

2022

## Elementary Teachers' Perceptions of Professional Development Effectiveness

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# Walden University

College of Education

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Justin C. Hose

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Walden University  
2022

Abstract

Elementary Teachers' Perceptions of Professional Development Effectiveness

by

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MS, University of Virginia, 2008

BS, Lebanon Valley College, 2004

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Education

Walden University

May 2022

## Abstract

Through continuing education, educators improve their skills and become more proficient at their jobs. However, some educational leaders are unaware of the perception of teachers regarding professional development. Grounded in Desimone and Garet's framework of best practices in teachers' professional development, the purpose of this interpretive qualitative study was to compare that framework to what a sample of teachers believe is effective professional development based on their experiences. Data were interviews with 10 teachers with at least a year of experience in Virginia. The framework was used to compare the theory of what makes effective professional development to the actual experiences of teachers. A deductive thematic approach was used to analyze the data. The themes that emerged from the teachers were active participation, coherence, sustained duration, and collaboration as positive elements of professional development from the conceptual framework, as well as reflection and leadership even though they were not part of the original conceptual framework. Teachers identified having professional development that applies to their work and having choice as reasons they apply their professional development in the classroom. A key recommendation for educational leaders is to use teacher feedback regarding more choice and for professional development to apply to what teachers do in the classroom. Better learning experiences for teachers can lead to better learning experiences for students and promote positive social change in the community.

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## Dedication

I would like to dedicate this dissertation to my family, for bearing with me during the dissertation process. I would like to especially thank my wife, Rebecca Hose, who has had to pick up the slack to give me opportunities to write. You kept me motivated even when I did not want to be!

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## Chapter 1: Introduction to the Study

Since the 1990s, education legislation in the United States has focused on students' achievement on standardized assessments, and because of this legislation, many school administrators have wanted to improve instruction and test results in their schools (Weisrock, 2017). Administrators have provided professional development for teachers to help with this improvement (Weisrock, 2017). Some types of professional development activities have resulted in more changes in instruction than other types of professional development because teachers respond to professional development in different ways (Sears et al., 2014). Professional development leaders use information on effective changes to offer activities shown to be more effective in changing teachers' practices to raise student achievement (Desimone & Garet, 2015).

Sometimes teachers do not agree with professional development topics that theorists, professional development leaders, and school administrators view as important (Van den Bergh et al., 2014). For example, if a school was focusing on feedback to students, just providing information on how feedback provides benefits to student learning would not be enough. With this example, Van den Bergh et al. illustrated that the professional development should also include information on the perceived setbacks to providing feedback, as well as how to effectively implement feedback in their classroom. Though leaders may believe and see evidence that teachers benefit from certain methods of professional development, this evidence does not mean that teachers also support that method. Researchers (Bates & Morgan, 2018; McKeown et al., 2019) have recognized the need for more research into what teachers believe works and what does not work in

professional development to further enhance professional development as an effective tool of continuing education for teachers.

Teachers need to feel motivated to teach more effectively and to make differences. However, data has shown that many teachers are unsatisfied with their existing work situation and professional development opportunities (Worth & Van Den Brande, 2020). Importantly, Teacher perspective plays an essential role in whether professional development leads to change in the classroom (Garza & Harter, 2016). Teachers are more favorable toward professional development when they believe they have power to make decisions in their classrooms and when they feel they have some autonomy with their professional development (Valckx et al., 2019). To address the need for better professional development for teachers, Desimone and Garet (2015) developed a conceptual framework of the elements that make professional development effective. To continue exploring the ideas in the framework, it was beneficial to explore which elements of professional development teachers believed led them to make changes in their classroom.

This chapter provides a background of key professional development research that supported the need for this study. This chapter includes the background for the study. Following the background there is a problem statement and the purpose of the study. The next part of the chapter included the research questions, conceptual framework for the study, and an outline of the study. The final part of the chapter included assumptions, scope and delimitations, and limitations.

## **Background**

The Institute of Education Sciences commissioned Garet et al. (2010, 2011) to conduct a 2-year study on the effectiveness of professional development for seventh-grade mathematics teachers. During the first year of the study, the findings revealed that the professional development increased the frequency of activities related to problem solving; however, there was no significant change to teacher content knowledge or student achievement (Garet et al., 2010). A key finding of the second year was that having teachers participate in two years of professional development showed that the professional development did not have a significant influence on teacher content knowledge nor student achievement (Garet et al., 2011).

Other studies revealed a similar finding that professional development does not make significant changes to teachers' content knowledge. For example, Martin and Gonzalez (2017) found that one reason teachers may not gain as much content knowledge as they could is because teachers are sometimes left to learn without sufficient guidance. In an earlier study, Gomez-Zwiep and Benken (2013) found that teachers can learn content when the teachers are able to move past their misunderstandings. Both Martin and Gonzalez's and Gomez and Benken's interviewed teachers in their studies. Luera and Murray (2016) found that asking teachers what they learned during a professional development may not be an effective way of gauging if they really did learn content, because they found teachers struggled to identify accurately what content knowledge they obtained during professional development.

To help improve what teachers do learn during professional development, some studies found that professional development was more successful when it had a dual focus of both content knowledge and pedagogical knowledge. Shea et al. (2016) found that science teachers created better lessons when they learned about environmental science in professional development facilitated by both a content expert and a learning expert. In studies by both Duncan Seraphin et al. (2017) and Nichol et al. (2018), findings showed that the benefits of teachers incorporating what they learned in professional development led to improvements in student performance.

Bayar (2014) and Weisrock (2017) studies explored teacher perceptions of professional development. Bayar conducted interviews with 16 Turkish teachers to help find the perceived elements from a professional development that were offered for 12 months. One finding was that teachers wanted the facilitator of the professional development to be prepared. They reported that they did not like it when there was excessive time that was not used for learning. Another finding was that the teachers said they wanted the professional development to be linked to what they do in their classrooms daily.

Weisrock (2017) explored scenarios that led teachers to believe they had learned. The study that involved Wisconsin teachers in high achieving schools found active participation and coherence between the professional development and the school's initiatives were elements that teachers believed led to their learning. There is a lack of research regarding what teachers across many kinds of schools believe is both useful and



not useful in professional development and what leads them to use what they learn in their classrooms.

The research conducted by Weisrock (2017) is similar to my study, which sought to explore what teachers view as effective professional development based on their experiences. However, the gap in the research is that studies have not included a holistic examination of all the professional development that teachers use. This study examined this gap so that professional development leaders and administrators can focus professional development in a way that teachers find beneficial. If teachers find their learning to be beneficial, they are more likely to continue with the development to make differences in the classroom so that students get the most from instruction.

### **Problem Statement**

School administrators want teachers to improve student outcomes because of the changing expectations and the need for mathematical competency in the national and global societies (Niss & Hojgaard, 2019). For teachers to change their praxis after professional development, it requires teachers to support the training they receive (Brion, 2020). Studies have explored how teachers feel about individual types of professional development (Davenport, 2020; Powell & Bodur, 2019) and how teachers feel about online professional development more generally (Parsons et al., 2019). The problem addressed in this study was the lack of understanding about teachers' perceptions of the professional development training methods they had experienced in the last 5 years and what factors determined whether and how they used what they learned from professional development in their classroom instruction.

### **Purpose of the Study**

The purpose of this interpretive qualitative study was to explore teachers' perceptions of professional development they have experienced and how they have applied the professional development to their teaching. To determine elements of effective professional development, it is important to look at teacher perceptions of professional development. If leaders in a school or system are going to use a long-term professional development plan, it is necessary to know what teachers find engaging and worthwhile (see Martin & Gonzalez, 2017).

### **Research Questions**

Research Question 1 (RQ 1): What do elementary school teachers perceive as characteristics of effective professional development?

Research Question 2 (RQ 2): How do elementary teachers report that they determine whether professional development activities are useful or not useful?

Research Question 3 (RQ 3): What factors influence how teachers apply information learned from professional development in their classroom instruction?

### **Conceptual Framework**

The conceptual framework for this study was based on the work of Desimone and Garet (2015). They asserted that content focus, active learning, coherence, sustained duration, and collective participation were elements of effective professional development in their framework of best practices in teachers' professional development in the United States. Content focus refers to what and how the teachers instruct their students. Active learning is allowing teachers to be engaged in their learning. Coherence

is when the professional development aligns to the initiatives of the school, division, and the teacher. Sustained duration is revisiting the topic of professional development over a more extended period than a one-time experience. Finally, collective participation is allowing teachers to work together during the professional development experience (Desimone & Garet, 2015).

Desimone and Garet (2015) developed the framework, but the team a team including Garet had been working on professional development for over a decade prior, including a national study of over 1,000 math and science teachers published in 2001 that revealed professional development that was sustained, focused on content, integrated into the initiatives of the school, involved teacher collaboration, and allowed for teachers to be actively engaged resulted in the best outcomes (Garet et al., 2001).

For my study, the framework provided context for the data analysis and the development of interview questions. A comprehensive review of the literature revealed frequent reference to Desimone and Garet's (2015) elements of effective professional development. Knowing what teachers think can help professional development leaders know when teachers feel their time is being best used. There is a more detailed explanation of the conceptual framework in Chapter 2.

### **Nature of the Study**

To answer the research questions, this study used an interpretive qualitative design. An interpretive design works when researching about the understanding of people and their opinions (Merriam & Tisdell, 2016). A researcher using qualitative methodology and an interpretive design explores in-depth understandings about

subjective ideas such as people's perceptions about a topic (Merriam & Tisdell, 2016). An interpretive design is based on the assumption that social reality is not singular or objective but is shaped by human experiences and social contexts. A quantitative methodology was rejected because a quantitative study would have provided numerical data, but not the rich descriptions required to answer the research questions fully. A mixed method was rejected because of time constraints on the study and because quantitative data would not have provided relevant information that would have enriched the results. An ethnographic study was rejected because of time constraints as well.

In this study, teachers shared what they thought about professional development. Since the purpose of the study was focused on exploring what teachers believed at a school on the East Coast during the 2021-2022 school year, an interpretive design revealed what participants thought about their experiences. Teachers answered interview questions about their perceptions of professional development and addressed what helps them apply what they learned into their classrooms.

Data analysis in a qualitative study gives meaning to the data collected (Merriam & Tisdell, 2016). The data from the interviews were categorized by themes, noting what words and phrases appear most often. The categories, which were grounded in the ideas from the conceptual framework, were created to address the research questions. This meaning then can allow professional development leaders and administrators to see what teachers defined as effective professional development.

## Definitions

*Active learning:* “Opportunities for teachers to observe, receive feedback, analyze student work, or make presentations, as opposed to passively listening to lectures” (Desimone & Garet, 2015, p. 253).

*Coherence in professional development:* How well the professional development connects to initiatives and priorities of a school or district (Desimone & Garet, 2015).

*Independent learning:* Teachers learning by searching for information autonomously (Jones & Dexter, 2018).

*Professional development:* Formal training to help a person perform better at their job (Jones & Dexter, 2018).

*Professional learning:* On-the-job opportunities to learn, such as through professional dialog or by working with others (Jones & Dexter, 2018).

*Sustained duration:* Professional development that includes more than 20 hours of contact time (Desimone & Garet, 2015).

## Assumptions

This study involved working with human participants and explored their opinions through interview questions. When working with people and asking for their opinions, a researcher must assume participants answer the questions truthfully. Since the teachers were not asked sensitive questions, it was more likely the teachers were honest in their responses. To draw reasonable conclusions from the data, the assumption was that the responses that teachers provided were their actual opinions. The perceptions of teachers

could have been clouded by either a particularly negative experience or a positive experience with professional development.

### **Scope and Delimitations**

Teachers are the focus of learning in professional development in schools, so their support of professional development and the belief that it is beneficial can help lead to change. To narrow the scope of perceptions, only teachers were interviewed since they were the practicing professionals in classrooms. Even though the protocol and the purpose of the study were communicated with the principal, no administrators were interviewed. Paraprofessionals and other members of the staff who were not classroom teachers also were not part of the study. Many of these staff members are not typically asked to participate in professional development as part of their duties.

The scope of the study was an elementary school in a rural school district in Virginia. By limiting it to one school in one school district, comparisons could be made between teachers who had similar resources for professional development but had other differences such as their level of experience and education. Single-case studies are also ideal for revelatory cases where an observer may have access to a phenomenon that was previously inaccessible (Yin, 2018). By including teachers with similar resources, other elements affecting teacher perceptions of professional development could be explored. On the other hand, the conclusions of this study may not necessarily be transferrable to settings with different demographics.

The study did not address the issues that Avidov-Ungar (2016) mentioned concerning the motivation of teachers who participate in professional development. For

example, it did not address whether teachers are participating in professional development because of an extrinsic factor, such as the school mandating the professional development, or an intrinsic factor, such as the teacher wanting to learn for personal gains (Avidov-Ungar, 2016). These motivations could influence the type of professional development that a teacher took, and it could also influence how seriously the teacher participated in, or learned from, professional development.

### **Limitations**

This study had an interpretive qualitative design as teachers answered open-response interview questions. The open-response questions allowed teachers to describe effective professional development and the elements that were important in effective professional development. The elements were determined by using the conceptual framework, but the questions allowed teachers to identify new elements that may not have been addressed in the framework. Effective professional development was partially defined by the participants; however, for the study it is formal development opportunities that led the teachers to make what they perceived as positive changes in their classrooms. The interviews allowed me to ask clarifying questions about the teachers' responses.

Generalizability is a limitation of the study. The participants were all from one location in Virginia. It is possible that the school was effective at providing teachers with professional development, or the school was poor at providing it. Either situation would not necessarily reflect the same opinion of many other schools in the district, state, or country.

As a teacher who has experienced various professional development opportunities, there was some bias about the effectiveness of such training. Using a reflective journal allowed my bias to be minimized. Additionally, as a researcher, questioning should be neutral to avoid leading participants. Interview questions consisted of questions that focused on teachers' beliefs and avoided any words that could be perceived as bias. Pilot interviews were conducted to provide an opportunity to practice this before collecting responses from participants.

One disadvantage to interviewing is higher cost, but that did not apply to the study since an interviewer did not need to be hired. The two disadvantages that applied to this study were interviewer bias and lack of anonymity. As a teacher, there could have been some bias about what constituted effective and ineffective professional development. To help minimize that bias, the Walden University Institutional Review Board (IRB) reviewed all questions, and my committee checked the wording of the questions.

By asking teachers about their perceptions, the assumption was that teachers knew what was best for them. However, just because a person liked something, did not mean that it was the best way to help them learn. For example, in Luera and Murray's (2016) study, teachers responded that they learned from the professional development, however, when the teachers were given an assessment to test what they had learned, there was not a statistically significant improvement over their initial test, indicating a difference between what they learned and what they thought they learned.



## Significance

The information from the study could add to research because knowing how teachers defined effective professional development, compared to how Desimone and Garet (2015) defined effective professional development, can help researchers understand when teachers are more likely to continue to work through and learn from long-term professional development to implement the learning in their classrooms (see Martin & Gonzalez, 2017). In a school system, knowing teachers' perceptions could help administrators choose professional development for their schools by comparing teachers' perceptions to what researchers find to be effective. Being considerate of methods and topics that are important to teachers can help address their strengths and needs and help them feel respected as professionals by knowing they had a say in their own development (McKeown et al., 2019). If administrators align professional development with what teachers consider good professional development, there may be a better chance that teachers will continue to work through the professional development (Martin & Gonzalez, 2017). However, it is important to distinguish between what teachers like and what lead teachers to use the learning in their classrooms. Teachers may also see professional development as more beneficial and apply what they learn if they support the methods. With changing teaching practices, students could show improvement in achievement tests and be better prepared for jobs and college.

Exploring teachers' perceptions of professional development could clarify what types of professional development teachers are willing to work through over the long-term since they view the development as worth their time and energy. There are

conceptual frameworks into what leads to teacher improvement, such as the framework of best practices in teachers' professional development in the United States by Desimone and Garet (2015) which was used for this study. Since teachers' beliefs can help shape whether they are going to put effort into the professional development, it could be beneficial to know teachers' perceptions of professional development. By asking about what teachers perceive as reasons for why they use professional development to implement changes in their classrooms, this study can help further the research by Brion (2020) exploring learning transfer.

The information from the study could help to show teachers' perceptions of the professional development opportunities offered to the teachers. The information could also help schools recognize what types of professional development some teachers prefer.

The information from the study has the potential to promote positive social change by looking to improve instruction in public schools in the United States. Improvement of instruction can help teachers influence children from many different backgrounds. Professional development can be adapted to what teachers, schools, or districts need. Knowing what teachers' value in professional development can aid professional development facilitators to address the needs of their audience to maximize the influence of professional development since teachers could be more willing to persevere through long and difficult moments if they feel their time is being respected.

### **Summary**

This study was developed to explore how teachers perceive professional development including what led them to say they apply their new learning in their

classrooms. An interpretive qualitative study helped to address the research questions. Teachers answered interview questions to help better understand their perspectives on professional development. The conceptual framework and background research helped categorize interview responses from teachers.

The information in Chapter 2 provides background research for the study by describing studies researchers have done on professional development over the last 5 years. I provide a more detailed explanation of the framework for the study. The rest of the literature review then includes information on professional development that has been effective and describes the elements that made teachers respond to it. I also reviewed studies that show what has not been as effective.

## Chapter 2: Literature Review

Many administrators look for professional development to help improve schools and student performance (Weisrock, 2017). Technological advances and continued advancements in science can change a knowledge base daily, and some administrators want teachers to adjust their instruction to reflect the ongoing changes in education. However, administrators and school leaders cannot assume teachers will improve on their own without direction or instruction (Antoniou & Kyriakides, 2013). As such, professional development should have a clear focus for teachers to know the expectations and the direction the administrators want for the school (Earley & Porritt, 2014).

Administrators in districts as well as administrators and teacher leaders in schools could benefit from knowing the most effective ways of helping teachers grow in their profession. For teachers to improve, moving from novice to expert, they need to have effective professional development opportunities (Herbert & Rainford, 2014). Desimone and Garet, working along with other researchers, have been conducting research since 2001 to answer the question about what makes professional development effective (Desimone & Garet, 2015; Garet et al., 2001, 2010, 2011). Desimone and Garet (2015) created a theory of elements in effective professional development, though there has not been much research into what teachers believe changes their practice.

The purpose of this interpretive qualitative study was to explore teachers' perceptions of professional development they have experienced and how they have applied the professional development to their teaching. Exploring teacher perceptions of effective professional development helped to determine whether teachers view the

professional development as worth their time and energy. By determining what teachers think, the study can help determine the types of professional development that teachers are more likely to support. Knowing what teachers think and support can help teachers persevere if the school professional development is long term.

The literature review begins with a summary of the strategies used to gather the research studies and support for the study. Following, I present the conceptual foundation of effective professional development used for this study. The next section discusses current research on effective professional development. The last section describes current research into other elements that can influence teacher perceptions of effective professional development.

### **Literature Search Strategy**

The search strategy for this study started with using Academic Search Complete, Education Source, ERIC, Sage Journals, ScienceDirect, and Taylor and Francis databases to search for peer-reviewed research. The terms used to search were *professional development, effective professional development, sustainable professional development, teacher perceptions of professional development, elementary teacher professional development, primary teacher professional development, professional education, teacher development, career development, teacher training, teacher perception, teacher attitude, and teacher beliefs of professional development*. During the search, 179 articles were found, and most of the articles were written in the last 5 years (2017-2021) so they were included in the literature review.

Some article published earlier were included. Garet et al. (2001) provided the groundwork for the frameworks involved in this study. One article was from 2010, and one was from 2011 and while older, they offered insights into the weaknesses of professional development practices. Six articles were from 2013 because they offered unique insights. ProQuest Dissertations and Thesis Global database was used to search dissertations using the terms *professional development*, *effective professional development*, and *sustainable professional development*.

### **Conceptual Framework**

The conceptual framework for this study came from Desimone and Garet, who have honed their research since 2001, on what constitutes effective professional development (Desimone & Garet, 2015; Garet et al., 2001). Various countries including Pakistan, Ireland, and England have adopted the traits they identified as characteristics of effective professional development (Desimone & Garet, 2015). My study seeks to identify what components teachers believe make professional development effective at a school district in Virginia, so lessons from Garet et al. (2001) were appropriate to apply.

Garet et al. (2001) conducted a national study in which they found professional development should focus on building content knowledge, allowing teachers to participate actively, and connecting initiatives between the school and district. Desimone and Garet (2015) expanded on their 2001 study by adding two additional components, coherence, and sustained duration. For example, they found that when teachers worked with teachers they already knew, teachers were more likely to be actively engaged. Also, the amount of time teachers participated in professional development was more closely

related to teacher learning than the specific type of professional development activity. The time teachers spent working on content related to what they teach also helped them actively participate. Further, teachers were more likely to respond to professional development if it related to initiatives of the school and district. Finally, teachers responded more to professional development that was revisited over time rather than just a 1-day event.

The first element Desimone and Garet (2015) identified was a focus on content knowledge. Desimone and Garet considered content to be a combination of the information that teachers use to instruct students in their classes and how the teachers teach the information. Some researchers define how teachers teach as pedagogy, instead of connecting it with content, but Desimone and Garet decided to define these ideas as content. Content is one-way professional development and can be meaningful for teachers because it relates to their daily activities in classrooms.

The second element of effective professional development is active participation for teachers. Desimone and Garet (2015) list opportunities to observe, receive feedback, analyze student work, or make presentations as a few ways that teachers can be actively engaged in professional development. These opportunities provide teachers with something to do with the information they learned rather than passively listening to others speak. Active engagement can give teachers a way to relate to the material while seeing how they can use it in their daily routines.

Coherence is the third element and refers to how the professional development initiative relates to the current initiatives for the school, district, and the individual

teacher (Desimone & Garet, 2015). Many teachers may disregard the professional development or view it as nonapplicable to them if it does not align with or contradicts established school and teacher initiatives. Other initiatives within a school could cause some teachers not to apply what they learn because of the perception that they might not be permitted to use the newly learned strategy. The coherence of initiatives helps teachers find relevance in the professional development session.

Sustained duration refers to professional development that a facilitator does not complete in a single day, but instead revisits with teachers over time (Desimone & Garet, 2015). Desimone and Garet defined sustained duration as professional development consisting of over 20 contact hours. The facilitators of professional development can monitor and provide feedback to teachers which allows them to improve their practices.

Desimone and Garet's (2015) last element of effective professional development is collaboration. Working with other teachers allows for idea sharing and opportunities to provide feedback to colleagues. Interactive experience allows teachers to see multiple perspectives on the same professional development idea by hearing how others are implementing professional development and the experiences they have had with the ideas from professional development.

### **Literature Review Related to Key Concepts**

The literature review shows studies that illustrate what is and is not effective professional development. Some of the articles expand on the ideas of Desimone and Garet (2015), while some of the articles offer counters to those claims or explore ideas



not included in the conceptual framework. The literature provides indications of what aspects of professional development seem to lead to teacher change.

Included are professional development studies using articles that have a qualitative, quantitative, or a mixed methods approach. Some studies look at teacher perceptions, content knowledge acquisition, changes in teacher instruction, or student achievement. Over the last decade, research on professional development has started to focus more on how technology can help with any barriers of the elements of effective professional development, or how it adds new ways of approaching professional development.

To explore professional development, there should be a common understanding of what is meant by the term. Jones and Dexter (2018) identified three ways that teachers can learn information. Teachers can learn formally, informally, or independently (Jones & Dexter, 2018). Formal learning was considered the typical face-to-face learning opportunities that are how many traditional professional development activities occur (Jones & Dexter, 2018). Informal learning opportunities involved day-to-day interactions with teachers that did not occur in meetings (Jones & Dexter, 2018). The interactions could include emailing a peer about lessons or talking with colleagues (Jones & Dexter, 2018). Independent learning involves teachers doing research on their own about their lessons or other school related learning (Jones & Dexter, 2018). The study focused on formal learning opportunities.

According to Brion (2020) learning transfer is another idea to consider with professional development. Brion (2020) reported in a case study with a school where

teachers felt like there were too many professional development initiatives that effective professional development is a result of learning transfer. The seven aspects for professional development leaders to consider with learning transfer were as follows: culture, pretraining, learner, facilitator, content and materials, context and environment, and follow-up (Brion, 2020). These seven elements are meant to be considered before providing professional development. Learning transfer was an aspect of professional development to consider when analyzing the teacher responses since one of the research questions focuses on if teachers use what they learn from professional development.

The aspects of professional development that Desimone and Garet (2015) that are explored more in depth in the literature review are content focus, active learning, coherence, sustained duration, and collaboration. Other ideas about professional development that arose from reading through the research were pedagogical focus, coaching, and reflecting on teaching practices. Finally, there is a look at other considerations for professional development.

### **Content Focus**

The goal of some professional development activities is to help improve teachers' content knowledge. Some administrators want teachers to learn more about standards and the content for that grade level or the subject. Desimone and Garet (2015) include pedagogical knowledge with a focus on content in their framework for elements of effective professional development. However, many researchers have not put the two concepts together, so it is separated for the literature review. There have been mixed results in the literature with teachers improving their content knowledge because of

professional development (Brown & Bogiages, 2019; Gardner et al., 2019; Garet et al., 2016; Luera & Murray, 2016; Martin & Gonzalez, 2017).

There were several studies conducted for the United States Department of Education through the Institute of Education Sciences to see the effects of professional development on teachers and were published in 2010, 2011, and 2016. The first two years of the studies did not show evidence that professional development that included the effective elements of professional development promoted significant growth in student outcomes (Garet et al., 2010, 2011). The study occurred over two years with annual reports (Garet et al., 2010, 2011). The first year of the study provided professional development to participants during the 2007-2008 school year (Garet et al., 2010). The participants in the study were 188 middle school mathematics teachers from 77 schools (Garet et al., 2010). The professional development that Garet et al. (2010) used for the study included the elements set forth by Desimone and Garet (2015).

During the first year of the study, there was an indication that teachers were providing students with more opportunities to think. However, there was not an indication that teachers used different ways of illustrating concepts or developing reasoning skills (Garet et al., 2010). There were also no data to support that they improved in overall knowledge or that student achievement improved. These results occurred even though the teachers participated in the amount of professional development the researchers planned. The methods of the study eliminated teacher turnover, teacher knowledge, and student knowledge as possible reasons for the outcomes. Teacher turnover was not an issue since this part of the study occurred over

one year and most teachers stay throughout the school year. There also was no evidence the professional development was effective for teachers with different initial knowledge. It also did not find evidence of different effectiveness for students with different levels of knowledge.

During the second year of the Institute of Education Sciences' study, there was also no indication that teacher knowledge improved except in one area (Garet et al., 2011). Garet et al. noted that there was not an impact on teachers' common mathematical knowledge, but there was an impact on teachers' special mathematical knowledge needed for teaching. Garet et al. differentiated between common and special mathematical knowledge by describing common mathematical knowledge as the mathematics knowledge most people have while special mathematical knowledge is described as the knowledge teachers need to teach a course. The change in teachers' special mathematical knowledge did not translate into student achievement. One of the possible explanations for the results was the turnover rate between year one and year two because only 60% of the teachers who participated in year one of the study also participated in year two.

The Garet et al. (2010, 2011) studies provides important information since it spanned two years. Over the two years, the study included 12 school districts and 195 teachers from several different states. The tests provide compelling evidence that content-focused professional development, with other elements of effective professional development does not guarantee teachers will gain content knowledge. There is a need to continue to test theories of professional development to help find what helps teachers expand their content knowledge. For my study, it could have been important to note how

teachers defined effective professional development. Some teachers could view professional development as effective if it caused them to change either in content knowledge, pedagogy, or in some other way, while other teachers may want to see a change in student outcomes.

In 2013-2014, Garet et al. (2016) did another study with 221 fourth grade teachers from 94 schools in five states through the Institute of Education Sciences. In this study, the professional development positively influenced teacher content knowledge. However, the professional development did not seem to influence student achievement in that study. The professional development was noted to have been implemented to fidelity and teacher participation rates were high. The study examined teacher perceptions of professional development which can help with teacher participation which can influence teachers learning content when professional development is implemented with fidelity.

Gardner et al. (2019) found mixed results in their study with eight middle/high school teachers during professional development for science, technology, engineering, and mathematics. The study was explored if teachers improved in their content knowledge, self-efficacy, and practice after the professional development. Even though the teachers showed improvement in both self-efficacy and made improvements to their practice, there were not significant gains noted in their content knowledge.

Alles et al. (2018) found through analyzing discussions in a professional development that a focus on content helped teachers learn; however, Luera and Murray's (2016) study found mixed results when looking at geoscience professional development with 62 science teachers. In this mixed methods study, the quantitative data showed a

statistically significant increase in their content knowledge. However, a more precise measurement found there was not a significant increase in content knowledge even though teachers reported they increased in content knowledge (Luera & Murray, 2016). By having multiple sources of data, Luera and Murray were able to see more than if they had just asked for teachers' perceptions of what they learned. When Luera and Murray compared teacher perceptions with how they performed on a content assessment, they found a discrepancy between what teachers believed and the reality that their content knowledge did not significantly change. Luera and Murray's results call into question results from studies like Alles et al. (2018) because Luera and Murray's (2016) results indicated that not all teachers can determine if professional development helped them to learn new content.

Even when teachers learned, they saw that they may not have learned as much if they were left to their own accord. When Martin and Gonzalez (2017) interviewed five teachers who participated in lesson study, the teachers recognized the importance of being held accountable. They mentioned that if there was not an accountability aspect of their professional development, the lesson, which was a source of learning, would have gone untaught.

Brown and Bogiages (2019) found that participants in their study could learn STEM content better when they were more engaged in the professional development instead of being observers. The teachers did tend to be more engaged in the learning when what was being taught in the professional development matched their background knowledge. During the study it was noted that the engaged participants asked more

questions, were rethinking curriculum ideas, and found weaknesses in their own practices.

This research illustrated that if professional development is focused on content, not all teachers will necessarily experience growth (Brown & Bogiages, 2019). Some teachers struggle to identify whether they accurately improved in their content knowledge (Luera & Murray, 2016). Professional development that focuses on content has mixed results, so considering the type of professional development the teachers in the study have experienced was important. Knowing the type of professional development activities could help in understanding what teachers may or may not have learned from the professional development.

### **Pedagogical Focus**

Many researchers view a focus on pedagogy as separate from a focus on content. Studies found that professional development was more successful when it had a pedagogical focus than when the professional development was only focused on content (Duncan Seraphin et al., 2017; Gore & Rosser, 2020; Nichol, et al., 2018; Shea, et al., 2016). Helping teachers with the process of how to teach is more successful than helping with the teachers' knowledge of what to teach (Gore & Rosser, 2020). A focus on pedagogy also has helped positively influence student achievement (Antoniou & Kyriakides, 2013).

Duncan Seraphin et al. (2017) found in a study of fifth grade through high school teachers and their students that the professional development that focused on both content and pedagogy likely led to students gains. The professional development focused on

inquiry-based pedagogy and showed that students gained more content knowledge the more directly the teachers applied what they learned during the professional development. There was more of a change in student results when the teacher did not have much background knowledge on what was covered in the professional development. The results are not surprising considering if the teachers already had the background knowledge, the students could perform better on the pretest since the teacher had the experience to use what was covered in the professional development. The results were significant for the study because teachers with different experiences may experience different outcomes from the same professional development. Teachers' perceptions of professional development may originate from their experiences prior to the professional development experience.

Nichol et al. (2018) studied professional development throughout a year and then they examined student outcomes the following year. When teachers participated in the professional development the previous year, their students significantly outperformed students of teachers that completed the professional development the same year. Nichol et al. concluded that it takes time to fully use the information learned from professional development. The results of Nichol et al.'s study helps illustrate that teachers may not see changes in student outcomes soon after the professional development, which may influence their perceptions of the professional development.

Bleach (2014) found that focusing on teaching practices or content knowledge allowed educators to connect theory to practice. When studying the effectiveness of workshops during an environmental education program, Velardi et al. (2015) found in



their study when teachers participated in workshops, teachers were more likely to change their practice when the professional development was content specific and suitable for the specific audience of the teachers participating in the professional development. Shea et al. (2016) also conducted a case study with science teachers. They found the science teachers could create better lessons for students when they learned about both environmental science from climate specialists and pedagogical methods from learning specialists. The study was a mixture of online and face-to-face meetings, and they compiled data from observations, interviews, and student beliefs toward climate change.

Soliday (2015) found that when professional development is focused on content and pedagogy, teachers increased their content knowledge and pedagogical knowledge. Nilsson and Elm (2017) found that for preschool teachers learning about science instruction, they had a better understanding of the content when they also saw how to deliver the instruction. Soliday's (2015) findings also confirmed the same idea because groups of teachers learned different levels of content knowledge such as memorization, conceptual knowledge, and problem-solving abilities. Teachers in the study viewed the professional development as effective in helping them learn content. The teachers learned about dealing with student misconceptions and worked on making learning more hands-on, having visual models, and having students independently problem solve for themselves. Escriva-Boulley et al. (2018) examined whether professional development could influence 15 physical education teachers' motivation teaching style. Seven teachers received four professional development sessions three hours long each (Escriva-Boulley

et al., 2018). The seven teachers showed an increased support of their students' psychological needs, and the students showed an increase in physical activity.

Doubet and Southall (2018) thought it took more than just a focus on content and pedagogy to make professional development effective. They found that teachers learned more when professional development also focused on teacher beliefs. By giving teachers surveys before, immediately after, and three months later, they found when the study did not focus on content, pedagogy, and teacher beliefs, some of the middle and high school teachers felt they could not implement the change. For example, professional development that focuses on beliefs and processes can lead teachers to believe they should use a method to teach, but they may feel ill-equipped for the content to be effective at fostering learning. Since teachers have differing resources, depending on their school and district, some may not feel they can put what they learned into practice. Doubet and Southall (2018) helped show the importance of teacher beliefs and perceptions when exploring how much teachers learn from professional development which helps illustrate the importance of the study. Can (2019) continued the idea of teacher beliefs by doing a case study of three preservice teachers using the lesson study professional development protocol and found that it led to improved content knowledge of the curriculum, knowledge of instructional strategies, knowledge of assessments, and knowledge of the learner. It did not, however, change their teaching orientation (Can, 2019).

Evens et al. (2018) viewed three different aspects of teacher professional knowledge. They believed there was content knowledge, pedagogical knowledge, and

pedagogical content knowledge. Pedagogical content knowledge refers to the knowledge that content specialists have that includes both instructional interactions and the information needed to teach the content effectively. In their study of 174 first year education students in Belgium, Evens et al. found that when presenting teachers with one or two of the aspects of teacher professional knowledge, the other aspects are not addressed as effectively as if they are taught explicitly. The study was conducted with students rather than teachers, but it does illustrate that the study could consider the purpose and focus of the professional development that the teachers are describing in the interviews.

In their 2015 study, Yin et al. found that when teachers were part of professional development that included learning about implementing technology and assessment, it took teachers longer to learn the technology content aspects than it did the assessment aspects. Teachers could learn the technical content, but they learned it better when the teachers were able to learn it over a longer period and could go at a slower pace (Yin et al., 2015). They came to this conclusion by working with two groups of middle school mathematics teachers, one who received professional development for one year and then changed in the second year, and the second continued the professional development through the second year. Coaching efforts also made it possible for the teachers to be able to revisit the content they learned and to apply it to their classrooms. Some pedagogical methods take more time to learn than others since people have different backgrounds on the methods. Giving teachers ample opportunity to learn pedagogical methods can help ensure more teachers can adjust their instruction. In the study it may be important to ask

about the amount of time teachers had to implement what they learned from the professional development.

### **Active Learning**

Weisrock's (2017) identified active participation as consisting of opportunities for deeper immersion with learning when working with elementary teachers in high achieving elementary schools. Weisrock's study is important to the study because there are several similarities between the studies. Weisrock was also looking for the circumstances in professional development and professional learning teachers perceive they learn. The differences are that Weisrock's study was with elementary teachers in Wisconsin instead of Virginia, and Weisrock specifically wanted to see how teachers learn in high achieving schools.

While working with mathematics faculty at California State University, Soto & Marzocchi (2021) found that it was important to have an opportunity for community building, an opportunity for active learning, and a chance for reflection. The active learning techniques that they used with the faculty was providing wait time, think-pair-share, and formative assessment. They also provided follow-up meetings in order for the participants to be able to reflect with one another.

Active learning can also be discourse with other teachers; however, Weisrock (2017) documented that it entails the teachers taking what they learned and doing something with it, often trying it in their classrooms. Alles et al. (2018) observed teachers being actively involved with the facilitator and exploring how to create and adjust their lessons. This is like Weisrock (2017) who interviewed the teachers and believed the

teachers needed to have the opportunity to ask questions and to reflect on their learning. Hestness et al. (2018) found in their study that another way of being active consists of connecting existing knowledge with new knowledge. The teachers shared that they considered being active in their learning as having a voice in their professional development (Weisrock, 2017). Knowing teachers consider being actively engaged in professional development as important and want to have a voice in their professional development helps with defining active engagement for a survey with teachers.

Through interviews and surveys of fifteen teachers, Walker (2016) found that when the teachers felt they had control of their classrooms, they were more likely to implement change. Teachers who did not feel there were limits to implementing the change were able to experiment with the change. In interviews with elementary teachers from schools with a diverse population, teachers perceived the more deeply involved in the learning experience the teachers were, the more teachers felt they could have a voice in their learning (Weisrock, 2017). These teachers also had to have autonomy to make changes in their classrooms (Weisrock, 2017). It could be beneficial in the study to see if teachers feel they can implement changes in their classrooms from professional development.

Weisrock's (2017) study helps inform the study because it offers the question that if teachers are not in a high achieving school in Wisconsin, would they still think active participation is an important aspect of professional development? The study can examine if the teachers also view professional development as more effective when they are engaged with the material. Willemse et al. (2015) examined teacher perceptions in

another country, so this study examined teacher perceptions in the United States when they are not prescribed to a specific professional development.

### **Coherence**

Through working with an elementary school, Martin et al. (2019) identified understanding the school context and aligning the professional development to students' needs as two elements that need to be present for teachers to benefit from professional development. Knowing the school's environment, the teacher's professional needs, and experiences helped teachers connect more to the learning and view it as more important (Martin et al., 2019). They also found that professional development needs to connect to state, federal, and local expectations. When professional development is coherent, administrators were more likely to support it, and it had a better chance of occurring over a sustained duration. Bleach (2014) found through the analysis of action research, observations, and minutes from meetings and training connected ongoing professional development to the school's curriculum framework, early childhood teachers could improve their content knowledge of the material that they teach.

Through interviews, Doran (2014) found some middle school teachers from diverse schools felt the professional development they experienced was not related to what they taught. 67% of teachers in a survey of 100 early childhood teachers in Stormont and Young-Walker's (2017) study reported that professional development was on ideas which they already knew. Doran's (2014) study consisted of teachers who worked with culturally and linguistically diverse students, and few professional development opportunities addressed this population of teachers. The teachers who did

not think the professional development addressed their needs still recognized content, instructional strategies, and working with peers as beneficial (Doran, 2014). Even though this population of teachers may not apply to most teachers, some teachers may have experienced professional development that does not apply to them, which would mean the professional development would not align to all the teachers' needs.

Another reason for teachers and schools not wanting to participate in some professional development is because of standardized assessments (Prior et al., 2014). With a focus on student performance on standardized tests, the focus of many schools is on test scores. By conducting a questionnaire with drama teachers, Prior et al. found that teachers believe many administrators do not want to spare the time to focus on something students will not see on a test. Even though teachers and administrators may believe other teaching practices may be beneficial, some will not have a focus that would not immediately influence test scores.

Weisrock (2017) continued the research on professional development coherence and found one reason teachers wanted to participate in professional development was to help their students and to see their students achieve. Primary and secondary teachers said in interviews that having coherent professional development allowed teachers to focus on their daily practices and concerns (Willemse et al., 2015). When professional development aligns to teachers' practices, it will apply to what teachers do daily, and teachers can see how it helps students succeed.

Walker (2016) found coherent professional development aligned with what teachers do and the teachers' belief of what leaders want from professional development.

One teacher involved in the study reported they used activities learned from professional development, while another teacher used strategies to ask deeper questions. Both of those goals were ones the teachers perceived the leaders had for professional development. Since the teachers believed the leaders of the school had these goals, they also believed the professional development was coherent with the goals of the school.

Providing professional development related to the lessons that teachers teach, and not on other grade levels or subjects, naturally allowed the professional development to be coherent with the initiatives of the school. Teachers felt professional development was not useful when the activities focused on other grade levels (Walker, 2016). The teachers from the Walker study did not seem to see how the material of other grade levels related to their current students. Teachers thought the professional development posed challenges when they did not recognize how the activities would benefit their students and their students' experiences (Walker, 2016).

Walker's (2016) study showed that many teachers want professional development to connect to what they teach. Professional development that is coherent with the school's initiatives can help with this study because it gives another reason teachers may find professional development effective. Walker illustrated that teachers could also see professional development as effective if they perceived professional development as aligning to the needs of the school. Prior et al. (2014) research helps this study because it illustrated that some teachers' disciplines or teachers' interests could go neglected, which leads to teachers viewing the professional development as not helpful because it does not apply to them.



### **Sustained Duration**

Continuing professional development is a term that has different definitions (Alibakhshi & Dehvari, 2015). Some teachers thought continuing professional development was the professional learning opportunities they have throughout their career, while others viewed it as keeping up to date with current research (Alibakhshi & Dehvari, 2015). A common definition would help with discussing professional development as more than a one-time professional development experience.

This study will use the term sustained duration and the definition Desimone and Garet (2015) provided, to reduce confusion. They defined sustained duration as professional development that took place throughout the school year and stated that teachers should have the opportunity to revisit it in the future. Desimone and Garet recommend 20 or more contact hours during the school year for professional development. Many leaders in school systems in the United States are moving away from workshops and moving towards providing professional development opportunities that allow for more time to be dedicated to them throughout the school year to provide the opportunity for sustained duration (Desimone & Garet, 2015).

Voogt et al. (2015) had a more specific definition for sustained professional development when they asserted that for professional development to be sustainable, it needed to include continuous improvement. They also said there needed to be improved learning by all participants, and there needed to be opportunities to solve problems in a variety of ways. To help come to this conclusion, Voogt et al. synthesized the work from three case studies that included teachers from five countries the United States, Canada,

Ghana, Tanzania, and Ethiopia. Interviews with the teachers who participated in the collaborative professional development helped the researchers find that for professional development to continue for a sustained period, teachers from all different kinds of backgrounds, teaching different types of students need to have the opportunity to learn. Participants could include administrators, teachers of different levels, and teachers who have differing levels of experience. It would be difficult to assure that every person at a professional development opportunity can continue to improve because of professional development. Some teachers may already know the information provided in professional development. It does not seem that professional development would be ineffective if only one or two teachers did not improve. If a staff of 30 teachers had 28 teachers improve and two that did not, they believed the professional development should still be considered successful.

By working with 34 principals, Brown and Militello (2016) found that principals also believed professional development sustained over time is important when providing professional development for their teachers. Principals felt that making professional development sustainable included following-up with the participants to offer support from the leaders of professional development (Brown & Militello, 2016). Even though in the study principals were not going to be part of the population surveyed, it is important to note principals' opinions in terms of looking at trends in professional development that teachers may experience.

In a study that primarily consisted of interviews of 10 librarian educators, Attebury (2017) found that the two most common themes of elements that led to

transformations in their practices were long-term nature of the professional development and the social aspects. The more time the professional development continued, the more time there was for the participants to collaborate, and it also gave more time for the teachers to reflect. The reflection can help build more self-awareness and help teachers learn how to identify solutions for meeting their needs. Kyriakides et al. (2017) noted while doing a 3-year study with 106 teachers that teachers in earlier stages of learning made significant changes, while teachers in more advanced stages did not make significant changes until Year 3 of the professional development. In a smaller study of 12 teachers, who were also selected specifically for the study, Bana and Cranmore (2019) found that Desimone and Garet's framework was essential for success. Teachers recognized that the follow up with the professional development played a critical role in implementing the training (Bana & Cranmore, 2019). For the study, the amount of time a professional development topic continues could impact teachers' ability to work through how the professional development influences their teaching practices.

Not all studies found that sustained duration of professional development was effective for the participants to gain content knowledge. Doran (2017) interviewed teachers from culturally diverse schools found that even though the participants had received professional development on multiple occasions, they did not have skills that they should have gained. Sustained duration does not mean that the professional development is good quality (Doran, 2017).

For the study, much of the research on sustained professional development shows the amount of time teachers spend in professional development can help influence

whether the teachers find the professional development beneficial (Matherson & Windle, 2017). Principals see the importance of having sustained professional development (Brown & Militello, 2016). The study can help answer the question of whether teachers share the same belief as administrators that sustained professional development is beneficial or if they disagree.

### **Coaching**

In their own framework, Bates and Morgan (2018) identified seven elements of effective professional development. One of the elements that they included, that Desimone and Garet (2015) did not, was coaching and expert support. Bates and Morgan (2018) claimed that coaching can allow for the learning to be focused on children's needs and it can also allow professional development to be individualized for teachers. The framework also allowed for people who specialized in the topic of the professional development to offer help to teachers as well, which could include specialized teachers and professors.

While working with six coaches in England, Lofthouse (2019) described coaching as a way to provide support teachers, a profession where many teachers have left. Lofthouse's study was from the coach's perspective and helped show how coaching could be used as a form of professional development. Coaching can serve as a way to support teachers through professional development, and it can help provide teachers with a better sense of belonging to the school community.

One way of sustaining support to teachers during professional development is through coaching. Pianta et al. (2014) noted the more coaching cycles 170 preschool

teachers went through resulted in more change in teacher instruction. Even though administrators and teachers recognized support following the professional development as important, Linder et al. (2016) reported in a mixed-methods study of 320 preschools and 1022 teachers, that many early childhood institutions do not offer that type of support. Coaching could be another indicator of whether teachers have positive experiences over a period with professional development. If the schools that participate in the study have coaches, it could influence teacher responses. Even though the researchers conducted these studies with preschool teachers, whose educational requirements are different from other teachers, the studies show how coaching can influence teaching.

A mixed-methods study involving 10 elementary teachers showed that coaching was beneficial to teachers to retain the content and reflect on the content (Phillips et al., 2016). Allowing teachers to work with a coach gives an opportunity to revisit content and to have feedback from another teacher. The coaching efforts also resulted in better student performance (Phillips et al., 2016). Coaching also gave administrators and professional development facilitators a way to be able to allocate more time toward a topic. When teachers had the opportunity to work with a coach after professional development, they were more likely to retain the information, unlike one-time professional development which shows the information learned decreased over time (Phillips et al., 2016). Coaching can help teachers practice pedagogical strategies they learned from professional development and to continue to reflect on the training even after the workshop ended (Phillips et al., 2016). Phillips's et al. study illustrates how

some teachers learn from coaching opportunities, and why in the study it is important to identify whether the schools have an instructional coach.

Mentoring is like coaching but comes from someone who has a similar job title instead of from a coach. Mentoring also is a way for both the mentors and the mentees to learn (Hudson, 2013). Both mentor and mentees improved in pedagogical methods since the mentor had to break down practices that gave them a better understanding of the pedagogy as the mentee learns from the information (Hudson, 2013). Holland et al. (2018) found that pairing new teachers with teachers who are experienced in student centered teaching to teach a course, led to sustained benefits for the new teachers, but experienced teacher also needed to be willing to take on a mentoring role. When teachers are working together, whether through coaching, mentoring, or collaboration, all teachers involved can learn. In schools that do not have an instructional coach, mentoring may be a viable option to help teachers with continuing to work through topics learned at a formal professional development setting. It could be important for the study to see what kind of mentoring programs the school has in place for teachers.

Teachers tend to benefit from coaching and mentoring (Hudson, 2013). That is not to say all coaching experiences are positive, but when coaches work with teachers in conjunction with other professional development, it tends to have a positive influence on teachers using the professional development in their classrooms (Pianta et al., 2014). In the study, teachers' responses may be different depending on if they have worked with a coach or not. Hudson and Hudson (2017) also did a study with 31 mentor teachers who helped identify personal, pedagogical, and professional as the categories of tensions that

arise between mentors and mentees. Personal issues derive from incompatibility between the mentor and mentee, pedagogical issues were either differences in teaching style or it involved the mentee lacking the pedagogical skills needed to teach effectively, and professional tensions involved the mentee not acting professionally (Hudson & Hudson, 2017). The types of tensions identified should be considered if a teacher in the study had a bad experience with a coach or mentor.

### **Collective Participation**

Noben et al. (2022) described collaboration as a very important part of professional development for teachers and university departments. Therefore, their study explored how to improve collaboration among teachers. They found that four conditions helped to improve collaborations which were knowing their colleagues' strengths, being able to meet with colleagues, have a safe environment to interact with colleagues, and colleagues being committed to work together (Noben et al., 2022). They also found that teachers with more than 5 years teaching experience were more likely to collaborate, as were teachers whose rooms were closer in proximity (Noben et al., 2022). They also suggested that a way to help teachers collaborate with different coworkers than they normally work with, they could have an expectation that teacher observations are with different teachers each month.

Goodnough (2018) studied 38 teachers that were part of a five-year initiative for learning in science, technology, engineering, and mathematics (STEM). The teachers collaborated in inquiry based professional development, planned, acted out the lesson, observed the lesson, and reflected on the lesson. Working together allowed the teachers

to form stronger relationships than they had prior to the professional development. The working relationships that are formed can help when there was a difficult aspect of the professional development. Carbone et al. (2019) found that working with colleagues can help overcome perceived barriers whether they are internal or external.

Lambirth et al. (2021) used action research to promote collaboration between teachers and to include facilitators. Facilitators were important in getting all teachers to participate equally in the collaboration and not to allow certain teachers to lead the conversation. Some teachers responded that action research provided a way to achieve transformative professional learning. Collaboration can play an important role in what teachers take from a professional development.

McKeown et al. (2019) found that 20 second and third grade teachers from three rural school districts believe the relationships formed during professional development helped them learn. It was important that the numbers in the group were large enough to build relationships and small enough to feel safe in the community of teachers (McKeown et al., 2019). The ideal number of people in a group is different for different teachers. One teacher in the study reported thinking the perfect number as six while another thought the perfect number was less than 10. The number of people in the group also can also determine the amount of participation each member in the group is expected to do. This study shows that just because teachers agree that working with other teachers can benefit professional development, that does not mean that all teachers will agree how the collaboration should occur.



Teachers can help other teachers work past perceived barriers. Chaaban (2017) found in observations, interviews, and surveys of teachers in Qatar that the teachers were able to overcome obstacles when working with a group of teachers. Working with other teachers helped some teachers see a point in changing their teaching methods when they have been teaching for numerous years (Chaaban, 2017). The range of experience for the teachers in Chaaban's study was from 4 to 19 years. Even with the success of some teachers in professional development, some teachers reported that it was too difficult for them to change at this point in their career (Chaaban, 2017).

The Voogt et al. (2015) study also found teachers who worked with a team and discussed subject material were more likely to improve using learned teaching practices and improve outcomes, which also involved changes in both the individual and the group. Teachers who collaborate can share their experiences in their classrooms, hear other perspectives on how to best provide instruction, and discuss what went well and what did not (Gröschner et al., 2018). The dynamics of the group plays a role in what individuals and the group can learn, with varying experiences leading to learning for all involved.

To see the benefits of collaboration, Tanzanian teachers created the following features for groups to be effective. The top six features from the teachers using focus group discussion and questionnaires were

- everybody should be responsible for the agreed tasks to be accomplished
- there should be a common agreement on what to do and how to do it
- no one should dominate team discussions
- there should be an agreement on how and when to accomplish a given task

- all teachers should be well informed of the task to be accomplished in the team
- if necessary, there should be a division of roles amongst team members; and
- teachers should set goals and agree on how to accomplish their goals

(Kafyulilo et al., 2016).

The study showed that these features gave collaborating teachers direction and allowed the teachers to learn from their peers. The study by Kafyulilo et al. was important for the study because it showed that not all collaboration is effective, and there should be guidelines to help make it more effective.

Brown and Militello (2016) also found in their study with principals that they also viewed having teachers work collaboratively with other teachers in their school as well as with teachers from other schools, as important. Pehmer et al. (2015) found that principals view teachers working together as effective because teachers who discussed their professional development together even when the professional development was through videos were more likely to put the professional development they received into practice, and it had a positive impact on student achievement. Principals are willing to use alternative methods for teachers to collaborate based on the resources that are available to them. This showed that schools have different resources that can aid in the effectiveness of professional development, and principals have limits to what they can offer their teachers, which can influence how teachers perceive the effectiveness of professional development.

Another study showed the knowledge gained through professional development passed through networks of teachers who work with the teacher who directly experienced the professional development (Sun et al., 2013). Sun's et al. (2013) 3-year study of writing instruction in 39 middle schools found, in some situations, the change of instructional practice was just as strong with the network of teachers as it was with the teacher who participated in the professional development. The support network can lead to all teachers changing when teachers can see another teacher have success and collaborating can help that success spread.

Even though a study in Tanzania agreed that collaboration is effective when used in professional development, the study illustrated that for it to be effective, teachers need to have support to help give them direction during the professional development (Kafyulilo et al., 2016). When the administrators and other professional development leaders did not give the teachers direction, they did not know how to proceed (Kafyulilo et al., 2016). Herbert and Rainford (2014) also found limitations to the collaborative approach, such as when there are curricular changes or reform efforts, in which case a short workshop may be more appropriate. There are times when different types of professional development may be appropriate, based on the desired outcome.

Goodnough et al. (2014) found that teachers not only recognized the importance of being able to collaborate with other teachers but also with specialists, administrators, and other experts in the field. The teachers in the study also reported to collaborate and work through the professional development, the teachers needed time to do it. If administrators want teachers to work in meaningful professional development, including

working with other teachers, specialists, or coaches, teachers want more time dedicated to the professional development. The teachers in the study made it clear they did not want the time to come from their time after school, but rather from the workday. Other limitations of collaborating included finding areas to study, keeping the development manageable, keeping the focus on students, and keeping the development focused on the teachers' interests and passions. When examining collaboration, it is not enough to look at whether teachers are collaborating, but what they are doing when they are collaborating.

The studies on technology in professional development are included because there has been an increase in studies in the past 5 to 10 years on professional development that focuses on technology. There has also been an increase in the availability of professional development opportunities online that range from blogs, to increased availability of research articles, to more classes available online. Technology offers an alternative to traditional professional development, and it could offer an alternative for teachers that do not think traditional professional development has been effective. It also could be a way that some teachers have better access to professional development, so they could think their professional development experiences have been effective because of technology. Technology offers more possibilities for positive and negative responses during the interviews in the study.

In a 5-year study, teachers analyzed lesson plans and analyzed results through collaborative practices online, which allowed teachers to learn from other's perspectives (Choi & Morrison, 2014). The online discussion board allowed teachers to discuss what

they have already tried in the classroom and how the experience went with students.

Another concern is the computer applications, or the hardware needed for videoconferencing, as well as users not being comfortable with the learning format being offered.

When Ciampa and Gallagher (2015) worked with 15 teachers to use blogging in professional development, they found that even though teachers could use technology to collaborate, not all teachers liked to use technology to collaborate. Blogging and technology seemed to work best for teachers who are shy, introverted, and reflective. Some of the reasons why teachers perceived blogging and technology as not useful were because of lack of training, technology problems, and time limitations. There are many ways to collaborate, but not all teachers will want to participate in all the ways. Some teachers may struggle with being engaged in a face-to-face setting while others will struggle with the computer aspect of blogging or using discussion boards. Richman et al. (2019) found that teachers also liked to collaborate with different groups to learn more during professional development. The teachers benefitted from working with grade level teams, across grade levels, and with special education teachers.

In a survey of 65 teachers and follow-up interviews with 16 of them, it was reported professional learning communities are another way to help teachers learn about their subject area or the grade they teach (Jones et al., 2013). Professional learning communities are when teachers work together with teachers who teach the same grade or the same subject to learn about their content. Teachers felt the professional learning communities were better suited for less experienced teachers than experienced teachers

(Jones et al., 2013). Even though one of the goals of professional learning communities was to increase content knowledge, only a few teachers reported that it increased (Jones et al., 2013), showing collaboration does not always lead to teachers gaining what the facilitators intended.

Teachers did not always work well with others when facilitators or administrators asked the teachers to collaborate (Jones et al., 2013). Teachers had different personalities and did not always cooperate when asked to collaborate. Allen and Penuel (2014) found that another reason teachers did not always work well with other teachers was that there is always ambiguity in professional development. The ambiguity formed because teachers interpret professional development differently because they have different experiences. The way groups of teachers managed the ambiguity can determine how and if the teachers participated well together. Working with other teachers is how teachers made sense of the differences in experiences and how to implement professional development in their school (Allen & Penuel, 2014). Different personalities could lead to problems, but the differences also helped teachers learn and showed many variables that lead to groups working well together when they collaborate. For the study, the group the teachers were in for professional development can lead to either positive or negative experiences.

Hivner et al. (2019) explored how teachers implemented physical activity into their classrooms using professional development that incorporated elements of social cognitive theory. The components that made the professional development social cognitive theory were behavioral capability, outcome expectations, self-efficacy, self-

regulation, reciprocal determinism (Hivner et al., 2019). The results showed that professional development that considers the individual participants, their social interactions, and the environment can lead to implementation in the classroom.

The studies on collaboration show that it has had mixed results, however. For the study, collaboration can lead to effective professional development, however, just because professional development includes collaboration, does not guarantee that it is effective since the group of teachers may not work well together and the people do not learn to the same degree. If teachers mentioned collaboration with other teachers as an effective element of professional development the questions about collaboration must be chosen carefully to assure the teachers are not influenced to respond positively because there are plenty of negative experiences as well.

### **Reflecting on Practice**

Another aspect of professional development to examine is giving teachers the opportunity to reflect on practice. Antoniou and Kyriakides (2013) found that when 130 primary teachers from Cyprus reflected on specific teaching practices during professional development, they were more likely to change their practices than if they were not. Through a questionnaire of 238 Croatian teachers, Vujicic and Camber Tamoloas (2017) saw even though preschool teachers did not receive much professional development from outside sources, they still knew they had to improve and would do so through reflection. Teachers looking at their practices can adjust their practices when they feel it is appropriate. These two studies helped to show it is not always about the resources

available to teachers or a district, but about helping teachers make the connection to their teaching practices.

It is not always easy to include reflection in professional development. While doing a case study with a teacher and two teacher educators, Herbert and Rainford (2014) found that teachers sometimes need direction on how and what to reflect. However, when facilitators give teachers direction, it encourages a hierarchal relationship which can cause other deficiencies. Herbert and Rainford found a hierarchal relationship can cause a stunt in the development of the person learning, and they may not be able to develop the idea on their own. There are different factors to consider when giving teachers direction to reflect. Reflection on its own does not seem to lead to change. Teachers in the study may list reflection as an element that helped them learn, but it will more likely be part of several reasons.

Teachers watching themselves teaching a lesson allows for critical review of their practices. By using videos of lessons, researchers and teachers reflected on lessons and teachers shared they are willing to change their teaching pedagogy after they question their own teaching beliefs when they see different teaching strategies can be more effective (Nilsson, 2014). Williford et al. (2016) found in a study with 150 preschool teachers that a key component that led to change in professional development was a teacher's ability to recognize, explain, and evaluate high quality interactions. If teachers were able to identify quality instruction, they could also reflect on if they were using quality instruction in their own classroom.



Ongoing reflective professional development allowed teachers to continue to explore content and pedagogical knowledge and allowed the teachers to connect theory to practice, instead of facilitators expecting teachers to make connections after one workshop (Bleach, 2014). When science teachers participated in a training model professional development on climate change, with the positive change to their lessons and even improvement in student outcomes, the teachers still explained they needed ongoing support and felt they had more to learn (Shea et al., 2016). When teachers worked with other teachers, they gave each other support from their experiences and reflected on how to incorporate the professional development into their classrooms which allowed teachers to take their learning further. Osborne et al. (2019) added that when teachers are given opportunities to practice, and to reflect on practice, the opportunities should be focused on the context in which they will be used.

Through interviews of teachers who used personal blogs and communal blogs, Biberman-Shalev (2018) found teachers can also reflect and connect professional development to what they learn by using blogs, and personal blogs seemed to have more of an effect on reflection than communal blogs. Preservice teachers were more reflective during personal blogs, but they also tended to share ideas in a communal blog. Biberman-Shalev found benefits of both types of blogs, but in different ways, with the personal blog offering more benefits to connecting professional development to lessons that teachers teach. While asking teachers about their perceptions, if a participant mentions reflection as an element that helped them learn during the professional development it may be important to remember there are many ways teachers can reflect. Not all methods

produce the same results, but they offer opportunities for teachers to think about their practices.

For my study teachers answered how they interact with the material from the professional development and could include reflecting on their teaching practices and how the teachers incorporate the information from professional development. Reflection can happen in many forms, from videos which can help teachers see their teaching from different perspectives to online blogs which give teachers a way to reflect on their thoughts, like a journal. The study examined if teachers consider reflection to be an important component of effective professional development.

### **Considerations for Data Analysis**

#### ***Resources***

There are barriers to researching the effectiveness of professional development. Some barriers occur because of struggles teachers perceive to face in their classrooms, so they feel they cannot implement the professional development, regardless of the effectiveness of the professional development. Resources such as time and other materials were common barriers that teachers identified. Porter et al. (2019), in a study with about 30 urban teachers found that even when teachers benefited from collaboration during professional development, they still identified time, money, materials, and lack of support as barriers that hinder using professional development in their classroom.

When teachers in Chaaban's (2017) study identified time as a barrier, there were several different issues 17 primary teachers in Qatar mentioned in surveys and interviews, and that Chaaban witnessed in observations that related to time. The lack of

time teachers reported included the amount of time involved with their teaching period instead of the amount of time it would take to implement the professional development. Time as a barrier also included more time for teachers to develop their skills and time for their students to develop skills. Finally, teachers only had limited time to prepare for the lessons that would include the professional development initiative. Brigantini et al. (2019) also reported in a case study of an individual teacher, that the professional development did increase the number of teaching strategies the teacher had, however, it did not change her attitude toward or her overall approach toward teaching gifted education. Time plays a role in many aspects of teaching, and if teachers do not feel like they have enough of it, professional development can suffer. In the study, it was important to identify what teachers mean if they give time as an example of a barrier to effective professional development.

Survey results from STEM teachers showed they wanted time and resources, such as technology and guidance from administrators and other instructional leaders (Goodnough et al., 2014). In a more recent study, Power and Goodnough (2019) found that when the teachers did have ample time and resources, then they were able to increase their instructional knowledge and use that knowledge in their classroom. To help with the issue of time, teachers can utilize technology programs such as Twitter (Visser et al., 2014). Visser et al. found through an online survey asking teachers about how they use Twitter, that Twitter, other sites, and programs can help disseminate information that otherwise would not be available to teachers. Even though technology has much potential, the more technology becomes involved in professional development, the more

questions arise about the content on Twitter and to what extent it leads to change in teaching practices (Visser et al., 2014).

Other resources teachers may not have available include technology, support, and other materials (Gonczi et al., 2016). These variables were identified when Gonczi et al. looked for barriers to science teachers using computer simulation. When teachers do not have the resources available to them to implement professional development, they most likely will not do so. Standardized testing also served as a barrier for implementing professional development in the teachers' classrooms, because the technology has been reserved for the testing.

Teachers respond better to professional development workshops when there are online supplements provided, as Velardi et al. (2015) found when surveying 26 facilitators and 94 educators, with follow-up interviews of six of the participants. Online supplements give professional development leaders the opportunity to support teachers even after they have left it, though teachers preferred to go to in-person workshops rather than online workshops (Velardi et al., 2015). These resources are not available to all teachers, but they can be valuable to use in professional development, and if teachers do not have access to them, they can influence how a teacher feels about professional development.

### ***Teachers Respond to Professional Development in Different Ways***

There are teachers of different grades, subjects, and levels of experiences in most schools. People are naturally different from each other. For example, some teachers do not take professional development as seriously as others (Sears et al., 2014). Sears et al.

noticed that 30 physical education teachers cared more about coaching than the development of their teaching, or they did not think they would benefit from professional development. Some teachers did not think they would benefit from professional development while others wanted to learn (Sears et al., 2014). Not every teacher is excited to learn the content, and some teachers do not feel they need to learn more.

An aspect to consider when looking at whether teachers change their teaching methods after participating in professional development is the teacher's motives for participating in the professional development. Avidov-Ungar (2016) conducted interviews with 43 Israeli teachers and found there are both intrinsic and extrinsic motivations for teachers. Teachers also participated in professional development to improve their skills in their current position, while others participated in hopes of later securing an administrative position (Avidov-Ungar, 2016). Different motives for professional development led to different goals.

Van den Bergh et al. (2014) found through observations, a questionnaire, and an instrument to identify beliefs in two primary schools in the Netherlands that individual teachers respond to professional development in different ways. They found different topics need different amounts of time and professional development strategies to be successful (Van den Bergh et al., 2014), and diverse backgrounds on topics caused teachers to have different attitudes about professional development. Sturmer et al. (2016) found with 64 preservice teachers that different people process information at different speeds. The learning in the study seemed to follow a similar path for all the preservice teachers, however, they did not learn at the same rate.

Delvaux et al. (2013) found that while working with 1,983 Flemish teachers from 65 schools, less experienced teachers gained more from professional development and the teacher evaluation process. The research team noticed that there was a high standard deviation in their data, and this indicated that there was a wide range of data (Delvaux et al., 2013). Further exploration of the data illustrated that teachers with less experience gained much more than teachers with more experience.

While forming a partnership between university researchers, engineers, curriculum supervisors, and teachers, Johnson et al. (2016) found that the different groups in the partnership and different goals for the professional development based on their profession. Brown and Militello (2016) found that principals also have different views on what makes effective professional development for their teachers. For example, some principals had success with outside professionals coming into the school to provide professional development, while other administrators had negative experiences with outside providers. When principals are thinking of how to provide professional development, the different views of professional development help shape the professional development teachers receive. Johnson et al. (2016) concluded that addressing differences can help groups come to compromises to move forward.

Some administrators led professional development for a group of teachers, and then those teachers provided professional development to other teachers. A case study of three secondary schools in Ethiopia helped show how teachers responded to professional development differently because of having different experiences, when professional development facilitators presented information to a group of teachers and expected them

to disseminate it, the information changed each time it is passed along (Gemedda et al., 2014). When Koster et al. (2017) conducted a comparison of 68 experienced elementary teachers who received training from experts versus the teachers trained by the teachers who received the training from the experts, there was not a significant difference in the outcomes. The main difference between the two groups was the teachers trained by the experts felt they had more support than the teachers trained by other teachers (Koster et al., 2017), showing different teachers had different perspectives on which type of professional development was better.

Brown (2017) found when implementing professional development with two secondary mathematics teachers that the teachers responded to professional development on mathematical technology in two different ways. The first teacher recognized the technology offered multiple ways of thinking about a topic for students. However, the teacher did not give the opportunities to the students because the teacher had a skill-based self-perception (Brown, 2017). The other teacher involved in the case study thought it was easier to implement the technology into lessons because the teacher did not have a skill-based self-perception (Brown, 2017). Teachers' perceptions of themselves can influence the knowledge the teachers gain from professional development.

Noonan (2019) found in a phenomenological study with 25 teachers ranging from pre-kindergarten to 12<sup>th</sup> grade that even though teachers are different they still fall into more general categories. Noonan also challenged the notion that there is one way of providing professional development in an effective way. Rather than there being one effective way of presenting information, there may be different ways that are effective for

different groups of people. In this study, different groups of people may have different preferences when describing what they consider as effective professional development.

Brion (2020) explored the idea that it does not matter about the difference between people, but instead it matters if there is learning transfer during the professional development. In a case study with a school that had teachers who believed there were too many professional development experiences, Brion claimed that the leadership needed to account for certain elements for there to be learning transfer. Brion identified seven dimensions of learning transfer that leaders should consider when providing professional development: culture, pretraining, the learner, the facilitator, material and content, context and environment, and follow-up. The results of the study showed that the principal still had changes to implement to maximize learning transfer, but there were improvements being made. Brion's study helped illustrate why it is also important to see what makes teachers apply what they learn into their classrooms.

People participate in professional development for different reasons, whether they want to further their knowledge of their current position or want to be promoted in their job. Since people have different goals, they also would measure the success of professional development in different ways. In my study, while interviewing the teachers, it was informative to try to understand teacher motivations for participating in professional development to better understand how and why they find professional development effective. Through these differences, I identified what makes teachers apply what they learn into their classrooms.



### *Professional Development in Virginia*

In Virginia, there are different guidelines for schools that meet certain criteria. There are not many guidelines for schools meeting the criteria of the “Every Student Succeeds Act” (United States Department of Education, 2015). The “Every Student Succeeds Act” is a federal initiative that helps define when schools are being effective or not and there are ramifications for schools that do not meet the requirements of the act. When schools do not meet the requirements, there are certain guidelines the schools must follow. Finally, there are guidelines for teachers to receive recertification.

Schools that have met the guidelines of the “Every Student Succeeds Act” (United States Department of Education, 2015) are encouraged to offer professional learning and professional development opportunities that are innovative to continue to improve teaching practices (Virginia Department of Education, 2018). The Virginia Department of Education offers professional development and links to professional development that would be appropriate for different groups of teachers. Schools that meet the requirement of the “Every Student Succeeds Act” are not required to do anything differently by the Virginia Department of Education, but rather they are encouraged to follow the guidelines.

Schools that have not met the requirements must offer certain types of professional development that include planning for the school to meet the requirements (Virginia Department of Education, 2017a). Professional development is offered to teachers who work with at-risk students; the Virginia Department of Education offers professional development along with the Virginia Tiered Systems of Support for all

educators at the school (Virginia Department of Education, 2017a). These initiatives may limit the types of professional development opportunities that schools can offer teachers who take part in this project. The participating school for the study is fully accredited and do not have warning status, so there should not be any restrictions on the professional development the school can offer.

Teachers must meet the recertification requirements and earn a total of 360 recertification points every 10 years (Virginia Department of Education, 2019). The points can fall into eight different categories. The categories are

- college credit
- professional conference
- curriculum development
- publication of article
- publication of a book
- mentorship/supervision
- educational project; and
- professional development activities (Virginia Department of Education, 2019).

There are also point requirements on each of the categories. For example, all the points can be from college courses, however, only a fourth of the points can be from professional conferences. In addition to the points received from the eight categories, teachers must take free training on child abuse and neglect recognition, emergency first aid, dyslexia awareness training, and specialized training for certain endorsements such

as school counselors. The requirements on teacher licensure renewal may influence the study because the professional development the teachers find most beneficial may come from a source outside the school district, such as a professional conference or a college class.

According to a representative of the participating district, approximately \$150,000 of funding for professional development come from local funds and \$280,000 come from federal Title II funds. The district uses the local funds for tuition reimbursement and professional learning for administrators. The federal funds are used for tuition reimbursement, professional learning for teachers, curriculum development, and coaching. Often the state will have mandates for a year, for example the district had to appoint a dyslexia advisor and provide training for them. The locality will also identify needs such as social and emotional training for teachers, but that was identified with direction from the division. Whereas the division used to dedicate some professional development time to division goals while others were dedicated for school goals, the district no longer dedicates the time to one goal or the other.

### **Summary and Conclusions**

Desimone and Garet (2015) published a framework describing the elements of effective professional development. Content focus, active learning, coherence, sustained duration, and collective participation were the elements Desimone and Garet identified as what makes effective professional development. The framework also provides elements in professional development to consider that can influence the effectiveness of professional development. Much of the research relates to these elements of effective

professional development and what elements allow teachers to improve their content and pedagogical knowledge. If content knowledge or pedagogical knowledge is the focus of professional development, it has a better chance of being coherent (Gomez-Zwiep & Benken, 2013).

Researchers have explored Desimone and Garet's (2015) claims in their conceptual framework of elements of effective professional development. There is a gap in the research since there has not been a study that shows how teachers feel about Desimone and Garet's elements or how that plays into how professional development is used in classroom teaching practice. Teachers play a vital role in the effectiveness of professional development, and Desimone and Garet mention in their framework there needs to be more about "specific aspects of the five features that are important in different contexts" (2015, p. 260). Since teachers are the practicing professionals, exploring their opinions on the effectiveness of the elements will help to bridge the gap between the conceptual framework and practice. It can also help to see what combination of elements teachers find lead to effective professional development.

The literature provided insights into what makes professional development effective. The literature provided support and critique for teacher content focus, pedagogical focus, active engagement, coherence, sustained duration, coaching, collaboration, and teacher reflection. There were also considerations such as leadership support, how teachers learn differently, and other aspects of professional development. Since studies on the different elements of effective professional development had both

positive and negative results, it seems to indicate that the elements are not effective when used in isolation.

The literature review also examined the guidelines Virginia maintains for professional development. Virginia has different expectations for schools that have met “Every Student Succeeds Act,” for schools that have not, and for teachers. Researchers can consider these expectations for a study on professional development in Virginia. Some schools do not have many guidelines they must follow, while others that have struggled to have students do well on the assessments and have more guidelines they must follow. Finally, the gap in the literature was determined to be that there has not been sufficient research into whether teachers believe the same elements that Desimone and Garet (2015) posit are the elements of effective professional development.

Chapter 3 includes an explanation of this qualitative study to determine the extent teachers agree with the elements that Desimone and Garet (2015) believe make for effective professional development. The chapter includes rationales for the method and design. Chapter 3 also includes data collection and validation techniques, ethical considerations, the data analysis process, and considerations for reliability and validity.

### Chapter 3: Research Methods

The purpose of this interpretive qualitative study was to explore teachers' perceptions of professional development they have experienced and how they have applied the professional development to their teaching. To answer the research questions, I interviewed 10 teachers in Virginia and asked them about their experiences regarding professional development. I developed the interview protocol to explore what teachers felt are effective elements of professional development, what they viewed as ineffective elements, and what determined if the teachers use what they learn from professional development in their classroom.

This chapter outlines the components of the qualitative study. The chapter begins with a description of the design and rationale for the study. I then describe my role in the study and the methodology of the study. Finally, the chapter concludes with an explanation of the threats to validity and issues of trustworthiness with an explanation of the ethical procedures put into place.

#### **Research Design and Rationale**

There were three research questions that guided this study:

RQ 1: What do elementary school teachers perceive as characteristics of effective professional development?

RQ 2: How do elementary teachers report that they determine whether professional development activities are useful or not useful?

RQ 3: What factors influence how teachers apply information learned from professional development in their classroom instruction?

Interviews with current teachers were used to develop answers to the above research questions.

Professional development was the central concept explored in the study. Many school districts use professional development to help teachers learn about new initiatives. The initiatives can include information on content, pedagogical methods, district guidelines, state guidelines, or miscellaneous information needed in the school. Expectations frequently change in school districts, and administrators often want to offer learning experiences to respond to the changing expectations (Hynds et al., 2016). The school district in which I conducted my study used a variety of professional development methods to disseminate information to the staff and to allow staff to expand their learning.

I used an interpretive qualitative design as outlined by Merriam and Tisdell (2016). In an interpretive qualitative study, participants give their perceptions about a topic. Qualitative research allowed me to explore how people interact with their social world and allows for humans to construct the meaning of knowledge as they interact with others and with the world (Merriam & Tisdell, 2016). This study was a qualitative study because I sought to describe how teachers perceive and report their experiences about professional development.

I also considered a quantitative study. A researcher using a survey-based quantitative study would be able to have more teachers participate in the study. A researcher could use a Likert-type scale on a survey to evaluate the degree to which teachers believe different elements of professional development make a difference in

their learning, and to what degree they are using the professional development in their classrooms (Frankfort-Nachmias & Nachmias, 2008). However, a quantitative study would not have the same amount of depth as a qualitative study since, in the study, the teachers explained their opinions of effective professional development. For this study, it was important to delve more deeply than if teachers find professional development to be effective. I wanted to understand their perceptions of what was (and was not) valuable for their own pedagogical improvements.

This study could also have been a mixed-methods study. A researcher using a mixed-methods approach could have included depth similarly to the qualitative study (Plano Clark & Ivankova, 2016). For example, in a mixed-methods study, a researcher could reach more teachers by giving a survey to teachers asking about different elements of professional development, and to what degree they are using the professional development in their classrooms and then selected interviews would have assessed why teachers answered the survey the way they did. The time restrictions on the dissertation process made this type of study implausible.

There were other qualitative designs that I could have used that would help answer the research questions. For example, it could have been an ethnographic study or a phenomenological study. For an ethnographic study, more time would have allowed me to experience the professional development with the participants (Creswell, 2013). A key component of an ethnographic study is to be accepted by the participants (Creswell, 2013). The amount of time needed to do an ethnographic study effectively is more than can reasonably be provided for this project. The study could answer the research



questions in a more time efficient way by listening to teachers share their perceptions of professional development.

### **Role of the Researcher**

I communicated with the principal to recruit participants. The principal sent the teachers the information that I provided. I was the sole researcher and acted as a qualitative researcher because I asked the questions during the interview and collected the data. I transcribed, analyzed, and reported the results of the study.

While conducting the interviews, I did not ask leading questions or let my bias enter the questions I asked. One way to help assure bias did not influence the questions was by having an interview protocol and by practicing the interview with practice participants during the pilot study before conducting the interview with actual participants (Merriam & Tisdell, 2016). I kept a researcher journal to be able to attempt to identify my own bias versus what the participants actually stated.

As an educator I naturally had experiences which caused me to form my own opinions of professional development. I had also gone through many different types of professional development in my career and had formed my own opinions of what elements made professional development effective. Keeping a researcher journal helped me identify my own biases while also assuring that there was an audit trail to assure that the findings reflected what the participants say. It was important to account for my biases while analyzing the emerging themes (Merriam & Tisdell, 2016). Creating categories from the conceptual framework also helped keep my biases out of creating the categories by having something from research rather than ones that I create.

One teacher I interviewed attended a training with me several years ago. I made note of it for data analysis purposes. This assured that any personal relationship was disclosed without restricting them from participation in the study.

## **Methodology**

### **Participant Selection Logic**

For this study, the 43 teachers from the selected school constituted the population from which the sample was drawn. Participants in the study were elementary teachers from a single school in Virginia. Any teacher at this school could have elected to participate-- including classroom teachers, resource teachers, intervention teachers, and special education teachers. The decision was made for any teacher to be able to participate because an art teacher may have had different experiences with professional development than a kindergarten teacher, but perceptions from both experiences were equally valuable for this study. Paraprofessionals and administrators did not participate in the study. Paraprofessionals were not included because, in this district, paraprofessionals do not need to participate in most professional development.

Administrators were not included because the ones at the study site were not currently teaching and did not directly affect classroom practice. The study focused on current teachers' perceptions, not administrator perceptions. Since I work in the school district where I conducted the research, it was convenient for me to conduct interviews on the teachers' schedules, and the principal were more willing to participate because they knew me. I gathered the teachers' years of experience, their ethnicity, and the numbers of students taught by each teacher.

According to Hennink et al. (2017) 10-12 participants should give an opportunity for thematic saturation in the study. Because there were four to six teachers per grade level at the school, having 10-12 participants means that one grade level could not have constituted the entire study. This also helped make sure that the teachers were not just lower elementary school teachers (grades K-2) or upper elementary school teachers (grades 3-5) but included both groups.

I needed a sample of approximately 10 to 12 participants for the interviews which I conducted at the school. If I got less than 10, I would have contacted another school to get the number to 10 and repeated the process with the new school. If more than 12 teachers volunteered, all the teachers that volunteered would be interviewed but the maximum number of teachers that would participate is 12 since that is the maximum value in the range for thematic saturation. If more than 12 teachers wished to participate, I would have put all the names into a random name selector and take the first 12. Participants from all grade levels would have been accepted including teachers that work with multiple grade levels such as resource teachers and special education teachers. If most of the participants were from one or two grade levels, I would see if could get more participants from other grade levels in the participating school. If I could not, I would have contacted another school to try to get participation from a variety of grades. There were 10 participants in the study, all from one school, so another school was not contacted.

## **Instrumentation**

The interview protocol was designed specifically for the study and were grounded in the elements of effective professional development identified by Desimone and Garet (2015). After the initial introductions, I started by asking some basic demographic questions, asked about the latest professional development participation, and eased into questions about their teaching practices related to professional development. Finally, I asked the participants deeper questions about their perceptions of professional development. The overall goal was to ensure the questions resulted in more of a conversation than a formal question and answer process. The planned process is detailed in the procedures section of this chapter.

While interviewing the participants, I thought about what the participants were saying to see how the responses connected to how other participants responded. The similarities or differences in responses helped me form subsequent questions to help gather more meaning to what the participants say. Part of deriving meaning in what the participants were saying was done by taking note of the many factors that can influence an interview at any time. Also, it was important to pilot-test the questions I asked so that I could practice interviewing and check the questions to see if revisions were needed (Merriam & Tisdell, 2016). The practice interviews gave me a chance to become comfortable with the questions and the possible answers that participants could give. It also gave me a chance to become comfortable with the technology that I used to record the interview.

The interview protocol is found in Appendix A. It is separated into two parts: introduction/demographics and professional development. The professional development section was further separated into the different sections regarding elements of effective professional development from the conceptual framework. There were many questions in the protocol because I included follow-up questions and questions to dig deeper if the participants were not giving detailed responses. The italicized questions were the most consequential questions, and the ones that were asked regardless of the responses given.

Appendix B provides a list of the connections between the central interview questions, the purpose of the questions, and the research question that was addressed by the interview question. As seen in interview protocol, the first seven questions were introductory questions, designed to make the participant more comfortable with the interview process. Following the introductory questions, there were central questions included in Table 1 and then there were possible probing questions for each of the central questions included in the interview protocol. The questions were asked to explore what the participants found to be effective professional development practices. During the data analysis, the responses the participants gave were compared to the elements from the conceptual framework which are the topics for the purpose of each question in Appendix B.

### **Researcher-Developed Instrument**

The self-designed interview protocol was based on the work of Janesick (2011). Desimone and Garet's (2015) framework was the basis for the interview protocol, since I was analyzing how teachers' perceptions were either in agreement with or ran counter to

the framework. I created open-ended questions because participants could give responses that coincide with the elements of effective professional development from the literature review, however, being open allowed for participants to give responses counter to the ideas presented in the literature review. Appendix B shows which research question each interview question was meant to answer. I used a pilot study to help assure the participants could answer questions openly while staying within the confines of the research questions.

I received assistance in developing the instrument by trying out the interview questions on a member of my committee and two teachers who were not participants in the study. I practiced using the instrument to help determine whether interview questions elicited responses aligned to the research questions. It helped me pace the amount of time each interview took so that I could be respectful of the participants' time. The teachers who helped practice the questions were a convenience sample with connections to me, but no responses were logged as part of the research study. The teachers who helped me practice using the instrument had no known connection to the participants in the study.

### **Procedures for Recruitment, Participation, and Data Collection**

Before the interviews began, I presented an outline to the administrators of school and the district to make sure they permitted me to work with the teachers. I gave the volunteer request documentation to the school principal with a brief explanation of the study. The school principal disseminated the same documentation to the teachers by email. The principal from the participating school sent out an email to the teachers explaining the basic elements of the study. It included that I was seeking elementary

teachers to participate in an interview about their perceptions of professional development.

The email included a statement about the confidentiality of the teachers and that the study was not affiliated with the school district. After teachers agreed to participate by communicating with the principal, I contacted the teachers to set up times that I could interview the teachers. I made myself available according to the teachers' schedules. After I gave the teachers the documentation, teachers who are interested in participating in the study emailed me.

I was responsible for collecting the data over the course of a month and a half. I conducted the interviews according to teachers' schedules. I made the interviews as convenient for the teachers as I could. I tried to finish each in approximately an hour. Since there were six grade levels, the maximum number of interviews I could have been able to conduct was six. If there were multiple teachers per grade level, I could have come back on another day to interview them.

I recorded the interviews with my phone and limited written notes so as not to distract participants. It was important to pay attention to the participants' body language during the interview, their tone, and their voice inflections. The characteristics were noted after each interview while the impression is still fresh in my memory. The participants needed to feel comfortable during the interview process, so I began each interview by covering their years at the school, the classes they liked to teach, and other calming questions. As noted, the interviews took approximately an hour. If I had to contact an individual again, it was through a follow-up phone call using google voice

since it has a recording function. Participants completed the study after the interview or if they chose to not be part of the study at any point. If they wanted to stop the interview, they could stop and leave. The participants could quit the study at any time. One participant elected to leave the study.

Before the actual interview began with the teachers, the teachers filled out a consent form to make sure they were aware of the procedures, and the form stated explicitly that participation was voluntary and that no adverse actions would occur because of participating or not participating in the study. Teachers could withdraw from the study at any time. They could withdraw by speaking with me, or they could withdraw by emailing me that they no longer wish to participate.

### **Data Analysis Plan**

Data analysis helps give meaning to the collected data (Merriam & Tisdell, 2016). I helped give the data meaning by placing the teachers' responses into categories from the conceptual framework. The categories described helped show how pieces of data were related. I entered the data into the computer software program NVivo. The computer program helped me with the organization of the data into the established categories.

Since I used axial coding by using the themes from the conceptual framework as the initial codes, NVivo 12 helped me with finding similarities in the data to categorize the information after I had coded it. I looked for similarities between responses and looked for ways the teachers responded in different ways even though they could have experienced similar types of professional development. After I coded the data, the computer program helped chunk the data together so that it was easier to see the



connections between the data that I coded. The patterns I found in the data illustrated how different teachers with different experiences responded to professional development in the context of the conceptual framework. There were some negative aspects with using computer programs, such as the amount of time that it took to learn the program and that a computer program may be more powerful than what is needed (Merriam & Tisdell, 2016). For the study it seemed there were more positives than negatives with the ability to sort the data quickly and efficiently.

To analyze the data a thematic analysis approach was used. Nowell et al. (2017) wrote about six phases for thematic analysis to be trustworthy. Phase 1 is becoming familiar with the data. This includes engaging with the data and documenting reflective thoughts, potential coding, and themes, and keeping all notes taken during the interviews. Phase 2 is generating initial codes. This includes keeping a researcher journal, using a coding framework, keeping a trail of coding, and debriefing. Then phase 3 is searching for themes which includes diagramming to make sense of themes and keeping notes about the different levels of concepts. Next phase 4 is reviewing themes. Phase 4 includes returning to the raw data to make sure that every piece of data is in the correct theme. Phase 5 is defining and naming themes which includes keeping notes on how the themes were derived (Nowell et al., 2017). Finally, Phase 6 is producing the report including the full report of how the data were analyzed. Since I used a deductive thematic analysis, the conceptual framework provided the categories in which the data were grouped.

Discrepant data is data that are different than the patterns found from the other sources of data (Bashir et al., 2008). If there was discrepant data and it was only from an

individual, then the data was recorded because all discrepant data was worth noting. In both situations, it offered valuable information regarding teachers' perceptions.

### **Issues of Trustworthiness**

Credibility is how trustworthy the findings of a research project are (Korstjens & Moser, 2018). One way to establish credibility is to have prolonged engagement with the participants (Korstjens & Moser, 2018). I worked with each teacher for at least an hour. With at least 10-12 participants that translated into at least 10 – 12 hours with teachers from the school. I also communicated with the principal to get background on the school and to get the permission required to do the study at the setting. I also talked with the principal to ensure that I was not disrupting their normal school day.

Being able to take the results from one study and be able to see the same result in another setting is transferability (Korstjens & Moser, 2018). Establishing transferability comes from a rich description of the behavior, experiences, as well as context to give meaning to the responses (Korstjens & Moser, 2018). My interview questions probed enough details from each participant to be able to get context to each of their answers. This helped giving meaning to their responses by getting a clear idea of their experience.

Dependability in a study is the findings being stable over time (Korstjens & Moser, 2018). One way of assuring dependability is by keeping an audit trail (Korstjens & Moser, 2018). I had to be sure that the findings that I made during the study were reflected in the data. Connecting the findings to data was more evident when I gave explicit details of what I did through the study.

Confirmability is other researchers being able to replicate the study with similar results (Korstjens & Moser, 2018). Confirmability could have been achieved by keeping an audit trail because it allows me to be transparent in every part of the process. I kept a detailed report throughout so that others may review what I did and replicate it. This could help substantiate the results and confirm that results were not because of my preconceived notions.

An important issue of trustworthiness is researcher reflexivity which refers to the researchers being aware of how they influence the study (Merriam & Tisdell, 2016). Even though I am a teacher in the same district, the participants in the study could still feel like there was a hierarchical relationship (Merriam & Tisdell, 2016). A way I helped alleviate the hierarchical feeling was letting the participants know that I needed the information from them to provide conclusions that have the possibility of offering information that can help professional development be more beneficial in the future. I also reported how I derived the conclusions from the data.

One reason for open-ended questions was so that the questions did not lead the participants, so the participants gave responses that were as close to their actual opinions as possible. Open-ended questions have been criticized for not reflecting participants' beliefs but instead reflecting how well they can articulate a response (Geer, 1988). This method kept the teachers' responses as the focal point instead of my opinions.

I conducted the study in the school district where I work, but not at the same school. Recently, there had been a focus on professional learning and professional development in the school district, and teachers could have thought I was interviewing to

collect information for the district. This could have led teachers to alter their answers in a way that is different from their actual beliefs. I told teachers before the interview began that the study was not connected to any district initiative, to help assure teachers that the district would at most have access to anonymous data.

### **Ethical Procedures**

Ethical standards were set by both Walden University's Institutional Review Board (IRB) approval number 07-21-21-0427910 and by the local school district. After the collection of the raw data, names were not included anywhere in the project to protect the participants' identities. Teacher's names remained confidential and were only used by me to compile data from the same participant. Before the teachers participated in the study, they were able to see what was studied in the project. Teachers were able to withdraw from the study at any time. To help alleviate any concerns that teachers may have about administrators accessing the information, I assured the participants that the information was protected. Teachers were also told how the data would be used, who would be able to see the data, and that the data will be destroyed after the study.

The Belmont Report (United States Department of Health and Human Services, 1979) highlighted three principles regarding working with human subjects: respect for persons, beneficence, and justice. To meet respect for persons in this study, each participant filled out an informed consent form before they were scheduled, and I asked each participant if they had any question about it even after they signed it. To meet beneficence, there was minimal chance for a risk to the participant. The biggest risk would be if someone in the school district was upset if they found the information that the

participant gave in the interview. To protect against this, each participant was given a pseudonym as soon as the interview was over, and the pseudonym was used on all documentation. Finally, to meet the requirement of justice, the study did not benefit one group over another.

### **Summary**

By using an interpretative qualitative study, it helped me answer the research questions because qualitative studies help to answer questions about people's opinions (Merriam & Tisdell, 2016). Interviews allow researchers to obtain information about what people think about topics such as professional development (Merriam & Tisdell, 2016). A focused interview allowed me to ask questions that were focused on professional development while asking additional questions if I needed more information about their thoughts (Frankfort-Nachmias & Nachmias, 2008). The questions for the interview were open-ended questions. Open-ended questions allowed me to see how participants felt about professional development without asking them about each component of the framework directly. I coded and compared the open-response questions and interview questions to connect themes in the data.

Chapter 4 addresses the different components of the study including the outcomes and how the interviews occurred. The chapter includes explanations of the components of the study, and the results of the study, which encompasses the open-ended interview questions, and the trustworthiness of the results. I explain the different themes that emerged from the data and explanations of how I determined the themes.

## Chapter 4: Results

The purpose of this interpretive qualitative study was to explore teachers' perceptions of professional development they have experienced and how they have applied the professional development to their teaching. The conceptual framework for effective professional development by Desimone and Garet (2015) was used to compare the teachers' responses to the framework. The study sought to answer the following research questions:

RQ 1: What do elementary school teachers perceive as characteristics of effective professional development?

RQ 2: How do elementary teachers report that they determine whether professional development activities are useful or not useful?

RQ 3: What factors influence how teachers apply information learned from professional development in their classroom instruction?

In this chapter, I start by describing the findings from the pilot study. I continue by describing the study's setting and the participants. I then describe the analysis techniques, analysis of the data, and the evidence of transferability in the study. Finally, I discuss the results of the study and how they answer the research questions.

### **Setting**

COVID-19 was the major challenge I faced during the study. This was because it altered some of the possible responses that participants gave. COVID-19 mandates forced many schools to change the way they offered professional development. The participating school conducted professional development virtually. This can influence the responses

that participants give, especially the two participants who only had a year of teaching experience.

The original plan of interviewing all teachers in person was not possible because of the pandemic restrictions. During the 2020-2021 the school used a hybrid method of teaching with the option of virtual learning, so many of the teachers had experience with Google Meet. Zoom was used to conduct some online meetings. The interview protocol was not altered by using a virtual platform to obtain data.

There were positive and negative aspects to conducting virtual interviews. The person being interviewed can be in a place that is comfortable for them, such as their own home (Iacono et al., 2016). Using the record function on Zoom allowed the audio to be recorded during the interview. A negative aspect of using a virtual platform is that the field of vision is limited. The interviewer is limited to the field of vision of the camera whereas in an in person interview the interviewer would be able to see everything accessible to the eye.

During the time of this study, the principal at the school took another position in the district and the district hired a new principal and assistant principal. Several participants made it a point to discuss the differences between the two administrations in terms of professional development. Having new administrators added some ambiguity to responses, because when something changed during this time, participants did not know if it was a new COVID protocol, a result of having a new administration, or something that changed in the district such as a new initiative.

One constraint of the study was the time frame in which the study was conducted. The interviews occurred prior to and during the first quarter of the school year. The interviews occurred on various days over 45 days before school started and into the first month of school in the year 2021. The teachers were given an option to do in person interviews or virtual interviews, based on the teachers' comfort level. Virtual became a more popular option as time progressed and as teachers became increasingly comfortable using a virtual platform for communicating.

### **Demographics**

There were 36 teachers qualified to be a participant in the study. All the teachers were White. Of the 36 teachers, 56% had an undergraduate degree as their highest level of education, 41% had earned a master's degree, and 3% had a doctoral degree. This does not reflect the student population that can be seen in the 428 K-5 students who were attending the school. Of those students, 83% of the students are classified as White, 18% are Hispanic, 8% are African American, 6% are multiethnicity, and about 3% are Asian. Nineteen percent of the students had a disability, 5% were English learners, and 40% were economically disadvantaged.

There were approximately 90,000 residents in the school district of the participating school in 2019. Approximately 83% were White, about 9% were Hispanic, about 5% were African American, about 2% were two or more races, and about 2% were Asian. All other populations were under 1%. The median household income was approximately \$73,000.



Of the 36 eligible teachers, 11 teachers met the criteria and volunteered to participate. One participant had to withdraw from the study. Of the 10 remaining participants, five were grade level teachers ranging from kindergarten to fourth grade. Two of the grade level teachers were special education teachers. The other five teachers were resource teachers (physical education, library, music, reading support, etc.) or instructional coaches. The participants had experience ranging from 1 year of teaching experience to 25 years of teaching. The average number of years of teaching was 11.6 years with five participants having less than 10 years and five having more than 10 years. Three of the participants' highest level of education was a bachelor's degree, while seven had a master's degree. When presenting data from the participants, pseudonyms were used to maintain confidentiality. Professional information for the 10 participants is listed in Table 1.

**Table 1**

*Professional Information on Participants*

Name	Years of Experience	Classroom/Resource Teacher	Highest Level of Education
Alexius	16	Resource	Masters
Catarina	6	Resource	Bachelors
Dalia	16	Classroom	Masters
Edita	1	Classroom	Bachelors
Helen	25	Resource	Masters
Jadine	2	Classroom	Masters
Larysa	5	Classroom	Masters
Myra	25	Resource	Masters
Paula	1	Classroom	Bachelors
Siti	15	Resource	Masters

*Note.* Names are pseudonyms.

### **Data Collection**

I sent the recruitment letter to possible participants a week before the teachers had to report to school after summer vacation. I knew that some people would not see the letter before they had to report, but others may be more willing to participate before the school year began. The initial time the recruitment letter was sent resulted in six participants volunteering. Only one participant from the initial group was a grade level teacher.

I then resent the recruitment letter to possible participants who were classroom teachers because the teachers that I was getting was not an accurate representation of the teacher population at the school. After sending the recruitment letter the second time, I got two additional participants. A third person responded but never consented to the consent form. The two additional participants were both special education teachers. Between the two teachers, they work with students in kindergarten through third grade. With the first and second attempts to get participants, only one volunteer was a grade level teacher. The third time I sent the invitation to individual teachers instead of in a mass email. I got a response from five teachers, three who were willing to participate and two said they were not able to participate at this time. One grade level teacher decided to not participate after initially volunteering.

Of the 10 participants, three of the participants were interviewed in person, and seven of the participants were interviewed virtually. I conducted the three in person interviews at the participating school. I recorded the in-person interviews using my phone. I transferred the data from my phone to the computer. Two of the seven

participants that did an online interview experienced a weak wireless signal which resulted in some technology issues, but those issues did not interfere with the responses because only a word or two were distorted and did not take away from the meaning. I collected the data by recording the audio on Zoom.

### **Data Analysis**

As soon an interview was concluded, I put the file into a dedicated encrypted folder. The computer was also password protected computer for additional security. I used a random name generator to get pseudonyms for the participants. I made sure that each of the pseudonyms had a different first letter to help differentiate between the names. I wrote the real first names on a piece of paper along with the pseudonym to help me keep clear who did each interview. Then I saved the file based on the pseudonym. Then I put filed the data, using only the pseudonym, into a transcribing program. I listened through the audio of the interview, along with the transcript, cleaned the data by removing extraneous words and if there was an interruption to the interview, and I made certain that the transcription was accurate. I then used Microsoft Word to help find any repeated words and punctuation that I may have missed the first time through the transcript. I also kept a journal to record my initial thoughts about the interviews so that I could remember how my thoughts progressed through the analysis.

I entered the cleaned transcripts into NVivo 12. The first step in the analysis was to code the transcripts based on the conceptual framework. I then coded the responses based on the research question and looked at the alignment of the intent of the question. I examined whether the response addressed the intended research question. After I coded

every transcript this way, I analyzed each section looking for patterns within each section.

The five codes that I used from at the beginning were the five elements presented in the conceptual framework. They were content focus, active participation, coherent, sustained duration, and collaboration. It became evident that two other codes were needed for the elements that teachers believe led to effective professional development. The two added codes were reflection and leadership. Any discrepant data was included and noted in the results because even discrepant data has meaning in the study.

### **Evidence of Trustworthiness**

Credibility, transferability, dependability, and confirmability were all addressed in this study in the following ways.

#### **Credibility**

To help with the credibility of the study, my interviews were in depth and lasted approximately an hour each. When I first connected with the teacher on the day of the interview, I sought to build a rapport with them. We often discussed the beginning of the school year and discussed the struggles of this school year as compared to other school years. The discussion often led to the study which I answered any questions that they may have had about the study. If there were any questions, they often involved the confidentiality of the interview. I described how I would use pseudonyms in reporting the study findings. During the interview, I tried to make it more conversational to help with the credibility of the responses from the participants. I would repeat their main points to

help make sure I was understanding their responses. I would also follow-up questions to get more of an explanation and to see if their responses stayed consistent.

### **Transferability**

There were several aspects included in the study to help readers determine the transferability of the findings. There was strict adherence to the data collection methods and analysis techniques outlined in the research design. The interview protocol was used to assure all ideas were covered during the interview. The number of participants needed for data saturation was also used to dictate how many times I tried to get more participants so that I reached the saturation level.

### **Dependability**

To help with the dependability of the study by keeping accurate details of what I did throughout the study while collecting data and analyzing data, I kept a researcher's journal. The journal helped show what I did throughout the study and what some of my thoughts were as I was collected data and analyzing data. The journal allowed me to follow the process and my thinking through each stage. It also helped me to see if my thinking of a particular interview changed or if it remained the same through the analysis process.

### **Confirmability**

I used a journal to help with confirmability. After every interview an entry was added to the journal, and it included pertinent information about the interview. I also entered information as I was putting the data into themes so that I could track my process so it could be included in the study. The journal also helped track my initial thoughts on

the interviews and on the themes so that it was easier to follow my rationale for the decisions made in the study.

## **Results**

All participants were given a pseudonym as an identifier. Using pseudonyms as identifiers when presenting participants' statements reinforces the idea that participants are real people with real names represented through pseudonyms. To answer the research questions, I used the five elements from the conceptual framework and compared the participants responses to those five elements. Reflection and leadership were two topics that came because of common responses in the interviews. The results are organized based on how the participants responses answered the research questions.

The first five themes came from the conceptual framework from Desimone and Garet's (2015) elements of effective professional development. I used the five themes of content focus, active participation, coherence, sustained duration, and collaboration from the conceptual framework. Enough participants mentioned reflection and leadership in their interviews that they needed to be included as themes six and seven. When analyzing the data, it also became evident that the leadership category was too broad and needed to be broken down into the three subthemes of administration, respect/choice, and professional development leaders.

One idea came out as a participant questioned her own thinking and questioned what she believed constitutes effective professional development. It appeared like she felt at first that effective professional development was based on how much she learned during professional development and how much she learned about the topic. While

talking with Siti, a teacher that has experience working with struggling readers, she concluded that better professional development does not always translate into results for students. Siti said:

I know I keep going back to a Professional Leaders (pseudonym) professional development, but that was pivotal in my ability to provide good instruction for kids after I was Professional Leaders trained. I had the opportunity, again, I mentioned earlier, to be Jackson (pseudonym) trained, which is a very different approach from Professional Leaders. I went into that PD (Professional Development) because I wanted to have a polarized experience from what I knew, with reading recovery. I went into that PD very skeptical with my Professional Leaders hat on, but I just wanted to know more. Then last year, during a pandemic, I was able to complete my second year of implementing Jackson in my classroom. I work with many struggling readers. I noticed with consistent daily lessons with those kiddos that they move far beyond anything else, any other program. That Jackson experience that I had and was able to bring to my kiddos, move them many reading levels up in in their ability to read. That sold me on that practice. Sold me on that approach that I was a little bit hesitant to put myself out there to learn that approach.

Researcher: So, you saw the benefit of it after you had a chance to work with it?

Siti: Work with kids. I went in skeptical. I learned what I could and then I brought it back to kids with some hesitation and it almost immediately, I mean, like within the first eight weeks, I saw a difference in two students working several grade

levels below their grade level that I had been working with for years and didn't see them move more quickly.

Then later in the interview, the Professional Leaders and Jackson topic was revisited.

Researcher: Was the Jackson professional development the same type of experience as Professional Leaders in terms of how you learned it?

Siti: No.

Researcher: But the main impact from that was the benefit that you saw on students.

Siti: That's interesting. Professional Leaders was ongoing for two semesters. They were college coded classes that I had a teacher in my building that worked with me very, very often to come watch lessons and talk about lessons immediately behind the glass once a quarter or twice quarter. So, lots and lots of collaboration and direct feedback often. My Jackson experience was complete opposite. I went to a city for one week and we sat in an auditorium and listened. I say, listen, because that's exactly what happened to a trained fellow from the Jackson company from 8-4 every day. We just took notes and packets and all the things. From there, I had one visit from someone from the Department of Ed. because of covid. We were supposed to only have two that year, so the observation and lesson feedback was much, much more significantly less than I had with Professional Leaders. They were absolutely very different in terms of my learning. I see the impact Jas has on kids. I'm certain I'm not as strong of a teacher of Jackson as I am of Professional Leaders.



Researcher: You feel like you're stronger at Professional Leaders, so the professional development helps you to implement that program better. However, you saw more results from the Jackson one, but you don't feel like you're as strong of a facilitator of that.

Siti: Correct.

### **Theme 1: Content Focus**

A focus on content is learning about the material that a teacher uses to instruct the students they teach. A focus on content was hard to extrapolate from the data because the participants did not specify if certain professional developments focused on the content or not. The first time I went through the data, I did not have many references to focusing on content. The most significant comment on focus on content being an important aspect of professional development was from Dalia when she was talking about state conferences.

She said:

I definitely got a lot of good stuff and content from them, but I think the thing that makes it stand out is like the feeling, the buzz. Everybody is just passionate about what they're doing. They're passionate to be there the speakers are super passionate because this is their life and the things that they're so into and they're experts in.

One reason why she liked the state conference was because of the focus on the content and how everyone was passionate about it.

After sifting another time through the data, I pulled the instances that the participants mentioned the content of a professional development, to see how frequently

the participants were focused on the content of the professional development. All ten of the participants made a reference to the content of a professional development at least once. There were 65 references to different types of content which accounted for approximately 13% of the overall transcript.

### **Theme 2: Active Participation**

Active participation refers to the how much of an active participant that the teacher is during the professional development. Active participation was the second most referenced theme by the participants. All ten participants said something about active participation. Nine of the participants discussed enjoying active participation being part of professional development. Six of those nine did not speak positively about lecture. Four of the participants talked about enjoying lecture in professional development. Of those four, one of them did not mention active participation. Three participants mentioned liking both active participation and lecture. Table 2 shows the breakdown of responses for active participation.

**Table 2**

*Responses about Active Participation*

Active Participation		Lecture		Both
Only	Total	Only	Total	
6	9	1	4	3

Six of the teachers responded by predominately like to be an active participant in professional development. Edita gave a response as to why she preferred active

participation over lecture. When asked about how a participant's role affects what they gain from professional development, Edita responded with:

I think when you're engaging with something, you're more interested than if you're just kind of sitting and observing it happen in front of you. When you're actually a little bit more hands on and into the material that's going to help it be more impressionable, help you want to implement it in your class because you've already done it. Sometimes I think when you're in one of those lecture professional developments, you leave and you're like, even if it was something you're super interested in and you leave and you're like, OK, that was great but I'm not sure what I'm supposed to do with it, or what the next steps are, or exactly how to use it. I think when you're actively doing what it is you're learning about, then you have better ideas of that.

Dalia supported both active participation and lecture. For most of the interview, it seemed like she only liked lecture. She had stated earlier in the interview that she did not like hands on activities. When asked to clarify what she does not like about them, Dalia gave this response:

When I say hands on activities, I just really don't mean as a whole. I just want to sit there and have to listen and not do anything, hands on. I don't like the fillers. I don't like the ice breakers. I don't like to walk around and put your sticky note on this poster and then put your sticky note on this poster. I mean, I've done obviously a lot of cool, you know, Rekenrek, if you're going to hand me a

Rekenrek, or if you're going to hand me magnetic letters and we're going to try something like a specific strategy in that way, that's awesome.

Dalia did not like activities where it did not seem to be aiding in what she was learning about the topic. Other participants also mentioned that they did not like doing activities that did not help them learn much. One activity that was mentioned by several participants was putting sticky notes on a board or chart and then discussing why people put them where they did.

Whereas some participants spoke positively about lectures, others did not find lectures to be very useful in professional development. Two participants mentioned lectures as being not useful in professional development. Both participants said they would get more from the professional development if another modality was implemented.

Helen preferred to learn about how to do something and the application of what is being learned, rather than being lectured to about what is being learned. Being able to do it is more important than just being able to identify what the professional development is. She said:

I don't need all the background of something. Just a little snippet would be fine and then move on, and I think sometimes I, I get lost in like all of the lecture part of it or every reason why, I mean it's important to know why you're doing something but sometimes I don't need to know every little detail about the why. I need to be told, there's why we need to do it, and this is why it's important and now let's get to the nitty gritty of how to do it. I want more of the how than all the other stuff, the what's.

When I asked Edita about how she feels most content is presented to her, she said, “It's usually in a lecture format and I'm just envisioning in my mind right now, like a slide with a lot of words on it. I don't do very well with just looking at a screen, I'm usually checking my email, or I look at my watch.” According to Edita, most of her professional development experiences have been lecture, even though she does not prefer that type of professional development. She agreed with Helen, that she would rather be doing the topic instead of listening about the topic.

### **Theme 3: Coherence**

Coherence is the how the professional development aligns to current initiatives. The initiatives can be from the school, district, or the teacher. All ten participants discussed coherence in their interviews. There was a total of 33 references made to coherence during the interviews, and it accounted for 4% of the total transcript. Some of the participants discussed going to professional developments that did not apply to them. One participant discussed working with conflicting theories in a subject that made the application of the theory difficult.

The most common opinion about coherence, eight teachers, was that teachers did not like going to professional development that did not pertain to the subject or grade level they teach. Catarina was asked about a time when she felt professional development was not beneficial. Her response was:

I can't remember which one it was, but it was one that was required to take. I did not sign up for it. It was talking about reading. I do not teach reading, so I was trying to apply it the best that I could and the rest of the people around me were

talking about their curriculum and reading, and I don't teach that. I was told to figure out how you could integrate that into your classroom. I have as standards as well and those don't match mine. The underlying problem was maybe those other people who taught reading might have, but none of the discussion I was hearing was about what they're supposed to be doing. So, but and it felt like this all we have, and we want to give you time at the end.

Editia knew why she had to take a training on an online program that the school uses, however, she felt similarly that many of the ideas covered did not pertain to what she needs to do with the program.

Last year we also did do quite a few trainings on some of our online programs that was through the district. It was all virtual and it wasn't necessarily tailored to our district or our school, it was just like a generic, this is how you use this program. Some of the stuff that they were showing us was stuff that we were told, don't do those things. I feel like there was a little bit of a disconnect there between what they were giving us and what they wanted us to do.

Another participant voiced a concern about having a new reading initiative that did not work coherently with what has been done in the past. Instead of having a new system that expanded upon the old system, the teacher felt as if it worked against the old system. Here is an example from an exchange I had during the interview with Alexius:

Researcher: Do you feel like the two are working against each other?

Alexius: In many cases, yes. I feel like there are a lot of polarities among the theories in reading and how one learns to read, and I think it is definitely impacted

on your own learning...I think that it's more common than not that there are polar opposites then people who view things in balance.

Researcher: Could they work in balance?

Alexius: Yes. That is my hope, yes.

Researcher: You just don't think it's there yet?

Alexius: I don't think it's there yet.

Alexius was concerned and confused about how the two theories would be connected, but she remained hopeful that they would be in future trainings.

### *Applies to Their Classroom*

Six participants responded that teachers are likely to use professional development in their classroom, when it applies to their classroom. The participants said that teachers need to see how it will be helpful to them when they are doing their job. They identified one of the central ideas for it applying to their classrooms is to help students.

Catarina described a time when all the teachers she spoke to had positive opinions of a professional development. She believes they were positive about it because it was an idea that could be applied to any classroom because every teacher knew a student that could benefit from the information provided in the professional development. She said:

I remember when we had this child psychologist, our counselor just invited her in, I think it was the year before covid happened, we wanted to be more trauma informed. I was thrilled about it because those are the kids that need people to understand them. I didn't hear one negative thing. I really think that if it's about

kids, we're all going to be passionate about it. If there's professional development that orients itself around caring for people, then it will automatically, like improve your culture and climate. If you're framing it as we want to care for you, and these are ways that you can set boundaries better. We want to be trauma informed educators. That's what that looks like. You know if it's all about the bigger picture. We all care about kids, we all want to care about our families, we want all of those things. Where you focus your professional development efforts, I think speaks to what the school cares about. If we're only getting textbook training, and just like we have to teach the whole kids, we have to teach the whole educator too.

Edita said that people value professional development when they can see how it is going to help teachers do their job. She said:

I think I've already hit on this a lot, but like when I'm interested in it and when it's applicable to what I'm doing, and I can see concretely how it's going to help my students and how it's going to help my practice. I think that's part of when we want professional developments that people are valuing. I think that you're able to value it more when you can see how it's going to help you.

Larysa believes that professional development needs to include both choice and apply to the students for teachers to use it in their classrooms. She thinks that many teachers want to learn, but do not always feel valued when it comes to professional development. She said:



I think, like good teachers, like truly special teachers always want to learn. We just want to be valued enough that like we want to be heard so that our professional development is beneficial for us because time is always going to be an issue for teachers. I just want leaders to know that I want to learn. I feel like we never stop learning. In order to continue learning, we have to have good professional development in something that we're interested in and that we know for a fact that when we see the title of it, we know it's going to help our kids, otherwise it is a waste of time.

Through the interviews, participants often mentioned that they had to participate in professional development that did not relate to their job, or they could not apply it easily to the students they work with daily. Four participants who described a situation where it did not apply to their job, also said that the most useful professional development relates to their job. The participants included details into how professional development experiences they felt were positive related the information to the participants' jobs.

Helen described that everything that is needed to implement what was learned is given to the teachers. Everything that is needed includes a justification for using it such as showing that the method has been successful in other classes. Helen said that with professional development that relates to your job, "you're given everything you need, but like the things that you're given have been tried and true in classrooms before, people know it works and they give you the ideas and things you've just got to go back and implement it and try it."

Helen continues to say that if professional development does not work for her students, then it is not successful. She said:

I feel like it is kind of a combination of both, because what we did was very applicable. We did things that we were going to go back and do with our kids, so I had a very good understanding of what it looked like. Ultimately, the power was seeing it be successful with the kids and sometimes you'll go to a professional development, and you hear things and people rave about how it worked with them and you're like, I just don't know if that would work for me. You try it and it didn't really take off, but this did really take off because it did really work. That was definitely very powerful. I guess if it hadn't worked, I would not have thought that the professional development was as good as I thought it was.

Catarina also wants to be able to see how to apply the information to her classroom. Like Helen, Catarina wants to be able to take an idea back to her classroom that she is able to use, however she does not need to have it be physically ready to be used in her classroom, she just needs to have an idea to take back to her classroom. She said:

I think most important is probably the content and knowing what I'm supposed to do with it and how I'm going to apply it, like when I was going into those really meaningful professional development experiences, I knew when I leave, this is what I can take back with me and. They did what they said they were going to do. So being relevant, knowing that I'm going to be able to take something away from it, not like a hard copy.

Alexius likes having multiple ways to show that it is applicable to her role. She believes multiple ways allow for more teachers to see the relevance and meets more of the learners' needs. She said:

I think it's very important that they're applicable to my role. That it meets the needs of the learner. I think having a combination of ways that people can access that learning, so maybe someone wants to read a book and meet and talk about it. Maybe someone wants to watch videos and you talk about it. I feel like if there are multiple ways that you can do the learning so that everyone that's involved can have a way that meets their needs as a learner. I think that's beneficial.

Dalia wants to see how it applies to her and her students. Dalia had similar ideas to Alexius in that she thinks it can be shown in different ways such as videos or teachers describing how they used it. She said, "It just needs to be made applicable. I need to see how I'm going to use it in my classroom. It has to apply to me. I do like to see examples. I like to see videos of kids doing stuff. I like to see that."

### ***Not Connected to Student Improvement***

Similarly, to how teachers find professional development that applies to them as useful, two teachers did not find professional development that does not apply to student improvement to be helpful. Paula and Catarina gave examples of times they did not feel professional development was tied to student improvement. The two teachers thought that connecting the learning to their groups of students is a way to make professional development more useful.

Paula has experienced professional development that does not pertain to the students that she teaches. Even though she recognized that not every professional development can be specifically about her students, she thought it would be helpful if professional development leaders can provide insight into how to apply it to different populations of students. She said:

Not everything super applies to my kiddos, and I have no problem sitting in on a professional development that's not for the betterment of all kids, but at least give me some kind of guidance on how it can be applicable to mine. My kids can benefit from all sorts of different things, I'm not saying that every single element has that kind of taboo on it...So, how you can differentiate professional development, as we are told, to differentiate our instruction for the needs of the teachers.

Catarina said that she thinks it is all in the way professional development leaders decide to present the information. She mentioned that certain professional developments do not seem to have a focus on helping to improve students. She does think that it does not have to be that way though. She said:

If you're doing a textbook professional development that way, it's all about how it's presented. The training about a textbook does feel a step removed from kids to me, like I know that I use them all the time. When you've got a kid who comes in unbathed for an entire week, I think that's where my heart is as an educator. That's why I became a teacher. I didn't become a teacher because I wanted to teach a specific content. I became a teacher because I know that kids need people. So, I

mean, you really could do anything as long as you make it about why we're here and what happens when kids get excited about reading and how we can we help them get there. If that's the frame, then I think they're going to be teachers who would be more on board. I would take textbook training. If that was how it was.

#### **Theme 4: Sustained Duration**

When a professional development is revisited multiple times and occurs during multiple sessions. Sustained duration was mentioned by all participants; however, it was not referenced as much as the other themes that were referenced by all ten participants. It was referenced 17 times for a total of 3% of the transcript. The participants gave conflicting responses to questions about sustained duration during professional development. Five teachers said they would prefer to cover one topic in a year, three teachers said that it depends on the topic, while two teachers said they would prefer multiple topics.

The teachers that spoke about having one professional development in a year usually mentioned wanting to go deeper with a topic instead of just getting surface level learning. Larysa was conflicted on whether to choose one or multiple topics but in the end, she settled on one. She said this about it:

Probably one, because I feel like instead of just skimming on the surface, for example, if you do a professional development book study, at your monthly staff meeting, you can actually have time for the for the employees to read and reflect and do their portion of the project. A year is a long time for one topic, but I feel like then it's completely covered and completely been understood and learned. It's

very subjective because it depends what the professional development is on. For a year, if it was a very important and relevant topic like SEL that would be a great topic for a whole year of professional development.

Dalia started by saying that it depends. She said she is interested in multiple topics, but she also recognized that it is worth focusing on one topic. She stated:

I guess it could vary, right now I'm doing multiple topics that I'm interested in both of them, and so I think it's great. Some people might be really overwhelmed by that and just kind of focus on one thing. I do think it's valuable sometimes to focus on one thing at a time.

Dalia continued that she thought that if too many topics are taught, then most of the learning will just be surface level.

Paula thought it would be better to have multiple topics throughout a year. She saw the importance of doing multiple professional developments during the year because she would be able to apply what she learned to more students than if she only went to one. She said:

The teacher in me thinks it's important to cover one topic because you could really comprehensively get that point across and you could explore different facets of this one idea the whole year, but I do think that you lose people a lot if it is the same thing, because I think it sort of becomes just an appointment on the computer. "I got to go learn about this again. I've already done it four times this year. What else can I learn about it" Unless it's like a very multifaceted topic, which I can't really think of right now, I'm sure I could come up with one if I

thought more about it. But unless it's very multifaceted, I do feel like multiple topics is more helpful because each student is not going to benefit from just one topic. If I was just focusing on one strategy or one thing per year, is there a guarantee is going to reach 100% of students or benefit 100% of students? Whereas if we have multiple topics, maybe 20 can benefit from this one, 25 benefit from this one.

### **Theme 5: Collaboration**

Working with others is considered collaboration. Collaboration was also mentioned by all participants. It was the third most referenced theme. It was referenced 51 times. Nine teachers preferred professional development with a colleague while one preferred to go alone. Some reasons the participants enjoyed collaborating was because of receiving feedback, linking to prior knowledge, accountability, and comfort. The participant that preferred to go alone noted that colleagues can be distracting when she is trying to learn.

Alexius was describing a professional development experience that involved teachers observing another teacher work with a student. She noted several ways to receive feedback during the experience. She said:

I think because we learn from watching each other, so I would pick up on different prompts maybe or maybe even just a different layout of material, you know, like you can learn things from watching, but also just kind of homing in on my own practice. Having people watch me really helped me get better and look at the feedback. I mean, there was a combination of here's something that we

appreciated. We thought that you did well. Here's something maybe to consider that you can improve. So, I feel like that feedback was really a key component of the observation in being successful.

Myra discussed how collaborating aides in making connections to prior knowledge during professional development. She said:

Like I was saying before, getting us to talk to people about it allows it to link in your brain to other things that you know, because we all know that when you learn something new, you have to link it to prior knowledge. If you just learn one new thing and you don't have time to link it, then out it goes.

Edita brought up that collaborating could be helpful with professional development because other people can hold a person accountable for doing the work involved with professional development. She said:

I think it kind of increases your chances of actually using it in the classroom. It almost I can't think of the word I want, but like when you tell someone you're going to go to the gym, you're more likely to go to the gym...

Researcher: Accountable?

Edita: Yes, accountable. That's the word I was trying to think of. I think that helps. I like being around people, so it makes it more interesting too than like you just go there and are sitting by yourself. Then when you work so closely with a team like things that I have learned, I feel like then I need to share with all of them but if we're all there we all get it.



When explaining book studies, Dalia started sounding like she did not like to learn from other teachers, but then she clarified her thinking. She said:

I mean, I've really been into books studies. I've done some really good, meaningful book studies where it's not sitting and listening to a person trying to explain, but everybody diving in at the same time, kind of at the same level. I love sharing and hearing other teachers sharing their own insight. I don't want to make it sound like I don't think that's valuable because I do. I love to learn from other teachers all the time.

Dalia continued by explaining why she likes to go to professional development with colleagues for comfort, but also because she wants to share her feelings with someone else.

I think it just goes back to that feeling of safety and security and you just kind of need to have a connection with, I'm a social enough person. I can get along with people, but it just adds a layer of anxiety. Then you have a person to kind of be like, oh, my gosh, this is so cool, we're going to go to school and we're going to try this. There's somebody that's right there in it with you so you can share. It's not just one person. You know, I don't want to keep all my thoughts to myself. I want to be able to share them with somebody. Alone, I can't do that.

Helen agreed with Dalia's assertion that there is a comfort with attending a professional development with someone that is known by the teacher. She thinks someone could become more comfortable with unknown people, but the other person has to have common traits to make it easier to communicate with that person. She said:

I would have to say for me, it's that comfort level of knowing somebody already, so I'm more willing to share and talk about things with someone that I know. If I don't know someone, I'm more reserved, probably. I have attended things that I've had to do sessions by myself. As long as you meet somebody that you make a connection with it usually turns out OK, too. I've had ones where I've talked to somebody, and we have had a lot in common for what we do and we're able to really collaborate and talk and share things. And especially they're from a different district to kind of different take on how they look at something. Then I've been at ones where the whole table sits and stares at each other and no one wants to say anything and that's not productive at all.

Larysa was the one participant who said she would rather participate in professional development alone rather than with colleagues. Larysa reported that she is often distracted when she does professional development with colleagues. She said:

Personally, I would rather do it alone because I feel like I can process it better. I'm very, very close with my team and so we talk a lot and then we get distracted. I do like to reflect with them after which is what we did for one training. We all did it at home virtually, and then we would talk after. I personally would like to do it kind of alone just because we get very distracted. When you're doing it as a team and there's nobody to watch you, you're going to get distracted. That is kinda how the book study was. You know, we read it home by ourselves. We did things at home and then we all came together. That's just me. Everybody likes different things. I want to get it done and I don't get distracted because I feel like I'm a rule

follower and I don't want to break the rules and I want to do what I'm supposed to do.

Even though most of the participants liked collaborating with their colleagues, Larysa noted a possible shortcoming of working with coworkers.

Three teachers discussed finding feedback from colleagues through collaboration during professional development to be the most useful. The three teachers mentioned how collaboration gives teachers a chance to see what others think about how the teachers are implementing ideas into their lessons. Colleagues can then give suggestions about what they saw.

Alexius discussed how others can give feedback when they watch her teach a lesson, but she also gets feedback by watching someone else teach a lesson because it makes her reflect on her own practice. She said:

I think because we learn from watching each other, so I would pick up on different prompts maybe or maybe even just a different layout of material, you know, like you can learn things from watching, but also just kind of homing in my on my own practice. Having people watch me really helped me get better and look at the feedback. I mean, there was a combination of here's something that we appreciated, and we thought that you did well. Here's something maybe to consider that you can improve. So, I feel like that feedback was really a key component of the observation is being successful.

Siti agreed about the power of watching others teach and having people observe her as well. She said that other perspectives can help her improve her instruction for the students she works with. She said:

The power of watching someone else do something you're trying to improve upon and have planned or unplanned questions and reflection about that teaching and learning has so much power in it. I know you need to be vulnerable to have someone come and watch you and observe you. I invite my instructional coach and my literacy coach here in the building to often come watch me teach because I want their feedback. I want their different perspective, and I want that conversation about what I'm doing and what I could be doing to improve my instruction for kiddos. Colleagues' perspective and collaboration is a huge benefit and positive aspect of professional development.

Jadine wants to have more opportunities to collaborate with and to go to a professional development with co-teachers and paraprofessionals. She said that she thinks this would be a great way to give each other feedback and to see how the people she works with think about what they are learning. She said:

I think there needs to be a huge shift and a huge change in the way we provide classes for professional development for, I'm just speaking on the general level, I guess, with co-teachers and with paraprofessionals, I think a lot of the times our paraprofessionals get overlooked or just kind of swept under the rug when these classes would be extremely beneficial for them as well. I'm just speaking from my point of view as a co teacher. A lot of it's just like you're supposed to do this, but

I've never been modeled myself how to do that, though, things together that I could do with my other teacher, those would be extremely beneficial. We were talking about trends too the PBL (Project Based Learning), yeah, that's great. I can take a lot of classes, but let's model it for me and my other coworkers as well. So that way we can do it for our kids rather than just talk about how great it is or this is kind of what you do.

### **Theme 6: Reflection**

During five of the interviews, the participants mentioned a time for reflection as something that helps them learn during professional development. There were 15 references to reflection for approximately 2% of the total transcript. The participants had different ideas of when and how reflection can occur. They mentioned that reflection can be done independently during the professional development, after the professional development, or it can be done collaboratively.

Myra explained during her interview that she likes to take notes. Notes give Myra the chance to revisit the material, but it also gives her a chance to reflect on the information from the professional development. She said:

For me, I do like to take notes, so I like to have intensive professional developments...Then I also for me, I like to have time to absorb it a little bit, so I like to write it down most of the time. Most presenters are generally just trying to jam as much as they can at you because they have a lot of stuff and that's what people are paying for. It is nice when I go to some that have a little bit of time, to stop and talk to someone about it. For me, that's how I like it, I mean, I'm sure the

other people maybe decompress later, but for me, I like to stop. Instead of just writing everything down and thinking, OK, this person is God, and they know everything, I'm going to write it all down. I want to write it all down, but then reflect in my practice about how I am going to use this.

Jadine likes to reflect after the professional development. Handouts or anything that can help bring the ideas back into her mind after being away from it awhile can help Jadine. She said:

I actually really enjoyed it. There are lots of little things, tips and tricks that I'm starting to incorporate into my practice. One of the things that they did that I like the best is that they gave a handout afterwards. That way I could go back and reflect because obviously we're not going to pick up everything and remember everything that was said within that eight-hour spiel, twice a week. I find those helpful at the end, something I can refer back to... Yeah. Anything that could sparked my memory. Jog it, that I can refer back to, that's what I find extremely helpful for me.

Paula enjoys reflecting with others while participating in in professional development. She also believes others can bring out the best from a reflection. She believes others can hold a person accountable during a professional development, and that accountability brings out a deeper reflection experience. She said:

We in my most recent one had a whole staff reflection, you kind of heard what other people were thinking, which I like, because I like feeling validated. "I was thinking that, too." Maybe I'm not on the wrong page. I like a whole group staff

reflection. I'm more of a visual person. If I write down how I felt about it and how I can use it in practice, I like to see it written. We've done stuff in the past where everybody's written a little snippet on it and it got shared to a common Google doc that was helpful, just kind of seeing it and hearing other people's reaction to it as well... Yes, because I feel like if you're tasked with being asked to personally reflect on this, if it's not going to benefit you and somebody asks you to do it, you're not going to do the best you can. But if you're doing it collaboratively you have that social aspect of, I have to contribute something. You actually are forced to reflect. I think both modes of doing it are most effective.

### ***Theme 7: Leadership***

Leadership was a theme that was present in every interview. While analyzing the data about 18% of the transcripts were dedicated to talking about leadership. When looking more closely at all the data that was placed in the category, the data could be separated even more into three subcategories. The three subcategories were administration, respect and choice, and professional development leaders. Some of the data fell into multiple subcategories. For example, several of the responses discussed how administrators should give more choice in professional development, so it went in both the administration and respect and choice subcategory.

### ***Administration***

All ten of the participants mentioned either school or district administration during the interview. There were 40 different references to administrators during the interviews for a total of 8% of the transcripts. The participants gave a mixture of

responses about administrators on how they can both help and hinder teacher's perceptions of professional development.

Alexius mentioned how different administrators can start different initiatives at school, and they also have different outside pressures on them. The initiatives and pressures can then lead to teachers not having an experience that could be as good as it could be. She said:

I think different leaders have different things that they want to focus on, and I think sometimes the district will share some ideas and, however well-intentioned they may be, they may not last long enough for people to feel like they can own it and that they are really strong at that.

Dalia started discussing how negatively she has felt about professional development because of the overall difficulties of the teaching profession. She mentioned how when teachers are struggling with other areas of teaching, it is hard to focus on professional development. Then partway through her response, she changed to a more hopeful tone with the possibilities that new administrators can bring and how that can change teachers' perceptions of professional development. She said:

I'm going to speak in very general terms, but a lot of us were no longer really interested in professional development. At a certain point, we were kind of losing our passion for teaching. I can speak for myself. I'm losing my passion for teaching just the environment and the school culture was just not good. Now it's wonderful. I realized, oh, my gosh, I do love teaching. Anxieties lifted about what's going to happen when somebody comes into the classroom. I feel like I can



take risks and try things. I think knowing that you have the freedom to do that, to take risks and try things, and if something doesn't work, it's fine. You're not going to be looked down upon for it or scolded for it. It makes a huge difference. I just think that. That support that we get like this is so cool, what you're trying, it might totally fail, but how awesome that you're trying a thing. That's how people learn and that's how people become better.

Siti expands a bit on Dalia's positivity by talking about her experiences with administrators supporting her learning. She said:

I've been very fortunate to have administrators that support my professional development. I'm the kind of person that seeks out a new opportunity for learning. It's just who I am. When I find those opportunities, administration has been very supportive in helping me apply for those things or for those programs. They've also been very supportive of me using these approaches with our students here in our school.

Paula also expanded on Dalia's ideas by describing a recent professional development experience that made a positive impression on Paula. When asked what made the experiences so positive, she said:

They made it personalized. They wanted us to set goals for ourselves this year involving those competencies by imagining your first year of teaching, which for me was super easy since it was last year, but what you really want is your ideal classroom to look like and how you could fit those competencies in and also make yourself that teacher that you really want it to be. They had you brainstorm a lot

with that. They kept pulling everything back on a sticky note and they kept pulling everything back to, "you said you wanted to be this kind of teacher," This is how you can get there through these kinds of things.

Edita student taught in a district that she described as having a very strong professional development program. When she was asked about what made it positive, she said:

I think a big part of that was the administration. The principal there was a very like I'm learning with you. She attended all of our PLCs (Professional Learning Community Meetings). It wasn't something extra for her to do. She wanted to be there and work with us on it. I think all of us being on the same level with the coaches and anyone else in the building, we were all on a level playing field of we're all going to learn together. I think, honestly, administrators' attitude is a big, big part of that. Just like ingraining it into your school makes a big difference. If I already know I have this every Wednesday, that's different than being like you're going to stay after school because that almost feels like they're taking away like my time. I feel like there are other ways to approach it where it can be more valued than just another extra thing to do.

### ***Respect/Choice***

Nine of the participants mentioned teachers wanting to be respected or wanting to be given the opportunity to choose at least some aspects of their professional development. There were 47 references to respect/choice during the interviews for approximately 8% of the transcripts. Most of the participants responded that they thought

teachers would learn more from professional development if they were given options on what they learn. Some teachers also stated that some professional development opportunities need to be mandatory.

Dalia described how she is more ready to learn when she feels respected and valued by administrators who want her to learn something. She knows that the administrator has information to offer her, but she needs to feel respected to be receptive to the information. She said:

It makes a big difference. I'm not saying that I don't need to learn different things or that I don't need to learn from them. I'm sure they can teach me things, but it's just the approach. If things are approached with, the way you would want to be treated kind of things, then I'm so much more receptive to it, it is what we learn in conscious discipline.

Edita feels respected by the new administration at the school because of the way the administration runs their professional learning community (PLC). She feels respected because she is given a voice into what they focus on during the PLC meetings. She said:

We have a whole new administration team here, and I am loving the way that they're doing our PLCs and our professional learning goal. Our administration is really focused on what's going to help you be better. What do you want to see in your kids? They're very focused on what's going to make us better educators this year. It's kind of changed the climate of just like, "oh, we have to finish that learning goal thing" to actually like finding something that we're interested in. My team and I, we've been talking about lots of different ideas that we could do as a

team. I'm not sure what our what was considered our PLCs last year. I think it was just our team meetings. We're having places like in a different room, in the conference room. There are more people than just us there. We're focusing I mean; we are focusing on testing. and then another state required thing with our instructional supervisor today. So, they weren't super exciting. I think our administration has done a really good job kind of changing the climate around that from being meeting with your team and call it your PLC. Like, we're actually going to grow and we're going to learn together. They're kind of approaching it from more of like a coach's standpoint.

Helen believes choice is how you get support from teachers and teachers who want to learn. She also recognizes that there cannot be total freedom in what is learned, but instead there needs to be a way to give choices that are regulated. She said:

I do. I definitely think if you have a choice in it and you're choosing things that you want to learn about, you're going to get more of that, probably. Then I also think that within that choice, there has to be stipulations, because I think people could just pick something way out there that they want to learn more about, but they maybe would never use it in the classroom setting because of where they are or what they're doing. That would seem like a silly thing to learn about if it's not helping you with what your current job is.

In an exchange with Edita, she said that choice is what makes people interested in professional development. She believes that people cannot be forced to change, but if

they are given a choice, they are more likely to be willing to change because they are more interested in the topic. She said:

I think the most important, I would say, is your choice and what you're learning, you're not really going to change your teaching practices if it's not something that you're interested in changing. You can't make people change. I think that's the number one.

Researcher: Do you think that choice is what gets support from teachers?

Edita: What lights, your fire is what's going to keep you going and change what you're doing and all of that. We give students choices all day and that's such a big thing to give them choice. It's the same way with adults. If I'm not super interested, I'm going to be checking my email and looking at my watch. It's probably not something I'm really going to take with me. Whereas if it's something that I choose, it's something that I've said I want to learn about this and I want to use it in my practice. So, I think that choice has a very big role in if you're going to implement it or if you're even going to engage with the course.

Helen agreed that teachers cannot be forced to change. Teachers need to want to change, and many can do that with choice. Helen believed giving teachers choices makes it so that it is not just one more thing for teachers to do, but some may actually want to do it. She said:

I think teachers need a choice they have to have buy in to the professional development they're getting. If they don't have a buy in with it, they're not going to get anything from it. If they're just made to do it and it's just one more thing,

and I think because for so long it's been this is what we're doing and then it changes, they lose that buy in because they know I'm going to go to this and I'm going to dabble with it for a year or so, but then we're not going to do it anymore anyway so why should I spend my time and effort into making something else? I think if we knew we had time to really learn something, we knew that it was really worth learning, it was going to be help our kids, I think people would have more of a buy in with it and would put forth more of an effort to learn it, try it and do things with it. If they had some kind of choice in what they were doing is not just silly stuff.

One teacher said that teachers need to be given permission to fail to use professional development in their classroom. Catarina shared her ideas of the type of environment that administrators need to create for teachers to be more willing to use what they learn from professional development. Catarina thinks teachers need to be able fail if they are going to try new ideas. She said:

For that one it gave me permission to fail. There's actually been quite a few of those where he talks about taking risks and doing new things, and it's OK to fail on those kinds of things...I think teachers need permission to try new things and to fail at them. I met with a leader in the district and some of the teachers here, and we were talking about a fear of failure, especially among new teachers. There are certain phrases like, I'm going to get in trouble or I'm going to get yelled at, or things like that, that no adult should ever feel that way about doing their jobs. Now, if you're talking about doing things, there is a huge problem if we're telling

kids failure is proof that you're trying, but as soon as you're asking teachers to do that, they're mortified. We did not grow up in that mindset of like, if you fail, it's an opportunity to learn. Like, we grew up indoctrinated if I fail, it's a moral problem. We need we need professional development to unteach that. We have to unlearn that habit and have even professional development needs to be for administrators on how to support your folks doing that. It would just be great to not hear new teachers say, I'm going to get in trouble, or I got yelled at and taking constructive criticism because I don't ever believe that anyone gets yelled at. That feeling is real, that doesn't make it any less real, but how can negative feedback be a springboard. Being ready to take negative feedback and being excited about something their growing. I want all those things.

### ***Professional Development Leaders***

Nine of the participants mentioned some aspect of professional development leaders during their interview. There were 41 references to professional development leaders totaling approximately 6% of the transcript. Most of the participants described a leader that they thought was good at presenting the information, but one participant mentioned a leader that made her remember the leader's actions instead of the content of the professional development.

Helen described a positive experience she had with a professional development leader who made it easy for her to learn the content. Even though the leader was very engaging, that was not the only aspect that made the leader good according to Helen. She said:

I always think the engagement piece is important, but I do think him as a presenter. I think I could have just listened to a lecture from him the whole time and still probably learned something and felt good about it because that was just what he was like as a presenter. He was just that good at what he was doing. He was very knowledgeable, and he had been working in classrooms working with kids. He had a lot of experiences that he could pull from and talk about, which made it also very nice.

Like Helen, Paula had a positive experience with a professional development leader. Even in a virtual environment, the interactions between Paula and the leader helped make the professional development beneficial. Paula said:

Our trainer, she had the chat open, and it was private. If you miss something, she was very responsive. If you chatted her and was like, "I missed what page number you said" or "I don't know what materials I need." She will happily repeat them, and she was very good about having visuals and auditory like that's what you need. That's what we're doing. Then she would say it. So, she kept us engaged.

Jadine gave a more general description of an effective professional development leader. Enthusiasm is an important contributor to how Jadine feels about the leader. She said:

Whoever the presenter is, you get a very strong feel for of whether or not they believe in, whatever it is they're trying to push. The ones who are more energetic and who have more enthusiasm for what they do and how to use their product or whatever it is they're trying to implement, those are the ones that I'm not going to



I'm not going to find something entertaining or useful if the person who's showing it to me is very unenthusiastic or monotone or anything like that, if that makes sense.

Myra had a negative experience with a professional development leader. The experience helped shape her perception of what makes a negative experience during professional development. She did not remember much about the content, but she remembered the behavior of the presenter. She said:

Just feeling like I'm respected, by the person. I did go to a professional development once where the presenter was yelling at the host because he didn't like his microphone and yeah, he was like, "this is the worst host I've ever had! Your microphone sucks" and all this. I don't remember much about that professional development because it was so uncomfortable. I think having a person who is presenting who is not like a know it all but is somebody who is confident in what they're doing, but also is open to being respectful to others and listening to other people. I think I think that's good, having a balanced presenter. The thing's that is not good for development would be forcing people to do things that are not related to them in any way, shape, or form. Having a presenter that is snarky and rude and no one wants to be around.

### **Research Question 1**

RQ 1: What do elementary school teachers perceive as characteristics of effective professional development?

The themes—content focus, active participation, coherence, sustained duration, and collaboration from the conceptual framework, and reflection and leadership— and how many of the 10 interviews included information on the theme, the number of total references made to the themes, and the percentage of the transcripts can be found in Table 4. It is also important to note that the introduction to the interview, the questions that I asked, and the conclusion would also be part of the total transcript that was calculated for Table 3. The percentages in Table 3 also include information that was coded for multiple themes because they applied to each of the themes.

**Table 3**

*Participant Responses According to Theme*

Theme	Interviews that Mentioned the Theme	Total Number of References	Percent of Amount of Transcript
Content Focus	10	65	13%
Active Participation	10	56	7%
Coherence	10	33	6%
Sustained Duration	10	17	3%
Collaboration	10	51	10%
Reflection	5	16	3%
Leadership	10	106	18%
Administration	10	40	8%
Respect/Choice	9	47	8%
Professional Development Leaders	9	41	6%

**Research Question 2**

RQ2: How do elementary teachers report that they determine whether professional development activities are useful or not useful?

The participants were asked what elements of professional development they felt were most useful and least useful to helping them evolve as a teacher. The participants gave a variety of answers to each one. There was more of an agreement concerning what was the most useful than what was the most not useful. Table 4 shows the responses given by the participants to the questions about the most useful and least useful element of professional development.

**Table 4**

*Responses about Most Useful and Least Useful Elements of Professional Development*

<u>Response</u>	<u>Number of Responses</u>
<u>Most Useful</u>	
Relates to the Job	4
Feedback through Collaboration	3
Active Engagement	1
Addresses Multiple Modals	1
Knowledgeable Professional Development Leader	1
<u>Least Useful</u>	
Lectures	2
Not Connected to Student Improvement	2
Commercial Programs	2
Putting Sticky Notes on a Chart	1
The use of PowerPoint Presentations	1

***Most Useful***

With responses from ten teachers some of the teachers reported more than one element of professional development that are most useful. There were five different responses given. The five responses were active engagement, a knowledgeable professional development leader, applicable to the role, addresses multiple modals, and

feedback through collaboration. Of the five responses, being applicable to their role was reported to be the most useful by four participants and the only other element to be said by multiple teachers was feedback through collaboration.

### *Least Useful*

There was less consensus among the participants on what is not useful in professional development. The 10 participants gave five different responses. The responses were lectures, putting sticky notes on a chart, commercial programs, not connected to student improvement, the use of PowerPoint presentations. Of the five responses, lectures, not connected to student improvement, and commercial programs were each mentioned by two participants. Two participants did not give a response to what is not useful in professional development.

Two teachers responded that they do not find professional development on commercial programs or products as useful. One of the teachers talked about trying to be sold something, and the other participant discussed professional development on programs that the district purchased. Both types of professional development did not lead to much learning for these participants.

Jadine has not found professional developments useful when the speaker is trying to sell something. She said:

Do they do they really love what they do, or is this just something that's paying bills, passing time, or pushing selling a product that's not beneficial? I don't like going to those because, I'm sure we've all gone to those PDs (Professional

Developments) where it's just like, oh, my gosh, all they're trying to do is just shove this down my throat and get me to buy this five-hundred-dollar program.

Larysa does not find professional development about the programs to be useful. She said, “The least important are like how to navigate websites and how to find things in textbooks. and programs that are online. I'll go on and spend my own time figuring out for myself.” When she can do what the professional development is showing, she does not find the professional development to be useful.

### **Research Question 3**

RQ3: What factors influence how teachers apply information learned from professional development in their classroom instruction?

Participants were asked an open question about what determines if teachers use professional development in their classroom. The participants gave three different responses to that question. Six participants said that if professional development applies to their classroom, they will use it in their classroom. Four participants said teacher choice is what allows students to use what they learn in their classroom. One participant said both applies to their classroom and teacher choice. One participant said that teachers need permission to fail to apply what is learned from professional development in their classroom. Table 5 shows the breakdown of responses to when teachers use the professional development in their classroom.

**Table 5***Responses about Why Teachers Use Professional Development*

Applies to Classroom	Teacher Choice	Both Applies and Choice	Permission to Fail
5	3	1	1

**Discrepant Data**

Two participants expressed preference for listening to lectures instead of active learning. Dalia indicated she liked listening to people deliver information in professional development: “Something that I like in professional development is hearing from the source or the person that's really trusted in their area of expertise. Hearing from the author and her standpoint is what I like having access to.” Catarina was the one participant who said specifically that she liked lecture. Saying:

I am a big listener. I like to listen to people talk about what they're experts in. I thoroughly enjoy, lecture type things. I don't enjoy the online thing. It's convenient. That's about all I enjoy about it. I really like having people who know something and are sharing it. I like the listening and obviously note taking.

Dalia also responded that she also liked active participation. Alexius also responded that she liked active participation and lecture. More specifically, Alexius said that she liked when professional development had a varied format. She said:

I like that it's a combination of an actual book that I can read and highlight and work through and seeing what the textbook is talking about, live through video

that are with kids and also having like the professor checking in with us where we can ask questions. I like that it's a varied format.

### **Summary**

The focus of research question one was to see what teachers feel are effective elements of professional development. The elements that were used to create the themes were the ideas put forth by Desimone and Garet (2015). I used the five themes of content focus, active participation, coherence, sustained duration, and collaboration from the conceptual framework. Two other themes—reflection and leadership—were found because it was a common type of response in multiple interviews.

The focus of research question two was to explore the elements that teachers find as useful and not useful during professional development. More teachers gave a common answer for what made professional development useful than with what made professional development not useful.

The focus of research question three was to explore the factors of whether teachers use what is learned in their professional development. Teachers reported they are more likely to use professional development if the professional development is tied to having a positive influence on students. Teachers also want to be able to choose the professional development that they take.

In Chapter 5, I will interpret the results, which included the limitations of the study. There also are recommendations for future studies. Finally, I consider implications from the results and offer suggestions for how the study can be used to promote social change.

## Chapter 5: Discussion, Conclusion, and Recommendations

The purpose of this interpretive qualitative study was to explore teachers' perceptions of professional development they have experienced and how they have applied the professional development to their teaching. Knowing what teachers identify as effective may provide professional development leaders and administrators insights into the types of professional development that will be the most beneficial. If a school or district wants to create a long-term professional development program, taking teachers' beliefs into consideration could be helpful.

I used the five themes of content focus, active participation, coherence, sustained duration, and collaboration from the conceptual framework. I was able to identify two additional themes of reflection and leadership from the analysis of the semi structured interviews with teachers from a school in Virginia. The applicability of the professional development to their job and teacher choice were important to the participants. The study also helped to confirm that active participation, coherence, sustained duration, and collaboration were other elements that teachers considered beneficial in professional development.

### **Interpretation of the Findings**

When participants were asked about most of their professional development experiences, they reported that most of their professional development had been ineffective. Even though several teachers reported that professional development was not effective, every participant was able to identify at least one experience that they deemed as memorable. Other interesting observations from the interviews were that none of the



participants mentioned classes from their master's degree program even though seven of them had their master's degree. It was also interesting that when participants were asked about their most recent professional development experience, they did not mention the trainings that must be completed annually for the state, even though that would have been the most recent experience for them.

A possible explanation for the results could also be that teachers had not thought deeply about professional development the way they were in the interview. However, by asking open-ended questions and follow-up questions to get the participants to respond more deeply, participants had more of an opportunity to think about and respond to these possibly novel questions. Even if the participants had to stop and think for a length of time, they seemed to give thoughtful responses to all questions.

### **Research Question 1**

RQ1: What do elementary school teachers perceive as characteristics of effective professional development?

A central question during the study was what makes effective professional development. For the study, the conceptual framework from Desimone and Garet (2015) helped to define elements that are in effective professional development. Participants were asked their opinions on what elements were involved in effective professional development. During one of the interviews a participant questioned her own perception of effective professional development.

### ***What is Effective Professional Development?***

A question that came to mind from the exchange with Siti is, what makes professional development effective? What made this a difficult question to answer was that ultimately, professional development leaders want teachers to learn to help students learn, however, just because a teacher learns does not mean that it translates to improvement for students. Similarly, if a teacher does not learn as much, this does not mean that a program is not effective, and students will not improve. During Helen's interview she said that it had to positively impact students for them to continue to use it or to implement professional development in the classroom. The exchange shows that not everyone has a clear understanding of their own beliefs about what makes effective professional development, and it also confirms what Garet et al., (2016) described when they found that just because a teacher learned does not mean that it translated to student achievement.

### ***Focus on Content***

In Dalia's interview, she explained how a focus on content at a state conference was a reason for why she considered the conference to be one of her most memorable professional development experiences. However, findings did not confirm any of the research from the literature review since only one participant commented on it and her comment did not connect to previous research on a content focus in professional development, as described in the literature review.

Based on the number of references throughout the interviews, it seemed that the teachers connected what they like from a professional development to the content that

was taught during the professional development. The content seemed to have some degree of importance for the participants. However, there were not enough references during the study to confirm any of the research that was used for the literature review.

### ***Active Participation***

Active participation was an area that most of the participants believed was a good aspect of professional development. Only one participant did not explicitly say something positive about active participation. The results from this study help confirm what Weisrock (2017) found that teachers get a deeper understanding from actively participating in professional development. From the participants' responses it seems that professional development leaves more of an impression on teachers when they are actively engaged.

### ***Coherence***

Coherence was an interesting topic during the interviews. Whereas application to a person's role was a response given to answer all three research questions, no participants mentioned school or district initiatives even though there was a question about trends in professional development offered and a question about how schools and districts play a role in professional development. With the lack of responses, the participants did not offer a clear overall opinion. There was not any mention of connections to state, federal, and local expectations which Martin et al. (2019) found as important. Judging by the lack of responses about the alignment of initiatives from the school and the district to their own learning, it does not seem like it was important to the participants. Just because the participants did not respond to it though does not mean that

it is not an important element. Therefore, in this study, it was inconclusive about how teachers felt about coherence.

During the interviews it did confirm the other aspect that Weisrock (2017) and Martin et al. (2019) found to be important in coherence, which is connecting the professional development to student needs. Helen described a time when she found professional development worked, and she ultimately thought it worked because students were successful with it. She said, “This did really take off because it did really work. That was definitely very powerful. I guess if it hadn't worked, I would not have thought that the professional development was as good as I thought it was.”

The study did also help confirm Doran’s (2014) findings that some teachers feel that the professional development they must go to does not always apply to their job. Five participants discussed professional development not always applying to the work they do. The participants did not feel that they or their time was being respected when they were asked to go to professional developments that did not apply directly to them.

### ***Sustained Duration***

Five participants said that they would prefer to cover one topic throughout the year, while three said that they would prefer one topic through the year for some topics and while only spending a short amount of time on other topics. That makes eight teachers who saw the benefit of some topics. The main idea that came from those eight participants was they wanted to cover topics more deeply instead of just getting a surface level understanding of a topic. This confirms what Bana and Cranmore (2019) said that teachers may need more time to be able to see how they may use professional

development in their classrooms. Voogt et al. (2015) findings could not be confirmed nor denied because there was no way to see if when participants participated in professional development with sustained duration were continuously improving.

### ***Collaboration***

The study helped confirm the ideas from Chaaban (2017) and Voogt et al. (2015) that working together in professional development can help teachers work past potential barriers and gain more from the professional development experience. This study helped show that teachers perceive that working with other teachers is beneficial to them as well. The teachers discussed how they benefited, and their experience is enhanced by working with colleagues. The study also helped confirm Gröschner et al., (2018) findings that teachers were able to share their different thoughts as they worked with colleagues during a professional development. They shared what went well and what difficulties they had with the professional development.

### ***Reflection***

Even though reflection was not offered in the Desimone and Garet's conceptual framework, there were many studies, including Herbert & Rainford, 2014; Hivner et al., 2019; Kafyulilo et al., 2016; Nilsson, 2014; Vujicic & Camber Tamoloas, 2017; Williford et al., 2016, that found reflection is an important aspect of professional development. The study can expand on the work of Herbert and Rainford (2014) who found that teachers sometimes struggle to reflect, however, if someone tells them how to reflect there is a hierarchal relationship. Paula suggested in the interviews that colleagues can help with reflection because they can give different ways to view the professional development.

She said, “We in my most recent one had a whole staff reflection, you kind of heard what other people were thinking, which I like, because I like feeling validated. ‘I was thinking that, too.’ Maybe I’m not on the wrong page. I like a whole group staff reflection.” When Paula was reflecting with her colleagues, she was able to feel validated or start thinking about what they were learning in a new way.

### ***Administrators***

Edita described her experience with another district’s environment they created for professional development which she felt was very strong. When asked about what she felt made it strong, Edita said, “I think all of us being on the same level with the coaches and anyone else in the building, we were all on a level playing field of we’re all going to learn together.” The findings from the interviews confirmed Voogt et al.’s (2015) assertion that to help professional development be sustained over a longer period everyone participating in the professional development should be learning together.

### ***Respect/Choice***

The nine participants who mentioned respect and choice in their interviews confirmed what McKeown et al. (2019) found that when teachers strengths and needs are considered they felt more respected. The results also align with Weisrock’s (2017) study where teachers identified wanting to play an active role in professional development which included having a say in what is offered for professional development.

### ***Professional Development Leaders***

Professional development leaders were not included as a theme that was considered for the literature review. With nine participants referring to the people that

lead professional development and making 41 references to them, it seemed important to include it as a theme in the data analysis. The participants seemed to prefer charismatic leaders who were very knowledgeable about what they were presenting. Most of the participants described what they thought made a good presenter, however, one participant explained how a rude presenter made it so that she did not retain any of the information from the professional development. Qualities of the presenter themselves may play a bigger role in what is gained from a professional development than was considered for this study, but it could be worth examining more closely.

From the data in the study, if teachers agreed with the elements of effective professional development, then why were teachers reporting that most of the professional development they have experienced has not been effective? There could be several explanations for it. School districts may be restricted by resources such as time and money. When thinking about professional development, teachers could focus on the more negative experiences because those come to mind first. Teachers could influence what other teachers think about professional development, such as when one teacher from the study mentioned that her perceptions were shaped prior to a professional development experience because of what her colleagues said about it.

### ***Conclusion for Research Question 1***

The purpose of the first research question was to see if teachers perceived the same elements of professional development are effective as Desimone and Garet (2015) identified as effective. This study confirmed that teachers identify active participation, coherence, sustained duration, and collaboration as elements that they agreed are

elements are effective professional development. The fifth element that Desimone and Garet identified as effective was content focus and it was not confirmed nor denied as an effective element in this study. Two other elements that came from the interviews that were not in Desimone and Garet's conceptual framework was reflection and leadership, which I later split leadership into administration, respect/choice, and professional development leaders.

### **Research Question 2**

RQ: How do elementary teachers report that they determine whether professional development activities are useful or not useful?

The participants were asked what elements of professional development they felt were most useful and least useful to helping them evolve as a teacher. The participants gave a variety of answers to each one. There was more of an agreement concerning what was the most useful than what was the most not useful.

It was not just important to see what the teachers viewed as effective professional development, but it was also important to see how they reported they come to the determination of what is effective. The results from the study seem to illustrate how teachers determine what was most useful but results of the study did not help come to any determinations about what is least useful for teachers. The results for the most useful aligned with responses given throughout the interview.

### ***Most Useful***

The responses that had the most responses were applicable to the participants' jobs and feedback through collaboration. Two responses were said by more than one



person. Professional development should be related to their job was the response with the most responses that participants gave the most with four participant responses. Feedback through collaboration was mentioned by three participants. The data from the questions about useful professional development aligns with what was said to answer the other two research questions. Professional development not relating to their job was also a response under what was least useful and relating to their role also was a response to what would help ensure teachers use the professional development in their classroom. Collaboration was one of the most referenced elements of professional development during the interviews, so it seems to also align to what teachers find as the most useful elements in professional development.

### *Least Useful*

Lectures, not applicable to the job, and commercial programs were the only multiple participant responses. Unlike the responses when asking what is the most useful, there was not as much consensus with what is the least useful element of professional development. The three options mentioned were the only ones that had more than one person say them, and they all had two people say them. With only two responses there does not seem to be any definitive answer that any of these are not useful in professional development. The one exception would be with professional development not being applicable to the job. If being not applicable to the job is combined with its antithesis that being applicable to the job is useful in professional development, between the two it shows that it is an important element to include in professional development.

### ***Conclusion for Research Question 2***

It seemed that it was easier for teachers to agree on what is most useful in professional development than what is the least useful. A possible explanation is that it is because they were more confident in identifying what makes professional development effective rather than being able to identify what does not make it effective. It could also be that more participants would offer more variation in what is most useful and there would be more similarities with what is least useful.

### **Research Question 3**

RQ: What factors influence how teachers apply information learned from professional development in their classroom instruction?

Participants were asked an open question about what determines if teachers use professional development in their classroom. The participants gave three different responses to that question. Six participants said that if professional development applies to their classroom, they will use it in their classroom. Four participants said teacher choice is what allows students to use what they learn in their classroom. One participant said both applies to their classroom and teacher choice. One participant said that teachers need permission to fail to apply what is learned from professional development in their classroom.

The two main responses seemed to be very important to the participants because each of the responses was also the response to one of the other research questions. Giving teachers choices in their professional development was a response to research question 1 while professional development applying to their work was a response to research

question 2. It would be reasonable if teachers view it as a characteristic of effective professional development or if they viewed it as useful in professional development, then it would be a contributing factor into whether teachers would use it in their classroom.

There was also one response that said that an important factor of whether teachers would implement professional development in their classrooms was they needed permission to fail and to take risks. Even though it was just one response, it helped validate Walker's (2016) findings that teachers were more willing to use what was learned from a professional development when they did not feel there were restrictions on what they could implement in their classrooms. It was only one participant who gave this response though, so it was not conclusive with the group of participants who were interviewed.

The purpose of the third research question was to see what the determining factors were into whether teachers use what is learned from professional development in their classroom. It was a good concluding question because it brought all the elements together to see if they ultimately used the professional development. Professional development can be useless if the teachers do not use it. With the responses of professional development aligning to what the teachers do and teachers being given choice, they align to what the teachers said during other aspects of the interview, and it seemed to give validity to their responses since the responses were consistent.

### **Conclusion of Interpretation of Research Questions**

When looking at the three research questions in total, there were two common responses given. They were teachers wanting to have professional development that

applied to their current position and gave teacher's choices in the professional development they experience. Having the two responses that answered multiple research questions seem to show that the two responses are important to teachers with professional development and should continue to be considered when exploring effective elements of professional development.

### **Limitations of the Study**

A limitation of the study was my own personal bias. Since I am a teacher, I have experienced various types of professional development during my career. I have my opinions about professional development. During the data gathering process and data analysis, I kept a personal reflective journal. When I asked the interview questions, I kept my demeanor neutral when participants responded.

This study has a qualitative design as teachers answered open-response interview questions. The open-response questions allowed teachers to describe effective professional development and the elements that are important in effective professional development. The elements have been determined by the conceptual framework, but the questions allowed teachers to identify new elements that may not have been addressed in the framework. Effective professional development was partially defined by the participants; however, for the study it was formal development opportunities that led the teachers to make what they perceived as positive changes in their classrooms. The interview allowed me to ask clarifying questions about the teachers' responses.

## Recommendations

This study furthers the ideas from the framework of Desimone and Garet (2015). Desimone and Garet found that there were five elements of effective professional development, a focus on content knowledge, active learning, coherence, sustained duration, and collective participation. This study examined how teachers' perceptions of professional development aligned with the ideas of the conceptual framework.

The teachers in the study also seemed to add what administrators should consider for learning transfer from Brion's research (2020). Teachers responded that choice and having the professional development apply to what they do in their classroom are the important aspects that should be included for teachers to use the professional development in their classroom. Future research could explore this further seeing if choice and cohesion between the professional development and the teachers' needs are what lead to learning transfer.

Further research might use a quantitative or a mixed methods approach. By using a quantitative approach, a researcher could explore if any of the methods that teachers described make a quantifiable difference. A mixed methods approach can explore another group of teachers' perceptions of what makes professional development effective, while also seeing if those perceived methods make a quantifiable difference in teachers or in their classrooms.

It could be beneficial to see if the other aspects that were identified in this study should be explored to see if they should be added to the elements of effective professional development. Those added included reflection, administration, respect, and

choice as given by administrators, and the leaders of the professional development. These elements have been included in studies, but it could be important to see if they are important enough to be added to a conceptual framework.

One future study could see what and why teachers view as the most useful and least useful elements of professional development. With having more common responses with what is most useful than least useful, it could be interesting for a future study to explore if teachers can better recognize elements of effective professional development than they can of least effective professional development. Knowing teacher perspectives will further understand what teachers perceive with professional development.

Some of the responses that were said by only one person could be interesting to ask other teachers their perspectives. For example, Catarina said that what is needed for teachers to use professional development in their classrooms is an environment that supports risk taking and environment that allows people to fail and learn from their mistakes. It could be interesting to get other perspectives on that assertion that is not necessarily be directly related to professional development but could still play a role in its implementation. Since there was a lack of responses that discussed the importance of school and district initiatives, it could be beneficial for other studies to explore coherence more in depth.

### **Implications**

This study helped close the gap between what Desimone and Garet (2015) found as elements of effective professional development and what teachers perceive as effective elements. The study confirmed the elements of active participation, connecting it to

student needs aspect of coherence, sustained duration, and collaboration from Desimone and Garet. There was not enough evidence to confirm nor deny whether a focus on content is an important element to teachers. Future studies can further solidify the importance of these elements in professional development and can help see the importance of a focus on content to teachers. The more that other studies confirm or refute the importance of the elements the more it can help administrators put the implications into practice. Future studies can also examine why some teachers have a negative first impression of professional development since many of the aspects that teachers find as effective align with what Desimone and Garet described as effective elements of professional development.

The data from the study also confirmed some of the elements that Bates and Morgan (2018) included in their elements of effective professional development from their research. The teachers' responses confirmed active learning, collaboration, sustained duration as described with Desimone and Garet's (2015) framework. Teacher responses also confirmed the importance of feedback/reflection by five teachers discussing the importance of reflection and two others mentioning feedback through collaboration even though these ideas were not explicitly asked about during the interview. The focus on content was not confirmed as described with Desimone and Garet's (2015) framework. Effective practice was also not confirmed in the study because no one mentioned that they needed to have what is learned modeled, though a teacher did talk about videos included in professional development though not enough to say it was confirmed. Coaching/expert leaders also could not be confirmed though it was discussed by three

participants, more questions need to be asked to further confirm the importance of this element.

It seems that if administrators want teachers to use the professional development in the classroom, they may want to use at least the two concepts that were responses to two of the three research questions. The administrators may want to make sure that the professional development applies to what the teachers do in their classrooms and give teachers choices in what they learn during professional development. Other elements that administrators may want to consider if they want teachers to respond to professional development are active participation, connecting it to student needs, sustained duration, and collaboration. The reason the elements should be considered is because they were the areas where most participants had similar responses. Even though every participant did not respond in the same way, these areas showed most of the participants responded in a similar way. Future studies can help confirm whether teacher choice needs to be more closely examined for whether it is an element of effective professional development.

The findings from the study have the potential for social change at various levels. Schools that are looking to make changes in teacher thinking, planning, or instruction may want to listen to teacher perceptions about what they feel makes for effective professional development and professional development leaders may want to give teachers a voice in the process. If teachers can learn better teaching techniques, then they will hopefully be able to provide better instruction for students which can translate positively into the community.



## **Conclusion**

Teachers' perceptions of effective professional development can help inform ways that professional development can be used in their classrooms. The participants in the study made it clear that being able to apply it in their classroom and having choices in professional development are important to them. There was also strong evidence that they want active participation, connections to student needs, sustained duration, and collaboration in much of the professional development that they experience. The more administrators can incorporate into professional development, the more likely teachers are to view the practices as useful, use what they learn, and incorporate what they learn into their classrooms.

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## Appendix A: Interview Protocol

### **Introduction/Demographics**

“Thank you for the opportunity to interview you today. I want to remind you that the interview is being recorded. I am using the recording so that I can pay closer attention to your responses. We are talking today so that I can get your opinions of professional development. I want to have a better understanding of what you think about the professional development you have experienced. First, I’d like to get to know more about your professional background.”

1. How long have you been teaching?
2. Why did you become a teacher?
3. What is your highest level of education?
4. How long have you been teaching at the school?
5. How long have you been teaching?
6. What subjects do you teach?
7. About how many students do you teach this year?

This part of the interview is important because I need to build a rapport with the teacher, build a sense of confidence, and create a sense of trust.

### **Professional Development**

The first questions are to get the participant comfortable talking about professional development and to be sure there is a clear understanding of how professional development is being defined in the study. “Again, we are here to talk about professional development. What do you consider to be professional development? What

was the most recent professional development experience that you had?” I want the participant to understand that coursework, conferences, and other formal opportunities to learn would be considered professional development. Having discussions with colleagues and other informal types of learning will not be considered professional development for the purpose of the study. As the discussion enters this stage, I will ask the participant about their most recent professional development. For example, the elementary teachers had to have professional development on the new reading series the district recently purchased. I might ask, “How did you feel about that professional development opportunity? What kinds of activities made you feel positive/negative about this professional development?” To get them thinking about other professional development experiences, I will ask them, “What was your most memorable professional development experience? What made this experience memorable?”

I will then proceed to get into deeper questions about professional development. The first question is still about professional development as a whole and lets me see how their answer to this question connects to how they answer subsequent questions.

8. *How do you best learn during professional development?* (RQ 1 & RQ 2)

### **Focus on Content**

9. Thinking about the content of your professional development experiences, what stands out to you about how the content was presented?
  - a. What kind of delivery mechanism was used (e.g., PowerPoint, lecture, etc.)? (RQ1)

10. *How has someone presented new content to you that has been especially memorable? (RQ1)*

### **Active Participation**

11. What role have you played in the professional development?

- a. There may be some confusion about what is meant by the question. The interviewer may give some examples of observer, participator, and collaborator. (RQ1)

12. *How does the role you play during professional development contribute to what you potentially gain from it? (RQ1)*

### **Coherence**

13. What role does your school or district play in your professional development? (RQ1)

14. *How does professional development become a part of the school's culture?(RQ3)*

### **Sustained Duration**

15. What trends do you notice in what is offered during professional development opportunities? (RQ1)

16. *Do you find it more beneficial to cover one topic or multiple topics throughout a school year in professional development? (RQ2)*

17. How does it make you feel to cover a single topic throughout the year and adopt the professional development in your classroom sometime during that time? (RQ1)



**Collaboration**

18. What role has colleagues from your school or team had in your professional development? (RQ1)
19. *What differences are there between if you attend a professional development alone or if you attend with a colleague?* (RQ1)

**Synthesis of the Elements**

20. When has professional development helped you change? (RQ3)
21. What types of professional development do you feel were not worth your time? (RQ3)
22. *How has professional development helped you evolve as a teacher?*  
(RQ3)
23. *What elements of professional development do you consider to be the most important and least important in helping you to evolve as a teacher?*  
(RQ2)

Finally, a concluding question.

24. Is there anything else that you think leaders of professional development should know about what teachers think leads them to make changes in their classroom?

To conclude the interview, I will thank the participants for giving me their time and say, “Thank you for being a part of my study.”

## Appendix B: Relationship Between Interview Questions, Conceptual Framework and Research Questions

Interview Questions	Purpose of Questions (Axial Codes)					Research Question(s) Addressed
	Focus on Content	Active Participation	Coherence	Sustained Duration	Collaboration	
Do you find it more beneficial to cover one topic or multiple topics throughout a school year in professional development?				X		2
What differences are there between if you attend a professional development alone or if you attend with a colleague?					X	2
How has professional development helped you evolve as a teacher?	X	X	X	X	X	3
What elements of professional development do you consider to be the most important and least important in helping you to evolve as a teacher?	X	X	X	X	X	2
What differences are there between if you attend a professional development alone or if you attend with a colleague?					X	2

How has professional development helped you evolve as a teacher?

X	X	X	X	X	3
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What elements of professional development do you consider to be the most important and least important in helping you to evolve as a teacher?

X	X	X	X	X	2
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