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Bryan Artman

May 2016

TEACHERS' AWARENESS OF AND ENGAGEMENT WITH ONLINE RESOURCES  
FOR  
PROFESSIONAL DEVELOPMENT, GROWTH, AND SUPPORT

A Dissertation Presented to the  
Faculty of the College of Education  
University of Houston

In Partial Fulfillment  
of the Requirements for the Degree

Doctor of Education

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May 2016

I would like to begin by thanking the tremendous faculty, staff, and fellow doctoral students at the University of Houston for sharing in my journey for the last four years. I must single out Dr. Susie Gronseth and thank her for the wonderful opportunity to serve as her graduate teaching assistant. I learned so much during one semester working with Dr. Gronseth that will benefit me throughout my teaching career.

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## Abstract

This dissertation examined teacher awareness of and engagement with online resources for professional development, growth, and support. This qualitative case study was situated in a large, urban, economically disadvantaged elementary school. Fifteen elementary school teachers were interviewed about their use of online educational resources for the purpose of professional development, growth, and support. The findings of this study show low levels of awareness among teachers about the use of online resources for professional development and growth. Teachers' awareness of online resources for professional support, specifically instructional support, was markedly greater. In regards to teacher engagement, the findings show that teachers have very limited engagement with other teachers online. Responses indicate that teachers prefer to find and take resources as opposed to engaging in substantive two-way conversations about teaching, learning, their teaching beliefs, etc. with other teachers online. In conclusion, the findings show that teachers are not taking full advantage of online educational resources for themselves or their students. Suggestions are made for addressing these potential areas of growth at the university level with preservice teachers and for practicing teachers through changes to professional development activities.

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## **CHAPTER 1**

### **Introduction**

“Another training?”

“How long is this going to take anyway?”

“How does this even apply to me anyway? I don’t even teach this subject!”

“This presenter is terrible; they don’t even know what they’re talking about!”

These are just a few examples of the types of questions and comments that I have heard from my colleagues and even said myself many times during my 12-year teaching career. Attending professional development sessions has never been one of my favorite parts of being a teacher, but I’ve always made sure to handle it professionally and complete all of my required hours each and every school year. But why do I and so many of my colleagues seem to feel this way about attending professional development sessions? Is it the time commitment, the lack of relevance, the presenter’s skill, or something else entirely that has soured so many of my colleagues on attending professional development sessions? How can these issues be remedied so that schools become institutions of true life-long learning? How can teacher professional development be improved upon and be made more useful for myself and my fellow teachers through the enhanced use of instructional technology?

Questions, comments, and experiences related to needs in teacher professional development led me to wonder, how I, as a doctoral student in a Learning, Design, and Technology Program, might investigate a possible solution. What role does the use of

instructional technology play in enhancing professional development and supporting teachers? It was through thoughtful consideration of these questions that I arrived at the research question for this study.

This dissertation examined how teachers at one elementary school interact professionally with online resources. The study focused on how teachers locate, evaluate, and interact with these resources for professional development, growth, and support. These online resources may include, but are not limited to social media sites, blogs, Web 2.0 tools, and online teacher communities.

### **Statement of the Problem**

Current research in the field of instructional technology has focused on technology integration in the classroom (Açikalin, 2014; Kurt, 2010), teacher efficacy in technology use (Bozdoğan & Özen, 2014; Holden & Rada, 2011; Sahin, Celik, Akturk, & Aydin, 2013), and improving professional development practices through increased instructional technology use (Frazier & Boehm, 2012; McCullagh, 2012). Research on the impact of social media on teachers and teaching has begun to emerge in recent years as well (Chen & Bryer, 2012; Kessler, 2013; Pan & Franklin, 2011). The gap in the knowledge left by current research is in the use of online resources by teachers for professional development, growth, and support.

More research is needed to investigate whether and how teachers are able to access online resources on their own for professional development, growth, and support. If teachers are able to do so, how and by whom they were trained should be studied. It should be determined if the training took place during their university-based coursework

or a school district-based in-service professional development. This knowledge can aid teacher educators and professional development providers in identifying best practices and potential strengths and weaknesses in the training teachers have received.

### **Definition of Terminology**

Defining three key terms will assist the reader: *professional development*, *professional growth*, and *professional support*. *Professional development* is defined in the academic literature as continuous teacher improvement (Hirsh, 2009.) but will be shown in the Review of the Literature mainly to describe the improvement of existing and acquisition of new teacher skills. *Professional growth* refers to a teacher's ability to examine their beliefs, understand their practice, develop decision-making ability, and take control of their career, (Gilles, Wilson, & Elias, 2010). *Professional support* of teachers generally refers to school-based induction and mentoring programs (Kelly, Reushle, Chakrabarty, & Kinnane, 2014); these programs most commonly pair experienced teachers with less experienced teachers. For the purposes of this study, professional support pertains to how teachers receive the curricular, moral, mental, and emotional assistance they need.

Two additional technology terms were frequently used throughout the course of this dissertation. These terms must be defined and differentiated; they are *instructional technology* and *online resources*. *Instructional technology* refers to any technology tool that can be used to enhance or assist in instruction (Reiser, 1987). Instructional technology is also be referred to in the literature as educational technology and is defined as such: "Educational Technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological

processes and resources ” (Januszewski & Molenda, 2008, p. 2). Examples of instructional technology include but are not limited to computers, tablets, smartphones, LED or overhead projectors, smart boards, document cameras, stereos, hardware, software, digital learning tools, etc. (Hutchison & Woodward, 2014; Reiser, 1987). *Online resources* are one type of internet-based instructional technology tool, and in this study, refer to but are not limited to social media sites, blogs, Web 2.0 tools, internet search engines and online communities of practice.

The research questions for this case study are centered on two key terms, *teacher awareness* and *teacher engagement*. These two terms need to be defined for the reader. *Teacher awareness* for the purposes of this study refers to knowledge of existence and availability. For this study, *teacher engagement* refers to type and level of personal interaction exhibited by the interview respondents.

### **Need for the Study**

Today’s teaching force faces challenges unlike those seen in previous generations; teachers must keep pace with changes in instructional technology, specifically how to incorporate digital literacy and digital artifacts into their pedagogical knowledge (Jansen & van der Merwe, 2015). Additionally, teachers must enact mandated educational reforms and respond to increasing diversity in their student body (Yates, 2007). The current state of teaching has brought teacher professional development to the forefront of the educational agenda of many countries, states, and school districts (Korelich & Maxwell, 2015; Yates, 2007).

The current research shows evidence that teacher professional development can lead to improvements in instructional practices and student learning (Borko, 2004; Colwell, MacIsaac, Tichenor, Heins, & Piechura, 2014). Professional development is essential to increasing a teacher's pedagogical content knowledge, which in turn is key to enhancing students' learning (Goldenberg, Culp, Clements, Pasquale, & Anderson, 2014). Professional development is the means by which teachers improve their skills (Hirsh, 2009), and must therefore be prioritized in accordance with its importance. Professional development is not only a strategy used by school systems to help teachers continue strengthening their practice; it is generally the only strategy some school systems have to improve teacher's performance (Mizell, 2010).

Given the challenges facing today's teaching force (Jansen & van der Merwe, 2015; Korelich & Maxwell, 2015; Yates, 2007), the need for high-quality teacher professional development is evident. Research on how teachers use online resources for their own professional development, growth, and support should be conducted at this time. The findings from this research may contribute to the literature as it pertains to both the field of teacher professional development and the field of instructional technology.

### **Significance of the Study**

The gap in the current research should be addressed because it can positively impact preservice teacher training as well as in-service school district-based professional development practices. The findings of this research study may help spur changes in teacher training by exploring current priorities and deficits in university-based teacher preparation practices. By doing so, university-based teacher preparation practices can be modified to better meet the needs of preservice teachers. Better meeting the needs of

preservice teachers will increase the likelihood that preservice teachers will be successful once they begin their teaching careers.

School district-based professional development programs can be positively impacted as well by the findings of this case study. School district-based professional development programs can be modified by the findings to better address the needs of diverse groups of teachers, be more cost effective, and take on enhanced delivery methods. The findings of this research study may stimulate changes in in-service district professional development and support that aid teachers in becoming life-long learners. These changes could help address the issues of teacher success, teacher retention, and ultimately student success.

### **Research Questions**

The literature in the area of teacher use of instructional technology does not provide enough detail about how teachers use online resources for their own development, growth, and support, nor about how they learn about these online resources. This gap in the literature is an area that this qualitative research study could address. This exploratory case study may improve our understanding of how or whether teachers use online resources for professional development, growth, and support.

While university-based teacher education programs and school district-based in-service professional development programs play a large role in how teachers make use of instructional technology, other factors may also have a role in how teachers gain their instructional technology skill set. Past job experiences, student teaching, mentor teachers, friends, and family members, and individual curiosity may be influential as well.



Understanding how teachers obtain their skill set may contribute to assessing the effectiveness of university-based teacher preparation coursework and school district-based in-service professional development practices.

This study investigated the use of online resources by teachers, specifically addressing the following research questions:

- 1- To what extent are the teachers at the elementary school in this case study aware that there are online resources they can use for the purpose of professional development, growth, and support?
- 2- How do these teachers engage in social media, blogs, online forums, etc. for the purpose of professional development, growth, and support?

### **Summary**

This qualitative research study investigated teachers' awareness of online resources for professional development, growth, and support, as well as teachers' engagement with online resources. The study can fill the gap in knowledge left by current research that focuses on university teacher preparation practices, classroom technology integration practices, and school district professional development practices. Results stemming from this research can have practical applications to preservice teacher instruction programs as well as in-service district professional development practices.

## **CHAPTER 2**

### **REVIEW OF LITERATURE**

The purpose of this study was to examine the awareness of elementary school of the existence of online resources that they can use for their professional development, growth, and support, and their engagement with those resources. To that end, the literature review will examine the relevant research on teachers' use of online resources for professional development, growth, and support. Most importantly, the gaps in the research on teacher use of online resources and the importance of those gaps will be highlighted and explored.

The relevant research described in this chapter was obtained primarily through the use of the University of Houston's online library system. The main database used was ERIC (EBSCOhost). Google Scholar was also used in a supplementary capacity. All cited research articles were from peer reviewed academic journals; ebooks were also accessed and cited. Search terms for the study included but were not limited to: professional development, instructional technology, online communities of practice, improving professional development, teacher participation in professional development, and classroom instructional technology integration practices.

This literature review is organized into five parts: The first part discusses the role that universities play in preparing teachers to integrate technology into their instruction. The second part of the review covers instructional technology integration practices in the classroom. The third part of the Review of the Literature discusses school district-based in-service professional development. The fourth part of the Literature Review discusses

the specific role of instructional technology in professional development practices. The fifth and final part of the review examines online communities of practice and online resources for teachers.

### **University Role in Instructional Technology Integration**

The first part of the Literature Review focuses on the role that universities play in preparing teachers to integrate technology into their instruction and is divided into two sections. The first section focuses on teacher educator priorities in instructional technology integration training. The second section focuses on university-based practices in training preservice teachers to integrate instructional technology in their teaching.

Preservice teachers begin their teaching journey in either a university-based or alternative certification program. The focus of this study is solely on preservice teachers trained in a university setting. In a university program, preservice teachers gain the skills and attitudes necessary to survive and thrive in the classroom setting, and one area of this learning involves the use of instructional technology. This first part of the Literature Review will explore how universities attempt to prepare their students to integrate instructional technology into their practices.

### **Priorities in Instructional Technology Integration Practices**

To understand the characteristics of university practices in preparing preservice teachers to use instructional technology, knowing how in-service classroom teachers prioritize its use is a logical first step. A 2012 study set out to determine if there was a discrepancy between university-based preparation practices and real world applications of instructional technology integration in instruction. The results showed substantial

differences between teacher educator and practicing teacher priorities in instructional technology use. (Ottenbreit-Leftwich et al., 2012).

In a contrast of priorities, practicing teachers and teacher educators queried in the study differ significantly on two key points. When teacher educators were surveyed about what they felt was the most important topic in their instruction, the most common answer (30. 6% of respondents) was technology use for preparation and teaching specific content. Practicing teachers, however, responded that the most important topic (47. 4% of respondents) was instructional technology use to support higher order thinking skills (Ottenbreit-Leftwich et al., 2012). This difference shows a focus on lower level skills from teacher educators, as compared to the responses of practicing teachers.

Further discrepancies were shown in the area of teacher use of instructional technology professional growth. Most practicing teachers surveyed responded that instructional technology is a constant source of growth, citing the ability to establish professional learning networks (PLN's) using social media tools such as blogs and Twitter (Ottenbreit-Leftwich et al., 2012). Teacher educators, on the other hand, most commonly spoke of e-portfolios (a professional growth tool) as a means of gathering artifacts and addressing how they met licensing standards (Ottenbreit-Leftwich et al., 2012).

A nationwide 2010 study of instructional technology teaching practices by Gronseth et al. shows results that align with Ottenbreit-Leftwich's study. In this study, the topics most commonly reported as taught by educational technology faculty were personal productivity (78%) and information presentation (75%) (Gronseth et al., 2010). Just over 20% of responding educational technology faculty listed instructional

technology to enhance teacher growth as the most important topic covered in instruction (Gronseth et al., 2010).

### **University Practices in Technology Integration Instruction**

Universities, like schools and districts, are struggling to keep up with the rapidly changing subject area of integrating instructional technology into instructional practices. In addition to physical property investments (i.e., computers, network capabilities, etc.), universities are reevaluating and altering their educational coursework to include instructional technology integration in educational methods and content courses (Ottenbreit-Leftwich, Glazewski, & Newby, 2010; Stobaugh & Tassell, 2011). Additional stand-alone instructional technology integration courses are being offered at a higher rate than in the past (Stobaugh & Tassell, 2011).

The stated goal of these improvements and changes according to Stobaugh and Tassell's study is that all preservice teachers graduate with the skills necessary to successfully integrate instructional technology into their instruction. The question that follows is, how successful have these initiatives been? The needs analysis conducted as part of this 2011 study shows limited success; the university featured in the study was successful only in helping preservice teachers meet minimum standards for instructional technology integration practices. The campus in this study was not as successful in helping students reach higher levels of instructional technology integration (Stobaugh & Tassell, 2011). As late as 2015, another study (Kimmons, Miller, Amador, Desjardins, & Hall, 2015), showed similar difficulties in increasing preservice teachers' ability to think critically about instructional technology and higher order thinking skills.

Stobaugh & Tassell's (2011) findings support a similar 2010 needs assessment of instructional technology integration instruction. The 2010 study by Koc and Bakir highlighted four key findings. 1) Presence and quality of training. When preservice education students at the university studied were questioned about instructional technology integration in their educational coursework, 20% responded that there was none. Of those respondents that identified instructional technology integration as occurring, it was limited to programs such as word processing and presenting information (Koc & Bakir, 2010).

2) Preservice teacher's views on potential uses of instructional technology. When questioned on their views about ways teachers might use instructional technology to improve their teaching, the most common responses of these future teachers were: technology use to conduct research, information presentation, and time-saving tasks. The biggest obstacles cited by responding preservice teachers to improving instruction were a lack of technical knowledge and a lack of quality equipment.

3) Feelings of preparedness to integrate technology. Regarding using instructional technology for educational purposes, students felt most prepared to communicate and collaborate with peers, manage student assessments, and use drill and practice style programs. Students felt least comfortable using instructional technology to engage students in higher order and critical thinking skills or meeting the diverse needs of learners (Koc & Bakir, 2010).

4) Preservice teachers level of comfort in integrating technology. When questioned about comfort levels with technical applications, students showed the highest comfort levels with basic technology tools (word processing, information presentation,

etc.). The lowest level of comfort was with teaching using creativity based teaching tools such as simulation or concept mapping tools (Koc & Bakir, 2010). It is worth noting for the purposes of this Review of the Literature, that neither study (Koc & Bakir, 2010; Stobaugh & Tassell, 2011) makes note of instructional technology integration for teacher growth or development. The focus of both studies was only on instructional technology integration for student achievement.

The current literature on university teaching practices using Web 2.0 tools, as opposed to more traditional productivity tools, shows a mixed bag of both positive signs and warning signs. A 2012 report (Redman & Trapani, 2012) highlights some of these instructional changes, specifically focusing the instructional technology integration training on collaboration and creativity via Web 2.0 tools as opposed to practice activities and research skills. Redman and Trapani further focused on the usage of the programs Twitter, Edmodo, and Today's Meet for collaboration in the classroom setting. In the study, the three programs were used as teaching tools in the preservice education classroom. The instruction did not focus on how to use the three programs as instructional tools, but rather the three tools were used to aid the preservice teachers in their science methods coursework. Twitter and Today's Meet were utilized in a 'flipped-classroom' setup to encourage collaboration, inquiry, and interactivity amongst the students in the science methods course.

The use of these programs resulted in a favorable viewing of the programs by the students, and they stated that these programs were now more likely to be used in their instruction. There were, however, still areas of concern to be addressed. Students in this study still viewed their future instructional technology usage in the classroom as focused

on skill acquisition, not collaboration and creativity (Redman & Trapani, 2012). This focus on skill acquisition may indeed be indicative of how these students learned or grew up using instructional technology. The results of this study indicate that inclusion of Web 2.0 tools into preservice student instruction is a quality first step in increasing technology integration in the classroom.

### **Instructional Technology Integration Practices in the Classroom**

The second part of the Review of the Literature focuses on instructional technology integration practices in the classroom. This part of the review is divided into two sections. The first section focuses on attitudes towards and barriers to technology integration; the second section focuses on reports on teacher practices in instructional technology integration.

Current literature focuses on how teachers attempt to integrate instructional technology to benefit student growth and achievement. Literature on how teachers use instructional technology, specifically online resources to aid their own growth is very limited. This portion of the Literature Review will focus on two main themes: 1) instructional technology integration practices and 2) attitudes and barriers that affect classroom integration of instructional technology.

#### **Teacher Practices**

The literature available on current instructional technology integration in the classroom is not as plentiful as the available literature on beliefs and attitudes towards instructional technology integration. Kurt (2010) showed that in the featured school setting, the focus of teacher instructional technology use is still on using the simplest of



technology. Computers were not being used for instruction, they were being used for administrative and non-educational uses (communication, web-based news, etc.). Computer-based instruction, when it occurred in this setting, was not student-centered, but was focused on teacher-directed research and drill practice activities.

There is, however, research contrary to this study that shows how student-centered instructional technology can be successfully integrated into practice. A 2014 report focuses on a multi-media project-based learning (PBL) project called Alien Rescue. Alien Rescue uses inquiry-based activities and promotes student-centered learning and collaboration amongst students. The implementation of Alien Rescue elicited positive student responses and increased motivation towards learning science, (Liu, Horton, Lee, Kang, Rosenblum, O’Hair, & Lu, 2014).

The comparison of these two studies shows the current dichotomy of technology integration in the classrooms. This comparison shows the potential to affect change that technology integration has, while also showing the type of progress some schools still have to make. It should be noted that the school in the Liu (2014) article benefitted from the presence of a group of graduate students on their campus, aiding in the program, a benefit not evidenced in the Kurt (2010) article.

The struggles of new teachers to integrate technology are highlighted in the literature on teacher integration practices. A recent study (Savasci Acikalin, 2014) of new science teachers, all of whom had completed an instructional technology integration course, shows these shortcomings. The lesson plans of the teachers studied showed little to no confidence or ability to integrate instructional technology successfully into the lesson plans.

Of the lesson plans reviewed, roughly two-thirds revealed plans to use PowerPoint as part of the instruction and one-third planned to use videos as part of the instruction. In none of the lesson plans studied was there any mention of the internet, smart boards, or instructional technology tools that indicate an attempt or intention of enhancing student learning through instructional technology integration. The teachers surveyed cited a need for more training on how to incorporate instructional technology into their instruction (Savasci Acikalin, 2014).

### **Attitudes and Barriers**

The research on teacher beliefs and attitudes does shed some light on how teachers are using instructional technology in their classrooms. According to a 2010 study (Ottenbreit-Leftwich et al.), the results are not yet encouraging on a wide scale. Instructional technology use for administrative tasks and communication purposes continue to dominate teacher practices. Technology use for instructional purposes still focuses on the improvement of current practices as opposed to inquiry and collaboration based activities favored by adherents of student-centered teaching (Hermans, Tondeur, van Braak, & Valcke, 2008; Ottenbreit-Leftwich et al. , 2010).

The current literature on barriers that affect classroom instructional technology integration note two different types: internal and external (Ertmer, Ottenbreit-Leftwich, Sadik, Sendurur, & Sendurur, 2012; Mueller, Wood, Willoughby, Ross, & Specht, 2008). External barriers (at times referred to as environmental barriers) refer to issues such as access, student to computer ratios, and network speed, etc. In large part, investments and advancements in schools and districts have largely reduced the impact of external barriers to classroom instructional technology integration.

According to Mueller et al. (2008), internal barriers are attitudes, beliefs, and skills Mueller et al.'s study focused on educators' internal barriers to instructional technology integration rather than the students' barriers to instructional technology use. This focus on the educator is due to the important role that educators play in technology integration, and it is the teacher, not the student, who experiences the barriers to instructional technology integration.

Because external barriers to technology integration have greatly been reduced (Ertmer et al., 2012; Mueller et al., 2008), the research can focus on the relationship between teacher beliefs as potential barriers to teacher integration practices. Teacher beliefs within the context of this 2012 study refer to potential internal barriers and internal enablers to instructional technology integration. (Ertmer et al., 2012)

The key finding of this 2012 study is the power of teacher beliefs in classroom instructional technology integration. Teachers with higher views of the importance of instructional technology integration were shown to be more successful in overcoming remaining external barriers. Conversely, internal teacher barriers (i. e. intimidation, attitudes, and beliefs) are more limiting in instructional technology integration than remaining external barriers (Ertmer et al., 2012).

Teacher beliefs are shown to be a key factor in determining technology integration in the classroom. Hermans (2008) and Mueller et al. (2008) specifically cite the role of constructivist teaching beliefs as being the most important teaching belief in encouraging classroom integration of instructional technology. Past experiences with instructional technology, both positive and negative, are also considered to be key predictors in teachers' instructional technology integration practices (Mueller et al.,

2008). Teacher attitudes can have either a positive or negative impact on teacher participation (de Vries et al., 2012; de Vries et al., 2013; Trivette, Raab, & Dunst, 2014; Wan & Lam, 2010). The literature on professional development also shows instances where professional development practices have been successful in modifying teachers' attitudes toward classroom instructional technology integration.

A 2012 case study (Kopcha, 2012) details the results of situated professional development designed to alleviate teachers' internal barriers to instructional technology integration. This situated professional development consisted of mentoring followed by the formation of online teacher communities of practice. The case study showed that teachers who received this situated professional development were more capable of overcoming external barriers such as troubleshooting issues. Most importantly, teachers continued to incorporate instructional technology into their classroom instruction after the situated professional development had concluded. This is believed to be in large part due to the teachers' continued involvement in online communities of practice (Kopcha, 2012).

### **Research on Professional Development**

The third part of the Review of the Literature focuses on the role of teacher professional development in teachers' instructional technology use. This third part of the review is divided into four sections: 1) common professional development practices, 2) criticisms of professional development practices, 3) calls for improvement, and 4) factors and attitudes that affect professional development participation.

The main avenue for teacher growth and support once a teacher has finished university preparation coursework is the professional development (PD) program offered by the school or district in which they are employed. Therefore, no discussion of teacher professional development, growth, and support could be considered comprehensive without examining the current state of district teacher PD practices. The field of teacher PD has been and continues to be a hotbed of discussion due to its importance to the strength, quality, and retention of today's teaching force.

Teacher professional development directly affects teacher licensure, classroom instruction, student achievement, teacher motivation, and retention. In the state of Texas, for instance, where this study was conducted, teachers must earn 150 Continuing Professional Education (CPE) hours every five years in order to renew their standard teaching certificate ("Renewing My Standard Certificate," n. d.). The literature on the topic of teacher professional development ranges from recommendations for improvements of current practices (McConnell, Parker, Eberhardt, Koehler, & Lundeberg, 2013; Taylor, Yates, Meyer, & Kinsell, 2011) to calls for wholesale systemic changes (Hill, 2009).

### **Common Professional Development Practices**

Teacher professional development (TPD) practices can be organized into three general categories. The first is Standardized TPD, the most common, centralized form, and is best suited for addressing large groups of teachers. The second category is Site-based TPD, which is characterized as intensive teacher learning groups. The third category is Self-directed TPD, which is independent, often self-initiated professional development that may make use of computers and internet access (Gaible & Burns,

2005). The description of professional development terms has remained largely consistent throughout the literature.

According to a 2013 report from the Center for Public Education, the five most common forms of PD that teachers received the previous year were: workshops, school visits, coaching, research, and peer observation. According to the data, 91.5% of surveyed teachers had participated in PD workshops during the previous year. This level of participation in workshops is in comparison to peer observation 63%, coaching 45%, research 39.8%, and school visits 22% (Darling-Hammond, Chung Wei, Andree, & Richardson, 2009).

### **Criticisms of Professional Development Practices**

While professional development sessions are intended to aid teachers in their instructional practices, the form and content of these sessions are often highly criticized. The most commonly reported criticism of PD practices is their “one-size-fits-all” nature (Bound, 2011; Hill, 2009; McConnell et al., 2013; Taylor et al., 2011). The time and budget limitations that schools and districts face are the common motives behind professional development being offered in large scale sessions as opposed to more focused small groups (McConnell et al., 2013). Relying on these large-scale instructional efforts, however, tends to lead to a lack of custom design or differentiation to the teachers’ individual needs and levels.

These large-scale sessions have been widely criticized for being one-off in nature and not offering sufficient follow-up support. These workshops address educators across grade levels and subject-matter areas with highly generalized activities. Large group

professional development sessions typically take place in locales such as school libraries, cafeterias, or auditoriums that are not conducive to teacher collaboration or participation. These generalized activities do not tend to account for individualized differences (needs, experiences, interests, etc.) amongst the attending teachers (McConnell et al., 2013).

The generalized activities of these workshop-style professional development sessions, with their passive learning style, have been shown to be ineffective in affecting change in teaching practices (Taylor et al., 2011). Additionally, they do not provide growth or leadership opportunities to experienced teachers who want to share their experiences and knowledge with other teachers. This lack of growth and leadership opportunities can lead to job dissatisfaction and potentially harm the retention rates of experienced teachers. The passive learning style of workshops also negatively affects less experienced teachers whom could benefit by learning from the shared experiences of more veteran teachers (Taylor et al., 2011).

Some of the most scathing criticism of current professional development practices comes from Hill's 2009 article which calls for systemic changes to the professional development system. Hill states that the professional development system is "broken" and that effective professional development programs rarely reach teachers on a large scale (p. 1). Hill goes on to declare that this state of the field in professional development is one of the main reasons that the majority of teachers only participate in the minimum number of required hours of professional development every year. Hill cites a lack of quality presenters, many lacking in their own pedagogical and content area skills, as the main culprit in this lack of proper training. Hill warns that this lack of quality PD is not

only harmful to the teachers who are receiving the training, but leads to poor classroom instruction as well, ultimately harming the education of the students.

### **Calls for Improvement**

The current professional development literature does not only relate what is currently wrong with the PD landscape but attempts to make recommendations to fix it. Suggestions made by the current literature on professional development vary as widely as the criticisms, from increasing teacher engagement to addressing teacher beliefs, all the way to removing teacher choice from the professional development system (Hill, 2009).

One suggestion for improving current PD practices, is engaging teachers in Professional Learning Communities (PLCs). Teacher engagement in instructional inquiry through PLCs has been shown to be effective in improving instructional practices and student achievement (McConnell et al., 2013). Teacher collaboration, communication, and social interaction are key elements of successful PLC implementation.

A body of research has shown that teachers with student-centered teaching beliefs are more likely to participate in professional development sessions (de Vries, van de Grift, & Jansen, 2012). This increased attendance is believed to be due to these teachers viewing their students' learning as the most important outcome. Given this research, the call has been made for PD sessions to be more student-centered in their activities (de Vries, et al., 2012). This change in professional development practice would not only make sessions more appealing to student-centered teachers but could also make other teachers more student-centered in their teaching beliefs.



As seen in the preceding paragraphs, teachers' professional attitudes play an important role in teacher participation in professional development. Attitudes towards student's learning have been shown to play a major role in teachers' learning as well. The literature shows that there is a strong positive correlation between teachers' student-centered learning beliefs and participation in PD activities (de Vries et al., 2012; de Vries, Jansen, & van de grift, 2013).

Other more teacher-centered professional development reforms call for increasing the role of teacher leadership and teacher choice in PD sessions (Taylor et al., 2011). This recommendation is based on research showing that experienced teachers prefer professional development opportunities that allow them to share their experience with others, specifically new teachers. This differentiation of professional development avoids professional stagnation, enhances campus climate, and aids in teacher retention.

In addition to offering criticism of current professional development practices, Hill (2009) also calls for the most sweeping changes. Citing the need for a businesslike approach to fixing the PD system, Hill believes that all professional development providers should be required to seek accreditation in much the way that colleges and universities do. Hill also calls for the removal of teacher choice in PD sessions, stating that teachers should not be allowed to choose their own professional development sessions. Teachers would instead be mandated to attend sessions that are directly correlated with their greatest known pedagogical and content area weaknesses (Hill, 2009).

## **Factors and Attitudes That Affect Professional Development Participation**

Despite the importance of continued growth as an educator, there are many factors that positively and negatively affect the willingness of educators to attend professional development sessions. The factors that will be discussed in this section include the school setting in which one teaches, grade level and subject matter taught, workplace and personal factors, and the role the teachers' attitudes play in determining professional development participation.

The school setting has been shown in the literature to have the ability to positively or negatively affect teacher attitudes and consequently participation in professional development, meaning where and what you teach plays a role in a teacher's openness to professional development. Teachers in low socio-economic status (SES) communities tending to be more skeptical of professional development initiatives (Torff & Sessions, 2009), and so are thereby prone to participate in less professional development than their counterparts in high SES communities.

The grade level and subject matter taught are also factors that can affect professional development attendance and participation. Elementary school teachers were shown to be more supportive of professional development than high school teachers. This is thought to be due to elementary school teachers' preference for collaboration versus the subject matter focus of high school teachers (de Vries et al., 2012; Torff & Sessions, 2009).

Workplace and personal factors also play a large part in determining teacher participation in professional development. These factors, which can either positively or

negatively impact participation include workload, teacher energy levels, family support, and school support. As shown in a Hong Kong-based study, the factors most important in facilitating PD participation are school and family support, positive teacher professional attitude, and time. On the contrary, the factors that can most inhibit professional development include lack of time, workload, finances, and poor teacher professional attitude (Wan & Lam, 2010).

A similar study on staff participation in PD training in the Head Start program showed similar results. This study focused on two Head Start campuses situated in the southeast United States as they engaged in Participatory Adult Learning Strategy or PALS training. The study produced three salient points about teacher participation in staff developments. The first was the positive role that personal beliefs, characterized in this study as career aspirations, played in increasing participation. The second salient point was the high level of participation from older, more experienced staff members. The third salient point is the role that teacher receptiveness and perceived social validity of participation can positively or negatively affect participation in professional development sessions (Trivette, Raab, & Dunst, 2014).

### **The Role of Instructional Technology in Professional Development**

Instructional technology plays a role in the field of professional development through the enhancement of PD creation, delivery, and collaboration. The inclusion of instructional technology provides opportunities for teacher growth not provided by other more traditional formats. The fields of professional development and instructional technology and how they interact are in the process of changing as well.

**Enhancement of Professional Development Practices.**

The incorporation of instructional technology, or as it is sometimes called, information communications technology (ICT), has been shown in the literature to do far more than simply help teachers make presentations more visually stimulating. The incorporation of instructional technology into current professional development has been shown to make PD more available to a broader range of teachers. The delivery options for professional development have also increased, making large-scale, high-quality professional development more effective and affordable.

Often, it is difficult for a school or district to provide specialized training for all teachers. For example, not all subjects are taught on a large-scale at all schools; there may only be one music teacher or one art teacher on a campus. This is where instructional technology has been able to be a useful tool to the PD community. Instructional technology has been used to deliver high quality and cost-effective professional development to these niche content areas in the form of video-based PD (Frazier & Boehm, 2012).

In addition to cost effectiveness and the ability to deliver professional development to niche content areas, video-based PD has received high teacher satisfaction ratings as a means of supplementing and enhancing traditional professional development practices. Video-based PD has been shown to be effective in facilitating teacher learning. In some instances, video-based PD has been shown to be more effective than traditional face-to-face interactions (Frazier & Boehm, 2012). While video-based PD has been lauded for high participant satisfaction due to its convenience and flexibility, it has its detractors as well. Concerns about the potential lack of internet access in some

areas (rural and inner city) as well as the lack of interaction with the instructor and classmates have been expressed as concerns to its use as a professional development tool (Frazier & Boehm, 2012).

The use of video conferencing technology has been shown to produce similar social interactions and satisfaction as face-to-face PLC meetings. Forming PLCs that encompass diverse groups of teachers and also meet their needs can be challenging due to time, travel, and financial challenges. Video conferencing tools are being used by educators to engage in virtual PLC's when face-to-face contact is not an option. These tools are alleviating many of the time, financial, and distance obstacles faced by districts to provide high-quality professional development opportunities (McConnell et al., 2013).

### **Instructional Technology Use to Affect Teacher Growth.**

The use of instructional technology does not only enhance the reach and effectiveness of current professional development practices; but it also provides unique opportunities for professional growth that can't be realized with any other format.

McCullagh (2012) makes a strong argument for the transformative power of video-based teacher reflection. Video-based teacher reflection is the act of a teacher video recording themselves as they teach a lesson or unit. The teacher can then watch the lesson and reflect on their strengths and weaknesses. This is a more accurate form of reflection because it shows the teacher what actually happened during the lesson, rather than what they recall happening during the lesson.

According to McCullagh (2012), video-based reflection empowers the teacher to control their development and growth, modifying and enhancing teacher practice as a

learner-centered form of professional development. McCullagh also believes that video-based reflection makes teaching experience a ‘sharable activity’ that enables dialogue and professional collaboration.

### **Professional Development on the use of Instructional Technology.**

There is a growing trend of moving away from teaching about instructional technology and pedagogy in isolation. For many years, professional development on instructional technology usage was limited to training on the creation or enhancement of presentations or upgrading specific skills (Duran, Brunvand, Ellsworth, & Sendag, 2012; Kopcha, 2012; Prestridge, 2014). What has begun to emerge is literature on how to incorporate instructional technology practices into pedagogy and teacher growth. Web 2.0 tools, specifically blogs and wikis, are seeing a larger role in classrooms and teacher professional development.

The increased presence of wikis in classrooms as a student teaching and learning tool has led to an increase of their presence in professional developments. This increased presence is further evidence of the growing connection between instructional technology and professional development. Wikis are known for their ease of use with little technical knowledge or support needed (Duran et al., 2012). The flexibility of wikis has been noted in the literature as well with their ability to be used across grade levels and subject matter areas. What most appeals to some researchers is the constructivist nature of wiki usage, which allows students to take an active role in their learning (Duran et al., 2012).

Similar to wikis, blogging has begun to take on a larger role in professional development, teacher improvement, and classroom practices. This is due to its connection

to today's social media savvy learners (Colwell et al., 2012) and the hope that this connection can be used as a motivating factor by teachers. Blogging has also entered the educational consciousness as a means of addressing the need to teach students digital literacy (Colwell et al., 2012). These goals were addressed in this 2012 study through the use of social networking sites to facilitate literature responses from both teachers and students.

Researchers have also begun to investigate how blogging can be used to aid in reflective growth practices for both preservice and practicing teachers. This is a promising field given the important role reflection can play in teacher growth. Blogging for reflective purposes combines the value of reflective writing with the acquisition of instructional technology skills (Prestridge, 2014).

### **Online Communities of Practice and Online Teacher Resources**

The fifth part of the Review of the Literature focuses on online communities of practice and online teacher resources. The first section focuses on motivations for teacher participation in an online community of practice. The second section focuses on participation in an online community of practice for teacher growth and development. The third section focuses on available online teacher resources and how they can benefit teachers.

Multiple case study reports are described that show how teacher participation in OCPs can address the deficiencies of current professional development and university preparation practices and serve as an integral part in enabling teacher and ultimately student growth. The case studies focus on different topics of interest, teacher motivation

for joining an OCP and online communities of practice for teacher professional development.

### **Teacher Motivation for Participation in an Online Community of Practice.**

The first case study focuses on teacher motivation for participation in a teacher-generated community of practice. Hur and Brush (2009) conducted a qualitative study based on observations of discussion board postings and replies, as well as the interviews of twenty three teachers from three different OCPs. The results of the survey showed five interrelated themes for teachers joining a community, centered on teacher feelings towards education (Hur & Brush, 2009).

The first reason cited for joining an OCP is sharing emotions, specifically from teachers not wanting to ‘feel alone’ in teaching. The study showed that postings focused on teacher emotions (both positive and negative) showed high response rates from other participants. These postings ranged from celebrations of achievement to the venting of frustrations. Responses from other teachers included comments, replies, advice, or commiseration and showed that posts about emotions encouraged the sharing of their emotions about teaching. This finding shows that the emotions attached to teaching are of high interest to other teachers (Hur & Brush, 2009).

The second reason cited in the case study for participation is utilizing the advantages of an online environment. Specifically, this refers to the teachers’ ability to share online what they prefer not to share in person. The online environment offers anonymity and therefore possibly a less intimidating forum in which teachers can voice their concerns, yet also reach a larger audience from which to gain advice and support.



The online audience is also more diverse in experiences and perspectives than may be available to a teacher locally.

Combating teacher isolation is the third reason cited by the case study for teacher participation in an OCP. Isolation, in the context of this study, can refer to geographic isolation (a smaller community or teaching abroad) or a lack of time or opportunity to communicate with peers (Hur & Brush, 2009). OCP participation has also been shown to be helpful to teachers who do not have local content experts or who teach in niche subject areas, (Frazier & Boehm, 2012; Hur & Brush, 2009).

The fourth reason cited for teacher participation in an OCP is exploring new ideas. In this case study, teachers were cited as using the OCP to search for very specific ideas, pertinent to their teaching needs (Hur & Brush, 2009). The exploration of new teaching and lesson plan ideas can help combat teacher stagnation (Taylor et al. , 2011) and aid teachers in unique or niche subject matter areas (Frazier & Boehm, 2012).

The fifth reason why teachers participate in an OCP is a sense of camaraderie (Hur & Brush, 2009). The authors state that it is typically a specific content question or need that brings a teacher to an OCP. Participation in the OCP creates the sense of camaraderie and keeps the teacher involved. Continued teacher participation makes this opportunity for professional development more meaningful, (Bound, 2011; McConnell et al., 2013; Taylor et al., 2011).

A similar qualitative case study (Khalid, Joyes, Ellison, & Daud, 2014) found similar results. This 2014 study focused on 16 secondary school teachers from five different schools who were members of an online teacher blogging community. The

online blogging community in this case study was a school sponsored community as opposed to a teacher created community as in the previous case study. According to responses in the case study, four main benefits of participation in the community were listed by the teachers. The first benefit, cited by all 16 teachers, was sharing activities and getting new ideas. The second benefit of participation was enhancing pedagogical skills. This benefit primarily took place via the sharing of activities and ideas. The expansion of their professional network to teachers at other schools was the third benefit experienced by the participants. The fourth benefit of participation in the community, according to participants, was engaging in activities that they viewed as fun (Khalid et al., 2014).

This case study also explored factors that may have worked to inhibit or reduce teacher participation in the blogging community. According to the research, four factors may have worked to reduce teacher participation. The first factor cited was the requirement to learn a new skill (how to blog) in order to participate in the community. The second potentially negative factor was time. Teachers cited not wanting to take work home with them or the need to spend time with family as a factor that negatively affected participation. Overly formal discussions and discussions lacking content were cited by teachers as the third factor that negatively impacted participation. The desire to avoid giving or receiving negative feedback was the fourth factor that adversely affected teacher participation (Khalid et al., 2014).

### **Online Communities of Practice for Development, Growth, and Support.**

A 2013 report states that online communities are just as successful in meeting teacher needs as traditional face-to-face PLC meetings (Blitz, 2013). Members of an online community are shown to be engaged with others and develop a sense of

community. Additionally, members of an online community are successful in improving subject and pedagogical content knowledge and modifying their practices accordingly.

The case study that will be examined next focuses on a single community of practice created by the school leaders of Huantai Senior Secondary School in Shandong, China as an alternative means of teacher professional development. Wang and Lu (2012) describe an OCP instituted by school leaders when traditional means of professional development and instructional technology investment failed to increase instructional technology use and new pedagogical practices. The case study was a mixed methods format consisting of 298 surveyed teachers with an additional eight teachers participating in interviews. The dual purposes of the case study were: 1) to describe how teachers benefitted from participation in the online community, and 2) to show how an OCP can be used successfully as an alternative method of teacher professional development. The results of the study showed largely positive responses with participants noting the ability to gain subject knowledge, support, share experiences, get peer feedback, and exchange resources. Positive reviews of community participation also included novice teacher growth through interaction with experienced teachers. Participants noted that the focus of discussion in the OCP was on problems related to work, not arbitrarily chosen topics. Of great importance, the results showed that participation in the OCP has the ability to transform teacher pedagogy and student learning, (Wang & Lu, 2012).

Collaborative lesson planning at Huantai Senior Secondary School calls for teachers to take on the leadership role (Taylor et al., 2011) of content expert and creating a lesson plan to be shared with their peers. Group members give feedback and suggestions as the group collaborates to create a high-quality lesson plan. Sixty-eight

percent of survey respondents agreed or strongly agreed that collaborative lesson planning was more helpful than individual lesson planning. Eighty-nine percent of respondents agreed or strongly agreed that they were happy to share in lesson planning (Wang & Lu, 2012).

As part of their participation in the OCP, teachers were able to participate in an individual reflection of teaching practice and offer peer critiques. Part of this reflection is video-based, teachers at Huantai Senior Secondary School post a 45-minute video of one of their classroom lessons. These videos are viewed and critiqued by their peer group members (Wang & Lu, 2012). This allows for reflection by the teacher and for the experience to be shared by group members, (McCullagh, 2012). Over half of the survey respondents stated that they actively participated in the video watching and discussion. Motivations for participation included seeking advice from experienced colleagues, improving classroom management, and writing reflections to improve the quality of the lessons (Wang & Lu, 2012).

Resource sharing benefitted teachers in two primary ways. New teachers generally struggle to find suitable materials; this barrier was removed by participation in the OCP (Wang & Lu, 2012). The OCP also became a repository of subject matter materials for experienced teachers. Eighty percent of respondents strongly agreed that the shared resources were useful. Shared resources were found to be more relevant to the subject matter than resources found on the internet.

Online communities have also been developed by organizations in order to benefit teachers and provide them with quality development, growth, and support tools and opportunities. A report on just such a community (Matyas & Silverthorn, 2015), details

how the American Physiological Society (APS) created its online community to benefit health educators. The report details seven elements that make it a quality online community and beneficial to teacher development, growth, and support. The seven elements highlighted in the report are:

- 1) Free access to over 20,000 resources for all users.
- 2) All resources are peer-reviewed.
- 3) Robust search features including title, description, grade level, etc.
- 4) Save and share features for users.
- 5) The presence of an online peer review system.
- 6) Alignment with national standards.
- 7) The inclusion of APS free access journals (Matyas & Silverthorn, 2015).

### **Online Teacher Resources**

There is a body of literature available that delves into what online resources are available to preservice and in-service teachers, how they can be used, and why they should be used. A 2011 article recommends the use of Skype, wikis, wireless headphones, and OCP participation as tools to aid special education teachers in their first-year struggles (Billingsley, Israel, & Smith, 2011). It is the authors' contention that the use of these tools can increase communication with mentor teachers and reduce stress levels. Another 2011 article details the use of wikis with preservice teachers in creating digital learning resources and rubrics (Lai & Ng, 2011). The results of the study showed that wiki-based preparation activities developed the preservice teachers' technology integration abilities and enhanced their learning experience.

Research on the use of YouTube provides best practice recommendations on how to use the video service as multimedia lecture support or as a classroom conversation starter (Fleck, Beckman, Sterns, & Hussey, 2014). Teaching with social media can provide teacher support as an alternative means of motivating students through creating work that will be published and shared with other students, friends, and family members (Krutka & Carpenter, 2016). The report further states that teaching about social media provides teachers with the opportunity to address digital citizenship issues such as cyber-bullying and inappropriate content.

## **Chapter 2 Summary and Gaps in the Literature**

The Review of Literature for this qualitative research study is organized into five parts: university-based teacher preparation practices, teacher integration practices, professional development practices, the role of instructional technology in professional development, and online communities and online teacher resources. Studies on university-based teacher preparation practices show a discrepancy between the priorities of teacher educators and practicing teachers as related to the use of instructional technology. Additionally, studies in this section show limited success in universities meeting technology integration standards in education for preservice teachers.

The second section of the Review of Literature addresses teacher integration practices. This section describes the impact that teacher beliefs can have on teachers' integration practices, and that technology integration in the classroom continues to be very basic. These are important facts to note because if teachers are unwilling or unable to integrate instructional technology in the classroom, it is illogical to assume that they are willing or able to make use of instructional technology outside of the classroom. It is

not valid to think that a teacher who uses little or no instructional technology to benefit their students' instruction is capable of using online resources for their own professional development, growth, or support.

The section on professional development describes how the field has been widely criticized for the limited effectiveness of its one size fits all approach. Approaches and recommendations for addressing these issues are presented as well. This section also shows which factors can affect teachers' participation in professional development and how.

Instructional technology's role in professional development is the fourth section of the review. This section discusses how instructional technology can enhance professional development practices. Instructional technology is shown in this section to be able to positively affect teacher growth. Professional development on the teacher use of instructional technology is detailed as well in this section.

The final section; *Online Communities of Practice and Online Resources for Teachers* demonstrates how online resources can be used to address gaps in university-based and professional development practices. This section also details teacher motivations for participation in online communities and how these communities can be incorporated into professional development practices. This section also addresses what resources are available online for teachers to use.

What is not seen in the first section of the Review of Literature is evidence that the curriculum for university-based instruction on instructional technology includes the use of online resources for professional development, growth, and support. What is not

seen in this first section of the review is literature showing how teachers are being taught how to make use of online resources for professional development, growth, and support on a large scale. The research on the use of online resources for professional development, growth, and support is very limited. What the third section of the Review of Literature does not show is evidence of consistent district-based training on the use of online resources for professional development, growth, or support. These facts support the argument that there is a gap in the literature that this research study can address.



## **CHAPTER 3**

### **METHODOLOGY**

This research study interviewed respondents about their use of online resources in order to answer these research questions:

- 1- To what extent are the teachers at the elementary school in this case study aware that there are online resources they can use for the purpose of professional development, growth, and support?
- 2- How do these teachers engage in social media, blogs, online forums, etc. for the purpose of professional development, growth, and support?

Current research has focused on instructional technology integration for student growth, yet the use of instructional technology for the purpose of teacher development, growth, or support has largely been ignored. This weakness has been shown in the research regarding both university-based teacher preparation practices and school district-based in-service professional development practices on teachers' instructional technology usage. The research on university-based teacher preparation practices and school district-based in-service professional development programs shows a focus on specific technology skill building and productivity enhancing practices.

In order to situate this study within this gap in the existing research, I sought to understand the experiences, values, and priorities of teachers as they interact professionally with these online resources. This exploratory case study was intended to provide a detailed description of two educational phenomena: 1) what level of awareness did teachers show of the existence of online resources that could be used for their

professional development, growth, and support. ); and 2) whether and how teachers engaged with social media in order to enhance their professional development, growth, and support.

This chapter will cover: 1) methodology rationale 2) selection and description of the research site, 3) the criteria for participant selection, 4) recruitment procedures 5) the research design, 6) data collection, and 7) data analysis procedures, 8) data analysis, and 9) trustworthiness in qualitative research.

### **Methodology Rationale**

A qualitative research design was the approach best suited to facilitating this study. This method was the most effective means of reflecting respondents' use of online resources and making them easily understood (Maxwell, 1992; Merriam, 1998).

Similarly, a qualitative approach made it possible to accurately capture and describe responding teacher's characteristics and level of engagement with other teachers in an online setting.

Researcher Robert K. Yin defines the case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used (Yin, 2013, p. 23). I chose to conduct this research as a case study due to the unique advantages it provided me. Case study research allows the researcher the opportunity for exploration and understanding of complex issues from the respondents' perspective (Zainal, 2007).

I used Carspecken's (1996) *Critical Ethnography in Education Research* as my guide for the development of my interview protocol, data collection methods, and data analysis methods. I chose to use Carspecken's methodology because it was best suited to meet my needs as the principal investigator for this research study. Carspecken (1996) was best suited to meet my needs due to its step by step instruction on how to complete these processes and Carspecken's experience as a qualitative case study researcher.

### **Role of Researcher**

As the Instructional Technology Specialist on campus, I am well positioned to conduct this qualitative case study. I have served in this capacity for five years, and I am very familiar with the neighborhood and campus culture within which these teachers work. As part of my role on campus, I aid the teachers in integrating instructional technology into their teaching practices. I am experienced in the field of providing training and assistance to teachers in large and small group settings. I am knowledgeable of the literature in the field of instructional technology integration as well as the practical applications in the classroom.

I was unable to remove myself completely from my experiences on campus and my knowledge of the potential benefits of instructional technology use. I did, however, take appropriate steps to address and minimize these biases as much as possible. For example, I met with my peer debriefer multiple times during the creation of my interview protocol, so that he could aid me in the creation of non-leading interview questions.

### **Site Selection and Description**

Understanding the locale associated with the research (Carspecken, 1996) is a necessary factor in understanding the culture, the actions, and the meanings of the actions of the research participants. The study was conducted at Franklin<sup>1</sup> Elementary School, a large Title 1 school set in an urban neighborhood in Houston, Texas. The neighborhood in which Franklin Elementary is located has transitioned from an affluent white neighborhood in the 1970's to a low-income, minority neighborhood today. The neighborhood surrounding Franklin Elementary has seen a constant increase in the crime rate since the 1970's, a trend that includes gang activity, robberies, assaults, and murders involving the family members of past students at Franklin Elementary.

The surrounding neighborhood has also seen an increase in low-rent townhouses and apartment buildings that offer low and free monthly rent specials. These rent specials have contributed to the transient nature of the student body, with many students enrolling in the school for just a few months at a time. These transient students are then forced to withdraw from the school when the rent special has expired, or their family has been evicted. These conditions contribute to the challenging circumstances under which the teachers who were interviewed for this research study work and teach on a daily basis.

Franklin Elementary serves approximately 900 students from kindergarten to fourth grade. The school provides special education, bilingual education, and ESL services to identified students. Franklin Elementary is situated in a largely Spanish-speaking neighborhood; approximately  $\frac{3}{4}$  of the school's student population is considered

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<sup>1</sup> Pseudonyms were used to protect the identity of all locations and participants.

limited English proficient or LEP. Any student labeled as LEP receives either bilingual or ESL instruction unless services are denied per parental request. The language learning needs of the student body affect the staffing and hiring needs of the school.

When teachers at Franklin Elementary want or are required to attend a professional development session, they register for the session on the districts' online eportal site. The professional development section in eportal is arranged by subject matter (mathematics, language arts, etc.). All of the sessions listed in eportal are traditional, face-to-face professional development sessions that meet in the evenings, or Saturdays, either in a school or at the districts' staff development center.

During the semester in which I conducted the study, Franklin Elementary employed three administrators, 46 classroom teachers, ten support staff members (counselor, dyslexia specialist, math and reading interventionists, etc. ), and 20 para-professional staff members (clerical workers and teachers' aides). The teaching staff on campus varied in terms of years of teaching experience from new (zero years of experience) to teachers with over 30 years of teaching experience.

### **Participant Selection**

The benefits of conducting my research at Franklin Elementary go far beyond the convenience of interviewing my colleagues. Because I work in the same school and neighborhood, I am very familiar with the challenges that my colleagues face while teaching and can be more sensitive to those challenges than an outside researcher. Having this pre-existing knowledge of the school and neighborhood in which the participating

teachers work benefitted me in my coding and analysis of the one-on-one interviews as I had a better understanding of the context of their answers.

Because I already had a relationship with the teachers who were invited to participate, it was more likely that they would be willing to participate in my research study. Because I have worked on this campus for five years, I am familiar with the campus culture and how newcomers are generally viewed on campus. Respondents were more likely to share more information with me and speak more openly with me than they would with an outside researcher. This relationship resulted in richer, fuller interview responses, which increased the trustworthiness of my research results.

Concerns about bias are legitimate because I am the researcher, and I work with the research participants. I worked diligently to make sure that I reported the data gathered for this research study correctly, accurately, and honestly. I made use of peer debriefers and member checks to ensure that biases were minimized in my reconstructions, coding, and analysis due to my working relationship with the interview participants.

Teachers were selected randomly before they were asked to participate in the research study. Random selection was used in order to avoid issues of selection bias on my part and to help ensure demographic equality was represented in the research results. Teachers' names were randomly drawn from the schools' staff roster. The selected teachers were then approached about participating in the research study. It should be noted that one teacher, Mr. J volunteered to participate in my case study before the random selection process began and was not approached by me to participate.

Teachers who entered the teaching profession through an alternative certification program were not invited to participate as the literature reviewed for this research study focused on university-based practices of preservice teacher instruction. After a teacher was randomly drawn from the teacher roster, I inquired as to where they completed their teacher certification before I approached them about participating in the research study. In the event that a randomly selected teacher completed their teaching certification through an alternative certification program, I halted the recruitment of the teacher to participate in the study. This occurred one time during the recruitment process, the very first teacher who was selected randomly stated that she completed an alternative certification program and was therefore not invited to participate in the study.

A total of 15 teachers were interviewed for this qualitative research study; 17 teachers were invited to participate; one was disqualified due to not meeting the selection criteria as mentioned above. The other teacher who did not participate agreed to be interviewed, but we were unable to schedule a time when she could participate. I halted the data collection process after interviewing 15 teachers. I stopped collecting data at that time because I felt that I was no longer receiving distinctive answers from participants or adding new information to my data set. In addition to no longer adding new information to my data set, I felt that I had interviewed a large enough population to be representative of the campus.

The teachers that were invited to participate in the study were all currently employed at Franklin Elementary at the time of the study. The 15 teachers that participated in the study teach in grades kindergarten to fourth grade and special education. The age range of the teachers that participated was 22-60+ years of age. The

years of experience of the staff members who participated ranged from teachers in their second year of teaching to teachers with over 25 years of teaching experience. Due to the staffing needs of the school, the teacher population of Franklin Elementary is largely Hispanic, the majority of the teachers at Franklin are female. This was represented in the population of the teachers invited and who elected to participate due to the use of random selection.

Please see Table 2 for a full description of participants' years of teaching experience and subject matter currently taught.

### **Recruitment Procedure**

Prior to beginning the participant recruitment procedure, I received approval from the University of Houston's Committee for the Protection of Human Subjects to conduct my research. Before contacting participants for the one-on-one interviews, I spoke with the principal of Franklin Elementary about my intentions for the research study, what would be asked of the participants, and any potential risks to the participants. The aim of the conversation with the school principal was to allay any fears that they may have had and receive permission to contact the potential interview participants.

Once permission to conduct the interviews had been obtained from the school principal, participants were contacted. I invited teachers to participate in the one-on-one interviews via email or through face-to-face conversations. (Please see Appendix A for the script that was used for the participant recruitment email.) Face-to-face conversations were the primary means of recruiting teachers to participate. The recruitment email was sent if teachers requested it as verification or had questions/concerns about the research



study. Scheduling, confirmation, reminder, and thank you emails were sent to the participants as needed.

### **Research Design**

My exploratory case study consisted of a series of 15 one-on-one interviews. My methodology and interview protocols have been developed in conjunction with the guidelines detailed by Carspecken's (1996) *Critical Ethnography in Education Research*.

This research study was conducted as a case study in the use of online resources by the teachers at Franklin Elementary. A case study is a research method that is used to contribute to the knowledge about an individual, group, organization, social, or political phenomena (Yin, 2013). The relevance of a case study is increased the more that it seeks to explain the how or why an event occurs (Yin, 2013). That is precisely what this study sought to do, explain how or why teachers use or do not use online resource for their professional development, growth, and support.

### **One-on-One Interviews**

The specific set of issues that the one-on-one interviews addressed is the use of online resources by teachers for professional development, growth, and support. The one-on-one interviews provided an in-depth look at how teachers interact with online resources for professional development, growth, and support. The interviews brought to light how and why teachers use these resources, their level of awareness of these resources, and how they were made aware of these resources.

Interview protocols for the one-on-one interviews were developed in accordance with the procedure described by Carspecken's (1996) *Critical Ethnography in Education*

*Research.* In order to maximize the effect of the interviews, the interview protocols were written to be semi-structured (Carspecken, 1996). This semi-structured format allowed me the flexibility to adapt to the unique differences of each interview participant as well as any responses given in the interview that seemed especially important.

The interview protocol that I designed contains several key elements. The interview protocol consists of topic domains, covert categories (topics I hoped to see discussed or views I hope to see expressed), lead-off questions and follow-up questions. Based on the themes and gaps in the knowledge shown in the Review of Literature, the lead-off and follow-up questions were written to encourage participation and thoughtful responses. Teachers were reminded as needed that they were being asked about how they use online resources for their professional development, growth, and support, not how they use them when teaching. This did not seem to bother or restrict the respondents in their ability to answer the interview questions. In some instances, it appeared to make it easier for the teachers as they were able to focus their responses on their own online resource use.

### **Data Collection Methods**

Data were collected 15 one-on-one interviews. The details of each data source and collection procedures are explained in the sections that follow.

#### **One-on-One Interviews**

The data collection was comprised of 15 one-on-one interviews that focused on how teachers use online resources for their own professional development, growth, and

support. I conducted and audio recorded the one-on-one interviews. I was also responsible for the transcription, coding, and analysis of the interviews.

My goal was to interview a representative sample of teachers at Franklin Elementary on their use of online resources for professional development, growth, and support. In total, I was able to interview 15 teachers at Franklin Elementary. It was necessary to interview a representative sample of teachers in order to ensure that the diversity of the teaching population of Franklin Elementary was presented. Interviewing large portion of the teacher population helped to ensure that a variety of educational backgrounds, life and teaching experiences, and school district-based in-service professional development experiences were represented in the participant pool.

The one-on-one interviews were held with the teachers via phone call, or they were conducted face-to-face at the local public library which is approximately three blocks from Franklin Elementary. A time and date were selected that allowed the invitee to participate with minimal time conflicts. Organization of the time and date of the interview were done via email and face-to-face conversations. Participants were asked to plan to on the one-on-one interview lasting for at least 30 minutes, but no more than 60 out of respect for the teachers' time and workloads.

A total of 12 one-on-one interviews were completed via phone call, with the other three being conducted face-to-face at the local public library. While the option to complete the interview via Skype or Facetime was always given, it was not selected by the interview participants. Most of the interviews were completed via phone call during the weekend hours as that was generally the most convenient timeframe for the participants.

Please see Appendix B for the One-on-One Interview Protocol.

### **Data Analysis Procedure**

I coded and analyzed all data in accordance with the methods prescribed in Carspecken's (1996) *Critical Ethnography in Educational Research*. I began the coding process by transcribing each interview into a separate Word document. Once an interview had been transcribed, I re-read each interview transcript and began the process of identifying high and low-level codes. Low-level codes are those that require little abstraction and are often going to be primarily objective in nature (Carspecken, 1996). High-level codes are dependent on higher levels of abstraction than low-level codes and are generally based on explicit meaning reconstruction and horizon analysis (Carspecken, 1996).

I developed my coding scheme for my qualitative research study following the six steps laid out by Carspecken (p. 149, 1996).

1. Open the Word file containing the interview transcript.
2. Open a second, blank word file with a split screen so both documents can be seen.
3. Copy and paste any code worthy elements of the transcript into the new document. Each code that is copied into the new document will be given an identifying number, page and line number of the code in the original document will be recorded as well.
4. While continuing to read the transcript, construct new codes, note distinctions, and create subcodes. It is during this step of the process that the coding scheme takes on a hierarchical structure.

5. While continuing to read the transcript, construct new codes and subcodes. Add file, page, and line references for all codes.
6. Employ reconstructive analysis on selected segments of the transcript; from the results of the analysis, formulate possible high-level codes.

Once I had constructed my high and low-level codes, they were grouped into general categories. These general categories served as the emphases for my final analysis and written dissertation.

## **Data Analysis**

### **Meaning Field Analysis**

Meaning field analysis explores possible meanings of participant responses, meanings that participants overtly or covertly express or infer, thereby making tacit meanings explicit, (Carspecken, 1996). It is not possible for a researcher to know exactly what a participant meant with a speech or physical act, researchers can only specify possibilities. Carspecken (1996) calls this “the uncertainty principle of meaning; meanings are always experienced as possibilities within a field of other possibilities” (p. 96). Conducting meaning field analysis is important because it allows researchers to understand tacit meaning more fully before beginning to code the data (Carspecken, 1996). Following is an example of meaning field analysis.

Ms. T. expressed her views on posting comments in a discussion forum in this way:

“I don’t want any connection back to me, I don’t want them to know who I am!”

The possible meanings she might intend to express include:

[MF] “I am afraid of getting a rude reply.” AND “I am afraid of seeming rude.” AND “I am afraid to put my name on the internet.” AND “I am afraid of professional reprisal.” AND “I am afraid I might not know what I’m talking about.”

Conducting meaning field analysis benefitted me in three ways. First, it allowed me to examine possible motives behind teacher internet usage patterns and teacher reluctances as seen in the case above. Secondly, meaning field analysis allowed me to examine cultural norms in the school related to how teachers seek out instructional and/or moral support from their peers and/or online resources. Finally, meaning field analysis lays the groundwork for validity reconstruction which is composed of horizon and vertical analysis.

### **Validity Reconstruction: Horizon Analysis and Vertical Analysis**

According to Carspecken (1996), “putting previously unarticulated factors into linguistic representation is reconstructive” (p. 42); this includes horizontal and vertical analysis. Horizontal analysis places validity claims in three separate categories: objective, subjective, and normative-evaluative. Vertical analysis distinguishes between the level of reference, immediate (foreground) and remote (background), (Carspecken, 1996).

“Validity Reconstructions are efforts to articulate components of meaning that one normally understands without much explicit awareness.” (Carspecken, 1996, p. 111). I used validity reconstruction because it is critically important to understand the level of awareness that teachers have of the availability of online resources to aid them in their teaching as well as their use of social media for professional development, growth, and support. In the example below, in which I made use of the validity reconstruction

method, the manner in which Ms. T. became aware of Pinterest and Teachers Pay

Teachers became explicit. Ms. T. stated:

“Most people just kind of hear about it and go with it, I mean you’re on it for everything else besides being a teacher and then I found Teachers Pay Teachers actually through Pinterest a long while ago, cause a lot of people would post their stuff up there and now I do the same.” (2015, p. 2).

#### Possible Objective Claim

Foregrounded, immediate

- Pinterest is a commonly used site.
- Ms. T. found out about Pinterest through common knowledge/ word of mouth.
- Pinterest lead Ms. T. to Teachers Pay Teachers.

Less foregrounded, less immediate

- Pinterest is a site commonly used by teachers
- Pinterest is a site that many teachers find useful
- Ms. T. has increased her use of Teachers Pay Teachers

Highly backgrounded

- There were no formal means of introducing Ms. T. to online teacher resources.
- Other teachers may or may not become aware of the resources on Pinterest and Teachers Pay Teachers.

#### Possible Subjective Claim

Foregrounded, immediate

- I use popular social media sites.
- I benefitted from exploring Pinterest.

Less foregrounded, less immediate

- I figured things out for myself.
- Pinterest and Teachers Pay Teachers are easy to use.
- I now take advantage of Teachers Pay Teachers by posting my materials.

Highly backgrounded

- I had to explore Pinterest to get the most out of it and Teachers Pay Teachers.
- No one helped me to understand the benefits of Pinterest and Teachers Pay Teachers.

### Possible Normative-Evaluative Claim

Foregrounded, immediate

- Using Pinterest and Teachers Pay Teachers is a good thing.
- Pinterest and Teachers Pay Teachers are useful.

Less foregrounded, less immediate

- More teachers should visit these sites.

Highly backgrounded

- More teachers should be told about these sites.
- More teachers should contribute resources to these sites.

The example above shows how validity reconstruction aided me in understanding Ms. T's intended meanings and making explicit her potential backgrounded meanings. I continually compared the results from this validity reconstruction to the results of validity reconstructions from other respondents. I did so in order to better understand teacher awareness of online resources and teacher interaction with social media for the purpose of professional development, growth, and support.

### **Coding**

I began the preliminary steps of the coding process during the data collection (interview) stage. I did so by engaging in active listening (Carspecken, 1996) and by taking notes of potentially important or meaningful participant responses. As I continued the data collection process and interviewed more participants, I made note of responses that corresponded with previous responses as well as those that were juxtaposed to previous responses. These notes and observations became my preliminary codes.

During the data collection process, I met with a former classmate and fellow University of Houston doctoral candidate who met with me again as a peer debriefer. I



chose this former classmate because I am familiar with his work as a teacher and as a doctoral student, and felt confident in the value of his feedback. During the meetings with my peer debriefer, we discussed the data collection process, my interview questions, my initial codes, and potential themes. I used these discussions to gauge whether or not I was conducting the interviews ethically and if my debriefer viewed my preliminary results in the same manner that I did.

During the data collection/interview, I made mental and written notes of potential codes as well as similarities and differences between participant responses. Once an interview was completed, I began the process of transcription. The transcription process consisted of typing each one-on-one interview into a separate word document. Each transcription was 4-6 pages in length, single-spaced. During the transcription, I made mental and written notes of potential sub-codes, main codes, and themes.

Upon completion of the data collection and interview transcription process, I began the coding process in earnest as it pertained to all 15 interviews. This was where I began the process of determining how the similarities and differences between participant responses fit into the bigger picture. Once I began this part of the process, I had to determine if my notes of potential sub-codes and main codes, transitioned from individual interviews to themes applicable across my data set.

I developed by sub-codes, main codes, and themes in accordance with Carspecken's (1996) *Critical Ethnography in Qualitative Research*. The coding process went as follows; I first created low-level codes by reading through my interview notes and transcripts. As I read through my interview notes and transcripts, I created both main codes and sub-codes as required. During the coding process, if I encountered highly

implicit responses, I conducted reconstructive analysis (as seen in the example above) to aid in making the meanings more explicit.

The codes that emerged were later categorized into themes based upon my research questions and naturally occurring themes from participant responses. While creating my themes, I paid careful attention to how often codes appeared. Codes that appeared more often were treated as major themes, codes that appeared less often were treated as minor or supporting themes. I paid close attention as well to the connection between major themes and any overlap between interview questions that produced common themes.

At this point, my methodology advisor reviewed my codes and preliminary themes during a face-to-face meeting. I received feedback and guidance during that meeting that enabled me to better group my codes and to better articulate and describe my themes. After this meeting, I was able to determine which of my potential themes were major themes, and which were supporting themes.

### **Trustworthiness in Qualitative Research**

In order to ensure the trustworthiness of my qualitative research study, I employed five of the methods described by Carspecken's (1996) *Critical Ethnography in Qualitative Research*. The five methods that I made use of are; 1) consistency checks, 2) using non-leading interview techniques, 3) peer debriefing, 4) member checks, and 5) encouraging participant use of natural language.

### **Consistency Checks**

Consistency checks according to Carspecken (1996) calls for checking accuracy and honesty throughout the interview and the interview transcript. If while reading the interview notes, I found any inconsistencies in participant responses, I asked the participant to clarify their response in order to resolve or explain any inconsistencies.

### **Non-leading Interview Techniques**

Asking leading questions in a qualitative research interview can make the interview participants give the answer they feel the researcher wants, as opposed to their honest answer. Leading questions can be very subtle (Carspecken, 1996) and can be avoided by asking low-inference interview questions and responding with low-inference follow-up paraphrasing of participant responses. I incorporated low-inference questions into all interview protocols and made use of Carspecken's (1996) interview techniques to avoid leading my interview participants.

### **Peer Debriefing**

Faculty advisors were invited to read my interview protocols prior to the one-on-one interviews being conducted in order to look for instances of leading questions. In the instance that leading questions were identified, the questions were corrected accordingly. A peer debriefer was invited to view my preliminary data collection results and ensure that I was conducting my data collection in an appropriate manner.

## **Member Checks**

Member checks are conducted by sharing field notes and some of the researcher's preliminary interview reconstructions with the interview participant and inviting their commentary. Summarizing the interview as understood by the researcher for the participant and inviting feedback is also part of conducting the member check.

As part of my attempts to ensure the trustworthiness of my qualitative research; I conducted member checks with each research participant throughout and at the end of the one-on-one interview. There was no set or arbitrary number of member checks per interview, the member checks most often came in the form of clarifications, verifications, and restatements of participant responses. The member checks covered responses given by the participants during the one-on-one interviews.

## **Encourage Participant Use of Natural Language**

Carspecken (1996) calls for the researcher to discourage interview participants from using terminology that the participants feel the researcher will prefer. Carspecken (1996) states that interview participants should be encouraged to answer questions in naturalistic contexts using their own terminology.

In my qualitative research study, interview participants were encouraged to discuss their use of online resources in their own words. If for instance a participant preferred to "internet resources" instead of "online resources, I did not interfere. I also discouraged participants from discussing topics that they are not familiar or from using unfamiliar terminology; I did so by offering brief descriptions of terminology or by answering participant questions as to the meaning of a term.

### Chapter 3 Summary

All interviews were conducted, recorded, and transcribed by me. I was responsible for doing all of the coding and analysis of the interviews using the methodology outlined by Carspecken's (1996) *Critical Ethnography in Qualitative Research*. In total, 15 interview participants were selected randomly from the staff roster of Franklin Elementary. Participants were interviewed via a phone conversation or face-to-face at the nearby public library. Interviews were conducted until I had a full picture of the use of online resources for professional development, growth, and support at Franklin Elementary.

## **CHAPTER 4**

### **FINDINGS**

This case study was intended to aid in understanding how teachers use online resources for the purpose of professional development, growth, and support. As such, the study was centered on answering two research questions:

- 1- To what extent are the teachers at the elementary school in this case study aware that there are online resources they can use for the purpose of professional development, growth, and support?
- 2- How do these teachers engage in social media, blogs, online forums, etc. for the purpose of professional development, growth, and support?

To answer the research questions, the findings from 15 interviews have been organized into eight themes, developed using qualitative analysis as detailed in Chapter 3. The first two themes are directly linked to the research questions. The remaining six themes were developed in accordance with participant responses and serve to support the assertions made about the research questions. Additionally, these six themes add to the existing knowledge base about teacher technology use and professional development practices.

The actual words of the participants, taken from the interview transcripts, are used as support for all assertions. Modifications to participant responses were made only for readability and length, and never for content. The eight themes that will be discussed are:

- Teacher Awareness of Online Resources
- Teacher Engagement in Online Resources

- How Teachers Became Aware of Online Resources
- Teacher Attitudes Towards Professional Development
- Online Resource Usage Patterns Amongst Respondents
- Teacher Preferences in Online Resources
- Teacher Online Communication Practices
- Teacher Support

### **Teacher Awareness of Online Resources**

To what extent are the teachers at the elementary school in this case study aware that there are online resources they can use for the purpose of professional development, growth, and support?

The discussion of this theme will be divided into three parts: professional development, professional growth, and professional support.

#### **Professional Development**

Professional development, as defined in Chapter 1, for the purposes of this study refers to the enhancement of existing teacher skills and the acquisition of new teacher skills. Based on the participants' responses, the level of awareness or knowledge of availability, of respondents at Franklin Elementary is very low regarding the use of online resources for professional development. Only two teachers, Ms. T, and Ms. S mentioned the use of online professional development opportunities, and that was in a very limited fashion.

Ms. T: "The only ones I've ever done online have been technology related, usually through some vendor program I guess."

Mr. S: “Most of the time they’re professional developments where I can go somewhere and have a meeting but I have had a few that were done online.”

Several of the teachers expressly volunteered a preference for face-to-face professional development sessions as opposed to online staff development sessions. Preference for personal interaction with the presenter or other attendees was the reason these respondents gave for preferring traditional professional development sessions.

Ms. S: “I go to the workshops that are offered in person workshops, I don’t do, I don’t really do the online workshops, I do the ones they schedule to attend in person.”

Ms. L: “Oh no, I sign up online, I attend in person.”

While discussing professional development sessions, opportunities and how teachers they meet their yearly requirements, no respondents ever made mention of popular online professional development opportunities such as online conferences, webinars, online coursework, podcasts, etc.

### **Professional Growth**

Professional growth, as defined in Chapter 1 refers to a teacher’s ability to examine their beliefs, have an understanding of their practice, develop decision-making ability, and take control of their career. Responses show that the overall awareness of the availability of online resources for continued professional growth is very low. Responses also showed very little awareness from the participants of the need for continued professional growth in general.

All participants were asked if they were familiar with two terms. The first term was an online community of practice. The second term was an online teacher community.



While the majority of responding teachers had heard of at least one of the terms or had a general idea of what they were, several teachers had never heard of them before. Only two teachers made mention of being members of Facebook teacher groups. When asked about their participation in these groups, only one teacher stated that their participation was more than minimal.

### **Professional Support**

Professional support as defined in Chapter 1 is the curricular, moral, mental, and emotional support that teachers receive. The responding teachers showed a very high level of awareness of the availability of online resources to be used for ongoing instructional and curricular support. Every respondent at Franklin Elementary discussed the use of multiple online resources to enhance lessons and student learning. Respondents made use of online resources in order to get new ideas, visual aids/videos, examples, clarification of new ideas or topics, etc.

Ms. N: “I like Pinterest because they show(ed) me some anchor charts.”

Ms. C: “My most used teacher website is Pinterest, because I spend a lot of time looking for anchor charts and they have the really cutesy ones with lots of examples.”

Mr. J: “With YouTube, I think the biggest thing, finding educational videos, tying into the lesson, one of the biggest benefits, first of all, is that it’s visual...”

Responding teachers made use of a wide variety of websites (free and paid), social media sites, streaming video sites, search engines, and district-provided resources to enhance instruction and student learning. Responding teachers not only stated what resources they used but volunteered why they used them and went into detail doing so. Conversely, the respondents showed very little knowledge through their responses of the

availability online resources that they could use for ongoing moral, mental, or emotional support.

### **Teacher Engagement Tendencies**

How do these teachers engage in social media, blogs, online forums, etc. for the purpose of professional development, growth, and support?

For the purposes of this study, as defined in Chapter 1, teacher engagement refers to the type and level of personal interaction shown by the respondents. The participants showed that their engagement with social media, blogs, online forums, etc., is at what could be characterized as a very superficial level. With very few exceptions, the responding teachers primarily visited social media and other resource sites to take, not interact or give back. This means that respondents most commonly used online resource sites to receive or copy resources, rather than to post or share their own resources or give feedback or comments to online discussions or contributors.

Participants responded to interview questions with mainly what they could get from online resource sites (materials, ideas, etc.) and how they could help their students. Only two teachers made mention of posting their own materials for other teachers to view, use, or purchase via social media or a Web 2.0 tool. Of these two teachers, only one actually posted their own materials online; the other stated it as an unfulfilled goal.

Ms. F: “I wanted to start up a blog after I saw so many so I did go to other websites, I think it’s called Blogger, but then it was too complicated to use...”

Respondents generally showed a great deal of reluctance to participate in online discussions, comment boards, etc. Concerns about backlash and job security were the most prevalent reasons given. From Ms. T and Ms. C respectively:

Ms. T: “I don’t want any connection back to me, I don’t want them to know who I am!”

Ms. C: “Well I would never vent online because I value my job, even if I was general I would be too afraid how it, there’s always news stories about teachers about things like that...”

In general, the types of comments teachers were willing to post online were the most basic, saying thank you, or seeking clarifications before making purchases. Respondents avoided making comments online where opinions or points of view were shared.

### **How Teachers Became Aware of Online Resources**

Responding teachers were asked how they became or were made aware of their most commonly used online educational resources. The responses given were as varied as the resources themselves. Respondents stated that district-sponsored or district-purchased resources were usually discussed with them by a colleague or by a presenter at a district workshop. Resources not sponsored by the district (i. e. Google, YouTube, etc.) were introduced to the responding teachers in a variety of ways. Among the methods described were Google searches (the teacher found the resource for themselves), or common knowledge, as seen in Mr. J’s response:

“As far as YouTube, I mean that’s, like nowadays that’s common knowledge I guess.”

Other responding teachers listed friends, current and former colleagues, and cooperating teachers (mentor teachers during student teaching). From the interview with Ms. M:

“...with Teachers Pay Teachers, as a student teacher my mentor teacher told me about Teachers Pay Teachers and how cool it was...”

Of the responding teachers, only one teacher, Ms. M responded that university coursework was a contributing source of her knowledge of online educational resources. This knowledge of online resources was limited to YouTube.

### **Teacher Attitudes towards Professional Development**

Teacher attitudes towards professional development as captured in this case study research are reflected in three supporting themes: professional development as a requirement, professional development attendance preferences, and professional development session selection.

#### **Professional Development as a Requirement**

Ongoing professional development is viewed primarily by the participants as a requirement that must be fulfilled each year. Professional development is seen as an annual goal or quota that must be met and gotten out of the way. Ms. C's views on professional development echo these sentiments:

Well, now it's easy because I'm getting my master's so all my master's class's count for my professional development. Before I was doing my master's I would try to do it all in the summer because I don't like to go on Saturday's during the school year. I would do weekdays during the summer, I would try to squeeze in as many as I could. (2015, p. 1)

Ms. R, in her response and Mr. S in his, showed a similar viewpoint on meeting required hours:

Ms. R: "I travel (in order to attend a session), and then only those we have to, that's required."

Mr. S: “Depending on what’s needed for the year, just say for example I have some certifications I need to get, like right now I’m looking at getting GT hours, I’ll just find GT hours that I need. ”

While the majority of the respondents showed through their responses that they viewed professional development as a requirement to be met and not an opportunity, a few of the respondents viewed professional development as a chance to improve their teaching. Ms. D’s and Ms. C’s responses show this desire:

Ms. D: “I research professional development by going to eportal, and looking at different things I want to further my professional development career, I want to do like classroom management or I want to go and say like how I can make social studies better for my kids when I’m teaching it. ”

Ms. C: “I usually look at what I’m interested in or what I want to get better at, and then I also have to make sure I fulfill whatever I’m required to do. ”

### **Professional Development Attendance Preferences**

The second supporting theme related to teacher attitudes towards ongoing professional development is how teachers prefer to attend their professional development sessions. The stated preference of every respondent at Franklin Elementary was to attend professional development sessions in person as opposed to online. Several responding teachers volunteered that they not only prefer in-person sessions but that they do not like or do not want to attend professional development sessions in an online format. The main reason stated for preferring in-person professional development sessions to online sessions is the personal interactions available. From Ms. S:

“I don’t really do the online workshops, I do the ones they schedule to attend in person... I think because I need that in-person interaction... I guess I just prefer that better. ”

### **Professional Development Session Selection**

The third supporting theme relates to how responding teachers search for and register for professional development sessions. All respondents stated that they search for and receive all of their professional development hours through the school district. All respondents register for professional development sessions through the districts' 'eportal system' and attend the sessions at district sites or other campuses. One responding teacher, Ms. L, made reference to attending professional development sessions outside of the district, but that she no longer does so due to the cost.

### **Online Resources Usage Patterns**

Many different online resources and websites were mentioned by the interview participants in this study, however only the seven most popular and most routinely mentioned resources will be discussed. The participants' experience with and use of Pinterest, which was the most commonly mentioned online resource, will be discussed first. Please see Appendix C for a brief technical summary of each online resource.

### **Pinterest**

Pinterest was mentioned specifically by each interview participant; only one teacher, Mr. J, stated that he was not a frequent user of the site. Mr. J did state however that he was familiar with the site and knew that many teachers used it as an educational resource. Pinterest is a social media site with non-educational users and content. For the purposes of the interviews conducted, it was viewed as an educational resource by all participants because it was used to find anchor charts, lesson plan ideas, decoration inspirations, etc.

Pinterest was viewed positively by the respondents due to it being easy and fun to use, as well as easily searchable. Pinterest can be searched visually, by keyword, by category feeds, and by exploring related content. Pinterest also allows users to save their searches for future use, a time-saving feature. Teachers expressed pleasure in being able to browse the site looking for ideas. The most commonly cited search by respondents was for anchor charts.

Ms. A: "...you know how anchor charts are the big thing now, I've seen anchor charts and things like that I would actually copy..."

Ms. C: "Lots of examples, lots of pictures, usually when I go online for something for school I have something very specific I want to find and it's easy to type in exactly what I want and it'll pop up."

Teachers also stated that they liked how easy it was to increase the range of their search. In Pinterest, clicking on one pin would take them to other related pins, or to other teacher websites or blogs.

Mr. S: "I have looked at Pinterest Pins and when you look at them, of course, it takes you all over the place, you can see blogs, different posts, different people's ideas."

One of the main reasons respondents made extensive use of Pinterest was due to its perceived trustworthiness. Participants expressed a willingness to use Pinterest to look for free lesson plans and resources instead of other sites because the resources were shared by other teachers. Respondents stated that this made them feel more confident in the quality and relevance of the material. Respondents also stated that they preferred using a resource or lesson plan created by another practicing teacher as opposed to an author working for an educational company. From Ms. T and Ms. S:

Ms. T: "...at least with Pinterest and with Teachers Pay Teachers, I know that it's coming from other teachers who obviously work with the kids regularly, so I

know that the content is a little bit more aligned or that it's more realistic as to where the kids are...'

Ms. S: "I get a lot of ideas actually from other teachers and what they did, like for example for anchor charting, anchor charts that I've seen that might be effective in the classroom."

### **Teachers Pay Teachers**

Teachers Pay Teachers is another highly popular online resource site used by responding teachers. While the majority (9/15) of responding teachers mentioned making use of Teachers Pay Teachers, it was not mentioned unanimously. Like Pinterest, Teachers Pay Teachers was viewed positively due to its ease of use when teachers wanted to browse the site generally or search the site for something specific.

Ms. C: "...another one is Teachers' Pay Teachers, and you can do the same thing where you can go kind of browse around looking through the skills and topics that you like and it's really simple to do."

While respondents were more likely to make use of free resources than paid resources, some responding teachers who were willing to pay money to use the resources on Teachers Pay Teachers. Much like Pinterest, Teachers Pay Teachers was viewed as trustworthy because the materials available were posted by practicing teachers. Because the materials were published by practicing teachers, and not corporate authors, they were viewed as more content based, trustworthy, realistic, and aligned with student needs.

Ms. T: "...at least with Pinterest and with Teachers Pay Teachers, I know that it's coming from other teachers who obviously work with the kids regularly, so I know that the content is a little bit more aligned or that it's more realistic as to where the kids are..."

Ms. T: "I always look at Teachers Pay Teachers because other teachers have created those so I feel like they're pretty reputable."



## **YouTube**

The video sharing site was mentioned by many (6/15) of the interview participants as a beneficial teacher resource to use in the classroom. YouTube was lauded by respondents for being fast, easy to use, and easy to search.

Ms. H: “I just type in keywords and it pops up really fast. Easy, really easy. ”  
Respondents most commonly stated that they made use of YouTube when they wanted to find a visual component to complement a lesson or unit.

Mr. J: “With YouTube, I think the biggest thing, finding educational videos, tying into the lesson, one of the biggest benefits, first of all, is that it’s visual, and second if it has like a song attached to it.”

Ms. D: “YouTube because I find a lot of number videos or Christopher Columbus or Benjamin Franklin videos on there.”

## **Google**

The popular Google search engine was mentioned by over half (8/15) of the respondents as a means of seeking out online resources. Unlike Pinterest or Teachers Pay Teachers, which were commonly used for browsing or shopping for resources, Google was utilized when the responding teachers had a specific want or need to address. Responding teachers noted using Google when they wanted a specific resource (i. e. a blog or a worksheet) or when they needed clarification of a topic (i. e. a new math TEK). From the interview conducted with Ms. P:

“But I just kind of surf the net, if I’m looking for something specific I’ll just put it in Google search and pull it up and it’ll take me to whatever website I’m looking for.”

## **Facebook**

Facebook was not mentioned by as many responding teachers (10/15) as Pinterest, but it was mentioned more often than Teachers Pay Teachers (9/15). Facebook is a popular site among responding teachers for communicating socially and professionally with other teachers. These teachers may include present and past co-workers as well as former university classmates.

Facebook was used by respondents not only for social communication, but for collaboration and sharing of resources, connecting, and for the sharing of educational news.

Ms. S: “I have colleagues on Facebook so they a lot of times they share educational links there, it’s pretty interesting...”

Ms. M: “Facebook is a huge one, because of the ability as I said before to network and connect with other music teachers.”

Educational news referred news articles or to updates on potential bills that could affect teachers and education in general.

Ms. C: “...a lot of times it will be a political thing or about upcoming laws or bills... policy changes that will affect education.”

Ms. A: “...whenever I read an interesting article like that or anything that has to do with education or anything, I’ll read it and I’ll repost it for my teacher friends...”

## **Teacher Blogs**

The use of teacher blogs by respondents varied greatly both in depth and breadth of use. Some respondents made extensive use of blogs while others made little to no use of blogs. The most common means of responding teachers learning about and locating teacher blogs was through Pinterest.

Mr. S: “I have looked at Pinterest Pins and when you look at them, of course, it takes you all over the place, you can see blogs, different posts, different people’s ideas.”

Ms. T: “I also use Pinterest all the time, and that will connect me to people’s blogs where I’ll find more stuff or find more ideas.”

Fewer teachers made mention of using Google to search for teacher blogs that dealt with a specific subject (i. e. 2<sup>nd</sup>-grade math).

The depth of the use of teacher blogs varied greatly amongst the respondents who stated that they made use of teacher blogs. Some respondents stated that they would occasionally view a teacher blog if it looked interesting or relevant.

Ms. C: “...if I find a 1<sup>st</sup>-grade teacher who’s also doing Reader’s Workshop than I want to see what else they posted... If it’s connected, directly connected...”

Other respondents were more consistent users of teacher blogs. The more regular users of teacher blogs stated that they had blogs that they returned to often and would follow links to go from one teacher blog to another.

Ms. V: “One leads to the next because... the bloggers will partner with another blogger in their town or will partner with another blogger across the country, and they’ll have a link to their blog on the other person’s blog.”

Occasional and frequent users of teacher blogs had the same stated requirements for viewing teacher blogs; the blogs had to be content or subject matter specific to the needs of the teacher. Only relevant blog posts were viewed by respondents, no mention of reading blogs just to read them was made by any respondent. A lack of time or content matter alignment were cited as reasons for not making use of teacher blogs.

Ms. A: “...but if it’s not something specific that I’m looking for I guess I just don’t have time to really browse around and look at other people’s stuff...”

## **Other Resource and Video Streaming Sites**

In addition to these resources, a wide variety of additional online resources were mentioned by at least one respondent. These other resources fall into the categories of content specific resource sites or video streaming sites. Please see Table 1 for the entire list of additional online resources used.

These online resource sites were used by respondents to find handouts, worksheets, STAAR preparation passages, etc. The video streaming sites were used to add a visual element to a lesson or unit of instruction.

Ms. R: “I use Flowcabulary... I have used Super Teacher Worksheets. ”

Ms. F: “I like BrainPop Online and Tumblebooks, especially for reading rotation... I use YouTube once in a while for my lessons. ”

These resources were used in a similar fashion to Pinterest, Teachers Pay Teachers, etc. in that they were used for teachers to take materials, not to produce their own materials or interact with other teachers.

## **Teacher Preferences in Online Resources**

The examination of the most commonly visited teacher resources reveals the five most important characteristics that the teachers of Franklin Elementary look for in online educational resources. These five characteristics are ease of use/implementation, easily searchable, trustworthiness, content related, and ability to help students.

## **Ease of Use/Implementation**

The first characteristic is ease of use in the classroom and preparation. Ease of use was mentioned in describing resources such as Pinterest, Teachers Pay Teachers, and YouTube.

Ms. M: (Pinterest) "... it's also a convenient way to categorize and keep all ideas separate."

Ms. M: (Teachers Pay Teachers) "... I've had a conversation with several different teachers on there so far as how to use things and how to implement them in classrooms. "

Ms. H: (YouTube) "... I just type in keywords and it pops up really fast... Easy, really easy. "

## **Easily Searchable**

Being easily searchable was a highly important factor in online resource selection for the responding teachers. High searchability was often noted as a positive aspect of Google, Pinterest YouTube, and Teachers Pay Teachers. Speed is one aspect of searchability that was very important to responding teachers. How quickly resources could be found using Pinterest, Teachers Pay Teachers, or Google was noted by respondents.

Ms. P: "...it's (Pinterest) easy to type in exactly what I want and it'll pop up."

Ms. V: "...I just kind of went and put into Google teacher blogs, activities to do with special needs children, and blogs would pop up and I found a couple of them that I really like. "

## **Trustworthiness**

Trustworthiness was a key concern to responding teachers. Trustworthiness was most commonly mentioned by responding teachers when discussing resources found on Teachers Pay Teachers and Pinterest.

Ms. T: "...at least with Pinterest and with Teachers Pay Teachers, I know that it's coming from other teachers who obviously work with the kids regularly..."

Ms. C: "...it's really easy and I feel really comfortable with it online..."

### **Content Related**

In much the same vein as trustworthiness, resources had to be content based and relevant in order to be viewed positively by responding teachers. This requirement was most evident when responding teachers discussed which resources on Pinterest or Teachers Pay Teachers were willing to use or purchase.

Ms. T: "...so I know that the content is a little bit more aligned or that it's more realistic as to where the kids are..."

### **Ability to Help Students**

The most important characteristic of an online resource according to the responding teachers was its ability to benefit their students. The ability to help their students was mentioned by almost every responding teacher when discussing why they preferred a website or resource. When teachers were asked how a website or resource helped them as the teacher, the responses always referred to helping the students learn.

Mr. J: "...I showed that video to the kids and it really helped out a lot..."

Ms. S: "...for example they have videos that the kids enjoy that make whatever topic... fun and able to relate...to whatever topic..."

### **Teacher Online Communication Practices**

Responding teachers used varying online communication tools for professional communication. Respondents communicated online with their colleagues, former colleagues, and university classmates. These tools include email, Facebook, Twitter, and the comment sections of social media sites.

## **Email**

District sponsored email was the most common communication tool among the interview respondents and was often used in correlation with text messaging to collaborate on projects or finish work after school or on weekends. Email was listed by some respondents as the only source of online communication that they utilized. The use of email, specifically district email was characterized by respondents as primarily work-centered.

Ms. R: “Email, sometimes we’ll text each other if we’re putting something together, something that has to be done that we didn’t have time during the day to talk about.”

Ms. H: “I would say less than 10% (email) is personal.”

Ms. D: “...the librarian, she sends out emails saying this is a good website for you to find resources...”

## **Twitter**

The use of Twitter was not mentioned by respondents as an online educational resource, but it was mentioned as a form of online communication. The responding teachers who made use of Twitter did make note of the ability to follow other educators and join in educational discussions. Responding teachers did not state that they followed other educators or joined in educational discussions, only that they were aware of the possibility.

## **Comment Boards**

The comments boards on Pinterest and Teachers Pay Teachers were used by a few teachers in order to get more information or clarification from another teacher before

making a purchase or using a resource. One teacher mentioned using the comment section of blogs sites to thank the posting teacher for sharing their thoughts and ideas.

### **Teacher Support**

Responses to how teachers asked for and received the support they needed fall into two sub-themes; on-campus support and online support.

#### **On-Campus Support**

All responding teachers stated that they were able to get the support that they need through workplace resources and personnel. Respondents were generally pleased with the support they received on campus and considered it to be a strength of the school. All responding teachers with the exception of the music teacher stated that they were able to get the support needed from their colleagues on campus. It should be noted that there is only one music teacher on campus which makes collaboration on campus with other music teachers impossible.

All other responding teachers stated that they most commonly received the support that they needed through their colleagues, most commonly during the weekly PLC (Professional Learning Community) meetings. PLC meetings take place on campus, one time per week per grade level and last 80 minutes. The PLC meetings bring all grade level teachers together, group them by subject taught (math, reading, or language arts), and discussion centers around the content to be taught, methods for teaching the content, and teacher issues or concerns.

If the support needed was not available during PLC meetings, responding teachers stated that they could turn to their grade level partners, experienced teachers in other



grade levels, campus skills specialists, or the school administration. A few responding teachers did make reference to being able to contact other school support staff members such as the school counselor when dealing with behavioral issues, or the school librarian for literacy materials. In addition to receiving instructional, behavioral, and occasionally moral support on campus, several responding teachers made mention of receiving support from family members who are or were school teachers and spouses who are school teachers.

### **Online Support**

When asked about obtaining support needed from online resources, the responding teachers conveyed a general reluctance to go online seeking instructional or moral support. Teachers generally expressed a fear of retribution if they expressed too many negative thoughts or concerns online. From Ms. N:

“I don’t want to get into trouble! I know you have to be careful with what you post...”

Additionally, teachers expressed a reluctance to trust the feedback or opinion of a teacher online (via Facebook, Twitter, Pinterest, etc.) who they viewed as a stranger.

Mr. S: “I wouldn’t per se get help because ..., I don’t know those people personally, so thinking about who I take advice from, I wouldn’t take my major concerns to the online community. ”

The only affirmative response received in regards to seeking out online instructional support came in the form of using Google to seek out clarifications on new math TEKS. New math TEKS were implemented in the 2014-2015 school year. Two of the responding teachers made note of using Google to seek clarification of the new TEKS when asked about using online resources to access instructional support. From Ms. S:

“...for example last year we were teaching, we had new math TEKS, I would Google sometimes a topic, or find lesson plans that were related to what I was going to teach if I didn’t really have an idea. ”

### **Chapter 4 Summary**

Chapter 4 details the results of the study for the reader. The results were detailed in eight qualitative themes. The first two themes responded directly to the research questions, the following six themes served to support the findings. All assertions made were supported by direct quotes from respondent interviews.

## **CHAPTER 5**

### **DISCUSSION AND CONCLUSION**

The purpose of this study was to examine how responding teachers made use of online resources for professional development, growth, and support. In this chapter, I further discuss the findings of the study, propose explanations and conclusions to explain the phenomena, and link the findings to the previous research. This work is done in order to draw useful implications for professional practice applicable to university-based preparation practices and school district-based practices as well. The chapter will conclude with suggestions for further research.

#### **Examination of Findings**

##### **Teacher Awareness of the Availability of Online Resources**

The first research question addresses teacher awareness of the existence of online resources for professional development, growth, and support. Each aspect of this question will be addressed individually to enhance the readers' understanding.

*Professional Development.* As detailed earlier, when the respondents want or need to attend a professional development session, they register for the session on the district eportal site. The findings of the study clearly indicate that responding teachers made little to no use of online resources for professional development purposes. Respondents not only made little to no use of online professional development resources but showed little awareness of their availability. Instead, respondents displayed an overwhelming preference for in-person professional development sessions. This preference is in spite of the shortcomings and wide-spread criticism of large group professional development

sessions evidenced in the academic literature (Bound, 2011; Hill, 2009; McConnell et al., 2013; Taylor et al., 2011).

Based on this study's findings, the most important characteristics of popular online resources to respondents are ease of implementation, ease of searchability, trustworthiness, content-related, and the ability to help students. The benefits of online professional development, as opposed to traditional professional development, have been established in the existing research (Colwell et al., 2012; Duran et al., 2012; Frazier & Boehm, 2012; McConnell et al., 2013; McCullagh, 2012). These benefits are closely aligned with the popular characteristics of online resources. Yet, despite this close alignment of the benefits of online professional development and the positive characteristics of popular online resources, teachers in this study showed no awareness of this relationship.

The reasons behind this lack of teacher awareness of online resources for ongoing professional development may be attributed to two factors. The first factor may be the teachers' university-based preparation. The existing research shows that priorities in teacher instruction on instructional technology do not match up with practicing teacher use of instructional technology (Ottenbreit-Leftwich et al., 2012; Gronseth et al., 2010).

Additionally, university-based instruction on instructional technology has been shown to be most successful in preparing teachers to use technology tools for communication, information presentation, word processing, and drill and practice programs (Koc & Bakir, 2010). These skills would not prepare teachers to make adequate use of online resources for ongoing professional development. There is very little evidence in this study that the respondents are being made aware of the availability of

online resources for ongoing professional development, let alone how to make use of them.

The second potential factor in this lack of awareness of online resources for professional development may be a lack of training on instructional technology resources from the district. This training is especially important for experienced teachers who may not have had any exposure to instructional technology as part of their preservice instruction. This training will become more important for less experienced teachers as they move farther away from any instructional technology training that they may have received as part of their preservice instruction.

The current research on instructional technology in professional training shows a growing inclusion of instructional technology practices and teacher pedagogy (Prestridge, 2014). This means that teachers are no longer being trained on instructional practices (math, reading, etc.) and instructional technology separately, but jointly. The research findings show no indication that this is happening for the responding teachers in this study.

These factors combine to suggest that teachers are not having their needs met at the university and school district level in regards to training on needed skills specifically related to their ongoing professional development. This lack of training on the use of online resources for ongoing professional development leaves teachers without a key avenue to gain and maintain needed skills. At both the university and school district level, there is a missed opportunity to give teachers the tools that they could use to become lifelong learners. This could potentially negatively affect not only teacher success but ultimately and more importantly, student success.

*Professional Growth.* Professional growth refers to a teachers' ability to examine their own beliefs, develop an understanding of their practice, develop decision-making ability, and take control of their career, (Gilles et al., 2010). The findings of the research study again clearly indicate that the responding teachers made little to no use of online resources to further or take control of their professional growth. Not only did respondents make little to no use of online resources for professional growth but they also showed little awareness that these resources were available. What this study could not ascertain was the importance of continued professional growth to the respondents. This study was only focused on respondents' awareness of the availability of online resources for continued professional growth, not their attitude towards it.

Only two respondents, Mr. S, and Ms. R stated that they were members of an online teacher community. The majority of the other respondents stated that they knew what an online teacher community was, or that they thought that they knew what an online community was. The two teachers who had joined an online community stated that they had minimal to no participation in these communities.

The literature shows how online communities of practices (OCP's) can play a positive role in the development, growth, and support of teachers. This does not mean that non-participation necessarily negatively affects teachers, only that participation can positively affect teachers. OCP participation can benefit teachers in manners such as but not limited to shared experiences, sharing of subject matter knowledge, peer feedback, resource sharing, and combatting feelings of teacher isolation (Wang & Lu, 2012).

The evidence from this study shows that these teachers are currently not aware of the growth and support opportunities associated with online teacher communities (Wang

& Lu, 2012), or how to take advantage of them. This lack of awareness deprives the teachers of an opportunity to enhance their professional growth. Other teachers additionally, who are already members of an online community are not being afforded the opportunity to benefit from interacting with the responding teachers at Franklin Elementary.

This lack of awareness of online resources for the professional growth could again potentially be attributed to university-based instruction practices that are not aligned with the priorities of practicing teachers (Gronseth et al., 2010; Ottenbreit-Leftwich et al., 2012). This gap is potentially leaving practicing teachers without the skills and awareness needed to take full advantage of online resources for professional growth.

*Professional Support.* The responding teachers showed a high level of awareness of how to use online resources for curricular and instructional support. Respondents were able to make use of social media, and educational websites to gather materials and resources to aid in lesson planning and improving student learning. Respondents showed the ability to use these resources as well as video streaming sites to enhance student lessons. Respondents did not show the ability to use these resources for emotional or moral support.

Respondent awareness is much higher in regards to professional support due to word of mouth advertising of these resources. Because popular social media sites are being used for educational resources, there is a higher level of awareness that occurs without the need for training or instruction. The lack of awareness of respondents in regards to the use of online resources for emotional or moral support does indicate a need for training so that teachers in need can take advantage of these resources.

## **Lack of Teacher Engagement**

The evidence suggests that responding teachers at Franklin Elementary engage with social media and educational websites in a very passive manner. Respondents view social media (e. g., Pinterest, Teachers Pay Teachers, Facebook, etc.) primarily as a means of obtaining resources such as examples, clarifications, materials, or creative inspiration, etc. Obtaining materials from online resources is a legitimate means for teachers to benefit themselves and their students, it does not, however, take full advantage of all that online resources have to offer.

The passive engagement with online resources that respondents showed can limit the extent to how the responding teachers benefit from these online resources. These social media sites have the ability and tools to create two-way communication opportunities where both parties can interact, share, learn, and benefit from each other. By not engaging with other teachers on these social media sites, the responding teachers are limiting themselves and the other teacher(s)' potential opportunity to learn and grow through professional online communication.

Respondents showed a significant amount of reluctance to interact with other teachers online. Respondent fears of retaliation, intimidation, and job loss were the biggest reasons stated for this reluctance. Interviewees instead preferred to communicate and share with current and former colleagues via more traditional communication means. This preference shows the importance that respondents place on familiarity and trust when communicating professionally.



It is most likely due to a lack of training on the appropriate professional use of online resources that respondents do not know how to take full advantage of educational social media or how to develop professional relationships online. This training on the potential benefits, downfalls, appropriate behaviors, and safeguards does not appear to have taken place at either the university or school district level.

Concerns such as reprisal or job loss for posting and communicating online are concerns that could easily be addressed. Addressing professional online etiquette and informing teachers of the ability to use a screen name in order to communicate anonymously would quickly alleviate these concerns. Alleviating these concerns would allow other teachers with similar reservations to make fuller use of social media and online communication. Follow-up questions with the respondents about any training they had received at the district or university level could have added another level to the understanding of this issue. Additionally, respondents could have been asked about whether or not they were interested in receiving training on these issues.

### **Who Taught the Teachers?**

Respondents stated that they were made or became aware of their favorite online resources through a variety of ways. Interviewees learned of these resources via family members, former and current colleagues, friends, mentor teachers, etc. In only one instance did a respondent, who has four years of teaching experience, state that she was exposed to online resources (YouTube) through university coursework.

The interviewee responses again show a potential deficiency in the university and school district-based curricula regarding instructional technology. The focus, again on

training teachers to use basic technology tools, productivity, research, etc. (Gronseth et al., 2010; Koc & Bakir, 2010) leaves gaps in their skill set. Teachers are not completely aware of what resources are available to them for their professional development, growth, and support, or how to take full advantage of them.

Because teachers are not made aware of these online resources through the university or the school district, there is no guarantee that they will ever be made aware of them at all. If a teacher is not shown how to use one or more of these online resources by a colleague, friend, etc. they will either have no knowledge of the resource or limited ability to use the resource. This lack of knowledge or incomplete knowledge about online resources not only impacts teachers but impacts their ability to help their students.

### **How Respondents View Professional Development**

As the primary investigator for this case study, my goal was to find out whether or not the participants were aware of the existence of online professional development tools. This particular line of questioning lead to meaningful revelations about respondents' views on professional development that I did not anticipate. The case study research revealed two salient points in regards to respondents' views towards ongoing professional development.

*Professional Development as a Requirement.* The first salient point is that respondents view professional development solely as a requirement. Professional development is not viewed by interviewees as an opportunity to improve skills or benefit the teacher and their students (Hill, 2009). Professional development hours rather are viewed as a goal to be met as quickly as possible, preferably over the summer or on Saturday mornings.

If professional development is viewed primarily as a requirement, and not as an opportunity to enhance skills, the question must be asked, how are teachers improving themselves? This question, combined with evidence that teachers do not know how to take full advantage of online resources for professional development, growth, and support is potentially very troubling. If teachers are not taking advantage of traditional professional development opportunities to enhance their teaching and don't know how to use online resources fully to enhance their teaching, there is a high likelihood that the students will have their education negatively impacted. This assumes that teachers in this instance are not using an alternative method of professional development not covered in this study.

*Professional Development Selection.* The second salient point from participant responses is that the school district is the only source used for respondents' professional development. Respondents search and register for all of their professional development hours through the school district. Cost, familiarity, and ease of registering are the most likely contributors to this phenomenon.

Because respondents are limiting their professional development to district offerings, they are limiting their opportunities. They are limiting themselves in what they can learn and how they can grow by settling for one size fits all workshops (Bound, 2011; Hill, 2009; McConnell et al., 2013; Taylor et al., 2011). There is no guarantee that teachers can address all of their professional development needs by only attending district sessions. Additionally, there is no guarantee that the district has all of the necessary resources and professional development offerings to meet the teachers' needs.

Because this study was limited to one elementary school, it cannot be stated definitively whether this can be attributed to an incomplete professional development strategy at the district level. It should, however, be noted that this study encompassed respondents of varying ages, years of experience, and universities attended. The constant element is the school, Franklin Elementary. Therefore it is reasonable to state that the culture of Franklin Elementary contributes to participants engaging almost exclusively in traditional professional development sessions.

### **Preferred Characteristics of Popular Online Resources**

Participant responses show what characteristics they prefer in the online resources that they use. Based on the findings, what responding teachers want in their online resources is:

- Ease of use/implementation
- Easily searchable
- Trustworthiness
- Content related
- Ability to help students

The implications of understanding the preferred characteristics of online resources are far-reaching. Cognizance of what teachers want in the online resources that they use has the potential to be beneficial in three facets. First, knowing what teachers prefer has the ability to positively impact the development of new and additional online educational resources. Secondly, knowledge of teacher preferences can guide and enhance promotion efforts. Thirdly, and just as importantly, these preferences can inform and enhance

teacher training on the use of online resources for professional development, growth, and support.

### **Teachers' Online Communication Practices and Potential Implications**

The most commonly used communication tool used by respondents is district-based email. For some respondents, it is the only online communication tool used. Email was used primarily for work based tasks and teacher collaboration. Twitter was used sparingly by responding teachers, with only a few noting the ability to follow other educators. Comment boards on Pinterest, Teachers Pay Teachers, teacher blogs, etc. were used sparingly and superficially (e. g., saying thank you or paying a compliment).

The use of online communication tools at Franklin Elementary is very limited and basic. There was never any mention from respondents of Skype, Facetime, Google Hangouts, webinars, podcasts or other online communication tools when discussing professional development or online communication. There is no evidence however that these tools aren't used for personal/family use as this was not covered in this study

If teachers are not using these tools for themselves professionally, it is logical to assume that they are not using them with their students in the classroom. This means they are not taking advantage of the opportunity to expose their students to other classrooms around the world, to speak with authors, to celebrate holidays or national events, or to in some other way expand the classroom digitally. This lack of online tool usage denies the students of the opportunity to learn not only from these tools but about how to use these tools.

As detailed in Chapter 3, Franklin Elementary is situated in an economically disadvantaged area, which limits student opportunities to learn with and about technology. This is what is referred to as the digital divide in education, (Dibello, 2005; Giebel, 2013; Van Dijk, 2012). The school setting may be the only place where students will have the opportunity to learn how to use technology tools for themselves. If the respondents are not showing the ability to use online communication tools to benefit themselves, it may be an indication that they are not able to use them to help their students.

### **Teacher Support**

This study attempted to explore how respondents use online resources for ongoing professional support. In order to get a fuller understanding of the situation, both on-campus and online support issues were addressed.

*On-Campus Support.* The responding teachers at Franklin Elementary stated that they feel highly supported by the support staff and administration on campus. Teachers feel supported in their instruction through collaboration with colleagues and administrators during weekly PLC meetings. Interviewees did not state a need for ongoing moral or emotional support on campus, though it is possible that it is not needed because their instructional and curricular support needs are being met.

This positive campus culture may indeed play a role in determining how much or how little teachers need to seek out online resources for professional development, growth, or support opportunities. School setting has been shown in the literature to affect teacher attitudes towards professional development (de Vries et al., 2012; Torff &

Sessions, 2009; Wan & Lam, 2010). It stands to reason that these same factors could affect teacher use of online resources for professional growth and support as well. It is also possible that responding teachers did not feel a need for more support on campus in regards to seeking out online resources because of their evidenced lack of awareness of those resources.

*Online Support.* Respondents in this study were highly reluctant to seek out moral or instructional support online. The data showed two main reasons for this reluctance: the first is fear of professional reprisal for posting something negative on the internet. Respondents were afraid that if they sought out moral support online, it could be viewed as being negative towards the campus or district. The second reason for this reluctance is teachers not wanting to seek out instructional advice from a ‘stranger’ online. Respondents cited not knowing if their opinion or advice was valid as the reason behind their reluctance.

The only affirmative response to seeking out online support was in the use of the Google search engine. Google was used to find specific information or clarification on a topic. Google was used for instance to find clarification of the new math standards.

The reluctance of respondents to engage with other teachers online for professional support may be an indication of the relationship between training and feelings of trust. The importance of trust and collegiality to respondents was evidenced by their interview responses. This was a commonly cited reason for how and why teachers communicated online. Respondents frequently showed a willingness to share resources and collaborate with current and former colleagues that they were not willing to do with other teachers online.

The impact that a lack of training has had on the respondents' ability and willingness to engage with teachers and receive online support, (Prestridge, 2014), can be clearly seen. Respondents showed no awareness of how professional relationships can be developed with other teachers online. With the proper training on how and why teachers should engage with other teachers online, the quantity and depth of engagement should improve dramatically.

### **Missed Opportunities**

The analysis of this study's data set revealed four major missed opportunities to enhance teacher practices and student success. These missed opportunities occurred at the university, school district and classroom level. The ramifications of these missed opportunities can negatively affect not only teacher success but student success as well.

#### *Online Professional Development Opportunities*

The lack of training for preservice and in-service teachers on the availability and benefits of online professional development is the first missed opportunity. This training would allow teachers the opportunity to develop lifelong learning skills. These lifelong learning skills could benefit teachers in the event of grade level or subject matter changes, or if the professional development assistance they need is not readily available through traditional means.

There is also the potential to increase the level of meaningful teacher participation in professional development sessions. Increased flexibility of teacher access and increased choice in professional development selection should have a positive impact on how teachers view professional development. This access to alternative means of



professional development would be beneficial not only to the teachers but also to their students. While there is no guarantee that preservice and in-service teachers would take advantage of these opportunities, they should at the least, be given the opportunity.

### *Participation in Online Communities*

The lack of training at the university and district level on the existence and benefits of participation in online communities (Hur & Brush, 2009; Matyas & Silverthorn, 2015; Wang & Lu, 2012), represents the next major missed opportunity. When teachers are not made aware of the opportunity to participate in an online community, they are missing out on an opportunity to take control of their own professional growth. This lack of training means many teachers are not afforded the option of partaking in shared resources, shared experiences, moral and mental support or expanded content and subject matter knowledge. These are experiences that teachers can take and use to benefit themselves and their students.

### *Lack of Teacher Engagement*

The respondents' demonstrated lack of engagement with social media and teacher resource sites is the third major missed opportunity evidenced by the data. By interacting only in a very superficial manner (taking, browsing, copying, shopping, etc.), teachers are limiting the benefits that they can receive from resources such as teacher blogs, Pinterest, and Teachers Pay Teachers. By communicating with other teachers on these sites in the comment boards or via email, the respondents could greatly increase the value of the resources they are receiving. These conversations could result in a deeper understanding of how to use the resources, a deeper understanding of their own teaching practices,

enhanced subject and content matter knowledge, or how to better create or modify their own materials for other lessons.

### *Inconsistency of Word of Mouth Advertising*

The research data shows that word of mouth advertising is how respondents learned about their favorite online resources (YouTube, Facebook, Pinterest, blogs, Teachers Pay Teachers). What this signified is the lack of a systematic means at the university or district level of making teachers aware of the availability and benefits of popular online resources. This means that preservice and in-service teachers are potentially missing out on the opportunity to find out about and use these resources. Word of mouth advertising is not a reliable enough means of communicating this type of important information. If a teacher is not fortunate enough to have this information shared with them by someone else, they will not receive the benefit. All students deserve to have teachers who are aware of and using these online educational resources to benefit their instruction.

## **Implications for Professional Practice**

### **University-Based Practices**

There is a difference between the priorities of university-based teacher educators and practicing teachers in regards to instructional technology use (Gronseth et al., 2010; Ottenbreit-Leftwich et al., 2012). This is reflected in the findings of the study that show only one responding teacher noted learning about online resources (YouTube) in her college coursework. It should be noted that the majority of respondents completed their college coursework less than ten years ago, and many less than five years ago.

This difference in priorities presents an opportunity for universities and teacher educators to evolve and grow by adapting their practices and curriculum. This can be achieved in a fairly simple and economical manner that should not force the removal of any other subject matter from the curriculum. Teacher educators should incorporate blogs, social media, online communities, and other online resources into their coursework as an instructional tool. This can and should be done in a cross-curricular manner, where preservice teachers focus on resources directly related to their future content areas. This form of instruction can aid preservice teachers in their content area skills and knowledge as well as their ability to access online resources for teaching assistance when they begin their careers. By adapting their practices and curriculum in this manner, teacher educators and university-based programs can better serve preservice teachers.

University-based instructional practices need to evolve with the times and the changing availability of online resources. The focus of instruction must change and evolve from basic skills, word processing, and information presentation (Koc & Bakir, 2010). Preservice teachers should continue to learn about these tools, but they also need to learn about how to find and why they should use online educational resources in order to benefit themselves and their students.

Incorporating instruction on online resources into the university-based curriculum on instructional technology will benefit preservice instruction in two key ways. The first is that inclusion in the university-based curriculum would ensure that all teachers have the same knowledge base about online resources and the benefits of their use. This would mean that all teachers would have the same opportunity to enhance their professional development, growth, and support opportunities. The data from this study shows that

respondents primarily learned of different online resources via word of mouth (friends, mentors, family members, etc.). While this is a great display of professionalism and collegiality, it is not a reliable means of transmission. Word of mouth transmission leaves the risk that some but not all teachers will receive the information and therefore the benefits of engaging with social media and online educational resources.

Secondly, preservice instruction on the use of online resources will help to ensure that preservice teachers will be able to take full advantage of what these resources have to offer. Teachers will have a greater knowledge base, and will be more confident in interacting with other teachers online. Knowing for instance how to interact professionally with other teachers or how to ensure anonymity will assuage a great deal of teacher reluctance. Preservice teachers that engage with online resources, specifically social media resources will be more likely engage with them fully once they begin their teaching careers. This will provide them with more professional support, (e. g., curricular and instructional support, ideas, resources, activities, etc.) to use when they begin their teaching careers. By increasing the amount of professional support that preservice teachers have when they become new teachers, they will become more confident and proficient, resulting in benefits for their students.

By engaging in two-way communication with other teachers online (blogs, online communities, Teachers Pay Teachers, etc.), teachers have the opportunity increase their professional growth and support potential. Additionally, teachers will have the opportunity to benefit other teachers online by engaging them in discourse and feedback, creating a win-win situation. When teachers can engage in a win-win situation where they

can enhance their professional growth and support, their students are the ultimate winners.

### **School District-Based Professional Development Practices**

As evidenced by the academic literature of this study, school districts would benefit by continuing to move away from one size fits all professional development sessions (Bound, 2011; Hill, 2009; McConnell et al. , 2013; Taylor et al. , 2011). There is also evidence that suggests a campus culture at Franklin Elementary that does not promote the use of online professional development tools. This may be because campus leadership feels the current district professional development offerings are sufficient. It may also be the case that campus leadership feels they can address all teacher needs on campus or that campus leadership is simply unaware of the availability of online professional development tools. This culture should be addressed at both the campus and district level through promotion and endorsement of online professional development.

School districts would benefit by starting and continuing to promote alternative forms of professional development (webinars, podcasts, etc.) for their teachers. Additionally, districts need to promote the quality, flexibility, and ease of use of these alternative professional development tools (Frazier & Boehm, 2012; McConnell et al., 2013). Promoting the benefits of alternative professional development tools will help in addressing many of the negative views these teachers have towards professional development.

Making teachers more aware of the enhanced ease with which they can access quality online professional development coupled with the increased scheduling flexibility

(McConnell et al., 2013) will reduce the urge of teachers to treat professional development as a summertime chore. Knowing that professional development does not have to be done on a weekend or after a full day of teaching should be viewed positively. Viewing professional development as less of a requirement will encourage teachers to participate in more professional development sessions and get more out of their participation. By receiving professional development during the school year, as opposed to cramming it all in during the summer, teachers will have the opportunity to make immediate use of what they are learning, potentially making it more meaningful, relevant, and useful.

Another factor that may be considered by the district in order to increase meaningful teacher participation in professional development is the acceptance of self-directed professional development hours. Accepting self-directed professional development as opposed to district-sponsored or district-mandated staff developments would benefit the teachers by giving them more control over how they gain the skills they need. Self-directed professional development could also potentially increase professional development participation because it would enable teachers to get the help they need when they need it, not just when it is offered by the district.

In addition to promoting teacher use of online professional development tools, school districts may need to consider creating their own online professional development sessions using these same tools. The increased production of online professional development sessions will allow school districts to offer a wider variety of professional development sessions. Online professional development is reusable once created; it doesn't require a presenter (often paid) to be present in a room every time. Once a quality

session has been created and distributed, it does not have to be maintained, allowing increased flexibility for the school districts.

The reduced need for school districts to expend time and energy on repeated in-person presentations will allow districts to focus on creating more diverse online sessions. These sessions will be able to go beyond the surface or introductory level. There will also be more resources available for districts to address subjects taught by teachers in niche areas (Frazier & Boehm, 2012).

The use or lack of use of online resources by in-service teachers can and should be addressed by the districts' professional development curriculum. The current research on training teachers on instructional technology shows a growing inclusion of instructional technology practices and teacher growth (Prestridge, 2014). The research findings in this study show no indication that this is happening for the responding teachers. I believe that this is most likely due to a lack of a cohesive plan at the district level to incorporate instructional technology integration in teacher professional development sessions.

One manner in which a school district can improve its professional development plan is through the implementation of an online community of practice. The existing literature shows how the use of online communities as an alternative means of professional development can benefit teachers across subject matter areas (Blitz, 2013; Hur & Brush, 2009; Wang & Lu, 2012). These benefits must be showcased for the teachers at the district and campus level so that teachers can be made aware of their existence and how to take advantage of them. This implementation can be accomplished

via the creation of a new online community by a school district or via the use and promotion of an existing online community.

### **Online Professional Development Creation and Promotion**

Creators of online professional development sessions whether they work for a school district or a commercial entity should bear in mind teacher preferences in online resources. According to this research study results, teachers want resources that are easy to use, easy to search, trustworthy, content-related, and beneficial to the students. It is these attributes that help make resources like Pinterest, Teachers Pay Teachers, and YouTube popular with teachers. These attributes should, therefore, be present in any professional development content created by a school district.

These five attributes should be at the forefront of the creation and design process. Not only should these attributes contribute to the design and creation, but to the promotion of online sessions. Highlighting these five attributes in addition to convenience, flexibility, and ease of scheduling (Frazier & Boehm, 2012; McConnell et al., 2013) will help to ease teacher fears and encourage participation in online professional development.

### **Implications for Further Research**

This study was conducted at a large, economically disadvantaged Kindergarten to 4<sup>th</sup>-grade elementary school in an urban neighborhood. Research has shown that both grade level and socioeconomic status can affect professional development participation (Torff & Sessions, 2009; de Vries et al., 2012). Therefore, this study should be replicated at schools across all grade levels (Kindergarten-12<sup>th</sup> grade), size, and socioeconomic



status. Doing so will help researchers to determine which preferences, practices, and behaviors are attributable to instruction and training, and which are attributable to environmental factors.

All participants in this study attended a university in Texas or the Midwest. Replicating this study in different parts of the country may reveal differences in how teachers make use of online resources due to regional differences in university-based instructional practices.

Respondents at Franklin Elementary stated that they enjoyed a high level of support on campus. They felt supported at the curricular and at the instructional level by the administrative staff and their colleagues. This support was likely a contributing factor in why respondents did not feel the need to use online resources for professional growth or emotional and moral support; there was a lack of any need to do so.

Research on the use of online resources for professional growth and support should be done at schools where teachers do not view themselves as supported by the administration or their colleagues. This research would better show how much of this lack of use of online resources is attributable to a lack of awareness, to campus culture, or both.

### **Teacher as Researcher**

My choice to conduct this case study on the campus where I work benefitted my research significantly in three key ways. The first way I benefitted was in terms of access, conducting the research where I work greatly aided me in ease of access to a wealth of teachers who met the selection criteria for the study. This ease of access helped me

address one of the biggest challenges that commonly affect teacher researchers, time (Peeke, 1984).

The second way I benefitted from conducting research on campus was through my existing relationship with the teachers. I firmly believe, based on my in-depth knowledge of the campus and its' culture, that many of the teachers I interviewed would not have been willing to participate or be as honest in their responses with an outside researcher. The third and most important benefit of conducting the research on campus is my possession of what Oliver (2004), refers to as a sophisticated understanding of the school setting and its' members. This sophisticated understanding aided me in obtaining a clearer, deeper understanding of the meanings of the data set.

Conducting the study on campus and taking on the role of teacher researcher, has disadvantages associated with it as well. These are disadvantages that I have faced throughout this process and continue to do so. The most constant challenge I have faced has been meeting the demands of work vs. university, or having the time and energy to meet the demands of both positions well (Blakemore, 2012; Peeke, 1984). As I began the data collection (interview) process, I struggled with balancing my two roles, teacher and researcher, because during the interview process I wanted to be seen as a researcher and not as a colleague (Binder, 2012).

Having a pre-existing relationship with the teachers I interviewed benefitted me, as stated before, in terms of access and understanding the meaning of their responses, but it also produced complications. Maintaining a professional distance from the data and the teachers while discussing its significance was a constant challenge (Peeke, 1984). Santa & Santa (1995) encourage teacher researchers to take a clinical approach to their research

so that they can take what they've learned and use it to improve their teaching and professional decision making. While this was my goal at all times, it was not always easy to maintain this clinical stance.

### **Methodological Recommendations**

As the designer and principal investigator for this qualitative research study, I made two key decisions that may have impacted the depth and quality of the results of the study. The first was the methodology that I chose for this study. It is possible that solely using qualitative methods did not fully capture the respondents' level of awareness and engagement with online resources. Designing a mixed-methods approach and distributing a survey or questionnaire to the staff may have resulted in a fuller picture of the campus' views. Additionally, the distribution of a survey or questionnaire would have presented me with the opportunity to pursue a purposive sample of interview participants as opposed to a random sample.

The second key decision I made was to conduct the study on one elementary campus. By expanding the study to include multiple campuses, I may have been able to expand the implications of my findings. Exploring the use of online resources at multiple campuses may have enabled me to better understand how campus culture, support staff, and administration positively or negatively affect teacher usage. This would have potentially allowed for a comparison of campus cultures in order to examine the role it plays in affecting teacher awareness of and engagement with online resources.

During the data collection process, three opportunities presented themselves for me to ask deeper follow-up questions. Doing so would have potentially resulted in a

fuller, richer understanding of the participants' responses. While I was asking the respondents about their professional development practices, I did not ask them if the use of online resources for ongoing professional development practices was a part of their university coursework. Doing so could have potentially resulted in fuller more meaningful responses because they would have spoken to the respondents' background knowledge.

As the principal investigator, had I taken the opportunity to ask more follow-up questions about the specifics of the professional development sessions attended by the respondents, I may have been able to gain further knowledge in this area. One area where I may have wanted to explore in greater depth was whether or not respondents had ever attended professional development on the use of instructional technology. This would have enhanced my understanding of the awareness of the respondents and the role of the school district in teachers' ability to use online resource for professional development.

Finally, in regards to respondent participation in online communities, I should have asked respondents who knew what an online community is why they chose not to participate in one. Doing so would have potentially aided in understanding the rationale behind the participants' lack of participation. By asking these two teachers more questions about why their participation was so minimal, I may have been able to better understand participant reluctance to engage with other teachers online.

## **Chapter 5 Summary**

The findings of this study indicate that responding teachers have a low level of awareness of the use of online resources for ongoing professional development or

growth. The findings showed a high level of awareness of the use of online resources for ongoing curricular and instructional support, yet not for emotional support. Responding teachers engaged with popular social media sites in order to locate resources, ideas, creative inspiration, among other ways to support their instruction. Also evidenced by this study was a reluctance from respondents to engage in online communication with teachers that they did not know well. The findings suggested improvements that can be made to university-based teacher preparation practices regarding the use of online resources. The results of this study are important by suggesting improvements to school district professional development practices. Improvements may lead to fewer teachers asking these questions: “Another training? How long is this going to take anyway?” These comments may instead be replaced with more a-ha moments or more comments like: “Now I get it!” or “I can do that with my students!”

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## Appendix A

### Teacher Recruitment Email Script-

I'm sending you this email because I would like to invite you to participate in a research project that I am conducting as part of my doctoral research at the University of Houston. I am inviting you to participate in a focus group interview as well as a potential follow-up interview. The topic of the interview is teacher technology use and the coursework you took while preparing to become a teacher.

Scheduling of the interviews will be done at your convenience. Please respond to this email with any questions you may have. Please let me know if you would be interested in participating in my research project or if you have any further questions.

Thank you,

Bryan Artman

## Appendix B

### One-on-One Interview Protocol-

#### **Topic Domain 1- Teacher Professional Development**

Lead-Off Question:

**How do you get your professional development hours each year?**

Covert Categories:

- Attitudes
- Preferences
- Knowledge of alternative forms of professional development.

Follow-Up Questions:

1. Do you ever attend online professional development sessions?

#### **Topic Domain 2- Teacher Use of the Internet and Online Resources.**

Lead-Off Question:

**As a teacher, when you go online, what are some of your favorite educational or teacher websites?**

Covert Categories:

- Usage trends amongst interviewees.
- Types of sites visited, i. e. support, teaching resources, teaching ideas, etc.

Follow-Up Questions-

1. What makes these sites so helpful/appealing to you?
2. How did you come across these particular sites? Did you find them or did someone tell you about them?
3. How has visiting these websites helped you as a teacher?

#### **Topic Domain 3- Online Communication and Social Media.**

Lead-Off Question:

**Can you tell me a little bit about which social media sites if any that you like to visit, i. e. Twitter, Facebook, Pinterest etc.?**

Covert Categories:

- Potential Network for Communication and/or Support.

#### Follow-Up Questions-

1. Do you communicate online with other teachers?
2. Which social media sites do you use to do so?
3. Do you communicate online with teachers other than those you work with?
4. When you communicate with other teachers, do you tend to focus more on teaching or non-teaching topics?

#### **Topic Domain 4- Teacher Awareness of Online Resources.**

##### Lead-Off Question:

**Many teachers like to use different Web 2.0 tools to post or publish materials on the internet. These can be blogs, pins, posts, or their own websites. Can you tell me if you have much experience with these teacher created materials?**

##### Covert Categories:

#### Follow-Up Questions-

1. Do you ever read blogs written by other teachers?
2. Have you ever heard of an Online Community of Practice or an Online Teacher Community? If so, how?
3. If yes to Question #2, have you ever participated in an Online Community of Practice of an Online Teacher Community?

#### **Topic Domain 5- Where Do Teachers Go For Help?**

##### Lead-Off Question:

**There can be a lot of ups and downs or challenges that teachers face. Can you tell me, when you need help or advice, who do look to?**

##### Covert Categories

- Existence of Support Networks
- Mentor/Mentee Relationships

#### Follow-Up Questions-

1. If (person from answer to Lead-Off Question) isn't available, or doesn't know how to help you, what do you do? Is there anyone else you would turn to?
2. How did you form your relationship with that person?
3. Where might you go for lesson planning or assistance with teaching resources?
4. Do you ever reach out to anyone outside of the school for help? If so, how do you communicate with them?

## Appendix C

### Technical Definitions:

#### **Pinterest**

Pinterest is a social networking and sharing site launched in March of 2010 and was created by Ben Silbermann, Evan Sharp, and Paul Sciarra. Pinterest is a site that is based upon visuals, no posts are allowed on the site that do not have an attached picture or image. Pinterest allows users to share their own original content and share their favorite content with other users through the process of ‘pinning’.

Use of Pinterest requires users to create an account in order to post or ‘pin’ content, the account creation is free of charge. Pinterest currently has over 100 million monthly users, the majority of which are women. Pinterest has a section specifically devoted to teachers, this section of the site is called ‘Teachers on Pinterest.’

#### **Teachers Pay Teachers**

Teachers Pay Teachers is a site originally created by Paul Edelman, a New York City teacher in April, 2006. Teachers Pay Teachers was acquired by Scholastic Inc. in December, 2006.

Teachers Pay Teachers is an online community, an open marketplace where teachers can share their teaching resources for free or post them for sell. Teachers Pay Teachers claims over 3 million users with over 900,000 online educational resources available on its site. Teachers Pay Teachers is categorized by subject, grade level, price, features, seasonal interests, etc. and contains a search feature.

Use of Teachers Pay Teachers requires a membership, which is free. Teachers Pay Teachers also offers a membership for teachers who wish to sell their resources on the site, this membership is also free. In addition, Teachers Pay Teachers offers a paid membership that has added benefits that the free memberships do not offer.

## **YouTube**

YouTube is a video posting and sharing site that was created by Chad Hurley, Steve Chen, and Jawed Karim. YouTube was created in February of 2005, and was purchased by Google in 2006. The videos posted on YouTube are mainly posted by individuals, but companies that have joined in a partnership with YouTube may post as well.

YouTube has over 1 billion users each month. YouTube users can upload or post their own videos, comment on other videos, search for other videos, and create and maintain their own customizable YouTube channel.

## **Google**

Google was created by Larry Page and Sergey Brin in 1996. Google is a popular internet search engine and is now also considered a verb referring to using the internet to look up information. Over 1 billion people worldwide make use of Google every month.

## **Blogs**

Blogs were first reported as being used in 1994, the term blog, short for web log, was coined in 1997. Blog, considered to be both a noun and a verb is journal maintained online that may contain the events of the author's day, struggles, successes, opinions, etc.

In addition to print, a blog may also contain video clips, audio clips, advertisements, and links to other blogs.

For the purpose of this research, teacher blogs will be defined as well. Teacher blogs are where teachers can share classroom experiences, frustrations, opinions, failures, successes, etc. Teacher blogs may contain lesson ideas or resources (handouts, examples, lesson plans, feedback, etc.).

## **Facebook**

Facebook is the world's most popular social media site, Mark Zuckerberg founded Facebook in 2004 while a student at Harvard University. In 2006, Facebook was launched as a site on the World Wide Web. In order to use Facebook, users must be at least 13 years of age and have a valid email address. Facebook reports having over 1 billion active users each month.

Facebook is popular with its users for many reasons of which the following are some of the most important. Facebook is known for connecting its users and allowing people to make new friends online, Facebook is also well known for allowing users to find old friends. Facebook is also well known for its collection of online games and giving its users the ability to share pictures, videos, and the details of their daily lives.

**Table 1**

<b>Resource</b>	<b>Number of Users</b>
YouTube	6
Pinterest	14
Facebook	10
Twitter	4
Teachers Pay Teachers	9
Teacher Blogs	8
Google	8

- Other Resources mentioned by at least 1 respondent: education.com, Lead4ward, reallygoodstuff.com, Lakeshore.com, Instagram, PebbleGo, Discovery Education, BrainPop, Readworks, Edhelper.com, mathaids.com, aaamath.com, Eduphoria, Schoology

**Table 2**

Name	Subject Taught	Years of Experience
Mr. J	3 <sup>rd</sup> Grade Bilingual Math	2
Mr. S	2 <sup>nd</sup> Grade ESL Math	10
Ms. V	Special Education	2
Ms. M	Music	4
Ms. T	4 <sup>th</sup> Grade ESL Reading	8
Ms. S	2 <sup>nd</sup> Grade Bilingual Math	7
Ms. C	1 <sup>st</sup> Grade Reading	9
Ms. D	1 <sup>st</sup> Grade Math	2
Ms. F	4 <sup>th</sup> Grade Bilingual Reading	3
Ms. L	ESL Kindergarten	30
Ms. P	3 <sup>rd</sup> Grade Math	7
Ms. R	4 <sup>th</sup> Grade Bilingual Math	3
Ms. N	1 <sup>st</sup> Grade Bilingual Math	2
Ms. A	4 <sup>th</sup> Grade Bilingual Math	20
Ms. H	Kindergarten	28



## Appendix D

# UNIVERSITY of HOUSTON

## DIVISION OF RESEARCH

August 8, 2015

Mr. Bryan Artman  
c/o Dr. Melissa Pierson  
Curriculum and Instruction

Dear Mr. Bryan Artman,

The University of Houston's Institutional Review Board, Committee for the Protection of Human Subjects (1) reviewed your research proposal entitled "New Teacher Use of Online Resources for Professional Development, Growth, and Support" on April 17, 2015, according to federal regulations and institutional policies and procedures.

At that time, your project was granted approval contingent upon your agreement to modify your protocol as stipulated by the Committee. The changes you have made adequately fulfill the requested contingencies, and your project is now **APPROVED**.

- Approval Date: August 6, 2015
- Expiration Date: August 5, 2016

As required by federal regulations governing research in human subjects, research procedures (including recruitment, informed consent, intervention, data collection or data analysis) may not be conducted after the expiration date.

To ensure that no lapse in approval or ongoing research occurs, please ensure that your protocol is resubmitted in RAMP for renewal by the **deadline for the July, 2016 CPHS meeting**. Deadlines for submission are located on the CPHS website.

During the course of the research, the following must also be submitted to the CPHS:

- Any proposed changes in the approved protocol, prior to initiation; AND
- Any unanticipated events (including adverse events, injuries, or outcomes) involving possible risk to subjects or others, within 10 working days.

If you have any questions, please contact Samoya Copeland at (713) 743-9534.

Sincerely yours,



Dr. Daniel O'Connor, Chair  
Committee for the Protection of Human Subjects (1)

PLEASE NOTE: All subjects must receive a copy of the informed consent document, if one is approved for use. All research data, including signed consent documents, must be retained according to the University of Houston Data Retention Policy (found on the CPHS website) as well as requirements of the FDA and external sponsor(s), if applicable. Faculty sponsors are responsible for retaining data for student projects on the UH campus for the required period of record retention.

Protocol Number: 15365-01

Full Review: ☐

Expedited Review: ☒

316 E. Cullen Building Houston, TX 77204-2015 (713) 743-9204 Fax: (713) 743-9577

COMMITTEES FOR THE PROTECTION OF HUMAN SUBJECTS

