page. Especially the more advanced kids tend to focus in on the asynchronous course. (Mary, personal communication, p. 2)

Directives from the school often call for teachers to take on the role of course manager. For example, one document required all teachers to “Lock all modules for 11:59 pm” and “summer school classes setup by 6/2” (Southeastern Virtual School, email to teachers). The course manager is a role teachers in this case study often fulfilled.

One of the most frequently observed roles all participants in this investigation took on was the role of colleague. A colleague is an employee who regularly communicates with, collaborates with, and helps fellow workers engaged in teaching students. It is important to note by the term “colleague” I do not simply mean employees of Southeastern Virtual, but I am also including parents and guardians of students who serve as learning coaches for students. The following colleagues interacted with teachers to change and modify teacher and student practices in order to improve instruction: learning coaches (usually a parent or guardian), team leads (immediate supervisors), principals, I.T. professionals, fellow teachers in the department, fellow

teachers outside of the department, school counselors, school data managers, and advisors of students.

I frequently observed participants fulfilling the role of colleague. For example, teachers would often text one another asking for help completing a task. Their colleague would text back a solution to them in a few minutes. Another example comes from the department meetings teachers have once a week. During these meetings, teachers share content they have created with their colleagues. They also identify challenges and seek solutions to the challenges they are facing. Moreover, they participate in professional development together. For example, during one department meeting Peter told his department, “I am going to create five minute standards-based videos based on standards for interim assessment three. You guys can use those as supplemental in your asynchronous courses” (Mary, observation, p. 1). During my observations, this process of collegial interaction with fellow teachers was constant. Collegial interactions took place both formally and informally, through email, texts, phone conversation, and Blackboard synchronous sessions.

An interview interchange with Mary will aid understanding of the way participants worked with colleagues to improve instruction.

Mary: In our meetings, we look at supplemental resources that we can make and share with each other. Like for example in this meeting you observed, we know that we are preparing for the third summative assessment and so everybody was volunteering for what they would like to make and share out with each other. Like I am going to create a Kahoot and I’ll share it with everybody. The other teacher is going to make a Quizlet and she’ll share it with everybody.

Kyle: What was the teacher that was talking a lot going to share?

Mary: He's going to make a study guide and share that with us.

Kyle: Got it.

Mary: And um, there was another teacher that's going to share her web resources that she found. We all share that with our kids in the Desire2Learn asynchronous platform and in the live session, synchronous classes.

Kyle: And so based off what one teacher is doing all the other teachers' practices can and sometimes do change, would you agree with that?

Mary: Yes.

Kyle: So do you use the guided notes that that teacher made?

Mary: Oh yeah, I definitely add that into my Desire2Learn module.

Kyle: Do you use the Quizlets the other teachers made?

Mary: Yes.

Kyle: Have they told you they use the Kahoots that you make?

Mary: Yes. (Mary, personal communication, pp. 1-2).

Throughout the data collection phase of this investigation, teacher-to-teacher interaction to improve student learning was continuous and effective. By effective I mean teachers helped one another achieve a learning goal.

Participants frequently worked with their department lead and principals to improve student learning. Mike explains the role his lead has in his teaching during this interview segment:

Mike: So now I'm interacting with the lead more than last term and because of the nature of the class I've got. These are people ... we want to get to pass because this is a required course, for graduation; naturally the lead has a great interest in the outcome of this course. So my interaction with her is much more frequent. Matter of fact we're going to be talking again this week. So it has changed the dynamics and frequency of extent of my interaction with the lead has changed in relation to the implications of this course and those that are in it.

Kyle: Do you guys ever discuss data?

Mike: Yes. Yes. So as a matter of fact she was showing me, now look with data, we do that on a regular basis every two weeks, we have a data meeting. And she (the lead) shows us pass rates for each of our courses in social studies. So she shows us our pass rates. She's also able to pull data and show us how often we enter notations into Infinite Campus about contacts with parents or students about an issue. But the lead is using data to give us a feedback about pass rates, completion rates, course pass rates and then our contact rates as reported in Infinite Campus. (Mike, personal communication, p. 4).

All participants noted they worked with their lead to improve student learning.

Participants also work with support personnel to facilitate student learning. For example, I observed Mary work with her school's technology department to troubleshoot an email problem. My observation notes recorded:

Mary talked with the help desk technician to fix her email problem. She is concerned because her lead wants her to regularly send out messages. This was something they identified as a strategy to improve student learning through their data meetings so it was important for the email to work. (Mary, observation, p. 2).

From this observation one can observe the essential role support personnel can play in helping teachers meet student needs.

As part of their collegial role, participants also frequently worked with principals to improve their teaching practice. An exchange with Tommy illustrates the point:

Kyle: Can you tell me about maybe your principal or your assistant principal? Do they ever have any influence or look at data that influences your teaching practice with you?

Tommy: Yeah, both our principal and our assistant principal, more so our assistant principal because when you're talking about the data she's able to get down on more of a content-specific level. But our assistant principal, she's there for our data meetings that I was talking about earlier. She rotates between the different content. So she might be in geography, she might be in US history, economics, government, world history, but she's popping in on those to discuss. I know that she meets I think bi-weekly with our lead to discuss the overall data trends so she can compile the data. So again she's very involved with monitoring. All of our data's been looking good. We look at

being an even better place than we were last year. She's definitely involved in looking at the data. (Tommy, personal communication, p. 4)

All participants noted they worked with their principals to improve student learning.

Another colleague participants frequently collaborated with as part of their colleague role was learning coaches. The following interview exchange with Mary provides insight into the interaction participants had with learning coaches.

Kyle: So describe how you work with those learning coaches (parents or guardians).

Mary: Okay, well, like if I have a new student. I have a new student now so what I would do is I would reach out to the parent and student through phone and I would ask them if they have any questions. But I would want them to come to a learner conference which is through Blackboard because I want to log in as that student and show that student exactly how to get to the Geography D2L content for example.

Kyle: And you want the parent to be there?

Mary: Yes, I want the parent to be there because the parent is going to have to monitor progress and I want to show the parent if they see a grey dot that means the student has not looked at the material. If they see a green check mark that means the student has looked at the material. I also want them to see the progress bar. So the fuller the bar is the better because that means the student is working and often times parents don't know that. But if a parent can see, on the students account, oh yes, he has spent this much time in geography, he's got a check mark for all of these subsections in geography, then it shows us that this student is doing their work. And in fact those students who have

check marks are going to have higher grades. The students with grey dots and low progress on their bar are going to have lower grades. The learning coach is vital. We want them to be active in their student's education. The more active they are the higher the grade is going to be.

Kyle: So do you answer their questions if they send you questions?

Mary: Yes. They can send us a message; they can call us; they can email us.

Kyle: How many times do you discuss learning issues with a learning coach in a week?

Mary: On average five times a day just through phone calls.

Kyle: And it can be more some days, correct?

Mary: Yeah more. It's probably more some days. But on average it is five times a day through phone not including email.

Kyle: Yeah, of course, but you also answer emails from parents by email, correct?

Mary: Yes. (Mary, personal communication, p. 2)

While all participants agreed working with the learning coach was an important aspect of collegiality, they also noted that interactions with learning coaches recede as students advance from ninth to 12th grade.

Participants also frequently worked with school counselors. Mary describes the way school counselors impact her teaching in the following interview excerpt.

Mary: I'll give you an example (of how I work with counselors). Let's say a student's IEP is changed and they move from one section to my section; then I have to add them to my gradebooks and I have to reach out to that other teacher and get their grades because their grades are going to be the same.

Kyle: So you're working with a colleague there?

Mary: So I have to get their grades and import it into my gradebook. I have to add them to my test prep so they can have access to the supplemental materials in there and the IAs (summative assessments). I have to add them to my live sessions and the other teacher has to delete them from their session. Yeah, just generally they will give me a brief overview of how that student does. (Mary, personal communication, p. 2)

Many participants noted interacting with counselors was an important component of their collegial role.

The penultimate role identified from the qualitative data in this case study was the role of instructional planner. An instructional planner plans instructional activities that promote standards-based student learning. All participants in this investigation frequently fulfilled this role. For example, every week participants used the state-mandated standards to create lesson plans that facilitate student understanding of the standards. Moreover, participants often used student data to target interventions for the specific needs of students. Another instance of participants working as instructional planner comes from an observation of Mary. Mary worked for an hour and half, using her lesson plans, to create an interactive PowerPoint, complete with breakout rooms. This was a clear example of Mary fulfilling the role of instructional planner.

The final role to emerge from this investigation is the role of facilitator. A facilitator works as a partner with students and not as a leader or captain to help students learn. For Peter, the role of facilitator is essential:

I really do sort of (pause) want the kids to be highly involved with what's going on and I don't like to do all of the talking in a session. I like for them to really take responsibility for the end result of the presentation not just me as a teacher so, if I guess if I had to put one label on myself it would be that of facilitator, not so much the leader or the captain of the ship really but you know the one facilitating the activity. (Peter, personal communication, p. 1)

Tommy used frequent communication with his students to facilitate their learning. He noted:

So I feel like my role is the facilitator. I'll have kids that I may send three emails to during the course of the year because they have a great support system; they love school and they're making 95 on every assignments and they don't need me to be successful and then I'll have some kids and I really am emailing two or three times a week just to try and check in and say, "Hey, you're doing great." So I work to just keep motivating and keep supporting them and just trying to facilitate their learning and make sure they are on the right track. (Tommy, personal communication, p. 1)

In a similar manner, Mike described himself as a facilitator. He explained:

So I see my role as facilitating their learning through experiencing increasingly challenging, increasingly complex concepts through carefully designed steps of

sequential experiences designed to move people from fundamental to moderate to more complex concepts. I see myself as a facilitator. (Mike, personal communication, p. 1)

Every participant in this investigation saw themselves as a facilitator.

It is apparent from this discussion on roles of online teachers, that many of their teaching practices allow them to fulfill their roles. Consider an example. Participants in this investigation were expected to fulfill the role of instructional planner. A key teaching practice of participants in this study was instructional planner. All participants planned instruction. Clearly, many of the teaching practices participants implemented were aligned with the roles they were expected to fulfill.

Summary

The purpose of this investigation was to understand the practices, rationales, and roles of experienced online social studies teachers at Southeastern Virtual School. Each research question was designed to address this purpose. I first provided a discussion of 31 practices online social studies used during this case study. Next, I discussed the seven justifications participants provided for using these practices. Finally, I discussed the 16 roles of online social studies teachers I identified during the course of this investigation. In the following chapter, I will discuss the implications of these findings.

CHAPTER 5

CONCLUSIONS AND IMPLICATIONS

The purpose of this case study was to identify the practices, rationales, and roles of online social studies teachers at one virtual school in the southeastern United States. In chapter four, I presented the themes related to each of the following research questions:

1. What are the practices of experienced online social studies teachers?
2. Why are experienced online social studies teachers using these practices?
3. What roles do teachers have in the online social studies classroom?

In this chapter, I situate the themes found in chapter four within the literature I reviewed in chapter two. In the same section, I discuss the implications of my findings. The following section addresses the contributions this investigation makes to the research on K-12 online learning. I then discuss future research that can help further understanding of teaching in the K-12 online environment. Afterwards, I address the limitations of this study. The final section provides a conclusion to this study.

Situating the Results

In this section I situate the results of my study within the research on K-12 online teaching. First, I contextualize my findings on teaching practices. Next, I examine my findings regarding rationales for teaching practices. Then, I situate my findings regarding the roles of K-12 online teachers. Finally, I discuss the implications of the results for programs training online teachers, administrators of online teachers, current online teachers, and researchers of online teachers and online pedagogy.

Teacher practices.

Many of the practices participants implemented help promote a community of inquiry between the learners and the teacher. Participant practices often mirrored the practices of postsecondary educators reviewed in the literature in chapter two of this study. Garrison and Akyol (2013) define a community of inquiry as “a group of individuals who collaboratively engage in purposeful critical discourse and reflection to construct personal meaning and confirm mutual understanding” (p. 106). For example, humanization was a practice participants in this study often used to bridge the distance between learner and teacher – to humanize and present a personality to the students. To this end, participants would often include pictures and video of themselves in both the asynchronous and synchronous sections of their courses. All participants interacted with students using the humanization principles outlined by Clark and Mayer (2016). Participants were friendly and used a conversational style of voice during communications with students and stakeholders. Moreover, the participants avoided sarcasm and were meticulously polite when providing feedback to learners. These humanization strategies helped to foster social

presence. Social presence is “the degree of salience or awareness between two or more communicators through a communication medium” (Oyarzun et al., 2017, p. 114).

Along with humanization principles, participants in this study used a number of strategies to promote social presence in their courses. One method teachers used to promote social presence were practices that fostered affective expression. Affective expression is “participants’ abilities to express their personalities in virtual environments” (Day et al., 2013, p. 397). Participants addressed affective presence by allowing students to express themselves using the whiteboard, microphone, chat box, or small groups. Participants consistently provided opportunities for students to express themselves. Moreover, participants worked to ensure learners safely expressed themselves by teaching students proper ways of interacting with one another and by monitoring student activity during synchronous sessions and asynchronous discussions. In addition, participants often provided ways for students to express their personality through extension activities.

Participants also promoted open communication in order to facilitate social presence in the classroom (Oyarzun et al., 2017). Participants facilitated open communication and social presence by using small groups and one-on-one groups in order to promote communication between learners and the teacher. In addition, participants used a number of strategies to consistently and frequently communicate with stakeholders – especially with students and learning coaches.

The teachers who participated in this study also promoted group cohesion in their courses. Group cohesion is “a sense of group commitment, a feeling that the class is a community in which participants interact around shared intellectual activities and tasks” (Day et

al., 2013, p. 397). One aspect of participants' pedagogy which promoted group cohesion was the use of small groups which allow learners to interact with shared intellectual activities and tasks. Another way participants fostered group cohesion was by allowing students to teach their peers in one-on-one, small-group, and whole-group settings.

Teacher practices also promoted teacher presence. Teacher presence is "what the participants (usually the instructor) do to create a purposeful and productive community of inquiry" (Garrison & Akyol, 2013, p. 110). There are many elements online teachers use to foster teacher presence. First, teachers must make and model classroom norms and expectations so students can understand and conform to them. All participants in this case study implemented this practice by modelling the use of netiquette and ensuring students conform to netiquette by monitoring student communications. Another practice participants in this study used to promote teacher presence was to plan a full course of instruction for students and frequently and regularly inform their students about the plan of instruction. Teachers would often communicate to students where they should be in the course and where they were going in the course. For example, participants would address student pacing during one-on-one learning sessions.

The participants in this investigation also worked to facilitate discourse in their courses. For example, teachers used hooks like educational videos to hook student attention in the course content. Hooking student interest, which acts as a triggering event, is a key element of the practical inquiry model (Day et al., 2013). The hook promotes cognitive presence. Another example was when Peter connected learning to the real world by illustrating the effects of urbanization on his home town. Teachers also modelled and monitored appropriate interactions between students in the course. Facilitating discourse by hooking and maintaining student

interest in the content was a major priority for the participants in this study. Discourse, defined as written or spoken communication, took place between participants in a number of ways. First, teachers and students used small groups and one-on-one sessions to communicate. Second, students completed written assignments that were turned into the teacher and were graded by the teacher. The teacher then provided feedback to these assignments. Moreover, teachers and students used technology tools to promote discourse. Tools such as Kahoot, Quizlet, polling, and Blackboard Learning allowed students and teachers to communicate with one another. Finally, students used a variety of technological means to communicate with one another and with the teacher. The technology students used included: slide shows, word documents, audio recordings, video recordings, memes, and Kahoots to communicate with the community of inquiry.

Another method participants used to foster teacher presence was direct instruction. For Anderson et al. (2001), direct instruction is the strategies teachers use to “provide intellectual and scholarly leadership and share their subject matter knowledge with students” (p. 8). Direct instruction is an important element of promoting teaching presence in an online course (Anderson et al., 2001; Oyarzun et al., 2017). Participants in this study used direct instruction in a number of ways. First, they modelled how to do processes like studying for assessments and finding information using maps. Second, teachers provided comments at appropriate moments in order to scaffold student instruction. For example, when one student in Peter’s class was struggling to find information on a map, Peter directed the student to use the map key. This was a way for Peter to foster teacher presence.

Perhaps the most important aspect of teacher presence is timely and regular feedback. Regular and timely feedback is one of the most effective practices educators use to promote

learning (Hattie; 2009). All participants in this study provided timely and regular feedback to their students. Indeed, according to internal documents of the school, all teachers at Southeastern Virtual were required to provide timely and regular feedback to students. Participants in this study provided feedback through written comments on assignments, through emails, through one-on-one sessions with students, through phone conversations, through the Desire2Learn platform, and through text messages.

In addition, teachers in this case study used a number of practices to promote cognitive presence. Cognitive presence is “the extent to which learners are able to construct and confirm meaning through course activities, sustained reflection, and discourse” (Day et al., 2013, p. 399). According to the Community of Inquiry framework there are four phases involved in cognitive presence (Arbaugh, 2007; Day et al., 2013; Garrison et al., 2001). The four phases comprise the Practical Inquiry Model and include the following: a triggering event, exploration, integration, and resolution.

A triggering event is “an issue, problem, or dilemma that needs a resolution” (Day et al., 2013, p. 399). Participants often used real-world examples and introductory videos to present and hook student interest through triggering events. The next phase in practical inquiry is exploration. During this phase, participants frequently used direct instruction and discussion to promote student understanding of the content. Participants also provided resources such as articles, short videos, and interactive games to guide student knowledge construction during the exploration phase. The next phase is integration where students construct answers to the problem or issue. Participants often used student re-teaching and discussion strategies to promote the integration phase of the practical inquiry model. The final phase is the resolution phase where the

problem or issue is resolved. Teachers facilitate integration and resolution by modeling testing and information-organizing behavior. Participants in this study used modeling and information-organizers such as tables to help students during the resolution phase. In addition, teachers often engaged in discussion with students in order to facilitate integration and resolution. Table 9 provides a list of teacher practices aligned with the Community of Inquiry framework.

Implications of teacher practices.

There are a number of participant practices, which occupied a large amount of participants' vocational time, that are not addressed by the Community of Inquiry framework. Accordingly, based off the empirical data in this case study, I have modified the Community of Inquiry framework to match the K-12 learning environment. The modified framework is called the K-12 Community of Inquiry framework and it adds another presence – collegial presence. The additional element of the framework incorporates the participant practices that did not conform to the constructs in the postsecondary Community of Inquiry framework. The key difference between the two frameworks is the setting they are designed for. Community of Inquiry is a theoretical framework for the postsecondary setting while K-12 Community of Inquiry is designed for the K-12 online environment. Moreover, much of the activity, but not all, that takes place under the construct “collegial presence” happens outside of the online course materials and classroom. The post-secondary Community of Inquiry framework argues that “an educational experience intended to achieve higher-order learning outcomes is best embedded in a community of inquiry composed of students and teachers” (Garrison & Akyol, 2013, p. 105). However, the modified K-12 Community of Inquiry framework, based off empirical data, argues that an educational experience intended to achieve positive learning outcomes is best embedded

in a community of inquiry composed of students, teachers, *and colleagues*. The emphasis on colleagues is an important distinction between the two frameworks and the distinction is derived from the unique conditions that differ between the two environments of post-secondary and K-12 online schools.

The difference between the two frameworks is shown by examining a definition of post-secondary community of inquiry. Garrison and Akyol (2013) define community of inquiry as “a group of individuals who collaboratively engage in purposeful critical discourse and reflection to construct personal meaning and confirm mutual understanding. There is both independence and interaction (co-regulation) in a community of inquiry” (p. 105). This definition could equally be applied to the K-12 Community of Inquiry framework. However, there is one important distinction: the K-12 framework includes *additional groups of individuals*. These additional groups of individuals are colleagues – adults who work with the instructor and the students – to help all members of the community of inquiry construct personal meaning and confirm mutual understanding.

In fact, scholars of Community of Inquiry have noted the framework is not static but should be changed based off differences in setting. Garrison and Akyol (2013) note:

More research is needed regarding the application of the CoI theoretical framework to different contexts. The development and progression of the CoI elements may vary according to the context. Some of the roles and responsibilities of the framework may not be needed to the same degree, or additional roles and responsibilities may be required as a result of the particular context (p. 115).

As Garrison and Akyol suggested may be necessary, this study has led to a modification of the Community of Inquiry framework in order to conform to the K-12 setting. Principally, the additional category of collegial presence has been added to the framework.

Collegial presence is when colleagues are able to construct meaning allowing them to better facilitate the social, cognitive, and teaching presences of a community of inquiry. Colleagues are any adult who works with course teachers and/or course students to support student learning. Colleagues include the following adults: learning coaches/guardians, teachers, co-teachers, administrators, support personnel, and counselors. Notice the learning coach is not an employee of the K-12 school and yet serves in the capacity of a colleague. For example, an online teacher works with a colleague to develop meaningful learning goals for the teacher's course. Consider another example from this case study. A teacher in a virtual department meeting discusses a high-interest hook they implemented with their students that motivated students to learn about "the ring of fire" in a geography lesson on the Pacific region of the world. The teacher shares the hook, a well-produced video demonstrating the real-world impact of tsunamis, with her colleagues. Her colleagues in her department then implement the video in their classrooms in order to serve as a triggering event - a hook which promotes student interest and puzzlement in the "ring of fire" concept.

Many of the practices of the participants in this investigation were used solely by their colleagues. For example, participants regularly met with colleagues to share strategies and resources. In this moment, the colleagues are working together to promote a community of inquiry in their separate classrooms. A list of practices identified in this study which promote collegial presence is provided here:

- Collaboration with learning coach/guardian in order to help learners construct and confirm meaning.
- Collaborating with co-workers in order to disseminate and adapt practices that foster learner cognitive presence.
- Communication with supervisors and co-workers in order to facilitate understanding of students.
- Collaboration with co-workers which facilitates the teaching presence of colleagues.
- Collaboration with co-workers which facilitates the social presence of colleague's communities of inquiry.
- Meeting school-mandated expectations (such as completing learning maps with their colleagues for the entire course before the course begins) in order to promote student cognitive presence.
- Working with colleagues to develop educationally worthwhile learning outcomes for students.
- Adapting a practice from a colleague which promotes learner knowledge construction.
- Working with colleagues in order to ensure students are able to safely communicate in the learning community.

Figure 5.1 illustrates the K-12 Community of Inquiry framework. Table 9 aligns participants' practices in this case study with the key concepts of the K-12 Community of Inquiry framework.

▪ **Figure 5.1** K-12 Community of Inquiry

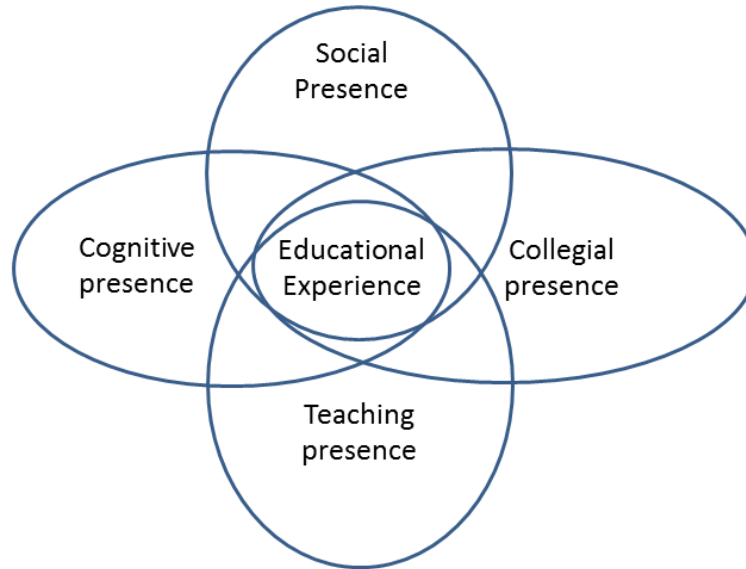


Table 9

Alignment of Participants’ Practices with K-12 Community of Inquiry Framework

Presence Types	Participants’ Practice (with sample data)
Cognitive Presence	<ul style="list-style-type: none"> • Small groups (“We have breakout rooms where we can set up mini-classrooms inside the classroom. So that’s useful because you can set up individual activities and gear those activities for a specific group”). • Student-led instruction (“Also small groups helps with like student-facilitated learning because then I can set up activities in a break out room and sort of help guide them towards sort of running their own room. Sort of set of instructions: this is what you need to do. And I’ve done that and they do quite well with it”). • Discussion (For Peter, synchronous discussion is better than brick-and-mortar discussion: we can talk about the China one-child policy and sort of have a Socratic seminar and having the tools Blackboard

provides definitely makes it easier).

- **Real-world examples** (So when I teach I try to bring in a lot of real-life examples. So that you bring it down to earth so somebody can relate to. So, what I think the challenge is whatever the concepts you're teaching always try to relate it to something in that person's environment so they can connect with it instantly).
 - **Access student's prior knowledge** (Kyle: You say you're trying to connect economics to their prior experience? Mike: To their prior experience, to their understanding, to their day-to-day life, their everyday realities you know? To bring it (subject matter) down to earth and put it into words that the average person can connect with).
 - **Hooking strategies** (Mary explains each lesson has a hook and a YouTube video).
-
- Teaching Presence
- **One-on-one instruction** (In an interview Mary said, "Teachers are required to provide eight to twelve hours of learner conference and these are one-to-one sessions with students that we feel need the most help").
 - **Frequent, timely feedback** ("Well, you need to make sure that you're giving detailed but not burdensome, brief detailed, feedback to all their efforts").
 - **Data-driven instruction** (You have to be a self-starter to do the research of okay, this is how these kids did on this assessment, this is where they're still lacking, what do I need to go back and do to fill in the gaps?).
 - **Formative Assessment** (During one observation, Mike had his students use the chat box feature or white board feature in Blackboard to respond to the question: "In which kind of economy are prices determined by supply and demand and government input?" Mike was able to use the responses of students to quickly assess student learning).
 - **Summative Assessment** (All teachers at Southeastern are required to plan
-

summative assessments for the full semester and list them in a form before the semester begins).

- **Curating and providing supplemental resources** (“Within my lessons, I use Edpuzzle, Quizziz, Kahoot, Nearpod, Google geography app (not sure what is called), Google tours, Google maps, and more”).
 - **Time management** (“Being a really good manager of your time is important, knowing how to make a schedule and stick to it”).
 - **Chunking material** (“I’m doing a lot more of that and I call it chunking, there’s a lot more chunking in economics. You get into bite-sized pieces, topic-specific, very focused and you want to focus on that little piece”).
 - **Differentiation** (“I think the main goal is to just try to differentiate the instruction, to you know, as a teacher I think you understand that not all students are the same”).
 - **Direct instruction** (“I have to have 15 hours of live teaching availability per week. Six of those hours are live session actually teaching content”).
 - **Modeling** (During one observation of Mike, he compared and contrasted market, traditional, command, and mixed market economies using a table as an instructional aid).
 - **Incentives** (Peter: So for example, if every once and while when I’m doing Kahoot games, I’ll actually offer a prize for the winner).
 - **Poll students** (Peter used the polling tool to find out how students felt about their preparation for a major upcoming summative assessment).
 - **Course management** (one school-level directive called for teachers to “Lock all modules for 11:59 pm” and “summer school classes setup by 6/2”).
 - **Flipping the classroom** (The teacher
-

provided a module on the material in the Desire2Learn platform. The material is again presented in a YouTube video, a video of a Southeastern Virtual teacher teaching the material, and external practice is provided through a website).

- **Planning instruction** (Mary worked on a PowerPoint for her synchronous session for an hour and a half).
- **Teach pacing** (Peter reviewed what students should have already done and what they should be doing. He projected a calendar on the whiteboard so students could see it as he discussed their work. He reminded students they needed to stay on task).
- **Standards-based instruction** (At Southeastern Virtual teachers are required to focus on at least one standard for each lesson and all of the teachers who participated in this study complied with this directive. This was evident in both their lesson plans and in their actual teaching).

Social Presence

- **Teacher communication** (“Communication is key, and I do communicate with my students often over the telephone, through email, through Blackboard connect, texts, and through the Desire2Learn announcements”).
 - **Humanization** (Kyle: Why do you choose to build those relationships? Peter: Because it makes it makes it more enjoyable for me. I enjoy knowing them and knowing personal things about their lives and their back story and why they’re here).
 - **Building personal relationships** (“Kids are smart. They pick up on whether the teacher wants to be there or not and they pick up on whether you respect them or not”).
 - **Fostering positive learning environment** (“So this brings us to another value which is the role of the instructor as the protector of the class”).
-

	<ul style="list-style-type: none"> • Classroom management (“In smaller groups it’s easier and I tend to open the microphone in smaller groups more. In larger groups students have to raise their hand and then I’ll open up the microphone for them”).
Collegial Presence	<ul style="list-style-type: none"> • Collaboration with learning coaches (“I showed her (the learning coach) how she can check his progress to see what he has done and what he hasn’t done and she was shocked”). • Collaboration with teachers (“I think team work makes the dream work is key here. I have a really close relationship with the other US history teachers and the other teachers on our team”). • Collaboration with supervisors (“But our assistant principal, she’s there for our data meetings that I was talking about earlier. She rotates between the different content”). • Collaboration with support staff (Mary talked with the help desk technician to fix her email problem. She is concerned because her lead wants her to regularly send out messages).

Social and collegial presence.

There are many differences between social and collegial presence. First, collegial presence has different actors than social presence. In the social presence construct the actors are the students and the teacher (Garrison & Akyol, 2013). In contradistinction, in the collegial presence construct the actors are the teacher and other adults working to improve student outcomes. This is not to imply that collegial presence does not directly affect social presence. Effective collegial presence can and does affect social presence in a community of inquiry. For example, if a teacher is in a department meeting and a colleague demonstrates how to have a

friendly and welcoming synchronous session to the teacher and then the teacher implements her colleague's suggestions in her own synchronous sessions, than collegial presence has directly influenced social presence. However, the two constructs are not one and the same. One key difference is the actors – only non-student adults engage in collegial presence.

In addition, collegial presence has a different purpose than social presence. Social presence is concerned with the degree “of salience or awareness between two or more communicators through a communication medium” (Oyarzun et al., 2017, p. 114). The purpose of social presence is to form group cohesion and facilitate participant expression. This is not the purpose of collegial presence. Collegial presence is when colleagues work together to construct professional and personal meaning which facilitates the social, cognitive, and teaching presence of a community of inquiry. The purpose of collegial presence is to improve a community of inquiry. The purpose of social presence is to improve one aspect of a community of inquiry – social presence. For instance, when a teacher plans with her principal how to target interventions for individual students based off student data, collegial presence is taking place outside of the teacher's community of inquiry. Moreover, using data to target interventions for students may not influence social presence at all.

Consider an empirical example from this investigation. A teacher uses data in a meeting with his principal to identify standards students have not learned and target interventions to re-teach standards to that student. The colleagues in this meeting are not targeting affective expression, open communication, and group cohesion. The colleagues are assuming social presence is adequate in the teacher's community of inquiry. Rather, the colleagues are targeting the teacher's teaching presence – the teacher's ability “to create a purposeful and productive

community of inquiry” (Garrison & Akyol, 2013, p. 110). The colleagues are using data to purposefully target interventions in the teacher’s community of inquiry in order to make the teacher’s course more productive. This is not to suggest that colleagues never work together to improve their respective social presences. However, collegial presence does not necessarily impact social presence in every case. Consequently, this demonstrates the separate and discrete nature of the two constructs. Collegial presence is not social presence.

The difference between collegial and social presence may be elucidated by way of analogy. Collegial presence and social presence are analogous to the constructs of health and psychology in the medical field. In this analogy, collegial presence is concerned with the overall *health* of the patient – including psychological health. In contrast, social presence is like psychology. It is concerned with the *mind* of the patient. Collegial presence is holistic while social presence is more specific. Collegial presence is like a general medical practitioner who examines the overall health of his patient. Social presence is like a clinical psychologist who considers the mental health of his patient.

By developing this line of analogical reasoning, we can further understand the relation of collegial presence with social, cognitive, and teaching presence. Collegial presence is like a medical team professionally discussing an upcoming surgery without the patient present – in a separate room from the operating theater. The surgeon has primary responsibility for the surgery but she does not work alone. The x-ray technician presents the x-rays to the surgeon and explains what he sees in the x-rays. The surgeon could operate without x-rays but the x-rays facilitate the surgery. Suppose further that an aesthetician plans to provide anesthetic for the patient and discusses the process he will use to put the patient to sleep with the surgeon. Now imagine the

surgeon asks her fellow-surgeons for their opinions on how she should conduct the surgery. Her fellow surgeons give advice based off their previous experience and the surgeon consequently modifies her method of conducting the surgery based off her fellow surgeons' suggestions. Now suppose the head nurse plans the surgery with the surgeon. They discuss the cleaning of the surgical area on the patient and the nurse ensures that the patient, room, and tools are prepped for the surgeon but the nurse does not engage in the surgery. Only the surgeon does. In this analogical scenario, the surgeon is the primary teacher in the online classroom. The patient is the students. The operating room is the teacher's community of inquiry. The other surgeons who proffer advice are the fellow-teachers of the student. The x-ray technician is like the principal reviewing data with the teacher. The nurse is akin to the learning coach – she preps the student for learning and ensures all the vital signs of learning are on target. The aesthetician might be the department lead who suggests a certain medicine for the patient after the surgery. In this fictional medical scenario, the medical colleagues work together to improve the surgery of the patient. In the empirical classrooms observed in this investigation, the teacher was like a surgeon planning a surgery with colleagues. The teacher was not in her community of inquiry as she planned instruction. Colleagues worked together to monitor student knowledge development, to modify instruction, to better communicate with students, and to improve the social, teaching, and cognitive presence in each teacher's community of inquiry.

In summation, collegial presence and social presence are not the same. Collegial presence differs from social presence in its purpose and its actors. Collegial presence is concerned with all elements of the community of inquiry whereas social presence is concerned with the group dynamics and communications of a community of inquiry.

Teacher rationales.

Participants in this investigation proffered seven justifications for the teaching practices they implement in their courses. The rationales were based on the following: educational research, personal experience, school mandates, brick-and-mortar experience, motivating students, teacher presence, and student needs. Many of the justifications teachers offered for their practices conform to research on teaching in the face-to-face environment and the dispositions teachers need to be successful (Hattie, 2009).

Certain rationales teachers offered for the practices they choose were grounded in research on teaching in the online setting. For example, Mike felt fostering teacher presence through regular interaction and communication was important. In a similar fashion, Peter felt using humanization strategies and fostering a positive learning environment were important practices which fostered social presence and teacher presence.

An additional rationale for teaching practices many participants offered was conforming to school-mandates. Conforming personal beliefs to the purpose and mission of the school community is a key disposition for effective teachers according to some researchers (Bright, 2013; Shively & Miscoe, 2009). Participants in this study were willing to conform to the mandates of their school.

Another key justification for using practices is teacher prior experience. This is a common rationale for educators (Aguilar, 2013). Participants often justified their practices based off their personal experience in both the brick-and-mortar setting and the online setting.

Participants also justified their practices by appealing to student needs or the necessity of motivating students. Motivating students is a key aspect of fostering cognitive presence in the Community of Inquiry framework (Garrison & Akyol, 2013). Additionally, targeting student needs is also a high-impact strategy for promoting student learning (Bright, 2013; Hattie, 2009).

Implication for teacher rationales.

In summation, participants in this study provided seven justifications for the practices they implement in their courses. These justifications provide valuable insight into the beliefs of the participants. While the results are not transferable to other research settings, the methods used to assess participant rationales could be used by staff developers and school leaders to assess the rationales of teachers at their unique research setting. The results would be invaluable for promoting teacher learning since a key principle of andragogy is adult learners are most interested in learning materials that have relevance for their vocation (Knowles, 1984). The next section presents the findings regarding the roles of teachers in the online K-12 classroom.

Teacher roles.

Little research has examined the roles of teachers in the online classroom. An important exception to this trend is the work by Nacu et al. (2018). In their research, Nacu et al. identified ten roles for online teachers as part of their Online Learning Support Roles framework. Table 1 provides a summary and definition of each role.

The findings of this study support nine of the roles identified by Nacu et al. One role, the role of promoter, was not found in the qualitative data collected in this study. This is not to imply

that the role of promoter is not a role found in the K-12 online setting. More research is needed to establish the exclusion or inclusion of the promoter role.

In addition to nine roles documented by Nacu et al., the results of this investigation produced seven additional roles for teachers in the online classroom. These roles were: communicator, technology curator, data manager, course manager, colleague, instructional planner, and facilitator. These findings have important implications for research regarding the roles of educators in the K-12 online setting.

Regarding the training of K-12 online teachers, this investigation's results support the education of prospective online teachers regarding the roles they are expected to fulfill. As DiPietro (2009) notes, "virtual school teachers need to be familiarized with the roles these individuals serve and opportunities they offer for supporting students" (p. 138). By helping pre-service and in-service teachers understand the roles they are expected to fulfill, training programs for online educators will help future educators transition into the online environment.

Implications of teacher roles.

Because this investigation produced seven additional roles for online teachers in the K-12 setting, the Online Learning Support Roles framework should be expanded. In addition, one role, the role of promoter, was not verified empirically in this study and consequently was removed from the framework. I have titled the expanded framework the Expanded Online Learning Support Roles framework. The framework is illustrated in Table 10.

Table 10

Expanded Online Learning Support Roles (EOLSR) framework

Online learning support role	Definition
Audience	View what youth are doing online.
Encourager	Encourage youth about work or participation.
Evaluator	Provide grades, ratings, badges, or other formal assessments.
Friend	Exhibit personal approachability/friendship/mentorship, including social posts, off-topic conversation.
Instructor	Directly teach a concept or skill or provide an assignment. Provide prompts and/or feedback to further student thinking or work.
Learning broker	Connect youth with learning opportunities (people, activities, etc.).
Model	Share own creative work/process.
Monitor	Impose or suggest rules of behavior online (language, behavior, plagiarism, etc.).
Resource provider	Provide learning resources (examples of work, how-to guides, and link to sites, etc.).
<i>Communicator</i>	Communicate with stakeholders to promote student learning.
<i>Technology Curator</i>	Research, select, implement, and teach technologies to promote student learning.
<i>Data Manager</i>	Compile, store, and use data to promote student learning and

	support the school's mission.
<i>Course Manager</i>	Manage a course's structure and content to facilitate student interaction and learning.
<i>Colleague</i>	Collaborate with vocational peers to promote student learning.
<i>Instructional Planner</i>	Plan asynchronous and synchronous instruction that promotes standards-based student learning.
<i>Facilitator</i>	Work as a partner with students to help students learn.

Note. Adapted and expanded from "Designing for 21st century learning online: A heuristic method to enable educator learning support roles," by D. Nacu, C.K. Martin, and N. Pinkard, 2018, *Education Technology Research and Development*, 66, p. 1034. The additional roles added to the online learner support roles framework are italicized.

Implications for online teacher training.

As DiPietro notes (2009), the findings of this study have implications for a number of parties. First, the findings of this investigation are relevant for in-service and pre-service programs which seek to prepare educators for teaching in the K-12 online environment. The results of this study can impact the content these programs provide their learners. Furthermore, the findings of this study can expose learners in pre-service and in-service programs to the pedagogies, methods, and technologies used by K-12 online teachers.

Implications for administrators.

According to DiPietro (2009), the findings of this investigation are also relevant for administrators of K-12 online schools. Indeed, DiPietro suggests administrators and school leaders should use the foundations of her study, and by implication, this study, to conduct action research in their unique educational environments. This action research would help the school

identify and provide relevant training for stakeholders because adult learners value professional learning that is relevant to their vocation (Knowles, 1984). By identifying the current practices and rationales of teachers in their school, administrators might better cater professional learning to the needs of their educators. DiPietro (2009) summarizes this line of thought:

Approaching research from this way can also help the administrations of K-12 virtual school programs provide their teachers with timely, relevant support that will have a direct impact on the practices virtual school teachers use as well as providing knowledge that can inform the developing body of policy associated with K-12 state led virtual schools (p.141).

Given the unique access administrators have to their own school environment, replicating and adapting this case study will ensure their support for staff is both timely and salient to the needs of educators.

Implications for policy.

Another area impacted by the results of this investigation is policy relating to online learning. This is because this investigation “contributes a basis for understanding quality teaching in virtual school environments” (DiPietro, 2009, p. 142). Moreover, the results of this investigation are relevant for organizations producing best-practices standards for online teachers. Studies such as this one can be replicated and a body of literature can be developed which addresses the unique skills of teaching all content and grade levels in the K-12 online environment.

Contributions to Research on K-12 Online Teaching

This investigation makes a number of contributions to the research on K-12 online teaching. First, it meets an important research gap by investigating the practices, rationales, and roles of K-12 online social studies teachers (Heafner & Handler, 2018). Second, this investigation modified the Online Learning Support Roles framework developed by Nacu et al. (2018) based on the empirically-verified results of this case study. It is important to note that Nacu et al. called for further research in order to confirm the applicability of the Online Learning Support Roles framework. Third, this study identified empirically-grounded practices of K-12 online teachers as Pulham et al (2018) suggested was a necessary area of research. Finally, the Community of Inquiry framework which was designed for the postsecondary environment was adapted to the K-12 environment based off the empirical results of this study. In summation, it is evident that this case study met gaps in the research regarding K-12 online teaching.

Suggestions for Further Research

There are a number of areas that require further research based off the results of this investigation. First, the K-12 Community of Inquiry framework should be empirically verified by researching its applicability in a variety of K-12 online schools, grade-levels, and content areas. For example, the applicability of the K-12 Community of Inquiry framework might be examined in elementary online schools. Second, similar studies should identify the practices, rationales, and roles of previously unstudied areas of K-12 online content. For example, the practices, rationales, and roles of elementary online teachers, middle school online teachers, music online teachers, physical education online teachers, and many more content areas should be empirically identified through research. Finally, the Expanded Online Learner Support Roles framework

should be empirically verified by researching its applicability in a variety of K-12 online schools, grade-levels, and content areas. For instance, the applicability of the expanded online learner support roles framework might be investigated in the online high school biology classroom.

Limitations

There are many limitations to this study. One limitation is the research design. As with all qualitative research, a limitation of this descriptive case study is generalizability, also known as transferability (Merriam, 1998). The goal of qualitative case studies is to provide a holistic description and analysis of a bounded phenomenon (Merriam, 1998). Accordingly, the applicability of the findings of this investigation is not generalizable to schools outside the bounded case of Southeastern Virtual. The generalizability and applicability of case study research can be judged by the reader.

Another limitation was the participants themselves. As noted in chapter three, participation in this study was voluntary. Consequently, the majority of social studies teachers at Southeastern Virtual did not participate in this study.

Another limitation of this case study was the definition of experienced online teachers used in this study. Because there is no current definition regarding experienced online teachers I used the limited research base to construct an ad-hoc definition for this study. As DiPietro writes: “it is important to acknowledge that this definition of successful online teachers may be incorrect or lack certain aspects of successful virtual school teachers” (2008, p. 65). In summation, there were a number of limitations to this study.

Conclusion

The purpose of this study was to identify the practices, rationales, and roles of experienced online social studies teachers at one fully-online high school. 31 practices were identified for social studies teachers. Participants provided seven rationales for the practices they implemented. In addition, 16 roles were identified from the data. In this final chapter, I examined and contextualized my findings on participant practices, rationales, and roles. In addition, I discussed the implications of the results for programs training online teachers, administrators of online teachers, current online teachers, and researchers of online teachers and online pedagogy. This investigation was significant because it added to the deficit body of literature regarding social studies teaching in the online setting.

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Appendix A

Table 2

Alignment of online teacher practices with iNACOL standards

Teacher Roles and Practices	iNACOL (2011) Standard Alignment
Online teachers go the “extra mile” for students by providing support for students by establishing a presence in their courses, monitoring public course communication, and using strategies to address inappropriate or abusive behavior of students in public forums of the course.	Standard D: The online teacher promotes student success through clear expectations, prompt responses, and regular feedback.
Online teachers are flexible with their time and have good organization skills.	Standard E: The online teacher models, guides, and encourages legal, ethical, and safe behavior related to technology use. Standard H: The online teacher is able to create, select, and organize the appropriate assignments and assessments, and align curricular content with associated and standards based learning goals.
Online teachers have a deep understanding of the varying learning styles of their students and use student and course data to self-evaluate the pedagogical strategies they use.	Standard C: The online teacher knows and understands differentiated instruction based on students’ learning styles.
Online teachers have extensive knowledge of and appreciation for the content area they teach; they continue to extend their content and technological	Standard B: The online teacher is able to select and use a variety of online tools for communication, productivity, collaboration,

knowledge.

Online teachers understand the impact of course pacing on course design and the pedagogical strategies they use. They adjust their pedagogical strategies to accommodate various learning styles. They motivate students by clearly organizing and structuring content and embedding deadlines within the content.

Online teachers use multiple strategies to assess student learning and use alternative assessment strategies that allow students the opportunity to represent their knowledge in ways that are personally meaningful and accommodate the various learning styles of their students.

analysis, presentation, research, and online content delivery as appropriate to the content area and student needs.

Standard A: The online teacher knows and understands the need for continuing to update academic knowledge, pedagogy, and skills.

Standard A: The online teacher knows the primary concepts and structures of effective online instruction and is able to create learning experiences to enable student success. The online teacher knows and understands the need for continuing to update academic knowledge, pedagogy, and skills.

Standard G: The online teacher demonstrates competencies in creating and implementing assessments in online learning environments in ways that ensure validity and reliability of the instruments and procedures.

Online teachers establish a strong relationship with mentors.

Standard J: The online teacher knows and understands the need to coordinate learning experiences with other adults involved in providing support to the student (e.g., parents, local school contacts, mentors) to support student learning.

Online teachers engage students in conversations about content and non-content related topics to form a relationship with each student. Teachers encourage and support communication between students.

Standard C: The online teacher is able to apply effective facilitation skills by creating a relationship of trust.

Online teachers seek out and make available a variety of supplemental support tools to meet the diverse needs of students. They interact with students using multiple channels of communication.

Standard B: The online teacher knows and understands the use of an array of grade-appropriate online tools for communication, productivity, collaboration, analysis, presentation, research, and content delivery

Online teachers monitor student progress closely and interact with students to determine where gaps in knowledge may exist; they provide timely feedback to maintain student motivation.

Standard D: The online teacher promotes student success through clear expectations, prompt responses, and regular feedback.

Online teachers model what ‘formal’ online communication looks like in discussion boards

Standard E: The online teacher models, guides, and encourages legal, ethical, and

and emails. They monitor the tone and emotion of their communication with stakeholders. safe behavior related to technology use.

Online teachers purposefully tie the use of tools built into the course environment to state benchmarks and standards to support student learning of content. Standard G: The online teacher is able to develop and deliver assessments, projects, and assignments that meet standards-based learning goals and assess learning progress by measuring student achievement of learning goals.

Online teachers use their content knowledge and knowledge of students to drive the integration of technology. Standard B: The online teacher is able to select and use a variety of online tools for communication, productivity, collaboration, analysis, presentation, research, and online content delivery as appropriate to the content area and student needs.

Online teachers comply with governing institutions to meet federal standards for licensing, state content standards, and meet state credentialing requirements. Standard A: The online teacher is able to meet the state's professional teaching standards or has academic credentials in the field in which he or she is teaching.

Online teachers have effective writing skills, reflect on their teaching practice, and use technology to deliver content. Standard I: The online teacher knows and understands the importance of self-reflection.

Online teachers participate in pre-service and in- Standard B: The online teacher understands

service professional development; they know student prior knowledge.

Online teachers make modifications to their instruction, provide multiple opportunities for communication, share student progress with stakeholders, and provide quick and meaningful feedback.

Online teachers have strong organization skills that allow them to know student prior knowledge, keep records of student data, accommodate student differences, and provide engaging course content.

Online teachers foster a sense of community which facilitates student critical thinking skill development, fosters participation and collaboration, supports time management skills, models and participates in student discussion, and creates a sense of community.

and is able to use a range of technologies, both existing and emerging, that effectively support student learning and engagement in the online environment.

Standard D: The online teacher promotes student success through clear expectations, prompt responses, and regular feedback.

Standard I: The online teacher demonstrates competency in using data from assessments and other data sources to modify content and to guide student learning.

Standard I: The online teacher demonstrates competency in using data from assessments and other data sources to modify content and to guide student learning.

Standard

Standard C: The online teacher is able to apply effective facilitation skills by creating a relationship of trust; establish consistent and reliable expectations; and support and encourage independence and creativity that promotes the development of a sense of

Online teachers have content and pedagogy knowledge.	community among the participants. Standard A: The online teacher knows and understands the need for continuing to update academic knowledge, pedagogy, and skills.
Online teachers work with colleagues to teach content knowledge, communicate available tech support to stakeholders, and participate in professional development.	Standard J: The online teacher knows and understands the need for professional activity and collaboration beyond school (e.g., professional learning communities) to update academic skills and knowledge and collaborate with other educators.
Online teachers outline materials and notify students of changes while balancing course structure and flexibility. In addition, teachers observe and enforce school-wide policies.	Standard A: The online teacher is able to construct flexible, digital, and interactive learning experiences that are useful in a variety of delivery modes.
Online teachers produce and clearly communicate course requirements and time tables, evaluate and assess students, and ensure their course is up-to-date.	Standard D: The online teacher promotes student success through clear expectations, prompt responses, and regular feedback.

Note. Adapted from “Best practices in teaching K-12 online: lessons learned from Michigan Virtual School teachers,” by M. DiPietro, R.E., Ferdig, E.W. Black, & M. Preston, 2008, *Journal of Interactive Online Learning*, 7, pp. 10-35. Also adapted from “Virtual schooling standards and best practices for teacher education,” by R.E. Ferdig, C. Cavanaugh, M. DiPietro, E. Black, & K. Dawson, 2009, *Journal of Technology and Teacher Education*, 17, pp. 203-226.

Appendix B

Pre-Observation Semi-structured Interview Protocol (adapted from DiPietro et al., 2008, Fuller, 2011 and Glesne, 2016).

Date _____ **ID** _____

Beginning Time _____ **Ending Time** _____

Introduction: The purpose of this interview is to help me understand your teaching practices and roles in the online classroom.

1. What are the pedagogical practices you use to teach social studies virtual school courses?

(Question 1 alignment)

2. Why are you using these practices? (Question 2 alignment)

3. Drawing from your experience teaching different courses within your content area, do the pedagogical practices you use change based on the virtual school courses and the focus on the content included within it (e.g. history, economics, geography, etc.)? (Question 1 alignment)

4. If so, how do these practices differ, and why do you use different ones? (Question 1 and 2 alignment)

5. How do you use different technologies (such as discussion boards, chat tools, wikis, etc.) within the virtual school courses to support your pedagogical practice? (Question 1 alignment)

6. How do you use technologies not built into your online course environment (such as web based tools & resources) to support your pedagogical practices? (Question 1 alignment)

7. Why do you use these technologies? (Question 2 alignment)

Ending Statement: Thank you for your participation in this study. The purpose of this study is to understand teaching practices of experienced social studies teachers in the online setting.

Appendix C

Observation Field Notes Record (adapted from Fuller, 2011)

Researcher Name: Kyle Sanders	Study Name: A Case Study of K-12 Online Social Studies Teacher Practice in a Virtual School	Study Institution: Kennesaw State University
Protocol#	Observation Date:	Beginning Time:
Participant ID:	Protocol Completion Date:	Ending Time:

Focus Points for the observation: focus on teacher practices, teacher roles, and technology tools used by teachers.

- In what ways is the teacher teaching the standards?
- In what ways is the teacher using technology to teach the lesson?
- What are the practices teachers are using to teach the lesson?
- What roles is the teacher fulfilling?

Description of environment:

Observations:

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

(Continue numbering until end of observation)

Reflections/Insights: [Brackets will indicate reflections noted during the observation. Reflections made during the observation will be noted alongside the observation field notes.]

Appendix D

Post-Observation Semi-structured Interview Protocol (adapted from Fuller, 2011 and Glesne, 2016).

Date _____ **ID** _____

Beginning Time _____ **Ending Time** _____

Introduction: The purpose of this interview is to help me understand your teaching practices and roles in the online classroom.

1. Describe your role in the online classroom? (Question 3 alignment)

Possible semi-structured interview guide: For instance, do you encourage students? Are you a monitor of students?

2. Describe the roles an online teacher is expected to fulfill in the online social studies classroom. (Question 3 alignment)
3. Describe the strategies you used today in your classroom. (Question 1 alignment).
4. Are there any strategies you typically implement that I was not able to observe today?
5. Why did you use the strategies I observed today? (Question 2 alignment)

Possible semi-structured interview guide: I saw you use _____ strategy. Why did you use that strategy?

6. Why did you not use _____ strategy? (Question 2 alignment)

[This question will insert strategies I thought I would see observed. For instance, based off the Online Learning Support Roles framework I would expect to see teachers using

encouragement strategies. However, if I do not see encouragement take place, I will ask the teacher why he or she did not use encouragement strategies].

7. Is there anything else you'd like to tell me about online strategies for social studies teaching and learning?

Ending Statement: Thank you so much for your participation in this study. Your insight will help me to improve my practice.

Appendix E

Sample Informed Consent Letter

CONSENT COVER LETTER

Title of Research Study: Study #19-299: A Case Study of K-12 Online Social Studies Teacher Practice in a Virtual School

Researcher's Contact Information:

Lead Researcher: Kyle Sanders

Phone: 706-621-9047

Email: ksande80@kennesaw.edu

Introduction

You are being invited to take part in a research study conducted by Kyle Sanders of Kennesaw State University. Before you decide to participate in this study, you should read this form and ask questions about anything that you do not understand.

Description of Project

The purpose of the study is to understanding the teaching practices of K-12 online teachers.

Explanation of Procedures

If you choose to participate in this study, you will be required to answer interview questions. In addition, you will be observed as you teach in your online classroom.

Time Required

It will take 50 minutes to participate in the interviews. Observations will require no extra time from participants.

Risks or Discomforts

There are no known risks or anticipated discomforts in this study.

Benefits

Participating in this study will benefit you as you reflect on your teaching practice. Moreover, your participation will help the researcher learn more about K-12 online teaching. Ultimately, this may positively impact the education of K-12 online students.

Compensation

There is no compensation for participation in this study.

Confidentiality

The results of this participation will be anonymous. No identifying data will be recorded of participants.

Inclusion Criteria for Participation

Participants in the study must be 18+ years of age and an online social studies teacher for three or more years.

Statement of Understanding

The purpose of this research has been explained and my participation is voluntary. I have the right to stop participation at any time without penalty. I understand that the research has no known risks, and I will not be identified. By completing this interview, I am agreeing to participate in this research project.

THIS PAGE MAY BE REMOVED AND KEPT BY EACH PARTICIPANT

Research at Kennesaw State University that involves human participants is carried out under the oversight of an Institutional Review Board. Questions or problems regarding these activities should be addressed to the Institutional Review Board, Kennesaw State University, 585 Cobb Avenue, KH3403, Kennesaw, GA 30144-5591, (470) 578-2268.

Appendix F

Master Codebook (adapted from Barbour, 2009 and Decuir et al., 2011)

Researcher Name: Kyle Sanders	Study Name: Teaching Practices in Virtual Social Studies: Practices of K-12 Social Studies Online Teachers	Study Institution: Kennesaw State University
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Theme 1: Practices

Code	Description	Example
1002 – Small group	Students work in small groups with peers and/or teacher. Do not include when a teacher is working one on one with students. Do use this code when teachers are working with more than one student but less than the whole group of students in attendance. Do not use this code when one peer is tutoring another peer in a one on one format.	“In addition to the core content classes, we also have small groups. Within the small groups the lower level students that aren’t doing so well in class are required to come and we go over concepts that they might not have gotten during the core content session.”
1003 – One on one teaching	Students work one on one with the teacher. Do not use this code when more than one student is working with a teacher.	One on one help. Mary helps the students one on one in a break out room. She goes over students grades with students.
1004 – Communication	Participants communicate with colleagues, stakeholders, parents, and students using a variety of technology.	“Communication is key and I do communicate with my students often over the telephone, through email, through blackboard connect, texts, through the OHS announcements.”
1005 – Feedback	Participants provide timely, frequent feedback to students.	“Well, you need to make sure that you’re giving detailed but not burdensome, brief detailed, feedback to all their efforts. So if it’s a homework assignment you want to make sure that you acknowledge the good parts they have in the submission ... I use what I call the sandwich method so if someone submits

		homework which could be a word document with multiple paragraphs, the first thing I do is I pick out the strong point. You did this this and this very well. However, you may want to go back and think about this, this, and this. So that's another key element to the online experience is giving detailed feedback so they know."
1006 – Data-driven instruction	Participants use data to guide instruction planning and practices.	"Being a self starter, self motivated to do the research of okay, this is how these kids did on this assessment, this is where they're still lacking, what do I need to go back and do to fill in the gaps? It's more you have to be more self motivated to do that stuff in the virtual classroom."
1007 – Formative assessment	Participants use formative assessments to assess students for learning. Key indicators: multiple attempts. Rough draft of an item before a final product. Do not use as an indicator for summative assessments.	"So you believe in formative assessments where students are given many chances with feedback to learn and then a summative assessment at the end of a unit? Mary: Oh yes, definitely. I tell my students that if they have to take a quiz multiple times, then we'll go over the concepts multiple times until they understand and master the quiz."
1008 – Summative assessment	Participants use summative assessments to assess student learning. Do not use this code to indicate formative assessments. Key indicators: the activity takes place at one time and no remakes are allowed.	"Now, the final is a one shot. Kyle: So it's a summative assessment. Mary: Yes, in many cases the unit test is also a one time."
1010 – Curating and use of supplemental materials/technology	Participants research, select, implement and teacher supplemental materials and technology in their courses.	"I find kahoot vital. We've actually as content team; we've made a kahoot for every standard. That we teach. And it's posted into the OHS so the kids have access to them from day

		one until the end of the year so that anytime you have a standard 7 quiz, they know that there is that folder and there's that kahoot that they can play. And of course we play it in class as well but they know there's a resource that they have available to them at all time. Same thing for quizlet. We have a quizlet. We have an edpuzzle ..."
1012 – Collaboration	Participants work with colleagues to promote student learning.	In fact I ran into this problem during milestones testing period where a student wasn't doing any of the work and he was just completing quizzes and the mother thought he was doing his work. I showed her how she can check his progress to see what he has done and what he hasn't done and she was shocked. She had not been educated on how to monitor her child.
1013 – Humanize yourself	Participants use a conversational style of voice, being friendly, and using polite wording for advice and feedback. Another strategy of humanization is when teachers allow all members of the community to share personal anecdotes in the online classroom.	"Kyle: Why do you choose to build those relationships? Peter: Because it makes (sic) it makes it more enjoyable for me. I enjoy knowing them and knowing personal things about their lives and their back story and why they're here. And I enjoy telling them things about my personal life."
1015 – Building personal relationships	Participants actively work to create relationships with stakeholders in their school community, especially students.	"No matter what classes I've taught or what the subject was I always approached it the same. It's just kind of who I am, I enjoy making relationships with people. And the students are no exception."
1016 – Time management	Participants manage their time in order to complete all of their instructional tasks in a timely manner.	You know, being a really good manager of your time is important, knowing how to make s schedule and stick to it.
1017 – Student-led instruction	Participants provide opportunities for students to	Then Tommy has a student read a slide on Urban decay and

	lead instruction in a one-on-one, small group, and whole group setting.	energy consumption.
1018 – Discussion	Participants provide for in-depth, substantive exchange of perspectives among students and between teachers and students about significant issues.	“So let’s say that I have a photo of the city scape of Shanghai, um I know that they’re not going to get it right away but I want them to think about it and give me some feedback on the picture, tell me what makes it unique. Right, so then they’re discussing with me, they’re discussing with each other and finally I’ll tell them where this is and what’s going on.”
1019 – Foster positive learning environment	Participants offer emotional support to students. Key indicators: participants thank students and stakeholders, participants welcome students, participants praise students, etc.	Mary begins class by thanking students: “Hey guys, thank you so much for coming to small groups today.”
1020 – Use real-world examples	Participants use real-world examples to teach a concept. For example, a teacher might model how to use a map by using a map in an area where many of her students live.	“I try to relate what I’m talking about to a life experience maybe that I’ve gone through or I try to relate it to what they’ve gone through.”
1021 – Accessing prior learning	Participants access student prior learning. Key indicators: participants direct student attention to previous learning, teachers provide an activity which engages prior learning.	“If you travelled through this area you would find forests, shrubs, mosses, likens, and permafrost.” What do we know about permafrost – it’s melting – she reminds students of previous learning where they learned about permafrost when they reviewed Russia.
1022 – Chunking	Participants group content into topic-specific, focused pieces. Key indicators: participant plans instruction for a unit and breaks up learning by weeks. Each week builds on the previous week.	“I’m doing a lot more of that and I call it chunking, there’s a lot more chunking in economics. You get into bite-sized pieces, topic-specific, very focused and you want to focus on that little piece. Its like teaching a new skill to someone.”
1023 – Differentiation	Participants differentiate content, process, and product in	“Then of course, uh, actually during my session I’ve got a

	their courses. Key indicators: teachers provide multiple ways for students to learn material, teachers give students choice in the way they learn and the products they create, etc.	challenge room so that after my lecture if a student has already completed my quiz then they can go into the challenge room and the challenge room is where there are enrichment activities”
1026 – Direct instruction	Participant directly teaches a skill, concept, or learning activity to students. Key indicators: teachers walk students or stakeholders through a process.	Student says she can’t find the resource. Mary physically walks through the process from the homepage with the student step by step. Each step, the student gives a green check mark to make sure they are with Mary. Mary does this until the student gets to the resource.
1029 – Incentives	Participants provide incentives such as candy or gift cards to students who complete an instructional activity or task.	So for example, if every once and while when I’m doing kahoot games, I’ll actually offer a prize for the winner, and so when I do that, it’s usually like an amazon gift card.
1030 – Poll students	Participants using polling tools to assess student learning, desires, or needs.	Students use polling tools to answer the question about the ring of fire.
1031 – Course management	Participant manages the course materials, layout, pacing, and access. Do not use this code for classroom management which is different. Course management is managing the course. Classroom management is managing behaviors.	We generate the content. We rewrote the entire curriculum in this course. We don’t use the K-12 course. We deleted all of that. And um, each individual teacher picked two standards and wrote their own curriculum for that based on the information we get from the state to make sure that it was going to be aligned exactly with what the state was expecting them to know – not just a general US history course
1033 – Inputting data	Participants input data.	Mary updates her gradebook each morning. She types the grades from USA test prep into her grade book.
1034 – Flipped classroom	Participants provide course materials that are accessible at any time, 24 hours a day, seven days a week online.	Mary then shares the recording of the session on the Learning Management System, LMS, and shares the recording with

		anyone who wants to see it. Her bosses can see this. It takes a few minutes to load the video into the K12 LMS. Mary must wait. Students can watch the old recordings. Mary does this every live session. The students can click on it and watch it at their own pace anytime. 24/7 learning.
1035 – Planning instruction	Participants plan instructional activities and assessments on a yearly, quarterly, weekly, and daily basis.	“All teachers will create an Instructional Plan/Curriculum Map using a tool known as a Magic Calendar.”
1036 – Hook student interest	Participants attempt to hook student interest in the learning content. Key indicators: teachers provide unique content that promotes students reactions. Teachers say they use an item in order to hook student interest.	She explains each lesson has a hook and a YouTube video. She broadcasts a picture of the world with a red area marked surrounding the Pacific Ocean and then asks the students what is happening in this pic? She also shares a video to highlight the theme: the YouTube video is about why there is a ring of natural disasters in the Pacific ocean.
1038 – Modeling	Participants model how to use a tool or complete an activity.	Mary moves on to discuss climate and vegetation of east Asia, using a map to illustrate. Students must be able to use maps to answer questions on the interim assessment. Mary models how to use the map to identify climate regions. She emphasizes using the key to understand the map. She focuses student attention to the key.
1041 – Pacing	Participants ensure that their students pace themselves to ensure they learn the material in a timely fashion.	“You should have taken quiz 2 by now. Make sure you complete reflections 1 – Fundamentals. All of these quizzes are dependent, they only display when you’ve done certain things like the previous work.”
1043 – Classroom management	Participants manage the	Well we’ve got a chat so in the

	behavior of students in synchronous sessions. This can be done in whole group, small group, and one-on-one synchronous sessions.	blackboard platform the students can always chat, they can use the microphone if they wanted to and if we allow it of course. In smaller groups it's easier and I tend to open the microphone in smaller groups more. In larger groups students have to raise their hand and then I'll open up the microphone for them.
1044 – Standards-based instruction	Participants use state standard to guide their instructional practices and set learning goals.	Teachers use standards to guide instruction – for each lesson a standard is targeted – for example, Standard 1a.

Theme 2: Rationales

Code	Description	Example
2001 – Research-based rationale	Participant justifies practices by an appeal to research. Use this when participants justify their practice by appealing to research base or citing an author as justification.	“Well, they’re there’s a lot of research to that.”
2003 – Personal classroom-based utility/ personal experience rationale	Participant justifies practices by an appeal to personal experience or personal classroom utility. Use this when candidates justify their practices because it has worked in the past in their classrooms.	“You know since I’ve been teaching economics so long, you know, that I could tell you what the questions are going to be. I know the content that yields the most scores on tests. So knowing all that, basically, from experience.”
2004 – School-mandated rationale	Participant justifies their practices by an appeal to a school-mandate. Use this when participants justify their practice by appealing to a school mandate or a leader asking them to do something.	“Our lead ...definitely evaluates our courses and makes sure, she really pushes for supplemental resources and uh, our lead stays on it. So if she notices that there is a decline in the overall grade then she asks for results”
2007 – Brick and mortar rationale – “What we did in brick and mortar”	Participant justifies their practices by an appeal to what is done in brick and mortar classrooms. Use this when participants justify their practice	“So that’s another key element to the online experience is giving detailed feedback so they know... which is what a teacher would do in a brick and mortar

	by appealing to the practices used in the brick and mortar environment.	environment.”
2008 – Student-motivation rationale	Participant justifies their practices by an appeal to motivating students.	“So usually if I can talk to them about something relatable to them at their level, then I usually hook. I have them. They’re interested.”
2010 – Foster teacher presence	Participant justifies their practices by an appeal to fostering teacher presence in the classroom.	“Showing the presence daily in the online classroom is a critical challenge. We want the students to feel that the student is just an email away. Or a click away.”
2011 – student need rationale	Participant justifies their practices by an appeal to meeting students’ needs.	“The rationale is that the nature of the concepts that were covered today are a bit esoteric, economics is a highly conceptual discipline, it highly conceptual so I think chunking is really important in a lot of the concepts of economics because it provides, kind of like you build a stair case, you know? So they can take step by step and walk up and reach higher and higher levels and more complex levels of understanding and comprehension that will empower them to grasp other complex concepts related complex concepts of economics.”

Theme 3: Roles

Code	Description	Example
3001 – Audience	View what youth are doing online.	“For example, I’ve had student reach out to me wanting to complete the quiz again and when I go in and check and see how long they’ve spent on the quiz, they might have only spent a minute on it.”
3002 – Encourager	Encourage youth about work or	Mary praises student, “Oh

	participation.	you see it. You got it you got it!" Another example: Peter asks for volunteers to read the Cyber School's mission and vision. A student volunteers to read them. Peter praised the students who volunteered. To a student who volunteered but hesitated. "No, you did good. You're good. Thank you so much!"
3003 – Evaluator	Provide grades, ratings, badges, or other formal assessments.	"So when I give them the feedback I start with the sandwich method. You did this this and this very well. However, you may want to go back and think about this, this, and this. You're on the right track. Let me know if I can be of any assistance. So that's another key element to the online experience is giving detailed feedback so they know... which is what a teacher would do in a brick and mortar environment."
3004 – Friend	Exhibit personal approachability/friendship/mentorship, including social posts, off-topic conversation.	It seems like you're saying to me that building relationships is one of the most important strategies you use in teaching. Peter: Yeah, I would agree with that. Yes.
3005 – Instructor	Directly teach a concept or skill or provide an assignment. Provide prompts and/or feedback to further student thinking or work.	Teachers will provide feedback on teacher graded work within two school days of receiving the submission.
3006 – Learning broker	Connect youth with learning opportunities (people, activities, etc.).	Within the OHS, I'll post giffes and those are used to explain specific concepts like for example a tsunami. I use Canva to create posters to remind students to get an assignment completed. I use Google surveys to get a

		feeling of what is working for students and what is not. We always start our class with a YouTube video explaining a specific concept that we are going over for that day
3007 – Model	Share own creative work/process.	Mary moves on to discuss climate and vegetation of east Asia, using a map to illustrate. Students must be able to use maps to answer questions on the interim assessment. Mary models how to use the map to identify climate regions. She emphasizes using the key to understand the map. She focuses student attention to the key. She asks them: “What do we need to look at to understand the map?” Students answer with chat functions and Mary incorporates their responses.
3008 – Monitor	Impose or suggest rules of behavior online (language, behavior, plagiarism, etc.).	I think it is a critical role for the instructor to reach out and number one protect them and number two if anyone comes out and challenges them real hard up front, you step in and say, ‘Hey Ricky, that was a good point and I’m glad to see you in here.’ Now, what I’ll do if someone comes on too strong to my fence sitters, I’ll go off to my private chat and say, ‘Hey Tom, you know, let’s think about how you can say that in a way that might not be, go back over to your post and think how might that be a little too strong.’ Do that privately. The fence sitter encourage publically.
3009 – Promoter	Showcase youth participant work.	No example found in the

		data.
3010 – Resource provider	Provide learning resources (examples of work, how-to guides, and link to sites, etc.).	<p>We just recently did permafrost for example and the article was just about what permafrost is because sometimes kids have a hard time grasping permafrost. Because you know it's just permanently solid ground and it (the resource) just delves into what permafrost is and how it affects the lives of those who have to deal with it because its melting and so the houses for example in Russia are collapsing.</p> <p>Kyle: So, do you know the source on that?</p> <p>Mary: Yes, I believe it was, I think it was National Geographic.</p>
3011 – Communicator	Communicate with stakeholders to promote student learning.	<p>“Communication is the bridge to all relationships. Without communication, there is no relationship. Students are more successful when there is a positive relationship between school and home. Southeastern Cyber staff are expected to follow accepted rules of ‘netiquette’ when communicating online with families and staff.</p> <p>Netiquette. Email, class connects, and phone calls are the primary methods of communications to be used between school and families.”</p>
3012 – Technology curator	Research, select, implement, and teach technologies to promote student learning.	<p>10:00 - 10:50 Mary worked and completed a summative assessment kahoot review. She also troubleshot it by working through it as a student</p>
3013 – Data manager	Compile, store, and use data to promote student learning and support	Mary reviews how much content the students have

	<p>the school’s mission.</p>	<p>looked over. She can see how many times they logged in. She can see time spent. The number of visits the student visited the OHS. Mary can see how much material they have viewed so far and also her grade in the course all on one screen. She uses this information to reach out to students and remind them to stay on task and finish their assignments in a timely manner.</p>
<p>3014 – Course manager</p>	<p>Manage a course’s structure and content to facilitate student interaction and learning.</p>	<p>“Well, like we have like breakout rooms where we can set up mini classrooms inside the classroom. So that s useful because you can set up individual activities and gear those activities for a specific group.”</p>
<p>3016 – Colleague</p>	<p>Collaborate with vocational peers to promote student learning.</p>	<p>Kyle: So you had a leader in your room. Now, you also had your lead right? Mary: Yes. Kyle: And your lead is kind of like your supervisor, correct? Mary: Yes ... Kyle: Great. So you had your lead there and she I noticed often jumped into the discussion. Would you say that’s correct? Mary: yes Kyle: Do you remember anything she was suggesting? Mary: yeah well she suggested looking at the lowest scoring questions from IA2 and seeing how we’re going to implement those standards and elements into IA3.</p>
<p>3017 – Instructional planner</p>	<p>Plan asynchronous and synchronous</p>	<p>After the short meeting, Mary</p>

	instruction that promotes standards-based student learning.	began to work on a PowerPoint for a synchronous session. Mary worked on the power point for an hour and a half. The lesson she is designing is for ninth grade.
3018 – Facilitator	Work as a partner with students to help students learn.	“Then I’ll have some kids and I really am emailing two or three times a week just to try and check in and say, “Hey, you’re doing great. So just keep motivating and keep supporting them and just trying to facilitate their learning and make sure they are on the right track.”

Theme 4: Collegial Presence

Code	Description	Example
4001 – learning coach	Participant works with the learning coach to promote student learning.	“Kyle: Can you tell me about the role of the learning coach and by that I mean the parent and guardian in those two different grade levels and age groups? Tommy: Sure, I think the biggest key among both age groups is just helping to hold the student accountable because that is just one thing we can’t do in this online environment.”
4002 – supervisors	Participant works with supervisors to promote student learning.	“Kyle: You’ve worked with your principals to change instruction to meet student needs, correct? Mary: Yes.”
4003 – support personnel	Participant works with support personnel to promote student learning and maintain course accessibility and communication.	9:30 - 9:40 - Mary talked with the help desk technician to fix her email problem. She is concerned because her lead wants her to regularly send out messages. This was something they identified as a strategy it improve student learning through their data meetings so it was important the email work.

4004 – fellow teachers	Participants work with fellow teachers to promote student learning using a variety of tools, strategies, and planning methods.	“Kyle: you have a weekly meeting with your colleagues, right? Mary: Yes Kyle: Tell me what you discussed in that today with them. Mary: We discussed the IA3 (summative assessment) data and how it compares with the IA2 and we looked at the lowest scoring standards and how we would address those standards in the IA3. So we used USAtestprep to look at the lowest scoring questions and stuff like that.”
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Appendix G

Interview Coding Protocol Table (adapted from Barbour, 2009 and Fuller, 2011)

Researcher Name: Kyle Sanders	Study Name: A Case Study of K-12 Online Social Studies Teacher Practice in a Virtual School	Study Institution: Kennesaw State University
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Code	ID	Q#	Data	Notes
1001	Mary	1	I would interact with the students and make sure they're understanding the content.	interaction
1003	Mary	Obs.	She creates a private room just in case someone has something private they need to discussion. A student has a private question.	Practice – one on one
1004	Mary	1	Communication is key and I do communicate with my students often over the telephone, through email, through Blackboard connect, texts, through the OHS announcements.	communication
1004	Mary	2	I believe an effective teacher keeps an open line of communication	Communication
1004	Mary	7	Communication is integral	Communication
1004	Mary	7	I'm a great teacher and I know that I am doing all that I can to reach out to my students through every way that I can virtually but it's also very important for the student to have a learning coach to guide them because I can't be there checking on them every day.	Communication
1006	Peter	4	So for example, if they take a test and a particular group of kids messes up on standard A then I can make a room for just for standard A and that's it.	Practice – data-driven instruction