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A DESCRIPTIVE ANALYSIS OF THE EFFECTIVENESS OF FACULTY INSERVICE IN LATTER-DAY SAINT (LDS) SEMINARIES

by

Mark A. Mathews

A dissertation submitted in partial fulfillment
of the requirements for the degree

of

DOCTOR OF PHILOSOPHY

in

Education

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UTAH STATE UNIVERSITY
Logan, Utah

2012

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ABSTRACT

A Descriptive Analysis of the Effectiveness of Faculty Inservice in Latter-day Saint (LDS) Seminaries

by

Mark A. Mathews, Doctor of Philosophy

Utah State University, 2012

Major Professor: L. Joseph Matthews, Ed.D.
Department: School of Teacher Education and Leadership

The purpose of this study was to examine the effectiveness of professional development in the Seminaries and Institutes of Religion (S&I) of The Church of Jesus Christ of Latter-day Saints (LDS) through a descriptive analysis of the processes and outcomes of faculty inservice. To accomplish this purpose, 140 randomly selected LDS seminary teachers completed a survey measuring the processes and outcomes of faculty inservice training. Descriptive statistics were used to determine the frequency and variation that teachers reported five features of effective professional development (content focus, active learning, coherence, duration, and collective participation) as being part of seminary faculty inservice training. Descriptive statistics were also used to provide information about the frequency and variation of perceived impact of faculty inservice training on teaching and learning and on feeling prepared to implement seven objectives of LDS seminaries known as the *Teaching and Learning Emphasis*.

Correlational statistics were used to explore the relationship among the five features of effective professional development and the reported outcomes.

Teachers reported that the five features of effective professional development were generally moderate in frequency and more frequent in summer inservice than school year inservice. Reported impact of faculty inservice on teaching and learning was also moderate in frequency and more frequent during summer inservice. Teachers reported moderate agreement that inservice directly prepared them to accomplish the objectives of the *Teaching and Learning Emphasis.*

The results of this study indicated that current efforts are moderately effective at implementing five features of effective professional development and achieving the outcomes of improved teaching and learning according to S&I standards. Results also indicate a correlation between the processes of the five features of effective professional development and the outcome measures of teaching and learning. These findings suggest that seminary faculty inservice could improve by increasing the frequency with which faculty implement five features in faculty inservice. To accomplish this, I propose that faculty inservice instructors teach concepts from upcoming scripture blocks, provide more opportunities to observe teaching that meets S&I standards, provide more follow-up, and select seminary principals who are qualified and prepared to provide effective faculty inservice.

(242 pages)

PUBLIC ABSTRACT

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The purpose of this study was to examine the effectiveness of professional development in the Seminaries and Institutes of Religion (S&I) of The Church of Jesus Christ of Latter-day Saints (LDS) through a descriptive analysis of the processes and outcomes of faculty inservice. To accomplish this purpose, 140 randomly selected LDS seminary teachers completed a survey measuring the processes and outcomes of faculty inservice training. Descriptive statistics were used to determine the frequency and variation that teachers reported five features of effective professional development (content focus, active learning, coherence, duration, and collective participation) as being part of seminary faculty inservice training. Descriptive statistics were also used to provide information about the frequency and variation of perceived impact of faculty inservice training on teaching and learning and on feeling prepared to implement seven objectives of LDS seminaries known as the *Teaching and Learning Emphasis*. Correlational statistics were used to explore the relationship among the five features of effective professional development and the reported outcomes.

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If it is possible, this degree and its accompanying dissertation mean more to my mom and my wife than to anyone else. They never lost hope. Therefore, I not only acknowledge their support but lovingly dedicate this work to Susan Friedman Mathews and Mandy Halling Mathews.

I am also grateful for Dr. Joseph Matthews who came to USU as an answer to my prayers. He agreed to be my major professor when I was left without one and has been such a wonderful mentor to me. The professors who formed my committee were also great to work with as they were all so generous with their time, assistance, and encouragement throughout the phases of this project. In addition, my employers at the Seminaries and Institutes of Religion were very supportive in providing me with several months of professional development leave, which allowed me to focus exclusively on this project and complete it in a timely manner. I cannot forget to thank my daughters Rachel and Madelyn, who were so sweet to let Daddy sneak away on Saturdays to do homework. To my son Bruce, who has been counting down the days until he could call me “Doc,” thank you! Finally, I know the Lord has guided me through this process, and I acknowledge His hand in this and in all things.

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CHAPTER I

INTRODUCTION

The religious education branch of The Church of Jesus Christ of Latter-day Saints (LDS), known as the Seminaries and Institutes of Religion (S&I), have made efforts recently to report the time spent in faculty inservice and the overall satisfaction with the program, but little has been done to examine the effectiveness of seminary faculty inservice training. This study sought to analyze the effectiveness of seminary professional development by understanding the processes and features by which faculty inservice operates and the outcomes which it generates. Measuring these processes will allow S&I administrators to determine the extent to which these processes conform to established features of effective professional development. In addition, measuring the outcomes produced by faculty inservice will also assist S&I administrators in determining how well actual outcomes compare with intended outcomes of the seminary inservice program. These measures, along with related associations between processes and outcomes, will allow S&I administrators to evaluate the overall effectiveness of LDS seminary faculty inservice.

Objective of LDS Seminary

> Our purpose is to help youth and young adults understand and rely on the teachings and Atonement of Jesus Christ, qualify for the blessings of the temple, and prepare themselves, their families, and others for eternal life with their Father in Heaven. (Teaching and Learning Emphasis, 2009)

This statement summarizes the objective of the Seminaries and Institutes of

Religion (S&I) of the LDS Church. The ultimate objective is to help students learn and live the restored gospel of Jesus Christ in a way that leads them to eternal life with God. To achieve this purpose, the objective further explains the role of seminary teachers.

> We teach students the doctrines and principles of the gospel as found in the scriptures and the words of the prophets. These doctrines and principles are taught in a way that leads to understanding and edification. We help students fulfill their role in the learning process and prepare them to teach the gospel to others. (Teaching and Learning Emphasis, 2009)

To help seminary teachers accomplish this objective and fulfill their role as teachers, S&I administrators have identified seven principles that make up the *Teaching and Learning Emphasis* that teachers and students should follow. They are

- Teach and learn by the Spirit.
- Cultivate a learning environment of love, respect, and purpose.
- Study the scriptures daily and read the text for the course.
- Understand the context and content of the scriptures and words of the prophets.
- Identify, understand, and apply gospel doctrines and principles.
- Explain, share, and testify of gospel doctrines and principles.
- Master key scripture passages and basic doctrines. (Teaching and Learning Emphasis, 2009)

The assumption is that by applying these more concrete points from the *Teaching and Learning Emphasis*, teachers and students will have the experiences in the seminary classroom that will lead to the ultimate objective of S&I. This is important because the objective of S&I is a spiritual and long-term goal and is therefore difficult to measure and assess. What these seven points of emphasis provide are more tangible and immediate goals for seminary teachers. These points of emphasis also provide a better basis for evaluating and examining teaching and learning in seminary and determining how well seminary teachers are accomplishing this objective.

Purpose of S&I Professional Development

In order for these principles in the *Teaching and Learning Emphasis* to effectively lead to this objective, seminary teachers must understand and implement each of these emphasized principles in the classroom. To assist seminary teachers in doing so, S&I (also called CES) provides regular area and faculty inservice training opportunities. As explained in seminary teaching handbook,

> CES provides extensive in-service training opportunities for all of its teachers and leaders. The primary purpose of in-service training is to improve teaching, but it also helps teachers learn how to minister and administer as a servant leader in CES. Training meetings are used to discuss the scriptures, to learn and practice inspiring methods of teaching, to distribute materials, to help teachers complete reports, to share ideas for increasing student attendance and participation, for helping students complete course requirements, and so on. (Teaching the Gospel, 1994, p. 18)

Teachers from seminary faculties of sufficient size meet weekly to engage in faculty inservice training. This training typically lasts one to two hours during the school year and often more than twice as long during the summer. In addition, teachers from multiple faculties are periodically invited to area inservice training of similar duration. The primary purpose of these training activities is to improve teaching and learning but there is no established training program to guide principals and area directors. As a result, training varies dramatically across faculties and areas. The training provided in the summer also differs greatly from the training provided during the school year.

Recent efforts have been made by the LDS S&I to evaluate the time spent in faculty inservice and the overall satisfaction with the program but little has been done to analyze the effectiveness of faculty inservice in seminary. For faculty inservice training

to be effective, the processes by which it operates must be effective. These processes must be consistent with the characteristics that research has linked to increased teacher knowledge and skills and improved classroom teaching and learning. In addition, for faculty inservice training to be effective the outcomes which it generates must be consistent with intended outcomes of improved teaching and learning. Specifically in S&I, these outcomes should align with the *Teaching and Learning Emphasis*. As a result, to understand the effectiveness of seminary faculty inservice, more needs to be understood about the processes by which inservice operates and the outcomes which inservice generates. This study sought to respond to this important need.

Professional Development and Student Learning

Because the ultimate objective and emphasis of S&I is to help students learn and live the restored gospel of Jesus Christ found in the teachings of the LDS church, for professional development to be considered effective it must not only influence teacher instruction but also student learning. There is a limited but growing body of research that suggests the faculty inservice does have an impact on student learning. Yoon, Duncan, Lee, Scarlos, and Shapley (2007) performed a meta-analysis reviewing the research-based evidence on the effects of teachers' inservice professional development on student achievement in the core subjects of math, science, and reading. Nine studies met the rigorous evidence standard set by the What Works Clearinghouse. The results of the meta-analysis of these studies were promising, indicating that providing professional development to teachers had a moderate effect on student achievement. The average was

an increase of 21 percentile points in student achievement if their teacher received substantial professional development. The effect size was consistent across the core content areas reviewed (Yoon et al., 2007). These findings ought to give S&I confidence that the impact of professional development can reach beyond teacher knowledge and instruction and can affect student learning and achievement.

Characteristics of Effective Professional Development Processes

In order to evaluate how effectively professional development is influencing teaching and learning in the seminary classroom, more needs to be understood about the processes and features that make professional development effective. Although many articles have proposed characteristics for effective professional development, the first large-scale comparison of the effects of different characteristics of professional development on teachers' learning was conducted using a nationally representative probability sample (1,027 teachers) made available through the Eisenhower Professional Development Program (Garet, Porter, Desimone, Birman, & Yoon, 2001). This program, Title II of the Elementary and Secondary Education Act, is focused on developing the knowledge and skills of classroom teachers (Birman, Desimone, Porter, & Garet, 2000). As part of this national evaluation, six exploratory case studies and 10 in-depth case studies in five states were also conducted (Garet, Birman, Porter, Desimone, & Herman, 1999). From studying the literature and analyzing the survey data, six key features of effective professional development were identified. The importance of these core features of effective professional development is consistent with a large body of research on

teacher professional development (Garet et al., 2001).

These key features that Garet and colleagues (2001) found as characteristic of effective processes of professional development were: (a) focus on content, (b) active learning, (c) coherence, (d) duration, (e) collective participation, and (f) form. The impact of the form of professional development, whether it was of the traditional or reform type, was explained through other features like content and duration (Birman et al., 2000). As a result, later studies by the authors involved in this research dropped "form" from the list of effective characteristics. This reduced the features of effective professional development to five and made them more universally applicable to different forms of professional development (Desimone, 2009). Because these five key features have been shown to be characteristic of effective professional development, they should consistently be a part of effective S&I faculty inservice training.

Conceptual Framework for Effective Professional Development

The model of key features that resulted from the Eisenhower Professional Development Program has become one of the most well-known and widely cited models of effective professional development (Quick, Holtzman, & Chaney, 2009). This model was tested in several different contexts, and has remained reliable (Desimone, Porter, Garet, Yoon, & Birman, 2002; Garet et al., 2001; Penuel, Fishman, Yamaguchi, & Gallagher, 2007; Quick et al., 2009). Desimone (2009), one of the original authors in this study, proposed a framework to illustrate processes by which these features are expected to influence teaching and learning. Figure 1 shows a reproduction of that framework.

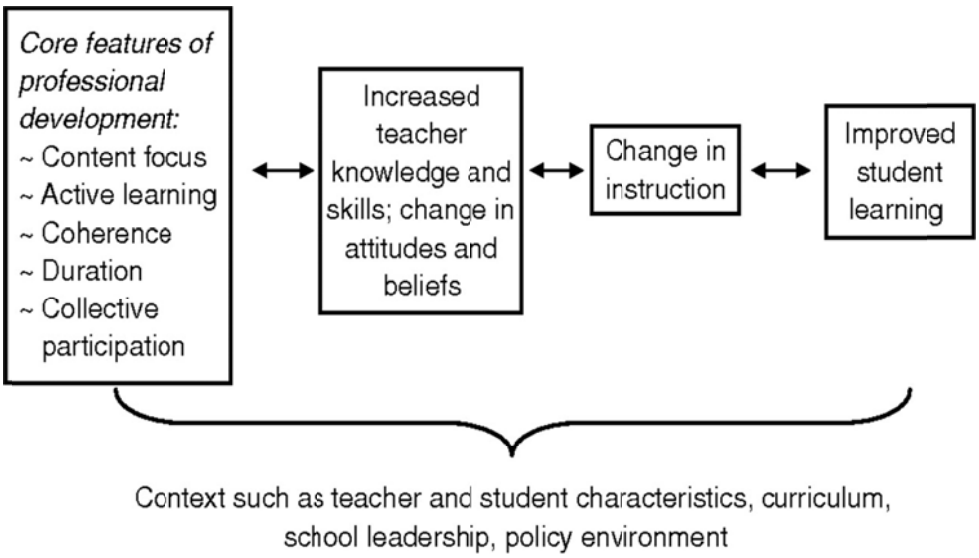

Figure 1: Desimone's proposed core conceptual framework for studying the effects of professional development on teachers and students. Reprinted from "Improving impact studies of teachers' professional development: Toward better conceptualizations and measures" by L. M. Desimone, 2009, *Educational Researcher,* 38, p. 185. Copyright 2009 AERA. Reprinted with permission.

This framework model suggests that these five core features of professional development help faculty inservice effectively increase teacher knowledge and skills that in turn lead to better teaching and learning. This suggests that teacher knowledge and change in instruction serve as mediators that allow professional development to have an indirect impact on student learning, all within the context of curriculum and policy. As Desimone (2009) explained, the literature underscores the importance of each element of this proposed path model. Some studies have even explored the links between all four areas in this model (Franke, Carpenter, & Levi, 2001; Saxe, Gearhart, & Nasir, 2001).

Levels of Outcome Evaluation in Professional Development

In order to evaluate how effectively professional development is influencing

teaching and learning in the seminary classroom, more needs to be understood about the outcomes seminary faculty inservice generates. According to Guskey (2000), effective professional development evaluation requires the collection and analysis of several critical levels of information. Each level builds on the last and seeks to measure the impact of faculty inservice training on teaching and learning. These levels include: (a) participants' reaction, (b) participants' learning, (c) participants' use of new knowledge and skills, and (d) student learning outcomes.

These levels of outcome evaluation are consistent with the model depicted in Figure 1. According to the Desimone (2009) model, professional development is expected to impact student learning and teacher change through such mediating factors as teachers' knowledge, skills, and classroom practice. As a result, a breakdown at any level or link in the process would decrease the overall effectiveness of the program (Yoon et al., 2007). Therefore, each of the outcome levels proposed in these models must be evaluated to determine the overall effectiveness of the program and possible ways to improve it.

Statement of the Problem

The LDS S&I rely on professional development to improve teaching and learning according to the emphasis and objective of the LDS church's religious education. The primary means of providing this professional development is through weekly faculty inservice training. Recently, S&I has begun to examine the amount of time spent and the degree of satisfaction experienced with these inservice training efforts. However, little

has been done to analyze the overall effectiveness of S&I inservice training. To understand the effectiveness of seminary inservice, more needs to be understood about the processes by which inservice operates and the outcomes that inservice generates.

Regarding the processes of effective professional development, research has confirmed five core features of effective professional development (Garet et al., 2001; Desimone, 2009). What is unclear is the extent to which these factors are being implemented in S&I inservice training. It is also unclear whether this differs in the training provided in the school year from the training provided in the summer. In addition, while these five core features have been shown to be characteristic of effective professional development in public education, little is known of their usefulness or importance in other educational settings like the religious education of LDS seminaries.

The outcomes of seminary inservice must also be considered in evaluating the effectiveness of professional development. Research supports a link between faculty inservice and improved student learning (Yoon et al., 2007). There is also evidence that supports the effects of faculty inservice on increased teacher knowledge and skills and improved instruction, especially when certain key characteristics are present (Garet et al., 2001). However, these findings only support the potential effects of professional development in general. Little is known about the specific effects of S&I faculty inservice on teaching and learning. Furthermore, it is unclear how effectively inservice training helps prepare teachers to implement the principles of the *Teaching and Learning Emphasis* designed to help seminary teachers accomplish the objective of S&I. It is also unclear how much this varies from school year to summer inservice training.

Research Questions

To assist in better understanding the effectiveness of faculty inservice in the LDS seminaries and institutes of religion, this study sought to answer the following questions. The questions related to processes and features are listed first, followed by questions on outcomes, and concluded by a question regarding the association between processes and outcomes.

1. How frequently do full-time LDS seminary teachers report the five features of effective professional development (content focus, active learning, coherence, duration, and collective participation) are present in S&I faculty inservice training?

2. Do full-time LDS seminary teachers report a difference in the use of the five features of effective professional development (content focus, active learning, coherence, duration, and collective participation) in S&I faculty inservice training during the school year and faculty inservice training during the summer?

3. How frequently do full-time LDS seminary teachers report increasing in teacher knowledge and skills, applying teacher knowledge and skills in classroom instruction, and perceiving improvements in student learning from participating in S&I faculty inservice training?

4. Do full-time LDS seminary teachers report a difference in the increase of teacher knowledge and skills, application of teacher knowledge and skills in classroom instruction, and perception of improvements in student learning, from the faculty inservice training they receive in the school year and the faculty inservice training they receive in the summer?

5. How many full-time LDS seminary teachers participating in S&I faculty inservice training report being prepared by inservice activities to implement the principles of the *Teaching and Learning Emphasis*?

6. Do full-time LDS seminary teachers report a difference in the preparation they receive to implement the principles of the *Teaching and Learning Emphasis* from the faculty inservice training they receive in the school year and the faculty inservice training they receive in the summer?

7. Do full-time LDS seminary teachers report an association between the five features of effective professional development (content focus, active learning, coherence, duration, and collective participation) and improved teaching and learning outcomes in S&I?

Significance of the Study

Time and money are allotted to professional development in LDS seminary because of the desire to improve teaching and learning. An analysis of the effectiveness of S&I professional development will help ensure that these resources are not being wasted. By understanding the processes and outcomes of professional development in LDS seminaries, S&I administrators will be able to understand the effectiveness of current professional development efforts. This will help S&I administrators make any necessary adjustments to improve this important program and thereby improve the teaching and learning throughout the S&I system. As the effectiveness of the inservice program is enhanced and confirmed, it will allow LDS S&I to proceed with greater

confidence in the training and development of its teachers. Ultimately, this study can help S&I reach its potential and better attain its objective to "help youth and young adults understand and rely on the teachings and Atonement of Jesus Christ...and prepare for... eternal life" (Teaching and Learning Emphasis, 2009).

Summary

Little has been done to evaluate the effectiveness of seminary faculty inservice training. This study sought to analyze the effectiveness of seminary professional development by understanding the processes and features by which inservice operates and the outcomes which professional development generates. Measuring these processes will allow S&I administrators to determine the extent to which these processes conform to five established features of effective professional development (content focus, active learning, coherence, duration, and collective participation). Measuring the various outcome levels of evaluation (including participants' reaction, participants' learning, participants' use of knowledge and skills, student learning outcomes, and teacher change) produced by faculty inservice will also assist S&I administrators in determining the impact professional development efforts have on teaching and learning. In addition, measuring outcomes of professional development will allow S&I administrators to compare actual outcomes with intended outcomes of the seminary inservice program, specifically the seven principles of the *Teaching and Learning Emphasis*. These measures, along with related associations between processes and outcomes, will allow S&I administrators to evaluate the overall effectiveness of LDS seminary faculty

inservice.

This dissertation is presented in five chapters. Chapter I is the introduction, which includes a brief background into the objective and emphasis of LDS seminaries along with a brief explanation of S&I professional development efforts. Chapter I also includes a brief review of relevant literature to help frame the study, a statement of the problem, the research questions, and the significance of the proposed study. Chapter II reviews the literature pertaining to effective professional development, its impact on teaching and learning, frameworks for understanding the processes and outcomes of professional development, and ways to evaluate professional development effectiveness. Chapter III is the research design and methodology, including a brief review of the problem and research questions, a description of the population and sample, a description of data collection and survey instrumentation, and the proposed statistical analysis to evaluate professional development effectiveness. Chapter IV reports the results of this study. Chapter V discusses the results of this study, how they answer the research questions, and how the results provide recommendations for improving seminary faculty inservice and for possible future research.

CHAPTER II

LITERATURE REVIEW

Recent efforts have been made by the LDS S&I to evaluate the time spent in faculty inservice and the overall satisfaction with the program but little has been done to evaluate the effectiveness of seminary inservice training. To understand the effectiveness of seminary professional development, more needs to be understood about the processes by which inservice operates and the outcomes which professional development generates. This study seeks to respond to this important need.

To understand the effectiveness of S&I faculty inservice requires a review of the research literature on professional development. This review will provide an opportunity to define and limit the terminology of professional development and supply the context of this study through a historical background. Most importantly, this review will serve to identify and examine more closely the characteristics of effective professional development and the research that supports the impact of professional development on teaching and learning. Framework models describing the processes through which professional development operates will also be described along with suggestions from researchers as to how to best evaluate the full impact of the outcome levels of professional development on teaching and learning. This literature review will provide an important foundation for this study.

Professional Development

Professional development has been described as a "patchwork of opportunities—

formal and informal, mandatory and voluntary, serendipitous and planned—stitched together into a fragmented and incoherent 'curriculum'" (Wilson & Berne, 1999, p. 174). Because teachers experience a vast range of activities and interactions that can increase their knowledge and skills and affect their teaching practice, it can be difficult to define what constitutes professional development. As Desimone (2009) explained, the literature casts a wide net regarding what might be considered professional development. For example, Little (1987) described professional development as "any activity that is intended partly or primarily to prepare paid staff members for improved performance in present or future roles in the school districts" (p. 491). This professional development can include everything from the traditional workshops, conferences, and college courses (Little, 1993) to more current trends in situated cognition's interactive and social learning (Greeno, 1997; Greeno, Collins, & Resnick, 1996; Putnum & Borko, 2000) and the formal and informal growth experiences of teachers in learning communities (Little, 2002; Matthews & Crow, 2010; McLaughlin & Talbert, 1993; Stein, Smith, & Silver, 1999).

Naturalistic and descriptive studies using ethnographic or case-study methods often attempt to examine all the learning experiences that could potentially affect teacher growth (Denzin & Lincoln, 2002; Merriam, 1988; Miles & Huberman, 1994; Spindler, 2000; Yin & Campbell, 2003). However, quantitative studies that seek to understand trends, correlations, and impacts must be more specific about what constitutes professional development in order to identify and collect the data required to produce such information (Desimone, 2009). For the purposes of this study and the following

literature review, professional development will be defined more narrowly as the formal, recurring faculty inservice training aimed at improving teaching and learning.

Historical Context

Professional development efforts in American schools began in the early 19th century with the formation of the Teacher Institutes (Richey, 1957). But instead of a history of steady progress and advancement in knowledge, "the history of staff development is characterized primarily by disorder, conflict, and criticism" (Guskey, 1986, p. 5). Almost every early work on professional development emphasized its failings and inadequacies. Corey (1957) remarked that although there is evidence for the need of effective professional development, "much of what goes for inservice education is uninspiring and ineffective" (p. 1). Davies (1967, as cited in Rubin, 1971) concurred in his testimony before the Senate Subcommittee on Education, explaining that "inservice education is the slum of American education—disadvantaged, poverty stricken, neglected, psychologically isolated, riddled with exploitation, broken promises, and conflict" (cited in Guskey, 1986, p. 5).

Throughout the 1970s and 1980s, research on effective schools served to again highlight the need for high quality professional development (for example, see Bloom, 1976; Brophy, 1979; McDonald & Elias, 1976; Medley, 1977). Unfortunately, however, few programs in that era demonstrated effectiveness and most staff development continued to be characterized as inadequate (Flanders, 1980; Howey & Joyce, 1978; Lawrence, 1974; McLaughlin & Marsh, 1978; Rubin, 1971; Wagstoff & McCullough,

1973; Wood & Thompson, 1980). Howey and Vaughn (1983) described the staff development in those years as "a potentially well-supported (in terms of resources) enterprise that is fragmented, not frequently engaged in on a continuing basis by practitioners, not regarded very highly as it is practiced, and rarely assessed in terms of teacher behavior and student learning outcomes" (p. 97).

As the turn of the century approached, reviews of professional development consistently reported the ineffectiveness of most programs (Consortium for Policy Research in Education, 1996; Corcoran, 1995a, 1995b; Frechtling, Sharp, Carey, & Baden-Kierman, 1995; Kennedy, 1998). Despite this critique of conventional forms of professional development, innovations and reforms in professional development were slow to be implemented (Richardson, 2003). As one researcher remarked;

> I have concluded that most educational reform takes place in our literature and on the pages of *Education Week*, not in the schools and classrooms.... It seemed to me that all this talk about waves of reforms really refers to trends in the reform literature, not changes that are really taking place in real schools. Of course, that's true of waves. They tend to be highly visible at the surface, but do not affect what's going on down in the lower depths. (Cooley, 1997, p.18)

Educational reform in recent years has again served to highlight the need for more effective professional development in schools. For example, the No Child Left Behind Act of 2001 was implemented in an effort to improve education and establish high standards for student achievement. Because student learning in the classroom is so heavily impacted by the effectiveness of the teacher (Marzano, 2003), with this "raising of the bar" for learning has come increased expectations for the quality of teaching. To ensure that teachers will be "highly qualified" to teach, states are required to provide "high quality" professional development for all teachers (Borko, 2004, p. 3; Garet et al.,

2001). As a result, teacher professional development has become "a major focus of systemic reform initiatives" (Garet et al., 2001, p. 916; see also Birman et al., 2000; Borko, 2004; Corcoran, 1995a, 1995b; Corcoran, Shields, & Zucker, 1998; Guskey, 2003; Penuel et al., 2007; Wilson & Berne, 1999; Yoon et al., 2007).

Unfortunately, most professional development efforts in education did not meet the challenges of the reform movement (Birman et al., 2000; Borko, 2004; Corcoran, 1995a, 1995b; Darling-Hammond, 1995; Hiebert, 1999; Lieberman, 1996; Little, 1993; Sparks & Loucks-Horsley, 1989). Furthermore, researchers noted that, although there was a large literature on professional development and teacher change (Richardson & Placier, 2001), "relatively little systematic research has been conducted on the effects of professional development on improvements in teaching or on student outcomes" (Garet et al., 2001, p. 917). Until the turn of the century, professional development studies focused mainly on measuring the level of teacher satisfaction with the activity or the degree to which professional development activities changed teachers' attitudes and commitments (Frechtling et al., 1995; Guskey, 2000). Little research had been done to understand the processes of effective professional development or the impact that professional development has on teacher instruction and student learning (Desimone, 2009).

These shortcomings in professional development research and practice have led some scholars to seek better evidence from more rigorous research to identify what really works in professional development in order to better serve our teachers and inform our leaders (e.g., Garet et al., Guskey, 2003; Guskey & Yoon, 2009; Yoon et al., 2007). What emerged was a limited but growing body of research confirming the effects of

professional development on student learning and achievement. In addition, there is a sizable literature confirming the effects of professional development on teacher learning and instruction. This literature has advanced far enough to have established a preliminary consensus on what constitutes the "best practices" in teacher inservice or what characteristics are consistently found to be a part of high quality professional development that has an impact on teacher learning and instruction.

Effects of Teacher Professional Development on Student Learning

The ultimate goal of professional development should be to improve teacher knowledge and instruction that improves student learning. One of the limitations of much of the research in this field is that it only measures the impact of professional development on teachers without further examining the potential impact of professional development on student learning. However, there is evidence that would support a strong connection between teacher quality and student learning (Marzano, 2003; Sparks & Hirsch, 2000). For example, the results of a study by Wright, Horn, and Sanders (1997) showed that the most effective teachers produced 53 point gains in their students while the least effective produced only 14 point gains, 6 of which can be attributed simply to growing older and maturing naturally. From their findings, the authors concluded "that the most important factor affecting student learning is the teacher" and that "seemingly more can be done to improve education by improving the effectiveness of teachers than by any other single factor" (p. 63). Sanders and Rivers (1996) reported these effects of teachers on student gain to be both cumulative and additive over the course of the three

year study. Similarly, a Texas study of 900 districts found that teacher expertise as measured by teacher education and licensing examination scores explained 40% of the difference in student achievement in mathematics and reading. After controlling for socio-economic status, teacher quality also explained most of the gap in achievement between African-American and white students (Ferguson, 1991).

While there is consistent research that supports the link between improvements in teacher instruction and increases in student learning, there is still a need for research to confirm this link in professional development. As one set of researchers noted, "better information on how professional development programs affect student achievement is an urgent need" (Yoon et al., 2007, p. 2).

To understand the link between professional development and student outcomes, Yoon and colleagues (2007) performed a meta-analysis reviewing the research-based evidence on the effects of teachers' inservice professional development on student achievement in the core subjects of math, science, and reading. Of the 1,343 studies identified as potentially addressing professional development's effects on student achievement, only nine met the rigorous evidence standard set by the What Works Clearinghouse, attesting to the "paucity of rigorous studies that directly examine the effect of in-service teacher professional development on student achievement" (p. 2).

To be included in Yoon and colleagues' (2007) meta-analysis, studies had to meet several criteria. Each study had to deal with the effects of teacher inservice on student achievement. The teachers in each study had to be in the fields of English, math, and science and the students in grades K-12. In addition, each study had to measure student

achievement outcomes using valid and reliable measures, and had to be published after 1986. Finally, each study had to take place in Australia, Canada, the United Kingdom, or the United States because of concerns about external validity. Only 27 studies met these criteria. These 27 studies were then examined to see if they met the additional standard of causal validity. Because of several problems such as establishing baseline equivalence and high attrition, only nine studies met both the criteria and evidence standards. Although there are many other studies that show correlational links between professional development and increased student learning, these nine studies provide the best evidence of causation and therefore were the focus of Yoon and colleagues' (2007) meta-analysis and of this literature review.

Some of the basic features of the nine studies that met evidence standards included the following. Six of the nine studies used in this meta-analysis were randomized controlled trials that met evidence standards with little or no reservations. The remaining three studies were quasi-experimental designs which also meet evidence standards but with reservations. All nine of these studies focused on teachers and students from elementary school. The majority of the studies (six) were published in peer-reviewed journals, while the remaining three were unpublished doctoral dissertations. These studies focused on a variety of student achievement measures including reading, language arts, math, and science. But, they were not particularly recent, ranging from 1986 to 2003 (Yoon et al., 2007).

The results of this meta-analytic review were promising, indicating that providing professional development to teachers had a moderate effect on student achievement. The

average was an increase of 21 percentile points in student achievement if their teacher received substantial professional development. The effect size was consistent across the core content areas reviewed (Yoon et al., 2007). The following is a brief review of each of the nine studies used in the Yoon meta-analysis.

Carpenter, Fennema, Peterson, Chiang, and Loef (1989)

Forty first-grade teachers were selected by random assignment to participate in a month-long workshop focused on children's development of math problem solving skills in addition and subtraction. A control group of teachers was also formed. Twelve randomly selected students provided data on student outcomes on a standardized mathematics achievement test and on interview assessment of problem-solving strategies. Student outcomes from the treatment group were large enough to be substantively important although the difference was not statistically significant.

Cole (1992)

Twelve fourth-grade teachers and their classes were randomly assigned into treatment and control groups. The six teachers in the treatment group underwent a comprehensive staff development training program. The outcome measures were students' scores in math, reading, and language arts on the Stanford Achievement Test. The average effects in math and reading were positive and statistically significant.

Duffy et al. (1986)

Twenty-two fifth-grade teachers and their classes were randomly assigned into

treatment and control groups. Teachers in the treatment group received professional development on explicit instructional talk. Students from each class were identified as low-achieving based on their performance on the fourth-grade Stanford Achievement Test scores. Student outcomes were based on pre and posttest administrations of the Gates-MacGinitie Reading Test. Only students from the low achieving group were included in the study, which showed no statistically significant difference between treatment and control groups.

Marek and Methven (1991)

Sixteen elementary school teachers applied for and were selected to participate in a National Science Foundation workshop focusing on how to develop a curriculum based on the philosophy of science as knowledge and knowledge seeking. Comparison group were also formed. Ten students from each class were randomly selected and interviewed to assess conservation reasoning based on three Piagetian tasks. The authors reported statistically significant differences in the posttest scores favoring the treatment group.

McCutchen et al. (2002)

Forty-four kindergarten and first-grade teachers responded to participate in this study. They were divided into treatment and comparison groups with the treatment group teacher receiving professional development focused on deepening teachers knowledge of phonology and its link to orthography. Outcome measures came from multiple measures of early reading and writing skills from a total of 779 students. The authors reported positive, statistically significant results favoring the treatment group.

McGill-Franzen, Allington, Yokoi, and Brooks (1999)

Eighteen kindergarten teachers and their classes were randomly assigned into three groups. The treatment group received training on techniques for encouraging kids to pick up books and read them. The primary outcome of this study was students' early literary and writing skills as measured by a variety of standardized tests. The authors reported positive, statistical differences in favor of the treatment group.

Saxe et al. (2001)

Twenty-three teachers responded to an invitation to participate in a yearlong study comparing traditional instruction and integrated mathematics. They were placed in three groups based on responses to a prescreening questionnaire. The professional development focused on improving teachers' understanding of fractions, student cognition, and student motivation. The outcome measures came from student performance on two tests on fraction concepts and computations administered at the beginning and end of the school year. Results favored the integrated math group on fraction concepts and were statistically significant. Results also favored the traditional group on fraction computation and were substantively important but not statistically significant.

Sloan (1993)

Ten fourth- and fifth-grade teachers were randomly assigned into either direct instruction training or a control group. Teachers in the treatment group received training on the use of questioning and instructional behaviors consistent with the direct instruction model. Student outcome was measured by pre- and posttest performance on the

Comprehensive Test of Basic Skills in reading, math, and science. Results found positive, statistically significant differences on student test scores in reading and science for those receiving direct instruction. There was no statistical difference for student math scores.

Tienken (2003)

Five fourth-grade teachers were selected to participate in a small, post-test only randomized trial. Two teachers received training on how to teach students to use scoring rubrics and reflective questions as self-assessment devices. At the end of the school year students' content/organizational scores on the state's standardized writing assessment were compared. Results found positive, statistically significant differences favoring the treatment group.

Although much more research needs to be done to understand the link between professional development and student outcomes, from Yoon and colleagues' (2007) meta-analysis based on these nine studies, professional development providers and researchers can have confidence that such a link exists and that professional development efforts can impact student learning and achievement. What must also be determined is what characteristics of professional development are most effective at improving teacher knowledge, skills, and instruction. These characteristics would presumably be more likely to also impact student learning and achievement.

Characteristics of Effective Professional Development

Although many professional articles have proposed characteristics for effective professional development, the first large-scale comparison of the effects of different

characteristics of professional development on teachers' learning was conducted using a nationally representative probability sample (1,027 teachers) made available through the Eisenhower Professional Development Program (Garet et al., 2001). This program, Title II of the Elementary and Secondary Education Act, is focused on developing the knowledge and skills of classroom teachers (Birman et al., 2000). As part of this national evaluation, six exploratory case studies and 10 in-depth case studies in five states were also conducted (Garet et al., 1999). From studying the literature and analyzing the survey data, six key features of effective professional development were identified. The three core features that characterized effective processes of professional development were focus on content, active learning, and coherence. The three structural features that foster these core features and set the context of effective professional development were form, duration, and collective participation (Birman et al., 2000; Garet et al., 2001).

The model of core and structural features that resulted from the Eisenhower Professional Development Program has become one of the most well-known and widely cited models of effective professional development (Quick et al., 2009). This model has now been tested in several different contexts and been reliable (Desimone et al., 2002; Garet et al., 2001; Penuel et al., 2007; Quick et al., 2009). In addition, the key features of effective professional development that this model identifies are part of a growing consensus of what constitutes effective professional development (Desimone, 2009). As a result, although there are many other features of professional development that have some evidence of effectiveness, this literature review will focus exclusively on the evidence supporting the key features of effective professional development identified by

Garet and colleagues (2001) in the Eisenhower model.

Core Feature: Focus on Content

Much of the reform rhetoric about professional development focused on the form that programs should take. Much less has been written about what the content of programs should be. In a review of the literature on the effects of professional development programs on student learning, Kennedy (1998) found that "the differences among programs that mattered most were differences in the content that was actually provided to teachers, not difference in program forms or structures" (p. 1). This evidence presents a strong case for the importance of substance, not just form, in professional development efforts. Furthermore, Kennedy discovered that the content of the professional development programs that had the greatest influence on student learning was not focused on teacher's behaviors but on the teacher's knowledge of the subject matter and knowledge of how students learn that particular subject matter. Accordingly, the most effective professional development programs will not simply present teaching techniques in the abstract, but will focus on specific subject matter and ways to help students learn specific subject matter.

A large body of research supports the link between professional development focused on subject-matter content and how students learn it to gains in teacher knowledge and skills, classroom practice, and student improvement (Corcoran, 1995a; Correnti, 2007; Garet et al., 2001; Guskey, 2003; Porter, Garet, Desimone, Yoon, & Birman, 2000; Quick et al., 2009; Whitehurst, 2002). For example, Cohen and Hill (1998, 2000) found that mathematics achievement was higher in schools where teachers had extensive

professional development on teaching specific math content. Professional development efforts focused on general pedagogy were unrelated to student achievement. Similarly, Birman and colleagues (2000) found that the degree to which professional development focused on content knowledge was directly related to teacher's perceived increase in knowledge and skills. In a longitudinal study, Desimone and colleagues (2002) also found support for the link between content focused professional development and teachers' use of these content-specific teaching skills in the classroom. In a comprehensive analysis reviewing every study on professional development that met the standards of credible evidence set by the What Works Clearinghouse, Yoon and colleagues (2007) found consistent support for professional development that focuses on enhancing teacher's content knowledge and their pedagogical content knowledge to improve student learning (Guskey & Yoon, 2009). Finally, in a recent literature review and analysis, Hill (2007) concluded that student achievement improves "when teachers study the content, curriculum materials, assessments, and instructional methods they will be using" (p. 121). The effectiveness of content-focused professional development at impacting teaching and learning is further supported by the fact that this research supporting content-focused professional development comes from a variety of methods and designs (Desimone, 2009) including case study data (Cohen, 1990), correlational analysis of a nationally represented sample (Garet et al., 2001; Smith et al., 2007), quasi-experiments (Banilower, Heck, & Weiss, 2005), longitudinal studies (Cohen & Hill, 2001; Desimone et al., 2002), meta-analysis (Kennedy, 1998), and experimental designs (Carpenter et al., 1989).

These findings helped resolve the issue of which is a more important focus in professional development, content knowledge or teaching strategy. These studies support the importance of content knowledge and suggest that teaching strategies are also important but are best taught in connection with specific content rather than as abstract pedagogy. As one set of authors reported, "Teachers do not find generic professional development that focuses on teaching techniques without also emphasizing content to be effective" (Birman et al., 2000, p. 30). A number of studies suggest that "teacher's content knowledge is related to the...teaching strategies they use" (Penuel et al., 2007, p. 930; see also Cronin-Jones, 1991; Hollan, Roth, & Anderson, 1991). It appears from these findings that the "what" and the "how" of teaching are more interrelated than many recognize and that methodology should not be isolated from content. Instead, professional development is most effective when it focuses on providing specific content knowledge and links that knowledge to specific teaching methodology thereby providing teachers with what some have termed "content-specific teaching skills" (Garet et al., 2001, p. 924) or "pedagogical content knowledge" (Shulman, 1987, p. 8).

There are several reasons why content knowledge and content-specific teaching techniques might be so important to professional development. One reason is that many teachers, especially beginning teachers, lack knowledge and skills. For example, Reynolds (1995) reviewed the knowledge base for new teachers and concluded that "beginning teachers have surprisingly few content-specific pedagogical understandings" (p. 214). Rhine (1998) agreed, explaining that "reform-minded teachers are hungry for continuing education that provides novel ways to address content" (p. 27).

Another reason for the importance of this focus in professional development is that "to foster student's conceptual understanding, teachers must have rich and flexible knowledge of the subjects they teach" (Borko, 2004, p. 5; Borko & Putnam, 1996). The more teachers understand the central facts and concepts of the discipline, and the relationship these concepts have to each other, the better they can assist students in learning these concepts. Hill, Rowan, and Ball (2005) discovered that teacher knowledge was significantly related to student achievement. Similarly, Wenglinsky (2000) found that students whose teachers majored or minored in the subject they teach outperformed their peers in math and science by 40% of a grade level. One reason for this may be that "when teachers are more comfortable with teaching a particular topic, they are more likely to allow for student questioning and discussion, an essential feature of inquiry" (Penuel et al., 2007; National Research Council, 2000). As a result, professional development programs that focused on subject matter can help teachers develop these powerful and important understandings (Borko, 2004).

To summarize, content is important to effective professional development. Forms without substance do not produce the effects in teaching and learning that professional development seeks. Programs should focus on specific content areas and on content-specific teaching methods, giving teachers the knowledge and skills that they can readily apply rather than instruction on abstract and general methodology that doesn't have clear and practical use in the classroom (Birman et al., 2000).

Core Feature: Active Learning

Active learning, rather than passively receiving information in lecture format, is

another characteristic that has consistently been identified with effective professional development (Birman et al., 2000; Garet et al., 2001; Guskey, 2003; Marzano, 2003; Penuel et al., 2007; Porter et al., 2000). As one national study confirmed, teachers are more likely to report increased knowledge and skills resulting in changed classroom practice when professional development provides opportunities for active learning (Birman et al., 2000; Desimone et al., 2002; Garet et al., 2001). Active learning encouraged teachers to be actively engaged in meaningful discussion, planning, and practice (Birman et al., 2000; Lieberman, 1996; Louks-Horsley, Hewson, Love, & Stiles, 1998). Active learning includes opportunities such as observing and being observed teaching, developing lesson plans, practicing in simulated conditions, reviewing student work, leading discussions, writing reports, and presenting demonstrations (Birman et al., 2000, p. 31; see also Banilower & Shimkus, 2004; Borko, 2004; Carey & Fretchling, 1997; Darling-Hammond, 1997; Garet et al., 2001; Lieberman, 1996; Louks-Horsley et al., 1998).

One possible reason for the importance of active learning in professional development programs is that "to learn how to support student inquiry in the classroom, teachers need firsthand experiences of inquiry" (Penuel et al., 2007, p. 930; see also Gess-Newsome, 1999). This firsthand experience can come as part of their professional development or as part of an apprenticeship to scientists. The need for first-hand experience with inquiry is partly because most teachers today learned science from textbooks in a manner inconsistent with an inquiry approach (Boone & Kahle, 1998; Penuel et al., 2007). Research studies (Brown & Campione, 1996; Fishman & Krajcik,

2003; Penuel et al., 2007) have demonstrated a relationship between professional development in which teachers engage in inquiry and increases in student achievement outcomes.

Another reason for the importance of active learning in professional development is that it helped teachers in effectively implementing the curriculum (Penuel et al., 2007). Many curriculum designers have expressed concerns about adaptations made in the classroom that could result in "lethal mutations" of the material (Brown & Campione, 1996). Many believed that this ineffective use of curriculum is the result of a lack of knowledge and understanding (Lieberman & Miller, 2001; Singer, Krajcik, Marx, & Clay-Chambers, 2000; Wiggins & McTighe, 1998). "But the act of planning, enacting, and revising curricular units engages teachers more deeply with their teaching, so that they can come to understand more fully the principles of effective curriculum" (Penuel et al., 2007, p. 931; see also Spillane, 1999, 2004). Especially important is the use of feedback, which not only provides evidence of success, but also provides opportunities to clarify ideas and correct misconceptions (Bransford, Brown, & Cocking, 2000).

The importance of active learning in professional development is consistent with the literature on learning, particularly adult learning. For example, both Mezirow (1981, 1990) and Brookfield's (1986) work on adult learning indicates the need for teachers to participate in collaborative, evaluative, and reflective activities in order to learn and grow (Glickman, Gordon, & Ross-Gordon, 2010). The report of the National Research Council panel on *How People Learn* (Bransford et al., 2000) emphasized the need for teachers to cultivate learning environments that "provide opportunities for learners to test their

understanding by trying things out" (p. 196).

From these findings, we learn that another key to effective professional development is for teachers to be active learners rather than passive observers in the inservice experience. Actively engaging teachers in the learning process not only helps them learn the material better through hands-on practice and by conforming to the principles of adult learning, but it also serves to model the very skills they are being trained in. This gives teachers first-hand experience with active learning and helps them to implement the same skills in their own classrooms (Penuel et al., 2007).

Core Feature: Coherence

A third feature of effective professional development is the extent to which teachers perceive professional development activities to be part of a coherent program of teacher learning (Garet et al., 2001). Coherence measures the alignment and consistency of all the professional development a teacher receives (Consortium for Policy Research in Education, 1998; Firestone, Mangin, Martinez, & Polovsky, 2005; Fullan, 1993; Guskey, 1994; Penuel et al., 2007; Rosenholtz, 1991). As one group of researchers explained:

> Coherence indicates the extent to which professional development experiences are part of an integrated program of teacher learning—activities that are consistent with teacher goals, builds on earlier activities, and involve teachers in discussing their experience with other teachers and administrators in the school. Activities are also coherent when they support national, state, and district standards and assessments. (Birman et al., 2000, p. 31)

Many professional development efforts have been criticized because the training activities they provide are disjointed and disconnected from each other, in other words, they "do not form part of a coherent program of teacher learning and development"

(Garet et al., 2001, p. 927). It is assumed by many professional development researchers that professional development is more likely to be effective in improving teachers' knowledge and skills if it is part of a wider system of consistent and coherent professional development opportunities (Garet et al., 2001).

Research has confirmed the importance of program coherency in professional development efforts. For example, in a national study performed by Birman and colleagues (2000), professional development coherence with policies and other professional experiences was directly related to improved classroom practice and increased teacher learning (see also Garet et al., 2001). Other studies support this important finding (Desimone et al., 2002; Guskey, 2003; Penuel et al., 2007; Porter et al., 2000).

One reason for why coherence is important to professional development efforts is that teachers filter policy demands and messages through their own interpretive lenses (Coburn, 2001, 2004; Cuban, 1986; Cuban, Kirkpatrick, & Peck, 2001; Penuel et al., 2007). These interpretive frames that teachers adopt are strongly influenced by the social context and culture of schools and affect how teachers will enact (or resist) innovations (Penuel et al., 2007; Rivet, 2006). When teachers perceive innovations and demands to be aligned with district goals and policies as well as consistent with school social pressures and culture, they are more likely to accept these innovations and commit to enacting them (Lumpe, Haney, & Czerniak, 2000; Penuel et al., 2007).

Coherence is particularly important because teachers receive guidance about what to teach and how to teach it from so many different sources (Garet et al., 2001).

Professional development, preservice training, textbooks, professional literature, national standards, and local policies provide guidance to teachers on classroom instruction (Cohen & Spillane, 1992). When these sources are coherently aligned, they facilitate teachers' improvement efforts and professional growth, but when these sources conflict it can create tension and impede improvement by pulling teachers in competing and inconsistent directions (Garet et al., 2001; Grant, Peterson, & Shojgreen-Downer, 1996). Accordingly, professional development efforts should seek coherence by focusing, for example, on the goals for student learning measured by state assessments or the teaching methodology emphasized in state curriculum (Garet et al., 2001; Webb, 1998).

Structural Feature: Form

"Undoubtedly, the most common type of professional development, and the form most criticized in the literature, is the 'workshop'" (Garet et al., 2001, p. 920). A workshop is a structured form of professional development that occurs outside the classroom, typically after school or in the summer, and is conducted by someone with perceived expertise in a particular area (Loukes-Horsley et al., 1998). Conferences and training courses are other forms of traditional professional development that share many of the same features as workshops (Garet et al., 2001). Although these traditional forms of professional development are common, they are widely criticized as ineffective for not providing enough time, active-learning opportunities, or content to increase teacher knowledge and improve teaching practice (Garet et al., 2001; Loucks-Horsley et al., 1998). They have been characterized as "intellectually superficial, disconnected from deep issues of curriculum and learning, fragmented, and non-cumulative" (Ball & Cohen,

1999, pp. 31-32).

In response, many schools have begun to turn to "reform" types of professional development (Darling-Hammond, 1997; Garet et al., 2001). Unlike traditional types of professional development, reform activities are set within the school context, take place during regular school hours, are usually guided by current classroom teachers, and are incorporated into daily work. Examples of "reform" activities in professional development include mentoring, study groups, peer observation, and coaching. There is evidence that these reform types of professional development may be more responsive to how teachers learn (Ball, 1996), more effective at meeting teachers' needs and goals (Darling-Hammond, 1997), and have a greater influence on improving teaching practice (Darling-Hammond, 1995, 1996a; Desimone et al., 2002; Hargreaves & Fullan, 1992; Little, 1993; Richardson, 1994; Sparks & Louks-Horsley, 1989; Stiles, Louks-Horsley, & Hewson, 1996). The broad consensus is that "reform" types of professional development are more effective than "traditional" forms (Louks-Horsley et al., 1998; Putnum & Borko, 2000).

However, as Penuel and colleagues (2007) noted, it may be more helpful to focus on the nature of the *design* of the professional development rather than the *form*. As they explained, "A workshop can be designed using reform-oriented principles and a coaching relationship can be 'traditional'" (p. 928). This distinction is important and helps explain inconsistent findings on the effectiveness of traditional forms of professional development. For example, in a report based on Yoon and colleagues' (2007) review of the most credible evidence, Gusky and Yoon (2009) explained that despite the heavy

criticism of traditional workshops "*all* of the studies that showed a positive relationship between professional development and improvements in student learning involved workshops or summer institutes" (p. 496; see also Yoon et al., 2007). Although these workshops were of the traditional form, their design was based on reform principles like implementing research-based instructional practices, providing involved active-learning experiences, and assisting teachers in adapting practices to their own classrooms. Similarly, Birman and colleagues (2000) discovered in a national study that reform type professional development activities are more effective "primarily because they are longer and thus have more content focus, active learning opportunities, and coherence" (p. 29). They also found that when traditional forms of professional development (e.g., workshops) are longer in duration they can be just as effective.

Although new reform approaches are linked to greater effectiveness, it appears that this relationship may not be the direct result of the *form* of professional development. Rather, increased effectiveness is a function of these reform approaches being longer, part of daily work, more content focused, coherent, and active learning oriented (Birman et al., 2000; Garet et al., 2001). In addition, these reform type programs have a closer proximity to practice which has been shown to be more effective because it is more directly translatable to the classroom than the traditional workshop which is more abstract and distal in terms of instructional focus and time of enactment (Darling-Hammond & McLaughlin, 1995; Kubitskey & Fishman, 2006; Penuel et al., 2007). "Thus, to improve professional development, it is more important to focus on duration, collective participation, and the core features (i.e., content, active learning, and coherence) than

type" (Garet et al., 2001, p. 936). In other words, the form may not be what really matters in professional development activities, what matters most is that they include other mediating core features.

Structural Feature: Duration

A common criticism of professional development is that it is too short and provides limited follow-up (Guskey & Yoon, 2009; Penuel et al., 2007). Curriculum and inquiry-oriented reform efforts are highly demanding and to implement them well often requires teachers to make big changes to their classroom practice (Bybee, 1993; Crawford, 2000). As Penuel and colleagues (2007) noted, "Frequently, the result is that teachers either assimilate teaching strategies into their current repertoire with little substantive change or they reject those suggested changes altogether" (p. 929; see also Coburn, 2004; Tyack & Cuban, 1995). There is a growing consensus among scholars that to implement such changes requires professional development to be interactive, presented in multiple cycles, and provide opportunities for application and reflection (Blumenfeld et al., 1991; Kubitskey, 2006; Penuel et al., 2007). To provide such professional development requires time.

Almost all of the literature on professional development called for it to be sustained over time. The duration, meaning the length, frequency, and span of professional development activities was linked to intellectual and pedagogical teacher change (Cohen & Hill, 2001; Fullan, 1993; Guskey, 1994; Supovitz & Turner, 2000). This is expected because with more time comes more opportunity for in-depth discussions on content, student conceptions, and teaching strategies (Garet et al., 2001;

Guskey & Yoon, 2009). Teachers also have more opportunities to try out new classroom practices when professional development is extended over time (Garet et al., 2001). In addition, professional development that is extended over time provides more opportunity for "just-in-time, job embedded assistance" which educators need as they struggle to implement new content knowledge and teaching skills (Guskey & Yoon, 2009, p. 497). This structured and sustained follow-up, which has been linked in several studies to improvements in student learning, requires professional development to be sustained over time (Guskey & Yoon, 2009). In short, more time means more opportunities to do what makes professional development effective.

Research confirmed that professional development activities of longer duration have more opportunities for active learning, more subject-area content focus, and more coherence with teachers' other professional development experiences than do shorter activities (Birman et al., 2000, p. 30). Also, "providing sufficient time" was one of the characteristics most frequently supported in the lists of effective professional development characteristics reviewed by Guskey (2003, p. 10). As Supovitz and Turner (2000) found, to create "investigative cultures" in schools where large scale changes can be implemented requires professional development of longer duration. Penuel and colleagues (2007) also found evidence for the importance of extended time in professional development, with more hours supporting greater implementation. Perhaps the best evidence comes from Yoon and colleagues (2007) who, after reviewing the most credible research, reported that studies that had more than 14 hours of professional development showed a positive and significant effect on student achievement whereas

studies that had less than 14 hours showed no statistically significant effects. From this it seems clear that professional development that is of longer duration is more likely to provide the learning opportunities required to implement new teaching knowledge and skills in the classroom (Brown, 2004). However, it is not yet clear how much time is required for a program to have sufficient duration, but research supports activities that include 20 hours or more of contact time spread over the course of a semester (Desimone, 2009).

As several researchers noted however, duration alone in professional development has no direct effect on teaching practice or student achievement (Birman et al., 2000; Garet et al., 2001; Guskey & Yoon, 2009). Kennedy (1998), in her review of the literature, found that differences in the duration of professional development were unrelated to student outcomes. Desimone and colleagues (2002) were surprised to find similar results with duration having no effect on teaching practice (see also Wenglinsky, 2002). These contradictory findings can be explained when it is remembered that simply providing more time will produce no benefits if the professional development being offered is of low quality. As Guskey and Yoon (2009) noted, "Doing ineffective things longer does not make them any better," time must be "well organized, carefully structured, purposefully directed, and focused on content or pedagogy or both" (p. 497; Birman et al., 2000; Garet et al., 2001; Guskey, 1999).

Structural Feature: Collective Participation

"There is a growing interest in professional development that is designed for groups of teachers from the same school, department, or grade level" (Garet et al., 2001,

p. 922). This collective participation with colleagues has several potential advantages. As Garet and colleagues (2001) explained, teachers that work together are more likely to engage in discussions of concepts, skills, and problems during their professional development experience. They are also more likely to discuss students' needs across classes and grade levels. Such interaction and discourse can be a powerful form of teacher learning (Banilower & Shimkus, 2004; Borko, 2004; Desimone, 2006; Fullan, 1991; Guskey, 1994; Little, 1993; Loucks-Horsley et al., 1998; Rosenholtz, 1989). Because teachers of the same school, department, or grade are more likely to share a common curriculum, joint professional development provides the opportunity to integrate what they learn together. In addition, collective participation can help sustain changes in teaching practice over time by contributing to a "shared professional culture" in which teachers develop a common understanding of instructional goals, methods, problems, and solutions (Birman et al., 2000; Newman, 1996; Talbert & McLaughlin, 1993). This can help create a forum of open dialogue and discussion that can increase teachers' understanding, integration of ideas, and opportunities for growth (Ball, 1996; Birman et al., 2000; Garet et al., 2001; Little, 1993). It can also help teachers change by changing school culture to be more supportive of reform and open to organizational learning (Knapp, 1997).

Research supports the importance of collective participation in professional development. For example, Birman and colleagues (2000) found in a national study that professional development activities that include collective participation "are more likely to afford opportunities for active learning and are more likely to be coherent with

teachers other experiences" (p. 30) which leads to increased teacher knowledge and skill and changes in classroom practice (Garet et al., 2001). Desimone and colleagues (2002) found similar results in a longitudinal study indicating that professional development is more effective at changing classroom practice when it includes "collective participation of teachers from the same school, department, or grade" (p. 102; see also Porter et al., 2000). Data from the MISE evaluation also lends support for collective participation. Some measures of student performance were related to the proportion of teachers engaged in professional development when that proportion was high enough to reach a critical mass (Corcoran, McVay, & Riordan, 2003; Snow-Renner & Lauer, 2005).

The importance of collective participation in professional development is also supported by the research and theory on comprehensive school reform (Desimone, 2002) and professional learning communities (Matthews & Crow, 2010). For example, Louis and Marks (1998) found that when teachers engage in ongoing professional conversations their subject matter knowledge and teaching skills increased which leads to increased student success (see also Darling-Hammond, 1996b; Little, 1990). In addition, Bryk and Schneider (2002) found that school improvement efforts are more effective when there is a school culture of relational trust and collaboration where reform efforts are embraced and shared by their colleagues and peers. This collaboration and collective participation among colleagues is believed to be a form of "social capital" that supports school reform and change (Frank, Zhao, & Borman, 2004; Penuel, Frank, & Krause, 2006; Penuel, Riel, Frank, & Krause, 2009).

Despite the evidence for the effectiveness of collective participation in

professional development, there is nothing particularly virtuous about collaboration per se (Little, 1990). In fact, collaboration can hinder progress just as easily as it can hasten it, especially if it meets with conflict in teachers' beliefs and practices (Achinstein, 2002). As Guskey (2003) explained, "For collaboration to bring its intended benefits it, too, needs to be structured and purposeful, with efforts guided by clear goals for improving student learning" (p. 12). Louis and Marks (1998) concurred, warning that contrived collaboration would not bring the same results as those collaborative efforts which occurred among teachers who formed a team with a shared purpose, participated collectively, engaged in reflective dialogue, and focused on student learning. In sum, collective participation is another key component to effective professional development but it is only effective when found in connection with other key factors and implemented effectively.

Prevalence of Effective Characteristics in Professional Development

While the above six characteristics have been shown to be a part of effective professional development, the question that remains is how frequently they are incorporated into actual professional development practice across the country? Using national data from teachers who participated in professional development sponsored in part by the Eisenhower Professional Development Program, Birman and colleagues (2000) reported that for most teachers professional development is often a mix of high- and low-quality structural or core features.

Core feature: Focus on content. Regarding focus on content, 51 % of teachers

participating in the Eisenhower professional development activities report receiving professional development that emphasized content (Birman et al., 2000).

Core feature: Active learning. Very few, between 5 and 16 %, of participating teachers report opportunities for specific active learning activities in professional development efforts (Birman et al., 2000).

Core feature: Coherence. Although most participating teachers report receiving professional development that was aligned to state and district standards (80 %) and consistent with goals (79 %), few report other types of coherence like sequentially building on earlier activities (Birman et al., 2000).

Structural feature: Form. The large majority of Eisenhower-participating teachers (79 %) received professional development that was of the traditional form rather than reform type (Birman et al., 2000).

Structural feature: duration. The majority of participating teachers (64 %) reported professional development activities that last only a week or less and the median number of hours for an activity was 15 (Birman et al., 2000).

Structural feature: Collective participation. Although there were many participating teachers who reported professional development that involved discussions with other teachers (73 %), few teachers (20 %) reported activities that included collective participation (Birman et al., 2000).

This nationally representative probability sample from the Eisenhower program provides strong evidence that many professional development efforts in education are inadequate and ineffective based on these six features of effective professional

development. Marzano (2003) agreed with this assessment stating that in his experience most schools present "staff development sessions that are not tied to specific subject areas," do not provide "opportunities for teachers to translate generic strategies into the context of specific subject areas," fail to provide opportunities for teachers to field test the strategies, and provide "only a few staff development days that are unrelated and disjointed" (p. 66). In all, the research suggests that "although calls for high-quality professional development are perennial, there remains a shortage of such programs—characterized by coherence, active learning, sufficient duration, collective participation, a focus on content knowledge, and a reform rather than traditional approach" (Yoon et al., 2007, p. 1). From these findings it would appear that very few teachers participate regularly in professional development that includes all, or even most, of the above characteristic of effective practice.

Critical Features in Professional Development

This set of critical features of effective professional development can help consolidate the research in the field by providing a common conceptual framework for studies of professional development (Desimone, 2009). What constitutes professional development can be difficult to define because teachers experience such a vast range of activities and the literature casts such a wide net in what professional development includes. The literature has included as professional development such discrete activities as traditional workshops, conferences, and college courses (Little, 1993); interactive and social learning experiences from the situated cognition perspective (Putnum & Borko,

2000), and formal and informal experiences that are teacher driven and embedded in the daily work of professional learning communities such as mentoring, coaching, and collaborative teaming (Matthews & Crow, 2010). Newer conceptualizations of professional development embedded in teacher work can also include group discussion of student work (Ball & Cohen, 1999) and activities that are part of teacher networks and study groups (Greenleaf, Schoenbach, Cziko, & Mueller, 2001). The case can even be made for "educative" curriculum to be a form of professional development (Ball & Cohen, 1996; Loucks-Horsley et al., 1998; Remillard, 2005). Professional development can also include experiences in the classroom through personal or observer evaluation (Putnum & Borko, 2000), individual engagement with online education sites (Ingvarson, Meiers, & Beavis, 2005), action research, and assisting in curriculum design and school improvement plans (Guskey, 2000).

So many different forms of professional development can present challenges for researchers who seek to measure and describe the trends, associations, and impacts of teacher learning. In response to this, Desimone (2009) suggested a focus on the set of critical features of professional development, presented above, as a partial solution to this problem. She explained:

> One way of translating the complex, interactive, formal, and informal nature of teacher learning opportunities into manageable, measurable phenomena is to focus measurement on the *critical features* of the activity—those characteristics of an activity that make it effective for increasing teacher learning and changing practice, and ultimately for improving student learning—rather than on the *type* of activity (e.g., workshop or study group). (p. 183)

A focus on the features and processes of professional development, rather than the form or type, can foster unity for this divergent research topic that will likely lead to

improvements in research quality and an increase in our understanding of how to best shape and implement teacher professional development. However, such a focus requires a consensus about what those critical features of effective professional development are. Desimone (2009) argued that five of the features mentioned above constitute at least a preliminary consensus of effective professional development.

As Desimone (2009) explained, determining what the consensus is in the divergent research on professional development can be difficult. Particularly tough is distinguishing which ideas in the field are based on empirical studies, which are formed from conventional wisdom, and which are theoretical ideas (Ball, 1996). Much of the research in the past is actually a mix of all three sources (e.g., Elmore, 2002; Little, 1993; Loucks-Horsley, Love, Stiles, Mundry, & Hewson, 2003; Putnum & Borko, 1997; Wilson & Berne, 1999). However, with the work of Garet and his colleagues (2001), we now have a set of six empirically supported features of effective professional development and "these core features should be included in studies of the effectiveness of professional development to allow studies to build on each other and refine and expand our knowledge base" (Desimone, 2009, p. 183). Penuel and colleagues (2007) and Quick and colleagues (2009) provide perfect examples of this by basing their studies on the core features and common conceptual framework used by Garet and colleagues (2001), thereby building on that study and advancing knowledge in the field.

In order to make these features more universally applicable for all the various forms of professional development, Desimone (2009) discontinued the distinction between core and structural features and refers to all of these features as "core" or

"critical." Furthermore, she reduced the number of features from six to five by excluding the type or form of professional development so that research on all forms, not just reform-type, can benefit from this set of features. This is consistent with the research of Desimone and colleagues (2002) and Garet and colleagues (2001) who found that the effects of the structure or form of the professional development activity were fully explained by the critical features of the activity, namely content-focus, duration, active learning, collective participation, and coherence. This current study will follow Desimone's (2009) suggestion by evaluating professional development effectiveness using five of the critical features outlined by Garet and colleagues (2001).

Models of Effective Professional Development

To effectively study professional development within a common conceptual framework requires not only a consensus of critical features of effectiveness, but also a model or operational theory used to identify variables that mediate (explain) and moderate (influence through interaction) the impact of professional development (Desimone, 2009). Models allow for testing theories of how professional development leads to teacher change and how change in teacher practice influences student achievement. Understanding both of these processes is essential in our quest to understand how professional development works (Wayne, Yoon, Zhu, Cronen, & Garet, 2008). This review will examine three proposed models that will influence this study.

Yoon Model

In their key review of the literature, Yoon and colleagues (2007) proposed a

model to illustrate and examine the mechanism or process through which professional development affects student achievement. This straight-forward model (Figure 2) suggests that professional development directly impacts teachers' knowledge and skills which in turn improves their teaching which increases student achievement. Accordingly, their report assumes that "professional development effects on student achievement are mediated by teacher knowledge and practice in the classroom and that professional development takes place in the context of high standards, challenging curricula, system-wide accountability, and high stakes assessment" (Yoon et al., 2007, p. 4). The authors noted that if one link in this chain model is weak or missing then improved student achievement cannot be expected.

The model is consistent with other proposed models which suggest similar mediating and contextual factors (Cohen & Hill, 2000; Fishman, Marx, Best, & Tal, 2003; Garet et al., 2001; Guskey & Sparks, 2004; Kennedy, 1998; Loucks-Horsley & Matsumoto, 1999). Although there may be slight variations in emphasis and content in

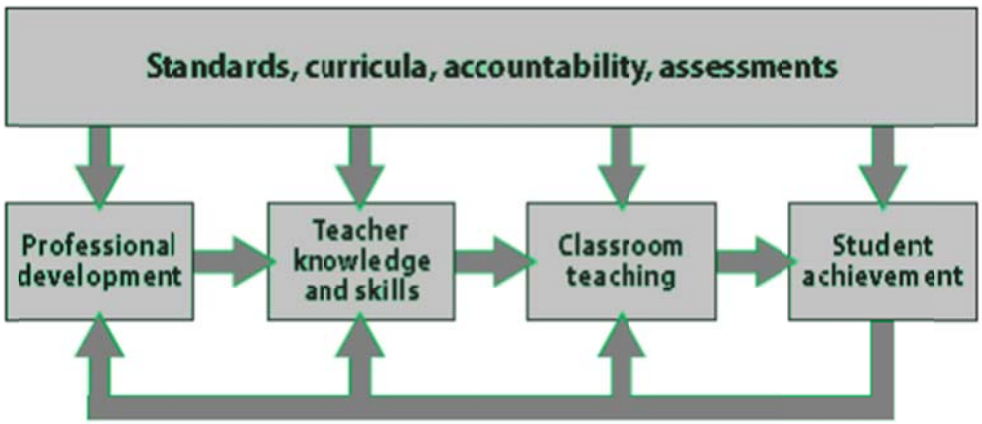

Figure 2. Yoon model of how professional development affects student achievement. Reprinted from "Reviewing the evidence on how teacher professional development affects student achievement" by K. S. Yoon and colleagues, 2007, Issues & Answers Report, REL 2007- No. 33, p. 4. This report is public domain. Reprinted with permission.

other models, the basic components of theoretical models of professional development trajectories are almost universal (e.g., Borko, 2004; Guskey, 2002; Ingvarson et al., 2005).

Desimone Model

Desimone (2009) proposed a similar model (Figure 3) to the Yoon model previously discussed (Figure 2). Like the Yoon model, this model suggested professional developments impact on student learning was mediated by increased teacher knowledge and change in instruction, all within the context of curriculum and policy. The main difference of this model is that it specifies the core features of effective professional development as content focus, active learning, coherence, duration, and collective.

As Desimone (2009) explained, the literature underscores the importance of each element of this proposed path model. For example, research has found links between professional development and student achievement (Angrist & Lavy, 2001; Bressoux, 1996; Cohen & Hill, 2000, 2001; Jacob & Lefgren, 2004; Lee, Deaktor, Enders, & Lambert, 2008; Wiley & Yoon, 1995; Yoon et al., 2007); professional development and teacher practice (Fishman et al., 2003; Heck, Banilower, Weiss, & Rosenburg, 2008; Jeanpierre, Oberhauser, & Freeman, 2005; Supovitz & Turner, 2000); teacher knowledge, practice, and student achievement (Hill, Ball, & Schilling, 2008; Phelps & Schilling, 2004; Snow, Burns, & Griffin, 1998; Wilson & Berne, 1999); and instruction and student achievement (Hamilton et al., 2003; Mayer, 1998; Stein & Lane, 1996; Supovitz, 2001; Von Secker, 2002; Wenglinsky, 2002). Some studies have even explored the links between all four areas in this model (Franke et al., 2001; Saxe et al., 2001).

Guskey Model

Guskey (2002a) proposed a similar model (Figure 3) that suggests the process by which professional development not only affects student learning but also the potentially cyclical affect professional development has on teacher change. The important difference between this model and the Desimone model (Figure 1) is that this places teachers' change in attitudes and beliefs *after* changes in student learning outcomes rather than immediately following professional development activities.

For professional development improvements to be sustained over time they must affect real and lasting change in teachers. Many professional development programs are based on the assumption that change in attitudes and beliefs comes first (e.g., Desimone, 2009) and therefore seek the acceptance and commitment of teachers before a new strategy is implemented. However, research on teacher change indicates that this assumption may be inaccurate (Guskey & Huberman, 1995). The Guskey model took an alternative view by suggesting that change in teachers' attitudes and beliefs occur primarily *after* they witness evidence of improvements in student learning. "The crucial point is that it is not the professional development *per se*, but the experience of successful implementation that changes teachers' attitudes and beliefs. They believe it works

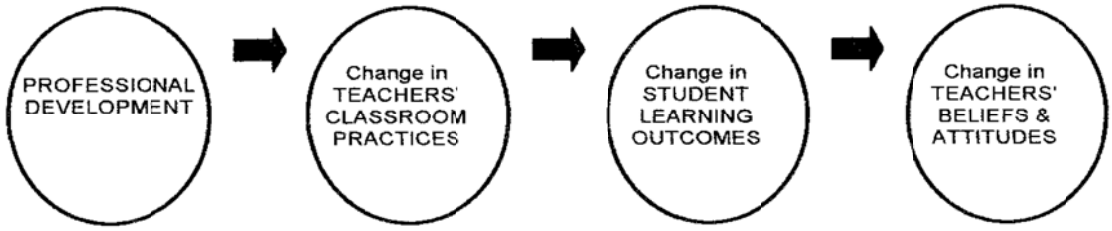

Figure 3: Guskey's model of teacher change. Reprinted from "Professional development and teacher change" by T. R. Guskey, 2001, *Teachers and Teaching: Theory and Practice*, 8, 383. Copyright 2002 Taylor & Francis Ltd. Reprinted with permission.

because they have seen it work, and that experience shapes their attitudes and beliefs" (Guskey, 2002a, p. 383).

As Guskey (2002a) pointed out, there is much support from many sources for this model of teacher change. For example, ethnographic studies show that new ideas are accepted by teachers "when they give rise to actions that work" (Bolster, 1983, p. 298). Other studies have drawn similar conclusions that teacher commitment develops primarily after implementation (Crandall, 1983) and that change in attitudes and beliefs typically followed change in behavior (Fullan, 1985). An earlier study by Guskey (1984) showed that affective change occurred only when training and implementation were combined with evidence of student improvement. Although Guskey (2002a) acknowledged that this model oversimplifies the highly complex process of teacher change, he noted the consistency of results from diverse studies that support the principles of this proposed model.

To examine possible associations between the various factors of professional development, this current study will use the framework model proposed by Desimone (2009), which had its basis in the work of Yoon and colleagues (2007). However, instead of assuming that change in teacher attitudes and beliefs occurs *before* change in teaching and learning, this study will explore teachers perceptions of the sequences in which these changes occur. This is consistent with the Guskey (2002a) model.

Evaluating Professional Development

Traditionally, educators have not paid much attention to evaluating professional

development efforts (Guskey, 2002b, p. 45). One reason for this lack of attention is that evaluation is often considered to be too costly, time-consuming, or complicated. However, evaluating professional development does not have to be complicated. With thoughtful planning, good questions, and a basic understanding of how to find valid answers, evaluation can provide helpful information for making improvements (formative evaluation) and determining the overall effectiveness (summative evaluation) of professional development processes and effects (Guskey, 2000, 2002b).

In simple terms, evaluation is "the systematic investigation of merit or worth" (Joint Committee on Standards for Educational Evaluation, 1994, p. 3). As Guskey (2000, 2002b) explained, *systematic* implies that an evaluation is to be a focused, thoughtful, and intentional process conducted for clear reasons and with explicit intent. *Investigation* indicates that it is to be a collection and analysis of relevant data based on reliable methods and techniques. Finally, *merit or worth* refers to the value appraisal or judgment the evaluation assists researchers in making about the program. Evaluations help answer such questions as, "Is this program or activity achieving its intended results? Is it better than what was done in the past? Is it better than another, competing activity? Is it worth the costs?" (Guskey, 2002b, p. 46).

According to Guskey (2000, 2002b), effective professional development evaluation requires the collection and analysis of five critical levels of information. These levels include participating teachers' reactions, learning, and use of the knowledge and skills provided by the professional development as well as the organizational support and student learning outcomes. These levels of outcome evaluation are consistent with the

models depicted above. According to these models (Figures 1, 2, and 3), professional development is expected to impact student learning and teacher change through such mediating factors as teachers' knowledge, skills, and classroom practice. As a result, a breakdown at any level or link in the process would decrease the overall effectiveness of the program (Yoon et al., 2007). Therefore, each of the levels proposed in these models must be evaluated to determine the overall effectiveness of the program and possible ways to improve it.

Level 1: Participants' Reactions

The first level of evaluation examines the participating teachers' reaction to the professional development experience (Guskey, 2000, 2002b). At this level, questions are asked about the degree to which teachers enjoyed the professional development experience. Did they feel it was time well spent? Was it meaningful, helpful, or useful? This level can also include more temporal questions like the participants' comfort in the meeting. This form of professional development evaluation is the most common and the easiest to gather but it is not sufficient to completely evaluate a program's effectiveness. Some educators refer to these measures as "'happiness quotients,' insisting that they reveal only the entertainment value of an activity, not its quality or worth" (Guskey, 2002b, p. 46). However, Guskey explained that measuring teachers' initial satisfaction of the professional development experience can help in improving the design and delivery of a program.

Level 2: Participants' Learning

In addition to enjoying the professional development experience, it is also hoped that participating teachers will learn something from it. This level measures the knowledge and skills acquired by the participants through the professional development program (Guskey, 2002b). There is a substantial body of research that suggests that content knowledge and content-specific teaching are characteristics of effective professional development (Corcoran, 1995a; Correnti, 2007; Garet et al., 2001; Guskey, 2003; Kennedy, 1998; Porter et al., 2000; Quick et al. 2009). There are many ways to measure knowledge and skills depending on the goals of the program. These include simply asking participants about what they learned and how it might be applied in the classroom, requiring full-scale skill demonstrations, and requesting personal reflection. More in-depth evaluations will require more than a standardized form to measure attainment of specific learning goals (Guskey, 2002b).

Level 3: Organizational Support and Change

This level focuses on the organizational context of the professional development program rather than the teachers participating in it. As Guskey (2002b) explained, "Lack of organizational support and change can sabotage any professional development effort, even when all individual aspects of professional development are done right" (p. 47). For example, even the best professional development efforts on cooperative learning will not likely succeed in schools that emphasize competition by grading on the curve. Organizational opposition at Level 3 can negate the accomplishments of Levels 1 and 2 (Sparks & Hirsch, 1997). This point is consistent with the research on coherence

presented earlier which suggests professional development programs are more effective when they are part of a coherent program of teacher learning and are in harmony with national, state, and direct standards and assessments (Birman et al., 2000; Garet et al., 2001).

To evaluate this level of professional development requires the collection of data centered on the organizational characteristics necessary for successful program implementation. Researchers would need to find out if the professional development efforts promoted changes aligned with the school's mission and goals, if these changes were encouraged and supported at all levels, and if they received sufficient resources of time and money. Answering these questions can be complicated and may require analyzing school records, examining the minutes of school meetings, and interviewing school administrators (Guskey, 2002b).

Level 4: Participants' Use of New Knowledge and Skills

At this level, what needs to be determined is the extent to which new knowledge and skills were applied by participating teachers into classroom practice. "The key to gathering relevant information at this level rests in specifying clear indicators of both the degree and the quality of implementation" (Guskey, 2002b). This information is not available immediately following a professional development session because it requires time to implement and adapt. As a result, this data must be collected after sufficient time has passed and may even need to be collected at various time intervals. Data at this level can be gathered through questionnaires, interviews, written reflections, or through direct

classroom observation (Guskey, 2000, 2002b).

Level 5: Student Learning Outcomes

For many, the "bottom line" of a professional development program is found in how it affects students (Guskey, 2000, 2002b). The particular learning outcome depends on the objectives of the professional development, but unintended outcomes should also be considered. As a result, researchers should consider including multiple measures of student learning (Joyce, 1993) to ensure that gains in one area do not cause unintended declines in other areas of learning. Measures of student learning are typically focused on cognitive indicators such as grades or scores on standardized tests. Measures of attitudes and behaviors like self-concept, study habits, and classroom behaviors can also be included in an analysis of the impact of a professional development program (Guskey, 2002b). The information gathered at this level is some of the most valuable at evaluating the effectiveness of a professional development program and guiding improvements in design and implementation. It can even be used to estimate the "return on the investment" or cost effectiveness of the professional development program (Parry, 1996; Todnem & Warner, 1993).

Level 6: Participants' Change In Beliefs and Attitudes

Guskey (2000, 2002b) only proposed five levels of outcome evaluation, but the model of teacher change that he proposed (Figure 4) suggests another level of analysis, the change experienced in the participants' attitudes and beliefs. The Guskey model of teacher change (2002b) was based on research that suggests that change in teachers'

attitudes and beliefs occurs primarily *after* they witness evidence of improvements in student learning. As a result, another helpful level of analysis is found in measuring the affective changes that occur in the participating teachers' views regarding teaching and learning. As with level 3 data, this information is not available immediately following a professional development session and can only be gather after sufficient time has been given to implement and apply professional development efforts as well as observe their effects on student learning outcomes. Data at this level can be gathered through questionnaires, interviews, and written reflections.

In order to understand the impact of professional development on teachers and students, this study will measure the various outcome levels of evaluation proposed by Guskey (2002b). Because this study is focused on the impact of professional development on teaching and learning, survey questions will measure teacher reaction, learning, and application. Perceived student learning from the implementation of professional development training will also be measured along with perceptions of change in attitudes and beliefs.

Survey Data

This study will use survey data from teachers to examine the effectiveness of professional development in LDS seminaries by asking questions about the critical features and the perceived outcomes of professional development. As a result, this literature review will briefly review some of the literature on survey data. Although self-report survey data is sometimes considered less reliable than observation data, research

suggests a moderate to high correlation between findings from observations and findings from survey data when questions focus on behavioral rather than evaluative constructs (Mayer, 1999; Porter, Kirst, Osthoff, Smithson, & Schneider, 1993; Ross, McDougall, Hogaboam-Gray, & LeSage, 2003). This suggests that observations and surveys can elicit much of the same information, particularly when data is confidential and not linked to a personal evaluation of the teacher (Desimone, 2009).

The strength and the weakness of survey data is that they are by nature broad. This broadness facilitates the use of statistics to numerically analyze the data but limits the ability to provide detail and describe complexity. As a result, survey data is best used to answer questions about frequencies, trends, and to describe behavior (Desimone, 2009). When limited to these types of questions, survey data has been found to have good validity and reliability (Mayer, 1999; Porter et al., 1993; Yoon, Jacobsen, Garet, Birman, & Ludwig, 2004). However, research has found that teachers tend to over-report professional development efforts and other reforms (Cohen, 1990; Frykholm, 1996; Ross et al., 2003).

Because this study primarily seeks to understand trends and frequencies of specific factors of professional development, self-report survey data should be an adequate measurement tool. To increase reliability and validity, measures of frequency rather than evaluation were used whenever possible. Where questions are of an evaluative nature, they are typically an evaluation of the program rather than the teachers' personal implementation thereof which should increase the validity and reliability. Still, caution should be taken in the interpretation of the evaluative measures.

Principal Leadership

Because providing effective professional development in the S&I is largely the responsibility of the seminary principal, this review would not be complete without some mention of the leadership role of principals in faculty inservice. Through a meta-analysis of the research on school leadership and student achievement, Marzano and colleagues identified 21 responsibilities of school leaders, several of which have a direct impact on providing effective professional development (Marzano, Waters, & McNulty, 2005). For example, principals have the responsibility to ensure that "faculty and staff are aware of the most current theories and practices regarding effective schooling" (Marzano et al., 2005, p. 52; see also Fullan, 2001; Lashway, 2001, Supovitz, 2002). The principal also has a responsibility to be personally "aware of the best practices" in curriculum and instruction (Marzano et al., 2005, p. 54; see also Elmore, 2000; Fullan, 2001; Reeves, 2004) and be "directly involved in the design and implementation of curriculum, instruction, and assessment activities at the classroom level" (Marzano et al., 2005, p. 53; see also Stein & D'Amico, 2000). These points were consistent with Matthews and Crow (2010), who identified one key role of a principal as that of learner with a "profound role to play in their own learning and in the learning of others" (p. 83). They explained that the principal's role includes "developing and cultivating a community, which enhances the professional and organizational learning capacity of the school" (p. 75). A final responsibility identified by Marzano and colleagues (2005) that has a direct impact on professional development is that of feedback. After a review of almost 8,000 studies, Hattie (1992) observed that "the most powerful single modification that enhances

achievement is feedback" (p. 9).

Despite these important responsibilities of the principal and their potential impact on student learning, the Seminaries and Institutes of Religion currently require no formal training, certification, professional licensure, or special qualifications to be a seminary principal (Johnson, 2008). There also appears to be little training for seminary principals who are selected. In his qualitative study of seminary principals, Johnson discovered that principals reported a general lack of training in their role and were often expected to "learn their responsibilities as they go" (p. 112). Principals reported feeling not only undertrained, but unclear as to what S&I administrators expected of them. They also reported receiving little follow-up to see if they were meeting expectations. As a result of this lack of training and accountability, seminary principals were left to themselves to make decisions about leadership and administration leading to "large diversity in what goes on in one building versus another building" (p. 113). Included in this diversity is the faculty inservice training seminary principals were expected to provide as part of seminary teachers professional development.

Summary

Professional development is widely viewed as an important means of improving teaching and learning. Although there are many forms of professional development, the most common is formal faculty inservice. Faculty inservice has been a regular part of schools for decades but instead of a history of progress and advancement, it has been marked by reported inadequacy and failure. Furthermore, relatively little systematic

research had been done on the processes of effective professional development or the effects of faculty inservice on teaching and learning.

These shortcomings in professional development research and practice have resulted in more rigorous and systematic research efforts to understand professional development and its effects on teaching and learning. From these efforts a limited but growing body of research has emerged that supports a link between faculty inservice and student learning. In addition, there is a large body of research linking faculty inservice with increases in teacher knowledge and skills and improvements in teacher instruction. This research has evolved to the point that there is now a preliminary consensus among researchers that effective professional development is marked by content-focus, active learning, coherence, duration, and collective participation. These critical features are shown to lead to effective professional development regardless of the form or type of program.

Several models have been proposed to provide a framework to explain the processes by which professional development influences teaching and learning. These models all agree that professional development has a direct impact on teachers' knowledge and skills which impacts their instruction leading to positive effects on their students. In order to evaluate the full impact of professional development, data should be gathered at each of these various levels. Only with such information can we understand the direct and indirect influence of professional development on teaching and learning. Although survey data may have its limitations, it is viewed as adequate for the purposes of this study.

From self-report data, this study will seek to evaluate the effectiveness of professional development in LDS seminary. Specifically, this study will identify how frequently the five features of effective professional development are reported to be part of faculty inservice. It will also measure the reported outcomes of professional development according to the several evaluation levels proposed by Guskey (2002b) and according to the *Teaching and Learning Emphasis* of LDS seminaries. This study will also examine associations between these several features and outcome measures proposed by the Desimone (2009) and Guskey (2002a) models (Figures 3 and 4). It is hoped that through this analysis valuable information will be gained regarding the effectiveness of faculty inservice in LDS seminary.

CHAPTER III

METHODOLOGY

The S&I rely on professional development to improve teaching and learning according to the emphasis and objective of religious education for the LDS church. Faculty inservice training is a regular part of the instruction and preparation teachers receive. Recently, S&I has begun to examine the amount of time spent and the degree of satisfaction experienced with these inservice training efforts. However, little has been done to evaluate the overall effectiveness of S&I inservice training. To understand the effectiveness of seminary inservice, more needs to be understood about the processes by which inservice operates and the outcomes that inservice generates.

Regarding the processes of effective professional development, research by Garet and colleagues (2001) has confirmed five core features of effective professional development (content focus, active learning, coherence, duration, and collective participation). What is unclear is the extent to which these feature are being implemented in S&I inservice training in the school year and during the summer. In addition, while these five core features have been shown to be characteristic of effective professional development in public education, little is known of their usefulness or importance in other educational settings like the religious education of LDS seminaries.

The outcomes of seminary inservice must also be considered in evaluating the effectiveness of professional development. There is support for a link between faculty inservice and improved student learning (Yoon et al., 2007). There is also evidence that supports the effects of faculty inservice on increased teacher knowledge and skills and

improved instruction, especially when certain key characteristics are present (Garet et al., 2001). However, these findings only support the potential effects of professional development in general. Little is known about the specific effects of S&I faculty inservice on teaching and learning. Furthermore, it is unclear how effectively inservice training helps prepare teachers to implement the points of the *Teaching and Learning Emphasis* designed to help seminary teachers accomplish the objective of S&I. It is also unclear how much this varies across areas and from the school year to the summer.

This study seeks to respond to this important need by evaluating the effectiveness of seminary professional development. To evaluate professional development effectiveness requires understanding of the processes and features by which inservice operates and the outcomes that professional development generates. Measuring these processes will allow S&I administrators to determine the extent to which these processes conform to five established features of effective professional development (content focus, active learning, coherence, duration, and collective participation). Measuring the various levels of outcome evaluation (including participants' reaction, participants' learning, participants' use of knowledge and skills, student learning outcomes, and teacher change) produced by faculty inservice will also assist S&I administrators in determining the impact professional development efforts have on teaching and learning. In addition, measuring outcomes of professional development will allow S&I administrators to compare actual outcomes with intended outcomes of the seminary inservice program, specifically the seven points of the *Teaching and Learning Emphasis*. These measures, along with related associations between processes and outcomes, will provide S&I

administrators with the data they need to assess the overall effectiveness of LDS seminary faculty inservice and make any necessary changes to improve the experience.

Research Questions

To assist in better understanding the effectiveness of faculty inservice in the LDS seminaries and institutes of religion, this study seeks to answer the following questions. The questions related to processes and features are listed first, followed by questions on outcomes, and concluded by a question regarding the association between processes and outcomes.

1. How frequently do full-time LDS seminary teachers report the five features of effective professional development (content focus, active learning, coherence, duration, and collective participation) are present in S&I faculty inservice training?

2. Do full-time LDS seminary teachers report a difference in the use of the five features of effective professional development (content focus, active learning, coherence, duration, and collective participation) in S&I faculty inservice training during the school year and faculty inservice training during the summer?

3. How frequently do full-time LDS seminary teachers report increasing in teacher knowledge and skills, applying teacher knowledge and skills in classroom instruction, and perceiving improvements in student learning from participating in S&I faculty inservice training?

4. Do full-time LDS seminary teachers report a difference in the increase of teacher knowledge and skills, application of teacher knowledge and skills in classroom

instruction, and perception of improvements in student learning, from the faculty inservice training they receive in the school year and the faculty inservice training they receive in the summer?

5. How many full-time LDS seminary teachers participating in S&I faculty inservice training report being prepared by inservice activities to implement the principles of the *Teaching and Learning Emphasis*?

6. Do full-time LDS seminary teachers report a difference in the preparation they receive to implement the principles of the *Teaching and Learning Emphasis* from the faculty inservice training they receive in the school year and the faculty inservice training they receive in the summer?

7. Do full-time LDS seminary teachers report an association between the five features of effective professional development (content focus, active learning, coherence, duration, and collective participation) and improved teaching and learning outcomes in S&I?

Research Design

To evaluate these questions a "Design 7: Data Collected Only on Posttest Project Group" was used (Bamberger, Rugh, & Mabry, 2006, p. 223). There are several reasons for why this design was selected despite its drawbacks. One reason is because of the exploratory nature of this evaluation (p. 223). The effectiveness of seminary professional development has never been evaluated before. Furthermore, there is no systematic program of professional development being implemented through S&I. As a result, this

study seeks to explore what is taking place in seminary faculty inservice and how effective these efforts are perceived to be by teachers. The findings from this preliminary evaluation may help guide more advanced evaluations and comparison studies of inservice in the future.

Another reason this design seemed appropriate is because it evaluates a program that has long been implemented in S&I and so there is no opportunity to provide a pre-test to measure the baseline (Bamberger et al., 2006). Also, it would be difficult to form a specific comparison group, since every S&I faculty has received faculty inservice training. Finally, this design was selected because it provides a quick and inexpensive way to examine a very important subject to S&I.

Despite the limitations of this design, it is adequate to appropriately answer the questions being asked in this study. This is because the teachers being surveyed have extensive experience with different approaches to inservice training used over the years. Their responses to the "post-test only" will help S&I understand how frequently some features of effective professional development are being used, what features of inservice training teachers feel are most effective, and what outcomes teachers perceive to be the result of professional development. This exploratory study and the findings from it can be used to improve professional development throughout S&I and to guide further research of inservice training and its effectiveness.

Instrumentation

Data were collected using a professional development evaluation survey created

for this study. This survey used teacher reports to measure three main categories of professional development processes and outcomes including, five features of effective professional development, levels of professional development evaluation, and principles of the S&I *Teaching and Learning Emphasis* (2009). The following is a review of each section and the survey items they include.

Five Features of Effective Professional Development

This survey measured teacher report of how often each of the five features of effective professional development (content focus, active learning, coherence, duration, and collective participation) is being used in faculty inservice. These items typically consisted of five point Likert scales ranging from "never" to "very often."

To measure the focus on content in seminary faculty inservice, teachers were asked in the survey about the frequency that specified topics were a part of faculty inservice training during the school year and during the summer. These topics included training on general teaching techniques and skills, specific teaching strategies for teaching a chapter or section of a scriptural text that is part of the curriculum (what LDS seminary teachers call a "scripture block"), topical study of basic LDS church doctrine, and the study of doctrines and principles from a scripture block (a chapter or section of scripture that is part of the curriculum). Responses were measured on a Likert scale which included the following descriptors: 1 = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = very often. Teachers were also asked to pick between competing topics to indicate which form of inservice training they feel has the greatest impact on their

teaching. These competing items teachers were asked to choose between included, general teaching skills or specific strategies for teaching a scripture block, topical study of basic doctrines or study of doctrines from a scripture block, and teaching methods or subject matter content.

To measure active learning in seminary faculty inservice, teachers were asked in the survey to report the frequency that inservice activities included listening to a lecture, participating in group discussion, practicing teaching skills, planning future inservice, participating in teacher lead inservice activities, observing classroom teaching, reviewing student work (e.g., basic doctrines test), preparing lessons together, and sharing lesson ideas. Responses were measured on a Likert scale which included the following descriptors: 1 = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = very often. In addition, teachers were asked how strongly they agreed or disagreed with inservice being generally characterized by an active learning approach rather than a lecture style presentation. Responses to this question were also measured on a Likert scale that included the following descriptors: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree.

To measure coherence in seminary faculty inservice, teachers were asked in the survey to report the frequency that inservice training built on previous inservice training. Responses were measured on a Likert scale which included the following descriptors: 1 = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = very often. In addition, teachers were asked how strongly they agreed or disagreed with inservice being generally consistent and connected rather than disjointed, fragmented, or unrelated. Responses to this question

were also measured on a Likert scale that included the following descriptors: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree.

Previous S&I reports indicate that full-time faculties are consistent at providing weekly professional development throughout the school year. As a result, duration was not measured by the time spent in faculty inservice but by how sustained the efforts were. To measure duration of faculty inservice training, teachers were asked in the survey to report the frequency that they were given an assignment to prepare for inservice and the frequency with which there was some form of follow-up to inservice training. Responses were measured on a Likert scale which included the following descriptors: 1 = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = very often.

To measure collective participation in faculty inservice training, teachers were asked in the survey to report the frequency that faculty inservice training was attended only by teachers from their faculty. Responses were measured on a Likert scale which included the following descriptors: 1 = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = very often. In addition, Teachers were also asked to indicate which arrangement (entire area, multiple faculties, or only their faculty) of faculty inservice they feel best facilitates teacher learning.

Levels of Outcome Evaluation

To measure levels of outcome evaluation in seminary faculty inservice, teachers were asked in the survey how strongly they agreed or disagreed with inservice being generally effective at improving teaching and learning. Responses to this question were

measured on a Likert scale which included the following descriptors: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree. In addition, teachers were asked to measure the frequency that inservice training resulted in an increase in knowledge and skills, application of knowledge and skills in classroom teaching, and a perceived positive impact in student learning. Responses were also measured on a Likert scale which included the following descriptors: 1 = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = very often.

Principles of the Teaching and Learning Emphasis

The final section of this survey measured how strongly teachers agree or disagree that professional development prepares them to implement each of the seven principles of the S&I *Teaching and Learning Emphasis* (2009). To measure how well teachers perceived inservice to prepare them to accomplish S&I objectives, teachers were asked in the survey how strongly they agreed or disagreed with statements about how well inservice prepared them to accomplish each component of the *Teaching and Learning Emphasis*. These items included teaching by the Spirit, helping students learn by the Spirit, cultivating a learning environment, helping students study the scriptures daily and reading the text for the course, helping students understand the context and content of the scriptures, helping students identify, understand, and apply doctrines and principles, helping students explain, share, and testify of gospel principles, and helping students master key scripture passages and basic doctrines. Responses to these questions were measured on a Likert scale which included the following descriptors: 1 = strongly

disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree.

Pilot Study

After the survey instrument had been developed, it was administered to a convenient sample of teachers from the Box Elder Seminary. These teachers belong to the population of full-time seminary teachers on large faculties that this study seeks to examine. Teachers were given an opportunity to analyze and critique the survey questions and make suggestions for how to improve each item. This was done to improve the validity of the instrument by substantiating the claim that these questions accurately measure what they profess to measure. The recommendations from each of the teachers were incorporated into the final version of the survey.

Sample

A random sample was taken from the population of full-time LDS seminary teachers on S&I faculties of four or more full-time teachers. The S&I Educational Research Committee approved a sample of 200 teachers from a population they estimate to be about 500 teachers (see Appendix B). This sample was deemed sufficiently large to be representative of the population for the purpose of generalizations. In addition, the sample was considered sufficiently large for statistical differences to be accurately estimated.

Data Collection

S&I employees who were selected each received an email inviting them to participate in the study (see Appendix D and E). This survey was administered by Qualtrics, an online survey software site. Although the sampling frame had excellent coverage and a full list of potential subjects, nonsampling bias is a possibility in this study because some teachers chose not to respond to the survey and because of possible measurement error from teachers who underreport or over-report information. To minimize this, reminder emails were sent at one week and two weeks to encourage participation in the study. In addition, participants were assured that information shared would be confidential. Because of the confidential nature of the survey and because the questions asked are typical of the work requirements of S&I employees, human subjects were well protected (see Appendix C). Of the 200 teachers surveyed, 140 participated and completed the survey. This allowed the study to achieve a response rate of 70%.

Data Analysis

Descriptive statistical analysis was used to provide estimates of important characteristics of the population, including central tendency, distribution, and variability of the data. These basic measures show how frequently each of the five features of effective professional development is being implemented in S&I and how much these practices vary. Descriptive statistics provide similar information for the levels of outcome evaluation and the principles of the *Teaching and Learning Emphasis* (2009). These descriptions provide valuable information about the nature, frequency, and variability of

effective features of professional development and the outcomes of current professional development efforts in S&I.

In addition to descriptive statistics, comparison statistics (paired *t* tests) were used to provide information about the differences in the features and outcomes of professional development from the school year to the summer. Correlational statistics were used to explore associations between features and outcomes in S&I professional development. These statistics were used to provide valuable information about the nature of faculty inservice training and will assist S&I administrators in evaluating the overall effectiveness of this important program.

Summary

In order to evaluate the effectiveness of S&I professional development, a random sample of full-time LDS seminary teachers on large faculties was administered a survey regarding the processes and outcomes of faculty inservice training. Descriptive statistics were used to provide researchers and S&I administrators with information about the frequency and variation with which five features of effective professional development are reported as being implemented in S&I faculty inservice training. Descriptive statistics were also used to provide information about how much impact teachers report professional development to have on teaching and learning and how well they report being prepared to practice the seven principles of the *Teaching and Learning Emphasis* (2009). Comparison statistics were used to compare school year inservice training with summer inservice training and correlational statistics were used to explore the

relationship between the five features of effective professional development and the reported outcomes of S&I professional development. This information will allow researchers and S&I administrators to evaluate the effectiveness of current professional development training in the S&I.

CHAPTER IV

RESULTS

The purpose of this study was to examine the processes and outcomes of faculty inservice, in an effort to understand the effectiveness of professional development in the S&I of the LDS church. Research by Garet and colleagues (2001) identified five core features of effective professional development processes that are consistent with a large body of research on teacher development (Desimone, 2009). These key features of effective professional development processes are content focus, active learning, coherence, duration, and collective participation. Possible outcomes of seminary teacher inservice include increasing in teacher knowledge and skills, applying new knowledge and skills in classroom teaching, and improvements in student learning. In addition, the *Teaching and Learning Emphasis* (2009) identifies seven specific objectives that form part of the intended outcomes of seminary faculty inservice. To analyze these processes and outcomes, this study seeks to answer the following research questions. The questions related to processes and features are listed first, followed by questions on outcomes, and concluded by a question regarding the association between processes and outcomes.

1. How frequently do full-time LDS seminary teachers report the five features of effective professional development (content focus, active learning, coherence, duration, and collective participation) are present in S&I faculty inservice training?

2. Do full-time LDS seminary teachers report a difference in the use of the five features of effective professional development (content focus, active learning, coherence, duration, and collective participation) in S&I faculty inservice training during the school

year and faculty inservice training during the summer?

3. How frequently do full-time LDS seminary teachers report increasing in teacher knowledge and skills, applying teacher knowledge and skills in classroom instruction, and perceiving improvements in student learning from participating in S&I faculty inservice training?

4. Do full-time LDS seminary teachers report a difference in the increase of teacher knowledge and skills, application of teacher knowledge and skills in classroom instruction, and perception of improvements in student learning, from the faculty inservice training they receive in the school year and the faculty inservice training they receive in the summer?

5. How many full-time LDS seminary teachers participating in S&I faculty inservice training report being prepared by inservice activities to implement the principles of the *Teaching and Learning Emphasis*?

6. Do full-time LDS seminary teachers report a difference in the preparation they receive to implement the principles of the *Teaching and Learning Emphasis* from the faculty inservice training they receive in the school year and the faculty inservice training they receive in the summer?

7. Do full-time LDS seminary teachers report an association between the five features of effective professional development (content focus, active learning, coherence, duration, and collective participation) and improved teaching and learning outcomes in S&I?

To answer these questions, I collected data in April and May 2012 using a

professional development evaluation survey created for this study (Appendix A). This survey used teacher reports to measure three main categories of professional development processes and outcomes including five features of effective professional development, levels of professional development evaluation, and principles of the S&I *Teaching and Learning Emphasis* (2009). In total, 140 teachers (70%) from the random sample of 200 responded to the e-mail invitation and participated in the survey administered by Qualtrics, an online survey software site.

Data Analysis

I used descriptive statistical analysis to provide estimates of important characteristics of the population, including central tendency, distribution, and variability of the data. These basic measures show how frequently each of the five features of effective professional development is perceived to be implemented in S&I and how much these practices vary. Descriptive statistics provide similar information for the levels of outcome evaluation and the principles of the *Teaching and Learning Emphasis* (2009). These descriptions provide information about the nature, frequency, and variability of effective features of professional development and the perceived outcomes of current professional development efforts in S&I. In addition to descriptive statistics, comparison statistics (paired *t* tests) were used to provide information about the perceived differences in the features and outcomes of professional development from the school year to the summer. Correlational statistics were used to explore associations among features and outcomes in S&I professional development.

The findings of the statistical analysis are presented in the following order. First, I present descriptive characteristics of the respondents. Next, I provide descriptive and comparison statistics for each of the five features of effective professional development examined in this study. This is followed by descriptive and comparison statistics for the levels of outcome evaluation for professional development and the principles of the *Teaching and Learning Emphasis* (LDS seminary objectives). In the final section, I provide correlational statistics for the relationship among the five features of effective professional development and the levels of outcome evaluation of professional development and the principles of the *Teaching and Learning Emphasis*.

Descriptive Characteristics

The first descriptive characteristic measured was length of time teaching seminary as measured in years of service. The number of participants for each grouping of years of service is reported in Table 1. The median length of time for teaching seminary was 11-15 years.

The second descriptive characteristic identified the S&I area where participating seminary teachers currently served. The number of participants for each S&I area are reported in Table 2. The area with the most respondents was the Utah Valley North area with 32 respondents. In addition, teachers were asked if they were currently serving as a seminary principal. Only two teachers participating in this study reported currently serving as seminary principals, thus the majority were regular teachers serving on the faculty.

Table 1

Participation by Years Teaching

	Participants	
Years teaching	*N*	%
0-5 Years	4	3
6-10 Years	43	31
11-15 Years	34	24
16-20 Years	21	15
21-25 Years	21	15
26-30 Years	11	8
31 + Years	6	4
Total	140	100

Table 2

Participation by S&I Area

	Participants	
S&I area	*N*	%
Utah Davis	0	0
Utah East	2	1
Utah North	11	8
Utah Salt Lake Valley East	1	1
Utah Salt Lake Valley South	2	1
Utah Salt Lake Valley West	3	2
Utah South	14	10
Utah Valley North	32	23
Utah Valley South	18	13
Utah Weber	16	11
Idaho East	22	16
Idaho West	8	6
U.S. Arizona Phoenix Valley	10	7
U.S. Northwest	0	0
U.S. Southwest	0	0
Other	1	1
Total	140	100

Five Features of Effective Professional Development Processes

Content Focus

To measure the focus on content in seminary faculty inservice, teachers were asked in the survey about the frequency that inservice included training on general teaching techniques and skills, specific teaching strategies for teaching a chapter or section of a scriptural text that is part of the curriculum (what LDS seminary teachers call a "scripture block"), topical study of basic LDS church doctrine, and the study of doctrines and principles from a scripture block (a chapter or section of scripture that is part of the curriculum). Teachers were asked to answer these questions based on their faculty inservice experiences during the school year and their faculty inservice experiences during the summer. The means and standard deviations for each question are reported in Table 3, along with the *t* values indicating the difference between reported school year and summer faculty inservice training.

The mean for general teaching skills was 3.68 for inservice during the school year and 3.62 for inservice held during the summer. These numbers indicate that teachers report receiving training on general teaching skills "often," which is the descriptor most closely aligned with the mean. School year inservice had 88 teachers (63%) and summer inservice had 81 teachers (58%) who reported receiving training on general teaching techniques and skills "often" or "very often."

Teachers reported receiving less training in the content-focused items than the general teaching skills. The mean for training in specific teaching skills for teaching a chapter or section of a scriptural text (an "upcoming scripture block") was 3.27 for the

Table 3

Content Focus Means and Paired t *Tests*

	School year inservice		Summer inservice			
Content focus	*M*	*SD*	*M*	*SD*	*t*	*df*
General teaching skills	3.68	.984	3.62	1.000	.675	139
Specific teaching skills for scripture block	3.27	1.017	3.49	1.014	-2.382*	139
Topical study of doctrine	2.96	1.038	3.43	1.054	-4.890***	139
Study of doctrine from scripture block	3.09	.978	3.61	1.008	-5.544***	139

* $p \leq .05$.
*** $p \leq .001$.

school year and 3.49 for the summer. These numbers indicate that on average teachers reported receiving training in content-specific teaching skills "sometimes" in the school year and between "sometimes" and "often" during the summer with 83 teachers (60%) for the school year and 64 (46%) for the summer who reported receiving this form of training "sometimes" or less. The mean for topical study of basic doctrines was 2.96 for school year inservice and 3.43 for summer inservice, indicating that teachers report only receiving this form of training "sometimes" in the school year and between "sometimes" and "often" during the summer with 91 teachers (65%) in the school year and 65 (46%) in the summer reporting receiving this form of training "sometimes" or less. The mean for study of doctrine from an upcoming scripture block was 3.09 for school year inservice and 3.61 for summer inservice. These numbers indicate that teachers report receiving this form of training "sometimes" during the school year but between "sometimes" and "often" during the summer, with 92 teachers (66%) reporting receiving this training "sometimes" or less during the school year but 83 (60%) reporting receiving it "often" or

"very often" during the summer.

Teachers were asked to compare inservice subjects and identify which subjects they felt had a greater impact on their teaching. When asked to compare general teaching techniques with specific teaching strategies for teaching a specific scripture block (a chapter or section of scriptural text), teachers more often reported that content-specific teaching skills, which received 98 responses (70%), had a greater impact on their teaching (than training on general teaching skills, which received 42 responses (30%). A one sample *t* test showed this difference was statistically significant ($t = 5.16$, $p = .000$, $df = 139$). Teachers more often reported being impacted in their teaching by studying doctrines from an upcoming scripture block, which received 120 responses (86%), than training on a topical study of basic doctrines, which only received 20 responses (14%). A one sample *t* test showed this difference was also statistically significant ($t = 12.28$, $p = .000$, $df = 139$). When asked to compare the impact of training on teaching methods (the "how") with training on subject matter content (the "what"), teachers were exactly divided with 70 teachers (50%) reporting a greater impact on their teaching from training in teaching methods and 70 teachers (50%) reporting greater impact from training in subject matter content.

To compare the content focus of inservice in the school year and during the summer, I performed paired *t* tests (Table 3). No significant difference was found in the frequency of training that focused on general teaching skills in the school year and summer inservice experiences. However, content-focused training of specific teaching skills for an upcoming scripture block, topical study of doctrine, and study of doctrine

from an upcoming scripture block all indicated statistically significant increases during summer inservice. Specific teaching skills for an upcoming scripture block increased .22 points (-.2 Cohen's *d* effect size), topical study of doctrine increased .47 points (-.4 Cohen's *d* effect size), and study of doctrine from an upcoming scripture block increased .52 points (-.5 Cohen's *d* effect size). These numbers indicate that teachers reported an average increase from "sometimes" receiving these forms of content-focused training during school year inservice activities, to receiving these forms of training "often" or between "sometimes" and "often" during summer inservice.

Active Learning

To measure active learning in seminary faculty inservice, teachers were asked in the survey to report the frequency that inservice activities included listening to a lecture, participating in group discussion, practicing teaching skills, planning future inservice, participating in teacher lead inservice activities, observing classroom teaching, reviewing student work (e.g., basic doctrines test), preparing lessons together, and sharing lesson ideas. In addition, teachers were asked how strongly they agreed or disagreed with inservice being generally characterized by an active learning approach rather than a lecture style presentation. Teachers were asked to answer these questions based on their faculty inservice experiences during the school year and their faculty inservice experiences during the summer. The means and standard deviations for each question are reported in Table 4, along with the *t* values indicating the difference between reported school year and summer faculty inservice training.

When asked if they agreed that inservice activities are generally characterized by

Table 4

Active Learning Means and Paired t *Tests*

	School year inservice		Summer inservice			
Active learning	*M*	*SD*	*M*	*SD*	*t*	*df*
General active learning (6-point scale)	4.65	1.262	4.20	1.246	3.703***	138
Listening to lecture	2.74	.976	3.39	1.084	-6.450***	137
Group discussion	4.33	.687	3.83	.760	6.725***	137
Practicing teaching skills	2.66	1.020	3.15	1.015	-5.334***	135
Teachers planning inservice	2.35	.925	2.62	.990	-3.721***	137
Teachers leading inservice	3.18	1.145	3.36	.992	-2.233*	136
Observing teachers	2.31	1.013	2.26	1.118	.511	136
Reviewing student work	1.62	.785	1.58	.762	.737	137
Preparing lessons together	2.21	1.007	2.50	1.027	-3.053**	137
Teachers sharing lesson ideas	3.25	1.019	3.47	1.048	-2.461**	137

* = $p \leq .05$.
** = $p \leq .01$.
*** = $p \leq .001$.

an active learning approach rather than a lecture-style presentation, teachers reported a mean of 4.65 for school year inservice training and 4.20 for summer inservice training out of a 6-point scale. These numbers indicate that on average teachers "agree" that active learning is characteristic of inservice in the school year but only "somewhat agree" for the summer. Of the teachers reporting, 98 (70%) reported that they "agree" or "strongly agree" with that statement for the school year, but for the summer 77 (55%) reported scores of "somewhat agree" or less. These findings are supported by teacher's report of the frequency of lectures in inservice. The mean for listening to a lecture was 2.74 during the school year and 3.39 during the summer, indicating that on average lectures are reported between "rarely" and "sometimes" during the school year but are

reported between “sometimes” and “often” during the summer with 115 teachers (82%) reporting lectures happen “sometimes” or less during the school year while 108 teachers (77%) report lecture happening “sometimes” or more during the summer.

Teachers reported group discussion to be the most frequent form of active learning they participated in during both school year and summer inservice. The mean for group discussion was 4.33 for the school year and 3.83 for the summer. These numbers indicate that teachers report group discussion on average happens “often,” the only activity to report that level of frequency. Of those responding, 125 teachers (89%) reported that group discussion is part of inservice training “often” or “very often” during school year and 95 (68%) reported that it is part of inservice “often” or “very often” during the summer.

Teachers reported less frequent use of other active learning activities. The mean for practicing teaching skills as an inservice activity was 2.66 for the school year and 3.15 for the summer, indicating that on average teachers report practicing teaching skills in inservice activities “sometimes,” with 108 teachers (78%) reporting this activity “sometimes” or less during school year inservice training and 89 (64%) reporting this activity “sometimes” or less during summer inservice training. The mean for teachers planning inservice activities was 2.35 for school year and 2.62 for summer inservice activities, indicating that on average teachers report only planning “rarely” during school year inservice activities and between “rarely” and “sometimes” during summer inservice activities with 123 teachers (88%) in the school year and 108 (78%) in the summer reporting planning inservice “sometimes” or less. The mean for teachers leading inservice

was 3.18 for school year inservice and 3.36 for summer inservice, indicating that teachers report leading inservice "sometimes" during the school year and summer, with 83 teachers (60%) in the school year and 72 teachers (52%) in the summer reporting teachers leading inservice "sometimes" or less. The mean for observing teachers in the classroom was 2.31 for school year inservice and 2.26 for summer inservice, indicating that teachers report observing teachers "rarely" during the school year and summer inservice activities, with 124 teachers (89%) reporting observing teachers "sometimes" or less during school year inservice and 116 teachers (85%) reporting observing teachers "sometimes" or less during summer inservice.

The mean for reviewing student work (e.g., basic doctrines test) was 1.62 for school year inservice and 1.58 for summer inservice, indicating that teachers review student work during inservice between "never" and "rarely;" 122 teachers (87%) reported reviewing student work "rarely" or "never" during school year inservice and 123 teachers (89%) reported reviewing student work "rarely" or "never" during summer inservice. The mean for preparing lessons together as part of inservice activities was 2.21 for school year inservice and 2.50 for summer inservice, indicating that teachers report preparing lessons together "rarely" during school year inservice and between "rarely" and "sometimes" during summer inservice. 122 teachers (87%) reported preparing lessons "sometimes" or less during school year inservice and 114 teachers (83%) reported preparing lessons "sometimes" or less during summer inservice. The mean for teachers sharing lesson ideas during inservice was 3.25 for the school year and 3.47 for the summer, indicating that teachers sharing lesson ideas in inservice "sometimes" during

school year inservice and between “sometimes” and “often” during summer inservice. 109 teachers (78%) reported teachers leading inservice “sometimes” or more during school year inservice and 116 teachers (84%) reported teachers leading inservice “sometimes” or more during summer inservice.

To compare active learning in school year and summer inservice, I performed paired *t* tests (Table 4). Several statistically significant differences were found. Scores on teacher agreement with the statement that “inservice is characterized by active learning rather than a lecture-style presentation,” decreased .45 points (.3 Cohen’s *d* effect size) from school year to summer inservice activities. Listening to a lecture increased .65 points (-.5 Cohen’s *d* effect size) from school year to summer inservice and group discussion decreased .50 points (.6 Cohen’s *d* effect size) from school year to summer inservice. These numbers indicate that teachers reported an average decrease in some forms of active learning from school year to summer inservice activities. Agreement that inservice is generally characterized by an active learning approach shifted from “agree” for school year inservice activities to “somewhat agree” for summer inservice activities. Teachers reported lectures happening between “rarely” and “sometimes” during school year inservice and between “sometimes” and “often” during summer inservice and group discussion happening between “often” and “very often” in school year inservice and between “sometimes” and “often” during summer inservice.

Other forms of active learning had statistically significant increases from school year to summer inservice. Teachers reported that, in general, practicing teaching skills, teachers planning inservice, teachers leading inservice, preparing lessons together, and

sharing lesson ideas all increased from school year to summer inservice. Practicing teaching skills increased .49 points (-.5 Cohen's *d* effect size) from school year to summer inservice, indicating a shift from between "rarely" and "sometimes" participating in this activity during school year inservice to "sometimes" practicing teaching skills during summer inservice. Teachers planning inservice increased .27 points (-.3 Cohen's *d* effect size), indicating a shift from "rarely" for school year inservice toward "sometimes" participating in this activity during summer inservice. Teachers leading inservice increased .18 points (-.2 Cohen's *d* effect size), but still averaged a "sometimes" response. Preparing lessons together increased .29 points (-.3 Cohen's *d* effect size), indicating a shift from "rarely" during school year inservice to between "rarely" and "sometimes" during summer inservice. Sharing lesson ideas increased .22 points (-.2 Cohen's *d* effect size), indicating a shift from "sometimes" in school year inservice to between "sometimes" and "often" during summer inservice. No statistically significant differences were found between school year and summer inservice for observing teachers and reviewing student work (e.g., basic doctrines test), both of which stayed consistently low.

Coherence

To measure coherence in seminary faculty inservice, teachers were asked in the survey to report the frequency that inservice training built on previous inservice training. In addition, teachers were asked how strongly they agreed or disagreed with inservice being generally consistent and connected rather than disjointed, fragmented, or unrelated. Teachers were asked to answer these questions based on their faculty inservice

experiences during the school year and their faculty inservice experiences during the summer. The means and standard deviations for each question are reported in Table 5, along with the *t* values indicating the difference between reported school year and summer faculty inservice training.

When asked if they agreed that inservice is generally characterized by a coherent, connected, and consistent approach, teachers reported a mean of 4.07 for school year inservice and 4.34 for summer inservice out of a 6-point scale. These numbers indicate that on average teachers "somewhat agree" that inservice is characteristically coherent and connected for school year and summer inservice. This is consistent with results for the frequency of inservice building on previous inservice, which had a mean of 3.09 for school year inservice and 3.26 for summer inservice indicating that on average teachers report inservice "sometimes" builds on previous inservice training.

To compare the coherence of inservice training in the school year and the summer, I performed paired *t* tests (Table 5). Both items showed statistically significant differences. Scores on teacher agreement with the statement that "inservice is characterized by consistency and connectedness," increased .27 points (-.2 Cohen's *d*

Table 5

Coherence Means and Paired t *Tests*

	School year inservice		Summer inservice			
Coherence	*M*	*SD*	*M*	*SD*	*t*	*df*
General consistency and connectedness (6pt)	4.07	1.402	4.34	1.204	-2.377	139
Builds on previous inservice training	3.09	.985	3.26	.878	-2.087*	139

* = $p \leq .05$.

effect size) from school year to summer inservice. Despite this increase, the average teacher response remained "somewhat agree." In addition, building on previous inservice training increased .17 points but remained at the score of "sometimes."

Duration

To measure duration of faculty inservice training, teachers were asked in the survey to report the frequency that they were given an assignment to prepare for inservice and the frequency with which there was some form of follow-up to inservice training. Teachers were asked to answer these questions based on their faculty inservice experiences during the school year and their faculty inservice experiences during the summer. The means and standard deviations for each question are reported in Table 6, along with the *t* values indicating the difference between reported school year and summer faculty inservice training.

The mean for being assigned to prepare in advance for inservice was 3.43 for school year inservice and 3.55 for summer inservice. These numbers indicate that on average teachers report being assigned to prepare in advance between "sometimes" and "often" for school year and summer inservice activities with 126 teachers (91%) for

Table 6

Duration Means and Paired t *Tests*

	School year inservice		Summer inservice			
Duration	*M*	*SD*	*M*	*SD*	*t*	*df*
Prepare in advance for inservice	3.43	.895	3.55	.967	-1.273	137
Follow-up for inservice	2.70	.980	2.83	.912	-1.529	136

school year inservice and 120 (86%) for summer inservice reporting being asked to prepare in advance “sometimes” or more. The mean for receiving some form of follow-up to faculty inservice training was 2.70 for school year inservice and 2.83 for summer inservice. These numbers indicate that on average teachers report receiving follow-up between “rarely” and “sometimes” for school year and summer inservice with 112 teachers (81%) for school year inservice and 114 (83%) for summer inservice reporting receiving follow-up “sometimes” or less.

To compare inservice duration in the school year and during the summer, I performed paired *t* tests (Table 6). No significant differences were found in the frequency of inservice preparation and follow-up for school year and summer inservice training.

Collective Participation

To measure collective participation in faculty inservice training, teachers were asked in the survey to report the frequency that faculty inservice training was attended only by teachers from their faculty. Teachers were asked to answer this question based on their faculty inservice experiences during the school year and their faculty inservice experiences during the summer. The mean and standard deviation for this question are reported in Table 7, along with the *t* value indicating the difference between reported school year and summer faculty inservice training.

The mean for the frequency of inservice being attended only by faculty members was 4.02 for school year inservice and 3.03 for summer inservice. These numbers indicate that on average teachers report inservice being attended only by faculty members “often” during the school year and “sometimes” during the summer. Of the teachers

Table 7

Collective Participation Means and Paired t *Tests*

	School year inservice		Summer inservice			
Collective participation	*M*	*SD*	*M*	*SD*	*t*	*df*
Inservice attended only by faculty	4.02	1.115	3.03	1.217	8.573***	139

*** = $p \leq .001$.

responding, 107 teachers (76%) reported having inservice only with the faculty "often or "very often" for school year inservice. This number dropped to 54 teachers (39%) for summer inservice who reported having inservice only with the faculty "often or "very often."

Teachers were asked in the survey which arrangement of faculty inservice they felt was most effective at fostering teacher learning. Only 10 teachers (7%) reported feeling that teachers from throughout the area all participating together was most effective. Sixty teachers (44%) preferred inservice training with teachers from multiple faculties (but not the whole area) participating together. The most preferred arrangement for learning was teachers from a single faculty participating together, which received the support of 67 respondents (49%).

To compare inservice duration in the school year and during the summer, I performed paired *t* tests (Table 7). There was a statistically significant difference identified between school year and summer, with faculty-only inservice decreasing by .99 points (.7 Cohen's *d* effect size). This indicates that frequency of faculty-only inservice shifted from "often" for school year inservice to "sometimes" for summer inservice.

Levels of Outcome Evaluation

To measure levels of outcome evaluation in seminary faculty inservice, teachers were asked in the survey how strongly they agreed or disagreed with inservice being generally effective at improving teaching and learning. In addition, teachers were asked to measure the frequency that inservice training resulted in an increase in knowledge and skills, application of knowledge and skills in classroom teaching, and a perceived positive impact in student learning. Teachers were asked to answer these questions based on their faculty inservice experiences during the school year and their faculty inservice experiences during the summer. The means and standard deviations for each question are reported in Table 8, along with the *t* values indicating the difference between reported school year and summer faculty inservice training.

When asked if they agreed that inservice is effective overall at improving teaching and learning, teachers reported a mean of 4.30 for school year inservice and 4.56 for summer inservice out of a 6-point scale. These numbers indicate that on average teachers "somewhat agree" that inservice is generally effective during the school year and teachers fall between "somewhat agree" and "agree" during the summer. Most teachers agreed with inservice being generally effective, with 117 teacher (84%) for school year inservice and 121 teachers (88%) for summer inservice reporting that they "somewhat agree," "agree," or "strongly agree."

The mean for increase in knowledge and skills was 3.55 for school year inservice and 3.85 for summer inservice. The mean for applying inservice training to the classroom was 3.51 for school year inservice and 3.74 for summer inservice. These numbers

Table 8

Levels of Outcome Evaluation Means and Paired t *Tests*

	School year inservice		Summer inservice			
Levels of evaluation	*M*	*SD*	*M*	*SD*	*t*	*df*
Overall inservice effectiveness (6 pt)	4.30	1.137	4.56	1.127	-2.340*	137
Increase in knowledge and skills	3.55	8.36	3.85	.859	-4.193***	138
Apply knowledge and skills	3.51	.875	3.74	.823	-2.954**	136
Perceived impact on student learning	3.33	.927	3.63	.894	-3.796***	135

* = $p \leq .05$.
** = $p \leq .01$.
*** = $p \leq .001$.

indicate that on average teachers report increasing in knowledge and applying inservice training in the classroom between "sometimes" and "often" for school year inservice and "often" for summer inservice. The mean for perceived impact on student learning was 3.33 for school year inservice and 3.63 for summer inservice, indicating that teachers report perceiving impact on student learning between "sometimes" and "often" for school year and summer inservice.

To understand the effect of inservice on teacher change, teachers were asked at what stage inservice training was more likely to cause a change in their attitudes and beliefs about teaching and learning. Of the 138 teachers responding, 39 teachers (28%) reported that they were more likely to change while receiving inservice, 41 teachers (39%) felt they were more likely to change while implementing the training, and 45 teachers (33%) reported they were more likely to change while observing the effects of the training on students.

To compare these levels of inservice evaluation for school year and summer

inservice, I performed paired *t* tests (Table 8). Statistically significant differences were found for each item measuring levels of outcome evaluation. Agreement that inservice was generally effective increased .26 points (-.2 Cohen's *d* effect size) from school year to summer inservice, increase in knowledge and skills increased .30 points (-.4 Cohen's *d* effect size), applying inservice training to the classroom increased .23 points (-.3 Cohen's *d* effect size), and perceived impact on student learning increased .30 points (-.3 Cohen's *d* effect size). These numbers indicate that perceived effectiveness increased from a "somewhat agree" rating for school year inservice to a rating closer to "agree" for summer inservice, while increase in knowledge and skills, application of training, and perceived impact on student learning all increased in frequency from ratings between "sometimes" and "often" for school year inservice to average ratings closer to "often" for summer inservice.

Teaching and Learning Emphasis

To measure how well teachers perceived inservice to prepare them to accomplish S&I objectives, teachers were asked in the survey how strongly they agreed or disagreed with statements about how well inservice prepared them to accomplish each component of the *Teaching and Learning Emphasis* (2009). Teachers were asked to answer these questions based on their faculty inservice experiences during the school year and their faculty inservice experiences during the summer. The means and standard deviations for each question are reported in Table 9, along with the *t* values indicating the difference between reported school year and summer faculty inservice training.

Table 9

Teaching and Learning Emphasis Means and Paired t *Tests*

	School year inservice		Summer inservice			
Teaching and learning emphasis	*M*	*SD*	*M*	*SD*	*t*	*df*
Teach by the spirit (6 pt)	4.68	1.095	4.70	1.084	-.274	139
Help students learn by the spirit (6 pt)	4.60	1.144	4.64	1.165	-.561	135
Learning environment (6 pt)	4.54	1.065	4.50	1.031	.513	138
Daily scripture study (6 pt)	4.38	1.119	4.31	1.154	.912	138
Scripture context and content (6 pt)	4.39	1.110	4.57	1.107	-2.030*	139
Identify, understand, and apply (6 pt)	4.46	1.069	4.54	1.062	-.976	139
Explain, share, and testify (6 pt)	4.32	1.090	4.32	1.118	-.086	138
Master key scriptures and basic doctrine (6 pt)	3.82	1.314	3.99	1.226	-1.585	137

* = $p \leq .05$.

Teachers reported that inservice prepared them to teach by the Spirit (meaning they felt inservice prepared them to receive the influence and help of God in their teaching efforts) with a mean of 4.68 for school year inservice and 4.70 for summer inservice. Teachers reported that inservice prepared them to help students learn by the Spirit (meaning they felt inservice prepared them to assist their students to receive the influence and help of God in their learning efforts) with a mean of 4.60 for school year inservice and 4.64 for summer inservice. In addition, teachers reported that inservice prepared them to create a learning environment with a mean of 4.54 for school year inservice and 4.50 for summer inservice, encourage daily scripture study with a mean of 4.38 for school year inservice and 4.31 for summer inservice, help students understand scripture context and content with a school year inservice mean of 4.39 and a summer inservice mean of 4.57, help student identify, understand, and apply doctrines with a school year inservice mean of 4.46 and a summer inservice mean of 4.54, help students explain, share, and testify with a

school year inservice mean of 4.32 and summer inservice mean of 4.32. These numbers indicate that for all these categories of the *Teaching and Learning Emphasis* (2009), teachers on average were between "somewhat agree" and "agree" that inservice prepared them to accomplish these tasks in school year and summer inservice. In addition, the percentage of teachers who at least "somewhat agreed" that inservice prepared them to implement each of these principles from the *Teaching and Learning Emphasis* (2009), was consistently high (above 80%).

The mean for inservice preparing teachers to help students master key scriptures and basic doctrines was slightly lower with a mean of 3.82 for school year inservice and 3.99 for summer inservice, indicating that teachers on average reported scores slightly lower than "somewhat agree" for school year and summer inservice. The percentage of teachers who at least "somewhat agreed" that inservice prepared them to help students master key scriptures and basic doctrines, was 65% for school year inservice and 69% for summer inservice.

To compare teachers' perception of being prepared to accomplish the *Teaching and Learning Emphasis* (2009) during school year and summer inservice training, I performed paired *t* tests (Table 9). There was one statistically significant difference. Preparation to help students understand the context and content of the scriptures increase .18 points (-.2 Cohen's *d* effect size) from school year to summer inservice. The average agreement remained at a level between "somewhat agree" and "agree."

Correlations

To determine how well certain items were measuring the same construct, a Chronbach's alpha was generated for each global construct for the school year and summer. For content focus, items of specific teaching strategies for teaching an upcoming scripture block and study of doctrines and principles from an upcoming scripture block had a Chronbach's alpha of .8 for the school year and for the summer. The Chronbach's alpha for all of the active learning items, excluding listening to a lecture, was .7 for both school year and summer inservice. The items for coherence had a Chronbach's alpha score of .8 for the school year and for the summer. The two items for duration were not very related and only achieved a score of .45 for the school year and .6 for the summer. The items measuring each level of evaluation achieved a score of above .9 for both school year and summer inservice and the *Teaching and Learning Emphasis* (2009) items achieved a score of .95 for school year and summer inservice items.

These items were combined to form global measures of each construct for school year and summer inservice training with the exception of duration, which did not correlate well, and collective participation, which only had one item to measure the construct. Once these items were combined, correlations were performed to observe the relationship between the global measures of effective features of professional development and the outcome variables of levels of outcome evaluation and the *Teaching and Learning Emphasis* for school year and summer inservice training. The correlations between the features of effective professional development and the levels of outcome evaluation are presented in Table 10.

Table 10

Correlations Between the Features of Effective Professional Development and the Combined Levels of Outcome Evaluation for School Year and Summer Inservice

Features of effective professional development	Combined: Levels of evaluation (school year)	Combined: Levels of evaluation (summer)
Content focus	.491***	.462***
Active learning	.567***	.532***
Coherence	.472***	.492***
Duration: Preparation	.116	.367***
Duration: Follow-up	.482***	.417***
Collective participation	.268**	-.100

** = $p \leq .01$.
*** = $p \leq .001$.

Statistically significant strong and moderate correlations were identified between the features of effective professional development and the levels of outcome evaluation for school year and summer inservice. Content-focused inservice had a moderate to strong correlation with the combined measure of levels of outcome evaluation for both school year (.491) and summer (.462) inservice. This correlation indicates that teachers who report frequent use of content focus in faculty inservice also report more frequent perceptions of inservice effectiveness, increase in knowledge and skills, application of new knowledge and skills to classroom teaching, and perceived impact on student learning. Other features that were also strongly correlated with the combined measure of levels of outcome evaluation were active learning during school year (.567) and summer (.532) inservice, coherence for school year (.472) and summer (.492) inservice, and the item measuring follow-up from the duration feature for school year (.482) and summer (.417) inservice. These correlations indicate that as each of these measures of effective

features of professional development increased, teachers reported higher scores on the measures of levels of outcome evaluation. There was also a low to moderate correlation for collective participation during school year inservice (.268) and the item measuring inservice preparation for summer inservice (.367) with the combined measure of the levels of outcome evaluation.

The correlations between the global measures of effective features of professional development and the outcome variables of the *Teaching and Learning Emphasis* for school year and summer inservice are presented in Table 11. Several statistically significant strong and moderate correlations were identified. Content-focused inservice was strongly correlated with the combined measure of the *Teaching and Learning Emphasis* for school year inservice (.526) and moderately correlated for summer inservice (.383). This correlation indicates that teachers who reported frequent use of content-focus for school year inservice also reported an increase in feeling prepared to

Table 11

Correlations Between the Features of Effective Professional Development and the Teaching and Learning Emphasis for School Year and Summer Inservice

Features of effective professional development	Combined: Teaching/learning emphasis (school year)	Combined: Teaching/learning emphasis (summer)
Content focus	.526***	.383***
Active learning	.664***	.604***
Coherence	.634***	.577***
Duration: Preparation	.201*	.344***
Duration: Follow-up	.576***	.500***
Collective participation	.153	-.003

* $p \leq .05$.
*** $p \leq .001$.

implement the *Teaching and Learning Emphasis* including teach by the Spirit, help students learn by the Spirit, cultivate a learning environment, help students study the scriptures daily and read the text for the course, help students understand the context and content of the scriptures, help students identify, understand, and apply doctrines and principles, help students explain, share, and testify of gospel principles, and help students master key scripture passages and basic doctrines.

Other features that were also strongly correlated with the combined measure of the *Teaching and Learning Emphasis* were active learning during school year inservice (.664) and summer inservice (.604), coherence during school year (.634) and summer (.577) inservice, and the item measuring follow-up from the duration feature for school year (.576) and summer (.500) inservice. These correlations indicate that teachers who reported frequent use of the measures of effective features of professional also reported higher scores on the measures of the *Teaching and Learning Emphasis*. There was also a small to moderate correlation for the item measuring inservice preparation from the duration feature during school year (.201) and summer (.344) inservice with the measure of the *Teaching and Learning Emphasis*. There was no correlation between collective participation and the combined measure of the *Teaching and Learning Emphasis*.

Summary

The purpose of this chapter was to report the findings that addressed the research questions regarding the effectiveness of professional development in LDS seminaries. Descriptive statistics revealed the moderate frequency of several key features of effective

professional development including content focus, active learning, coherence, duration, and collective participation. Paired *t* tests revealed that these features were generally more frequent during summer inservice training than during school year inservice training. Descriptive statistics also revealed teacher reports of each of the levels of outcome evaluation of inservice, including a perceived moderate effectiveness, moderate frequency of increasing in knowledge and skills, moderate frequency of applying knowledge and skills to the classroom, and moderate frequency of perceived impact on student learning. Paired T-tests showed that these scores were also generally more frequent during summer inservice than school year inservice. Descriptive statistics revealed generally moderate agreement that inservice directly prepares teachers to accomplish the principles of the *Teaching and Learning Emphasis*. There was no statistically significant difference between these scores for school year and summer inservice activities. The next chapter will interpret these findings, draw conclusions, and make recommendations.

CHAPTER V

DISCUSSION

The purpose of this study was to descriptively analyze the processes and outcomes of faculty inservice, in an effort to understand the effectiveness of professional development in the S&I of the LDS Church. To accomplish this purpose, I gathered data by surveying a sample of full-time seminary teachers regarding their experience with faculty inservice in the school year and the summer. I performed descriptive, comparison, and correlational analyses to determine the reported frequency and variability of the several processes and outcomes and the correlation of these variables and their differences from school year to summer inservice. In this chapter I will interpret and discuss the findings and suggest ways faculty inservice could improve in LDS seminaries and offer recommendations for future research.

Summary of Findings

Descriptive statistics revealed the moderate frequency of the five key features of effective professional development, including content focus, active learning, coherence, duration, and collective participation. Paired *t* tests revealed that these features are generally more frequent in summer inservice than school year inservice. Descriptive statistics also revealed teacher reports of each of the levels of inservice evaluation, including a perceived moderate effectiveness, moderate frequency of increasing in knowledge and skills, moderate frequency of applying knowledge and skills to the classroom, and moderate frequency of perceived impact on student learning. Paired *t* tests

showed that these scores were also generally more frequent during summer inservice than school year inservice. Descriptive statistics revealed generally moderate agreement that inservice directly prepares teachers to accomplish the principles of the *Teaching and Learning Emphasis*. There were no statistically significant differences between these scores for school year and summer inservice activities.

Research Questions

To examine the effectiveness of faculty inservice in LDS seminaries, this study sought to answer the following research questions. The questions related to processes and features are listed first, followed by questions on outcomes, and concluded by a question regarding the association between processes and outcomes.

1. How frequently do full-time LDS seminary teachers report the five features of effective professional development (content focus, active learning, coherence, duration, and collective participation) are present in S&I faculty inservice training?

2. Do full-time LDS seminary teachers report a difference in the use of the five features of effective professional development (content focus, active learning, coherence, duration, and collective participation) in S&I faculty inservice training during the school year and faculty inservice training during the summer?

3. How frequently do full-time LDS seminary teachers report increasing in teacher knowledge and skills, applying teacher knowledge and skills in classroom instruction, and perceiving improvements in student learning from participating in S&I faculty inservice training?

4. Do full-time LDS seminary teachers report a difference in the increase of teacher knowledge and skills, application of teacher knowledge and skills in classroom instruction, and perception of improvements in student learning, from the faculty inservice training they receive in the school year and the faculty inservice training they receive in the summer?

5. How many full-time LDS seminary teachers participating in S&I faculty inservice training report being prepared by inservice activities to implement the principles of the *Teaching and Learning Emphasis*?

6. Do full-time LDS seminary teachers report a difference in the preparation they receive to implement the principles of the *Teaching and Learning Emphasis* from the faculty inservice training they receive in the school year and the faculty inservice training they receive in the summer?

7. Do full-time LDS seminary teachers report an association between the five features of effective professional development (content focus, active learning, coherence, duration, and collective participation) and improved teaching and learning outcomes in S&I?

The following is a discussion of the findings that respond to each of the research questions. The last section is the conclusions, implications, and recommendations that I drew from these findings.

Question 1: Frequency of the Five Features of Effective Professional Development

There is a growing consensus among researchers about the effectiveness of five features of effective professional development (Desimone, 2009). These five features are content-focus, active learning, coherence, duration, and collective participation. One of the research questions this study sought to answer was how frequently these five features of effective professional development were present in seminary faculty inservice. In the following section I discuss the literature and the findings of this study for each feature.

Content Focus

In a review of the literature on the effects of professional development programs on student learning, Kennedy (1998) discovered that the content of the professional development programs that had the greatest influence on student learning was not focused on teacher's behaviors but on the teacher's knowledge of the subject matter and knowledge of how students learn that particular subject matter. Other literature supports the link between professional development focused on subject-matter content and how students learn it, with gains in teacher knowledge and skills, classroom practice, and student improvement (Corcoran, 1995b; Correnti, 2007; Garet et al., 2001; Guskey, 2003; Porter et al., 2000; Quick et al., 2009; Whitehurst, 2002). These studies supported the importance of content knowledge and suggest that teaching strategies are also important but are best taught in connection with specific content rather than as abstract pedagogy. As one set of authors reported, "Teachers do not find generic professional development

that focuses on teaching techniques without also emphasizing content to be effective" (Birman et al., 2000, p. 30). A number of studies suggest that "teacher's content knowledge is related to the...teaching strategies they use" (Penuel et al., 2007, p. 930; see also Cronin-Jones, 1991; Hollan et al., 1991). These findings suggested that the "what" and the "how" of teaching are more interrelated than many recognize and that methodology should not be isolated from content. Instead, these studies indicated that professional development was most effective when it focused on providing specific content knowledge, and linked that knowledge to specific teaching methodology thereby providing teachers with what some have termed "content-specific teaching skills" (Garet et al., 2001, p. 924) or "pedagogical content knowledge" (Shulman, 1987, p. 8).

In this study, teachers reported being trained in generic teaching skills more frequently than content-focused subjects. The mean for general teaching skills was 3.68 for school year inservice and 3.62 for summer inservice. The mean for training in specific teaching skills for teaching an upcoming scripture block (a chapter or section of scripture that is part of the curriculum) was 3.27 for school year inservice and 3.49 for summer inservice. The mean for topical study of basic doctrines was 2.96 for school year inservice and 3.43 for summer inservice. The mean for study of doctrine from an upcoming scripture block (a chapter or section of scripture that is part of the curriculum) was 3.09 for school year inservice and 3.61 for summer inservice. These findings suggest that seminary faculty inservice focuses more on generic teaching techniques than on content or content-specific teaching techniques, particularly for school year inservice

training. These findings also indicate that, although scores are much higher for content-focused inservice for summer inservice, there is generally only a moderate focus on content and content-specific teaching skills during school year and summer inservice with the average score suggesting that there is only "sometimes" a content-focus.

Neglecting content and content-specific teaching skills is contrary to what teachers report as having the most impact. The survey used for this study asked specific questions to investigate teachers' perceptions of the impact of content-focused inservice. Teachers predominantly favored (70%) content-specific teaching skills over abstract teaching techniques, and overwhelmingly favored (86%) studying doctrines from an upcoming scripture block over topical study of basic doctrines. When asked to compare the impact of training on teaching methods (the "how") with training on subject matter content (the "what"), teachers were divided, with half preferring training in teaching methods and half preferring training in subject matter content.

These findings suggest a number of things. First, teachers reported a greater impact on their teaching from inservice that is focused on content and content-specific teaching methodology, confirming the findings of professional development literature (Birman et al., 2000; Garet et al., 2001; Penuel et al., 2007). Second, teachers found it helpful for inservice training on content and teaching skills to be specific to a scripture block (a chapter or section of scriptural text). This finding is likely influenced by the concept that seminary curriculum is based on sequential scripture teaching rather than topical lessons on gospel subjects. As a result, inservice training that is specific to an upcoming scripture block is likely viewed as more relevant and useful to teachers as they

prepare lessons. These findings also indicate that teachers are split between which focus of inservice they find more influential on teaching practice, subject matter content or teaching methodology. This finding suggests that teachers prefer a balance between the "what" and the "how," and that training that focuses exclusively on one and neglects the other will be perceived as less effective. Also, the type of methodology that teachers prefer is not abstract teaching techniques but skills that are tied to content and are specific to a block of scripture. These findings combine to suggest that the inservice training that is most effective blends subject matter content and teaching methodology by teaching content and content-specific teaching methods for a specific scripture block rather than abstract teaching skills or general doctrinal topics. In other words, training is most impactful when it mirrors the experience teachers have in the classroom teaching a specific block of scripture.

These conclusions are supported by the teacher comments provided at the end of the survey. For example, several teachers stated their frustration at what they perceived as an overemphasis on methodology at the expense of content knowledge. One teacher explained, "The past ten years or so with the 'Teaching Emphasis' has been negative for me. The previous 15 years were much more content oriented and much more helpful." Others agreed with the need for more content-focused inservice stating that they "would like to see more study of the scriptures and the basic doctrines of the gospel in all inservice settings," need "more time mastering content," appreciate "hearing students of the scriptures teach what they have learned from them," and "want to gain a great understanding of the doctrines and principles in the book of scripture being taught that

year." One teacher summarized his feelings for content-focused inservice with these words, "I want to be taught the scriptures, not the methods. I want to be taught by someone who can open the scriptures and just teach. No games, or EFY types [referring to teachers who participate in the Especially for Youth program which has a reputation for being entertaining rather than educational]. Just teach me the doctrine."

Other teachers called for more training in content-specific teaching strategies. One teacher remarked that inservice needs to provide the opportunity for teachers to "share more lesson prep ideas for upcoming blocks of scripture," that they "definitely need more sharing of ways to teach upcoming blocks." Several teachers agreed with this assessment expressing their desire for "more focus on lesson ideas and the 'how' of teaching," more "sharing of teaching ideas, methods, and lesson ideas," and the "great need of skills training and lesson preparation." These teachers suggest that a balance might exist between subject matter content and teaching methodology, which may require in some cases "less on the 'what' and the 'why' and more on the 'how,'" as one teacher expressed it.

This study indicates that blending of content knowledge and teaching skills is best achieved when training provides content-specific teaching strategies. One teacher commented on how well one administrator accomplished this and how helpful such inservice training was. He remarked, "I loved how...our former area administrator, taught. Instead of teaching us teaching techniques...he just opened up the scriptures and taught us." This teacher explained that this approach served to "increase my content mastery" and provided many ideas for how to teach that scripture block in the classroom. He

concluded by remarking that “instead of talking about teaching.... TEACH. Even in inservice. If every inservice was someone teaching a scripture block, I’d love it.” Others agreed with this assessment that inservice should focus on content and content-specific teaching techniques by simply teaching scripture blocks consistent with seminary curriculum otherwise training is “distanced from the block being taught.” These teachers reported that inservice training is often very different from what seminary teachers are expected to do in the classroom. One teacher asked rhetorically, “Shouldn’t we be modeling the curriculum as principals and faculty members in S&I?” Another made a similar observation when he stated, “We never live what we teach when it comes to inservice. We should teach scripture block lessons.” The above comments from the open-ended question confirm previous research regarding the effectiveness of content-focused inservice training and suggest that one way seminary inservice could improve is through a greater focus on content and content-specific teaching strategies.

One way to increase the focus on content and content-specific teaching strategies is by providing inservice training that demonstrates techniques by teaching doctrines and principles from upcoming scripture blocks. By receiving training that is specific to a sequential scripture block, teachers will hopefully learn methodology and content in a way that is consistent with how they will teach in the classroom. The knowledge and skills they will hopefully gain through this approach can be readily applied to their lessons, and thus could be more helpful and useful to their preparation than instruction on generic methodology or topical studies of doctrine that do not have clear and practical use in the classroom.

Active Learning

Actively learning, rather than passively receiving information in lecture format, is another characteristic that has consistently been identified with effective professional development (Birman et al., 2000; Garet et al., 2001; Guskey, 2003; Marzano, 2003; Penuel et al., 2007; Porter et al., 2000). As one national study confirmed, teachers are more likely to report increased knowledge and skills, resulting in changed classroom practice, when professional development provides opportunities for active learning (Birman et al., 2000; Desimone et al., 2002; Garet et al., 2001). Active learning encouraged teachers to be actively engaged in meaningful discussion, planning, and practice (Birman et al., 2000; Lieberman, 1996; Louks-Horsley et al., 1998). Active learning includes opportunities such as observing and being observed teaching, developing lesson plans, practicing in simulated conditions, reviewing student work, leading discussions, writing reports, and presenting demonstrations (Birman et al., 2000, p. 31; see also Banilower & Shimkus, 2004; Bork, 2004; Carey & Fretchling, 1997; Darling-Hammond, 1997; Garet et al., 2001; Lieberman, 1996; Louks-Horsley et al., 1998). Actively engaging teachers in the learning process not only helps them learn the material better through hands-on practice and by conforming to the principles of adult learning, but it also serves to model the very skills they are being trained in. This gives teachers first-hand experience with active learning and helps them to implement the same skills in their own classrooms (Penuel et al., 2007).

In this study, teachers reported that they generally agreed, or at least somewhat agreed, that faculty inservice was characterized by active learning rather than a lecture-

style approach. However, for summer inservice this number dropped by about a half of a point as the score for the frequency of lectures increased by over half a point, indicating that during the summer there was an increase in lecturing and a decrease in active learning. The predominant form of active learning that inservice training relied on was group discussion that generally happened "often" or "very often" during the school year. Although it dropped by a half of a point for the summer, group discussion remained relatively frequent at "often" and considerably higher than any other form of active learning.

Other forms of active learning that were reported at moderate frequency were practicing teaching skills, teachers leading inservice, and teachers sharing lesson ideas, each of which generally happens approximately "sometimes" with an increase in the summer. Forms of active learning with low to moderate frequency were observing teachers in the classroom, teachers planning inservice, reviewing student work, and preparing lessons together, which generally happened "rarely" or less and showed little or no increase for the summer.

These findings indicate that, aside from group discussion, other forms of active learning were not being used very frequently. Several teachers lamented this and expressed a desire for more active learning. For example, one teacher wrote that there is "far too much lecture and not enough active discovery." Another teacher wrote that active learning should move beyond just group discussion. "Discussions are easy to pull off," he explained, "especially when you lack the time to put together a more thoughtful, complete, and effective inservice. I would like to see more training, modeling, practice,

evaluation, and follow-up with our inservice training, not to replace our discussions, but to enhance them!"

One form of active learning that several teachers mentioned as being particularly effective was observing teachers in the classroom. For example, teachers expressed the need to "observe good teaching of scriptural based lessons, not sit there and be lectured" and that "hands on, particularly observation, is a key to a successful inservice experience." Another agreed, explaining that "some of the best inservice training is watching others teach. I am sad that our area no longer provides an opportunity for us to visit other classes. I would much rather take one day a term or semester and visit and observe many teachers than sit in a desk for an hour after school and hear a lecture. That would be much more beneficial." Thus, observing other teachers in the classroom can be an effective form of active learning in professional development.

Another form of active learning that several teachers mentioned as being effective and that they felt was not occurring enough was teacher collaboration and sharing of lesson ideas. One teacher explained that "although it is sometimes uncomfortable, those inservices where we prepare, teach, and then share our lessons with others have proved to be most beneficial to me." Another teacher agreed, explaining that "sharing of teaching ideas, methods, and lesson ideas.... I would like to see more of that kind of training." One teacher explained, "I would LOVE more time for sharing ideas and teaching skills for specific blocks and lessons. I was in a one-man seminary for 15 years and I thought there would be more sharing around the drinking fountain or at lunch or after school. Everyone kind of does their own thing with not much sharing unless we are looking over the

shoulder of other teachers and request them to share." Another added that collaboration must extend beyond just sharing with your teaching "buddies." He wrote, "the thing I feel is most effective in helping me as a teacher is direct observation of a teacher in a classroom setting, followed by sharing experiences and collaboration between teachers who are working on similar blocks [of scripture].... I love teacher collaboration but wish it could be extended and more open than just those who form unique bonds (aka 'buddies')." Thus, collaboration and sharing of lesson ideas among faculty members is another form of effective active learning in professional development.

In addition to observation and collaborative sharing, other forms of active learning were also mentioned specifically. One teacher wrote in the comments about teachers leading faculty inservice, stating that "I welcome and enjoy each faculty member taking responsibility for inservice." Practicing teaching skills in inservice was also mentioned, with one teacher explaining that, "I think faculty inservice is effective when there is a lot of practice. The best ones I have been to have been student-centered and allowed for us to put into practice what we are learning." Another mentioned preparing lessons together, stating that "I would like for us to prepare upcoming lessons together from an upcoming scripture block."

Recognizing the need to increase the use of the several forms of active learning should not be interpreted to mean that lecture-style presentations are bad or that there is no place for them in faculty inservice. A few teachers even expressed their appreciation for lecture. "I just want to note that sometimes I experience my most active learning as I listen to a talk style inservice," said one teacher. Another explained that, "we seem to

often focus on involved learning activities, but as a teacher I frankly enjoy and feel more edified by a good presentation style teaching with only a little class interaction."

The above findings indicate that seminary teachers generally agree with previous research regarding the effectiveness and importance of active learning in faculty inservice and would like to see it increase. While levels of group discussion appear to be sufficiently high, other forms of active learning are quite low. These findings suggest that seminary inservice could improve by increasing classroom observations, teacher collaboration, reviewing student work, practicing teaching skills, and teacher inservice preparation and leading. Such practices would allow teachers to actively learn from one another thus increasing the effectiveness of teaching throughout the seminary system.

Coherence

A third feature of effective professional development is the extent to which teachers perceive professional development activities to be part of a coherent program of teacher learning (Garet et al., 2001). Coherence measures the alignment and consistency of all the professional development a teacher receives (Consortium for Policy Research in Education, 1998; Firestone et al., 2005; Fullan, 1993; Guskey, 1994; Penuel et al., 2007; Rosenholtz, 1991). Coherency includes consistency with teacher goals and building upon earlier professional development activities (Birman et al., 2000, p. 31). Research has confirmed the importance of program coherency in professional development effectiveness (Birman et al., 2000; Desimone et al., 2002; Guskey 2003; Penuel et al., 2007; Porter et al., 2000).

In this study, teachers reported that they "somewhat agreed" that faculty

inservice was consistent and connected and that it built on previous inservice training "sometimes" with a slight increase in coherence for summer inservice. These findings indicate only a moderate level of coherence in seminary faculty inservice.

This lack of strong coherency in faculty inservice was confirmed by several teachers who called for more connectedness and purpose. One teacher wrote, "When there is an annual plan in place with an outline of what is to be covered on a weekly and monthly basis, there is consistency and building upon the previous weekly and monthly topic. The big picture is important to establish." Other teachers complained about the general lack of coherence they had experienced, writing "I'm not sure training has an end in mind" and "We really don't use a handbook ever for our faculty training. It seems to be more of a shotgun approach. No real connected theme we are building on." One teacher specified that most of the lack of coherency he had experienced was at the local level and that area-wide inservice was generally more consistent and connected. He explained, "My experience with faculty inservice at the regional level...has been very consistent and well organized, with purpose and planning tying things together.... On the local faculty level, inservice is more hit and miss." These comments confirm the need for increased connectedness.

The findings from this study suggest that seminary professional development efforts lack strong coherency and that one way faculty inservice could improve is through a more coherent and correlated plan for teacher development. By implementing a more coherent approach, faculty inservice will hopefully attain a greater sense of purpose and increase in teacher retention of knowledge and skills, thus improving teaching and

learning in LDS seminaries.

Duration

A common criticism of professional development is that it is too short and provides limited follow-up (Guskey & Yoon, 2009; Penuel et al., 2007). Almost all of the literature on professional development called for professional development to be sustained over time. The duration, meaning the length, frequency, and span of professional development activities was linked to intellectual and pedagogical teacher change (Cohen & Hill, 2001; Fullan, 1993; Guskey, 1994; Sopovitz & Turner, 2000). Structured and sustained follow-up, which has been linked in several studies to improvements in student learning, requires professional development to be sustained over time (Guskey & Yoon, 2009). However, duration alone in professional development has no direct effect on teaching practice or student achievement (Birman et al., 2000; Desimone et al., 2002; Garet et al., 2001; Guskey & Yoon, 2009; Kennedy, 1998). As Guskey and Yoon noted, "Doing ineffective things longer does not make them any better," time must be "well organized, carefully structured, purposefully directed, and focused on content or pedagogy or both" (p. 497; Birman et al., 2000; Garet et al., 2001; Guskey, 1999). In short, more time means more opportunities to do what makes professional development effective.

A previous unpublished study for S&I reported that faculty inservice generally occurred weekly for 1 to 2 hours. As a result, this study did not ask about frequency or length but instead asked questions regarding the preparation and follow-up of faculty inservice. Results indicated that teachers were invited to prepare in advance for faculty

inservice quite frequently, between “sometimes” and “often.” However, follow-up to inservice activities was quite low, occurring between “rarely” and “sometimes.” Both of these scores were consistently similar from school year to summer inservice.

Teacher responses indicated a general lack of consistency in the frequency with which inservice training was taking place. For example, teachers mentioned “the limited times we held inservice,” that it is “sometimes hit and miss during the school year,” and that “I have had regular inservice only 4 out of 21 years.” One teacher spoke specifically of the importance of regular faculty inservice. “Consistency is key for me,” he explained, “I like knowing that every week we are having inservice meetings. That way I can rely on them during the year.” Another teacher summed up his feelings by writing, “just have them more, we rarely have them.”

Other teachers expressed the desire for more follow-up. One teacher explained, “I would love more accountability. For example, each teacher could set a small, specific goal at the end of each inservice and share it with the others. During the week, teachers could discuss their progress during lunch. We could report to each other at the next inservice.” Another simply wrote, “I would like there to be follow-up.” Summarizing all of these findings, one teacher shared that inservice is “not held consistently enough with meaningful follow-up to help us make much of a change.” Thus, many teachers would like to see more follow-up to inservice activities.

The results of this study and the teacher’s comments indicate that many teachers feel there is a general lack of consistency in faculty inservice and that there is a low level of follow-up to the efforts that are being made. These findings suggest that faculty

inservice can improve by maintaining greater consistency throughout the year and by increasing the amount of follow-up teachers receive on the training given. These efforts would increase the effectiveness of professional development and improve the likelihood that inservice will lead to improved teaching and learning.

Collective Participation

"There is a growing interest in professional development that is designed for groups of teachers from the same school, department, or grade level" (Garet et al., 2001, p. 922). Research supports the importance of collective participation in professional development. For example, Birman and colleagues (2000) found in a national study that professional development activities that include collective participation "are more likely to afford opportunities for active learning and are more likely to be coherent with teachers other experiences" (p. 30), which leads to increased teacher knowledge and skill and changes in classroom practice (Garet et al., 2001). Desimone and colleagues (2002) found similar results in a longitudinal study indicating that professional development is more effective at changing classroom practice when it includes "collective participation of teachers from the same school, department, or grade" (p. 102; Porter et al., 2000). However, there is nothing particularly virtuous about collaboration per se (Little, 1990). As Guskey (2003) explained, "For collaboration to bring its intended benefits it, too, needs to be structured and purposeful, with efforts guided by clear goals for improving student learning" (p. 12). Thus, purposeful collective participation is a feature of effective professional development.

In this study, teachers reported receiving faculty-only inservice training "often"

during the school year but only "sometimes" during the summer. They also reported that the arrangements that they felt were most effective at fostering teacher learning were faculty only (49%) and multi-faculty but not the whole area (44%). Only a small fraction of teachers (7%) felt that inservice that included the whole area together was most effective at fostering teacher learning. These findings indicate that teachers report a high level of collective participation for the school year but a much lower score for the summer. These findings also indicate a general agreement among teachers regarding the importance of collective participation in professional development.

These findings were supported by teacher responses that indicated less collective participation for summer inservice. As one teacher explained, "Most of our summer inservice is done on an area level. When we meet as a faculty it is mostly to cover administrative issues for the upcoming school year." Another reported simply, "We rarely (3-4 times) have faculty inservice in the summer."

Several teachers expressed views that further lend support for the effectiveness of collective participation in professional development. One teacher explained in the comment section that "with the weekly faculty-only meetings, I feel that inservice is much more effective and allows faculties the ability to focus on local issues and needs." Other teachers gave similar reasons for their preference for faculty-only inservice, "I like our faculty inservice much more than area or group because it allows us to discuss in a formal setting some of the challenges that pertain to our building. It is nice to have area or group inservice on occasion but for me it is more effective in my building." Another teacher explained, "I would love to see inservice done on a small faculty level, not

region, because I believe you could help each other more since you are around each other all the time." Finally, "I find the very best inservices are those that are held at the local level—faculty talking and discussing and sharing." These comments confirm the effectiveness of collective participation in faculty inservice.

There was also support for multi-faculty inservice training. Teachers explained that they "enjoy multi-faculty inservice meetings" and that "multiple faculties joined together...is a great experience." One teacher explained that teachers from other faculties can provide additional ideas, "During the summer I very much enjoy learning in multi-faculty inservice opportunities. I really appreciate the ideas and sharing from my faculty during the school year but it is very helpful and enjoyable to change things up in the summer." From these comments and the findings of this study, effective inservice occurs in small enough groups so that collective participation can still take place. "It is a positive thing to inject other faculty members to join with us or us with them. But not too many! Keep it a family size."

These findings support the effectiveness of collective participation in faculty inservice and indicate less frequent collective participation in area-oriented inservice during the summer. These results suggest that the effectiveness of faculty inservice would improve if inservice, particularly summer inservice, occurred less frequently as a whole area and more frequently among single faculties and multiples faculties where more collective participation could take place.

Question 2: Differences in Frequency of Five Features for School Year and Summer

There were several differences, across school year and summer inservice activities, in the frequency of the features of effective professional development examined in this study. Focus on content increased from "sometimes" in school year inservice to between "sometimes" and "often" in summer inservice. Active learning revealed mixed results. For example, agreement that inservice is characterized by active learning and group discussion each decreased by a half-point while listening to a lecture increased by over a half-point, indicating that active learning generally decreases for summer inservice. At the same time, other forms of active learning increased in various amounts including, practicing teaching skills, teachers planning inservice, teachers leading inservice, preparing lessons together, and sharing lesson ideas. Coherence also increased significantly for summer inservice, although average frequency generally remained at "sometimes." There was no difference between duration's measures of preparation and follow-up for school year and summer inservice. Faculty-only inservice decreased from "often" during the summer to "sometimes" during the school year, indicating less collective participation.

The findings from this study indicate that there are several significant differences in the frequency of these five features of effective professional development between school year and summer inservice. However, because some features increased while others decreased, it is not clear from this quantitative data whether school year or summer inservice is more effective overall at implementing the five features of effective

professional development. One teacher's response however seems to imply that in general summer inservice has the more effective combination of these features. One teacher explained, "I would like to see what is done during the summer be done during the school year. I would like for us to prepare upcoming lessons together from an upcoming scripture block." This statement indicates that, at least for this teacher, the increased focus on content during the summer makes summer inservice superior to school year inservice. Regardless of which is better, both school year and summer inservice could increase their effectiveness by increasing the frequency that all five of these features are being used.

Question 3: Frequency of Effective Outcomes According to the Levels of Evaluation

According to Guskey (2000, 2002b), effective professional development evaluation requires the collection and analysis of multiple levels of critical information. These levels include participating teachers' reactions to the inservice, learning of knowledge and skill, use of the knowledge and skills in the classroom, and student learning outcomes. These levels of outcome evaluation are consistent with the models depicted in Chapter III. According to these models (Figures 2, 3, and 4), professional development is expected to impact student learning and teacher change through such mediating factors as teachers' knowledge, skills, and classroom practice. As a result, a breakdown at any level or link in the process would decrease the overall effectiveness of the program (Yoon et al., 2007). Therefore, each of the levels proposed in these models

must be evaluated to determine the overall effectiveness of the program and possible ways to improve it.

This study asked teachers regarding each of these levels of outcome evaluation. For the first level of evaluation, teachers in general reported being between "somewhat agree" and "agree" concerning faculty inservice being effective overall at improving teaching and learning. For the remaining levels of evaluation, teachers reported learning knowledge and skills, applying knowledge and skills in the classroom, and perceiving improved student learning from inservice all between "sometimes" and "often," with moderate increases for each during the summer. These findings indicate a moderate effectiveness for each level of evaluation of faculty inservice, suggesting that faculty inservice has a moderate overall effect on teaching and learning.

Teachers' written reports on inservice effectiveness yielded mixed results. Several teachers mentioned that they felt positive about the effectiveness of faculty inservice. For example, one teacher reported, "I always feel it is beneficial. It's funny because you never want to stay after school for another 'meeting' but I have never attended an inservice that I didn't feel made me a better teacher." Another teacher expressed similar feelings, "I have found that the faculty inservice training I have engaged in has been productive, helpful, and enlightening. There really is a strength that comes from gleaning from other faculty members. Collegial approaches [to inservice] are effective I believe." Thus, some teachers report a positive experience with faculty inservice.

Other teachers, however, had very different experiences to report. One teacher explained, "I enjoy getting together with the other guys, but my experience is that they

rarely help me in the classroom." Another shared, "We just endure the weekly faculty meetings, to be honest." For some, faculty inservice was too infrequent to be effective. One newly hired teacher explained, "My faculty has only had one inservice during the school year, and we did mandatory emergency training only. Sometimes we huddle at lunch and talk about life and our classes, but nothing that's organized." Another complaint was that teachers often did not cooperate to make inservice effective. As another teacher explained, "We have one or two outspoken colleagues whose comments or questions take us so far off the subject or which bring a feeling of doubt that it has not been a good year [for inservice] this year. It's strange that when seminary teachers get together, they can be some of the most challenging students who don't show a lot of respect to the one who is presenting. I know of several in our region who have left our inservices doubting, resentful, or just plain not edified." Some teachers simply called for improvements to faculty inservice, "make it worth it," said one, another stated, "It could and should be better." For many teachers faculty inservice is not a very effective or positive experience.

The findings of this study suggest that in general faculty inservice is moderately effective at improving teaching and learning according to several levels of outcome evaluation. However, these findings are averages and do not represent the experience of every teacher. According to the comments on the open-ended question, on several faculties inservice appears to be quite ineffective at producing effective outcomes.

Question 4: Differences in Outcomes for School Year and Summer Inservice

There were moderate differences across school year and summer inservice in the frequency of each of the effective outcomes examined in this study. Agreement that inservice was generally effective, teacher learning of knowledge and skills, teacher application of knowledge and skills in the classroom, and perception of improved student learning all increased by approximately a quarter-point from the school year to summer inservice. These findings suggest that faculty inservice is moderately more effective during the summer than the school year.

The increase in effectiveness for summer inservice was confirmed by several teachers' written comments. The following are a few of those responses.

> For some reason...the summer inservice training we receive has a greater impact, contains more depth, and is more applicable to personal and professional growth. Inservices during the year feel forced and unnatural. They interrupt the preparation process and [are] often rushed and significantly more shallow in their breadth and depth than the summer inservices.

> I generally like all faculty inservice meetings, because I like to learn and like the people I work with. However, school year faculty inservices do not often positively influence my teaching (and they sometimes take time away from preparation and administration that is more valuable to me during the school year).

> My summer inservices are very effective. Maybe I am focused on building my teaching skills more during that time. During the year it is more difficult. Our monthly regional faculty meetings can be disjointed and 'just another' meeting to go to. During the school year I am mostly concerned with preparing the next lesson to be used in class rather than overall teaching skills.

> I generally enjoy summer inservice a lot more than inservice during the school year. I think a lot of this comes from the amount of planning they are able to put into summer inservice, compared to the amount of time for preparation of

> inservice during the [school] year.
>
> I enjoy the summer experience for the time given to "unstring" the bow and relax and learn specific doctrines from other instructors in the area. It is almost like the summer session, for me, is a battery recharge time and a restock the quill with my teaching arrows for the fall. I am always better prepared in the fall by having participated in summer inservice and having that break time.

The survey results and teacher comments suggest that summer inservice is more effective overall at improving teaching and learning. At least part of this finding seems to come from an increase in preparation and planning for summer inservice, which likely allows for more use of the features of effective professional development. Another reason seems to be that summer provides more time to reflect and learn without the pressure of preparing lessons for the next day of school.

Question 5: Preparation to Implement the Teaching and Learning Emphasis

To help seminary teachers accomplish their objective, S&I administrators have identified seven points that make up the *Teaching and Learning Emphasis* that teachers and students should follow. They are:

- Teach and learn by the Spirit.
- Cultivate a learning environment of love, respect, and purpose.
- Study the scriptures daily and read the text for the course.
- Understand the context and content of the scriptures and words of the prophets.
- Identify, understand, and apply gospel doctrines and principles.
- Explain, share, and testify of gospel doctrines and principles.
- Master key scripture passages and basic doctrines. (*Teaching and Learning Emphasis*, 2009)

The assumption is that by applying these more concrete points from the *Teaching*

and Learning Emphasis, teachers and students will have the experiences in the seminary classroom that will lead to the ultimate objective of S&I. This is important because the objective of "eternal life" in S&I is a spiritual and long-term goal and is therefore difficult to measure and assess. What these seven points of emphasis provide are more tangible and immediate goals for seminary teachers. These points of emphasis also provide a better basis for evaluating and examining teaching and learning in seminary and determining how well we are accomplishing our objective.

This study examined how many teachers reported feeling prepared through faculty inservice to implement these principles of the *Teaching and Learning Emphasis* and discovered that in general teachers report being well prepared through both school year and summer inservice. Average scores indicated that for almost every principle of the *Teaching and Learning Emphasis* teachers on average were between "somewhat agree" and "agree" that inservice prepared them to accomplish these tasks in the school year and the summer. In addition, the percent of teachers who at least "somewhat agreed" that inservice prepared them to implement each of these principles from the *Teaching and Learning Emphasis* was consistently high (above 80%). The one exception to this result was for mastering key scriptures and doctrines which was slightly lower with a score indicating that teachers on average reported scores slightly lower than "somewhat agree" for school year and summer inservice. The percent of teachers who responded that they at least "somewhat agreed" that inservice prepared them to help students master key scriptures and basic doctrines was 65% for the school year and 69% for the summer. There were no teacher comments about the *Teaching and Learning Emphasis*.

These results indicate that throughout the year teachers feel that faculty inservice at least somewhat prepares them to implement the principles of the *Teaching and Learning Emphasis*. These results should be encouraging to seminary inservice leaders and suggest that inservice is at least moderately effective at producing the primary desired outcome of inservice thereby assisting teachers to accomplish the objectives of S&I. However, the similarities of the scores on the several principles of the *Teaching and Learning Emphasis* suggest that teachers might have failed to distinguish between these various principles. This possibility is supported by the Chronbach's alpha score of .95, which is so highly correlated that it suggests that teachers might not have differentiated between the various components of the emphasis; rather they provided a more general score of their feelings of preparation to implement these ideals as a whole. Although these scores might say little about the specific aspects of the *Teaching and Learning Emphasis*, they do provide support that teachers feel a general preparation to implement these ideals.

Question 6: Differences in School Year and Summer Preparation for the Emphasis

There were no differences between school year and summer inservice in teacher reports of preparation to implement the *Teaching and Learning Emphasis* with one exception. Understanding the context and content of the scriptures increased slightly (.2 points) for the summer. This confirms the finding that summer inservice has an increased focus on content. It is unclear why preparation to implement the *Teaching and Learning*

Emphasis remained so consistent from the school year to the summer despite differences in the frequency of the features of effective development and the effectiveness of inservice outcomes according to the levels of outcome evaluation. One possible explanation is that teachers failed to distinguish between the differences from the school year to the summer in many of the principles of the *Teaching and Learning Emphasis*. Instead, it appears that teachers might have provided a more general score of their feelings of preparation overall to implement the Emphasis from inservice training throughout the year. This is supported by the Chronbach's alpha score of .95 for both the school year and summer and for the high correlation (.7) that exists between the school year and summer scores. No teacher comments were provided to help interpret these findings.

Question 7: Associations Among Five Features and Teaching Outcomes

This study examined the associations among five features of effective professional development and teaching and learning outcomes for school year and summer inservice. To do so, individual items with a sufficiently high Chronbach's alpha score were combined to form global measures of each construct. Correlations between the global measures of the features of effective professional development and the teaching and learning outcome variables indicated that there were several strong and moderate associations. Content-focused inservice, active learning, coherence, and a measure of duration (follow-up), had moderate to strong correlations (between .4 and .6) with the combined measure of levels of outcome evaluation for both school year and

summer inservice. There was also a low to moderate correlation for collective participation. These findings indicate that as inservice increases in each of these features, teachers are more likely to report inservice as effective, increase in knowledge and skills, apply new knowledge and skills to classroom teaching, and perceive an impact on student learning.

Several statistically significant strong and moderate correlations were also identified between the features of effective professional development and the *Teaching and Learning Emphasis* during school year and summer inservice training. Content-focused inservice, active learning, coherence, and a measure of duration (follow-up), were all strongly correlated (between .5 and .7) with the combined measure of the *Teaching and Learning Emphasis* for both school year and summer inservice, with the exception of a moderate correlation for content-focus during the summer. Another measure of duration (preparation) had a moderate correlation with the *Teaching and Learning Emphasis* during the summer and a low correlation during the school year, while no correlation was discovered for collective participation. These findings indicate that as school year inservice increases in these features, teachers are generally more likely to report feeling prepared to implement the *Teaching and Learning Emphasis* including teach by the Spirit, help students learn by the Spirit, cultivate a learning environment, help students study the scriptures daily and read the text for the course, help students understand the context and content of the scriptures, help students identify, understand, and apply doctrines and principles, help students explain, share, and testify of gospel principles, and help students master key scripture passages and basic doctrines.

Although these results are correlational and do not establish causation, they do provide strong support for the effectiveness of these features of professional development. These findings suggest that increasing the frequency of these five features of professional development in seminary faculty inservice might lead to increases in teaching and learning outcomes for school year and summer inservice. This finding is confirmed by one teacher's comment describing how his faculty inservice makes use of the features of effective professional development and how these features lead to improved teaching and learning outcomes.

> The faculty that I am on is awesome! We share, we help each other, we talk about struggles, and we really get along. We have the best interest of each other in mind.... Our faculty meetings are timely, we focus on what is necessary, our principal really has the students' interest in mind and things are great. Our program is succeeding and I am happy to go to work and I think the seminary students are growing and learning!

> Here in [my area], I feel both our school year inservice and summer training are very good. Of the two, my current principal is perhaps the best I have seen in my career at preparing, presenting, involving, and linking inservice experiences. There are specific objectives for the inservice, and specific challenges to be used in the classroom thereafter, and always a follow up sharing of experiences using them. They are meaningful, very specific and applicable, and improve my students' classroom experience weekly.

This link between the five features of effective professional development and improved teaching and learning outcomes is consistent with previous research (Desminone, 2009). The model proposed by Desimone (see Figure 1), illustrates how these features of effective professional development might influence teaching and learning outcomes through the mediating factors of increased teacher knowledge and skills and change in attitudes and beliefs.

The Desimone (2009) model suggests professional development's impact on

student learning is mediated by increased teacher knowledge and change in instruction, all within the context of curriculum and policy. This model is consistent with other proposed models, which suggest similar mediating, and contextual factors (Cohen & Hill, 2000; Fishman et al., 2003; Garet et al., 2001; Guskey & Sparks, 2004; Kennedy, 1998; Loucks-Horsley & Matsumoto, 1999; Yoon et al., 2007).

The literature underscores the importance of each element of this proposed path model. For example, other research has found links between professional development and student achievement (Angrist & Lavy, 2001; Bressoux, 1996; Cohen & Hill, 2000, 2001; Jacob & Lefgren, 2004; Lee et al., 2008; Wiley & Yoon, 1995; Yoon et al., 2007); professional development and teacher practice (Fishman et al., 2003; Heck et al., 2008; Jeanpierre et al., 2005; Supovitz & Turner, 2000); teacher knowledge, practice, and student achievement (Hill et al., 2008; Phelps & Schilling, 2004; Snow et al., 1998; Wilson & Berne, 1999); and instruction and student achievement (Hamilton et al., 2003; Mayer, 1998; Stein & Lane, 1996; Supovitz, 2001; Von Secker, 2002; Wenglinsky, 2002). Some studies have even explored the links among all four areas in this model (Franke et al., 2001; Saxe et al., 2001). Although there might be slight variations in emphasis and content in other models, the basic components of theoretical models of professional development trajectories are almost universal (e.g., Borko, 2004; Guskey, 2002; Ingvarson et al., 2005).

The main addition of the Desimone (2009) model is that it specifies the core features of effective professional development as content focus, active learning, coherence, duration, and collective participation. Also, this model places change in

teachers' attitudes and beliefs as a mediating factor. This model is contrary to the Guskey (2002a) model, which suggests that change in teachers' attitudes and beliefs, occurs primarily *after* they witness evidence of improvements in student learning. "The crucial point is that it is not the professional development *per se*, but the experience of successful implementation that changes teachers' attitudes and beliefs. They believe it works because they have seen it work, and that experience shapes their attitudes and beliefs" (Guskey, 2002a, p. 383).

The strong correlations among the five features and the levels of outcome evaluation found in this study, and the strong correlation between each level of evaluation, indicate that these factors are interrelated. These findings support the Desimone (2009) model in Figure 5. Although more research needs to be done to examine the causal relation of the factors proposed in this model, this study suggests that increasing the frequency of the five features of effective professional development leads to increases in teacher knowledge and skills, which leads to change in instruction and ultimately improved student learning. However, the current study did not support the concept that changes in attitudes and beliefs precede change in teaching and learning. The majority of teachers (72%) reported that they were more likely to change their attitudes and beliefs while implementing inservice training in the classroom or observing the effects of the training on the students rather than while receiving the inservice training. This finding supports Guskey's (2002a) assertion that changes in teachers' attitudes and beliefs occur *after* changes in teaching and learning.

Recommendations

The primary implication of the findings of this study is that to improve the effectiveness of professional development, LDS faculty inservice should increase the frequency of the five features of effective professional development analyzed in this study. These features are content focus, active learning, coherence, duration, and collective participation. The following are recommendations for what LDS seminaries could do to increase the frequency of these features in faculty inservice.

The first recommendation is to teach doctrines and principles from upcoming scripture blocks (chapters or sections of scripture that are part of the curriculum) during seminary faculty inservice. New programs or manuals on faculty inservice are not needed because one of the most effective training experiences seminary teachers could receive would be to be taught chapters and units sequentially from the scriptures as they would be expected to teach them to their students. In other words, seminary faculty inservice should model for seminary teachers the scripture teaching S&I expects to take place in the classroom. Such a simple approach to faculty inservice could help increase the frequency of each of the five features of effective professional development (Desimone, 2009; Garet et al., 2001). For example, teaching the doctrines and principles of an upcoming scripture block could focus inservice activities on content and model content-specific teaching skills, facilitating teacher learning and lesson preparation. Teaching doctrine from the scriptures could ensure active learning rather than passive listening if teachers practiced and demonstrated the S&I objectives found in the *Teaching and Learning Emphasis*. Active learning could also increase as teachers shared lesson ideas

and discussed approaches to teaching specific scripture blocks. Inservice could be more coherent because it would systematically and sequentially cover the scriptural text for the course and be aligned with what teachers are doing in their classroom instruction. Duration and collective participation could increase as faculties (or small groups from the area where faculties are not large enough) held inservice together consistently every week. This approach of teaching the doctrines and principles from an upcoming scripture block during faculty inservice could be effective according to this study because it could increase the five features of effective professional development and provide relevant and useful inservice training for teachers. As one teacher summarized it, "Instead of teaching us teaching techniques or lecturing us...just [open] up the scriptures and [teach] us…. Instead of talking about teaching—teach, even in inservice. If every inservice was someone teaching a scripture block, I'd love it."

The second recommendation would be to increase the opportunities for teachers to observe classroom instruction that models the S&I objectives identified in the *Teaching and Learning Emphasis*. The first recommendation of teaching upcoming scripture blocks in faculty inservice could provide one opportunity to observe this teaching being modeled, but LDS seminary administrators could also encourage teachers to observe faculty members and other selected teachers from the area that exemplify S&I teaching objectives in classroom instruction. Observing teachers is one of the most effective forms of active learning, according to teacher reports in this study and previous research studies (Birman et al., 2000). Teachers could observe classroom teaching directly through personal visits and indirectly through video clip examples that could be

made available on the S&I website. Through video examples, administrators could ensure that the teaching conforms with S&I objectives and teachers could observe without having to miss class or travel. Faculties could also watch video clips of teaching and analyze the content and content-specific teaching techniques in order to gain new knowledge and skills. Faculties could also observe each other teaching in the classroom and discuss the experience in inservice. One teacher summarized it well when he explained, "I think some of the best inservice training is watching others teach. I am sad that our area no longer provides an opportunity for us to visit other classes. I would much rather take one day a term or semester and visit and observe many teachers than sit in a desk for an hour after school and hear a lecture. That would be much more beneficial." Thus, another way to improve the effectiveness of faculty inservice could be to incorporate observing teachers in the classroom.

A third recommendation from this study would be to provide more follow-up in teaching and training. Follow-up belongs to the duration feature of effective professional development and this study found it to be infrequent in faculty inservice but linked to effective outcomes of faculty inservice, a finding that is consistent with previous research studies (Hattie, 1992). This recommendation suggests that increasing follow-up would improve the effectiveness of faculty inservice and increase the likelihood of teacher change. For example, if faculty inservice was focused on teaching an upcoming scripture block, teachers could share their experiences at the next faculty inservice or even at lunch. Also, if there was a specific area teachers were trying to improve, the principal could observe individual teachers and discuss with them their progress. One area where

follow-up could be particularly beneficial is with the results of the Basic Doctrines Test that students are now asked to take every year. Faculties could discuss the results together in inservice, set goals for improvement, and follow-up together on their efforts in teaching and learning basic doctrines. Follow-up is essential to inservice effectiveness, otherwise, as one teacher expressed, it is "not held consistently enough with meaningful follow-up to help us make much of a change."

A fourth recommendation is that in order to implement these three recommendations for more effective seminary faculty inservice, principals should be qualified and trained to provide leadership in improving teaching and learning (Marzano et al., 2005; Matthews & Crow, 2010). In LDS seminaries, professional development aimed at improving teaching and learning is accomplished primarily through the weekly faculty inservice provided by seminary principals. Because of their responsibility to train and teach other teachers, principals should be among the most effective teachers in S&I and ought to receive extensive training in their role as faculty inservice providers. However, there is growing evidence that seminary principals are not receiving adequate training or oversight in their roles (Johnson, 2008).

As this study reports, there are differences in the frequency that the five features of effective professional development are being used in LDS seminary faculty inservice activities. These differences are a reflection of the seminary principal who is the inservice leader and therefore responsible for providing faculty inservice. Several comments by participating teachers confirmed that the effectiveness of faculty inservice is a reflection of the seminary principal. For example:

> On the local faculty level, inservice is much more hit and miss. I have had 5 different principals in the last 11 years, and each had differing approaches to inservice, and differing commitments to improving teacher learning and teaching. Where there has been a greater commitment to those areas, I have experienced a greater benefit.
>
> To be quite honest this last year has been a breath of fresh air in the faculty inservice area. Over the past years it was quite evident that the inservice leader didn't spend much time on inservice. It was generally a video from past summer inservice or was an inservice prepared by one of the faculty other than the inservice leader. I've found that the longer a man stays in as an inservice leader that they start to waste that 7 hours a day they have [for preparation and administration]. The fact that S&I gives a seminary principal 7 [preparation and administration] hours a day has always been ludicrous to me.

These comments confirm earlier research findings on the variability among seminary principals (Johnson, 2008) and suggest that seminary faculty inservice is ultimately only as effective as the principal delivering it. It is not clear from this study why there is such variance in the faculty inservice provided by different principals, but an earlier study suggested that this variability was due to a general lack of training for seminary principals (Johnson, 2008). Based on these results, I recommend that seminary principals be qualified and trained to provide effective faculty inservice training.

Seminary faculty inservice has potential for improved effectiveness. These proposed recommendations offer ways for increasing the frequency of the five features and thereby the effectiveness of faculty inservice. By teaching gospel doctrines and principles from upcoming scripture blocks, providing more opportunities to observe teaching in class and online, and providing more follow-up, faculty inservice training will increase in the five features of effective professional development and have a greater impact at improving teaching and learning in LDS seminaries according to this study. For these changes to be implemented however, S&I principals must be qualified and trained

to provide effective faculty inservice training.

Limitations of the Study

One limitation of this study is that it relied on self-report survey data. Survey data is sometimes considered less reliable than observation data because of the possibility of self-report bias (Wragg, 1999). However, research suggests a moderate to high correlation between findings from observations and findings from survey data when questions focus on behavioral rather than evaluative constructs (Mayer, 1999; Porter et al., 1993; Ross et al., 2003). As a result, survey data is most reliable and valid when it is used to answer questions about frequencies, trends, and to describe behavior (Desimone, 2009; Mayer, 1999; Porter et al., 1993; Yoon et al., 2004). Because this study has primarily sought to understand trends and frequencies of specific factors of professional development, self-report survey data should be an adequate measurement tool. However, research has found that teachers tend to over-report professional development efforts and other reforms (Cohen, 1990; Frykholm, 1996; Ross et al., 2003). Although the questions of this survey primarily measured the frequency of professional development activities, teachers may have felt that these questions were evaluative. As a result, there is a possibility of self-report bias and caution should be taken in the interpretation of these findings.

Another limitation of this study is that it is correlational. While correlational studies can suggest that there is a relationship between variables, they cannot establish causation. In this study, five factors of effective professional development were

correlated with several measures of outcome evaluation. It is therefore possible that these five features could *cause* more effective outcomes in professional development, but there are other factors that could explain these relationships and play a role in increased professional development effectiveness. As a result, this study does not prove causation and this caution should be taken in interpreting these findings.

Future Research

Because of the quantitative and correlational nature of this study, I would suggest two methodological directions for future research to expand on this analysis of seminary faculty inservice. First, this study only asked one open-ended question regarding seminary teachers experience with faculty inservice. However, the responses to this single invitation to share were very helpful for understanding and interpreting the quantitative data. This suggests that there is a wealth of information about what is happening in faculty inservice and how it can be improved, but to uncover this information teachers need to be given more opportunities to share their experiences and express their views. For this reason, I would suggest a qualitative study of teachers' experiences with effective faculty inservice. This could provide more insight as to what makes faculty inservice effective in LDS seminaries and what can be done to improve inservice training.

Second, this study was limited to bivariate correlations that supported the proposed model but did not explore the complexity or test the causality of the suggested relationships. Future studies could examine the complexity of these multiple

relationships, as outlined in the Desimone (2009) model (Figure 5), through more advanced statistical procedures like regression and path analysis. In addition, a sample of seminaries could pilot the program for seminary inservice suggested in this study. Their experiences could be compared with those from other seminaries in a quasi-experimental study to provide greater support for causation.

A third direction for future research would be to examine the role of seminary principals in providing effective faculty inservice training. This study analyzed the effectiveness of seminary faculty inservice and provided evidence for differences in the frequency of five features of effective professional development and perceived teaching and learning outcomes. It could be assumed that these differences are largely a reflection of the seminary principal who is the inservice leader responsible for teacher training. What is unclear is why there are so many differences in the inservice training provided by different principals. What training do seminary principals receive in providing effective faculty inservice? What is the expectation seminary principals have in toward faculty inservice? Are seminary principals selected because they are viewed as the most qualified instructional leader? Do the answers to these questions vary according to geographical S&I area? These are just a few of the questions that could be answered to understand why so many differences exist in the faculty inservice training provided by seminary principals.

A fourth direction for future research comes from the comments provided by one participating teacher. He explained;

> My preservice training was very impactful and relevant. I was able to incorporate much of my preservice training into my preparation, teaching, and classroom

> operations. Preservice was focused on specific things. The training, discussion, and practice had a focus which allowed one to hone-in, evaluate, and refine their skills or knowledge. That hasn't always been the case with inservice.

This statement leaves me to wonder why a teacher would perceive preservice training as being so much more effective than inservice training. According to Elmore (2002), it is common in education to place greater emphasis on preservice than on inservice. He observed, "Despite massive evidence to the contrary, the prevailing assumption is that teachers learn most of what they need to know about how to teach before they enter the classroom" (p. 5). Does this same faulty assumption exist in S&I? If so, it would be a shame to place greater emphasis on preservice training for part-time teachers that only lasts for a year, than on inservice training for full-time teachers that lasts throughout their careers. So much would be done for so few, while so little would be done for so many. Future research could examine this alleged discrepancy and compare the effectiveness of preservice training provided by preservice directors and inservice training provided by seminary principals.

Conclusion

The purpose of this study was to examine the effectiveness of LDS seminary professional development through a descriptive analysis of the processes and outcomes of faculty inservice. The results of this study indicate that current efforts are moderately effective at implementing five features of effective professional development and achieving the outcomes of improved teaching and learning according to S&I standards. Results also indicate a correlation between the processes of the five features of effective

professional development and the outcome measures of teaching and learning. These findings suggest that seminary faculty inservice could improve by increasing the frequency with which they implement five features in faculty inservice. These features are content-focus, active learning, coherence, duration, and collective participation.

To accomplish this, I propose that faculty inservice teach gospel doctrines and principles from upcoming scripture blocks, provide more opportunities to observe effective teaching in class and online, and provide more follow-up. For these changes to be implemented however, S&I principals must be qualified and prepared to be effective instructional leaders who can provide effective faculty inservice training. By increasing the use of the five features of effective professional development, this study suggests that S&I will better accomplish their goal of improved teaching and learning in seminary classrooms.

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APPENDICES

Appendix A

Survey Questionnaire Instrument: PROFDEV Final Version

Survey Questionnaire Instrument: PROFDEV Final Version

Thank you for participating in this survey! As you complete this survey, please note the following: The purpose of this survey is to understand seminary faculty inservice training during the school year and during the summer. Please respond based on your experience during FACULTY inservice training rather than AREA inservice. Also, please respond to the school year questions based solely on your SCHOOL YEAR experience and the summer questions based solely on your SUMMER experience. This survey should take 15 - 20 minutes to complete. Your responses will be confidential. Thank you.

How many total years have you been teaching seminary?

- ❍ 0-5 years (1)
- ❍ 6-10 years (2)
- ❍ 11-15 (3)
- ❍ 16-20 years (4)
- ❍ 21-25 years (5)
- ❍ 26-30 years (6)
- ❍ 31 + years (7)

#	Answer		Response	%
1	0-5 years		4	3%
2	6-10 years		43	31%
3	11-15		34	24%
4	16-20 years		21	15%
5	21-25 years		21	15%
6	26-30 years		11	8%
7	31 + years		6	4%
	Total		140	100%

Statistic	Value
Min Value	1
Max Value	7
Mean	3.49
Variance	2.34
Standard Deviation	1.53
Total Responses	140

Which Seminary & Institute area do you currently work in?

- ❍ Utah Davis (1)
- ❍ Utah East (2)
- ❍ Utah North (3)
- ❍ Utah Salt Lake Valley East (4)
- ❍ Utah Salt Lake Valley South (5)
- ❍ Utah Salt Lake Valley West (6)
- ❍ Utah South (7)
- ❍ Utah Valley North (8)
- ❍ Utah Valley South (9)
- ❍ Utah Weber (10)
- ❍ Idaho East (11)
- ❍ Idaho West (12)
- ❍ U.S. Arizona Phoenix Valley (13)
- ❍ U.S. Northwest (14)
- ❍ U.S. Southwest (15)
- ❍ other (16)

#	Answer		Response	%
1	Utah Davis		0	0%
2	Utah East		2	1%
3	Utah North		11	8%
4	Utah Salt Lake Valley East		1	1%
5	Utah Salt Lake Valley South		2	1%
6	Utah Salt Lake Valley West		3	2%
7	Utah South		14	10%
8	Utah Valley North		32	23%
9	Utah Valley South		18	13%
10	Utah Weber		16	11%
11	Idaho East		22	16%
12	Idaho West		8	6%
13	U.S. Arizona Phoenix Valley		10	7%
14	U.S. Northwest		0	0%
15	U.S. Southwest		0	0%
16	other		1	1%
	Total		140	100%

Statistic	Value
Min Value	2
Max Value	16
Mean	8.78
Variance	7.51
Standard Deviation	2.74
Total Responses	140

Are you currently serving as a seminary principal?

❍ Yes (1)

❍ No (2)

#	Answer		Response	%
1	Yes		2	1%
2	No		137	99%
	Total		139	100%

❍

Statistic	Value
Min Value	1
Max Value	2
Mean	1.99
Variance	0.01
Standard Deviation	0.12
Total Responses	139

During the SCHOOL YEAR, how often is each of the following subjects part of your faculty inservice training?

	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Very Often (5)
General teaching techniques and skills (1)	❍	❍	❍	❍	❍
Specific teaching strategies for teaching an upcoming scripture block (2)	❍	❍	❍	❍	❍
Topical study of basic doctrines (3)	❍	❍	❍	❍	❍
	❍	❍	❍	❍	❍

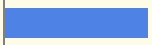
Study of doctrines and principles from an upcoming scripture block (4)					

#	Question	Never	Rarely	Sometimes	Often	Very Often	Responses	Mean
1	General teaching techniques and skills	3	15	34	60	28	140	3.68
2	Specific teaching strategies for teaching an upcoming scripture block	7	21	55	41	16	140	3.27
3	Topical study of basic doctrines	13	34	44	44	5	140	2.96
4	Study of doctrines and principles from an upcoming scripture block	7	31	54	39	9	140	3.09

Statistic	General teaching techniques and skills	Specific teaching strategies for teaching an upcoming scripture block	Topical study of basic doctrines	Study of doctrines and principles from an upcoming scripture block
Min Value	1	1	1	1
Max Value	5	5	5	5
Mean	3.68	3.27	2.96	3.09
Variance	0.97	1.03	1.08	0.96
Standard Deviation	0.98	1.02	1.04	0.98
Total Responses	140	140	140	140

Which of the following subjects of faculty inservice training do you feel has a greater impact on your teaching?

- General teaching techniques and skills (1)
- Specific teaching strategies for teaching an upcoming scripture block (2)

#	Answer		Response	%
1	General teaching techniques and skills		42	30%
2	Specific teaching strategies for teaching an upcoming scripture block		98	70%
	Total		140	100%

Statistic	Value
Min Value	1
Max Value	2
Mean	1.70
Variance	0.21
Standard Deviation	0.46
Total Responses	140

Which of the following subjects of faculty inservice training do you feel has a greater impact on your teaching?

- Topical study of basic doctrines (1)
- Study of doctrines and principles from an upcoming scripture block (2)

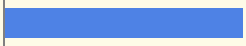
#	Answer		Response	%
1	Topical study of basic doctrines		20	14%
2	Study of doctrines and principles from an upcoming scripture block		120	86%
	Total		140	100%

Statistic	Value
Min Value	1
Max Value	2
Mean	1.86
Variance	0.12
Standard Deviation	0.35
Total Responses	140

Which of the following subjects of faculty inservice training do you feel has a greater impact on your teaching?

❍ Teaching methods (the "how") (1)

❍ Subject matter (e.g., scriptural content and context; the "what") (2)

#	Answer		Response	%
1	Teaching methods (the "how")		70	50%
2	Subject matter (e.g., scriptural content and context; the "what")		70	50%
	Total		140	100%

Statistic	Value
Min Value	1
Max Value	2
Mean	1.50
Variance	0.25
Standard Deviation	0.50
Total Responses	140

During the SCHOOL YEAR, the faculty inservice training you receive is generally characterized by an active learning approach NOT a lecture-style presentation.

❍ Strongly Disagree (1)

❍ Disagree (2)

❍ Somewhat Disagree (3)

❍ Somewhat Agree (4)

❍ Agree (5)

❍ Strongly Agree (6)

#	Answer		Response	%
1	Strongly Disagree		4	3%
2	Disagree		7	5%
3	Somewhat Disagree		15	11%
4	Somewhat Agree		16	11%
5	Agree		63	45%
6	Strongly Agree		35	25%
	Total		140	100%

Statistic	Value
Min Value	1
Max Value	6
Mean	4.66
Variance	1.59
Standard Deviation	1.26
Total Responses	140

During the SCHOOL YEAR, how often is each of the following activities a part of your faculty inservice activities?

	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Very Often (5)
Listening to a lecture or talk (1)	❍	❍	❍	❍	❍
Group discussion (2)	❍	❍	❍	❍	❍
Teachers practicing teaching skills (3)	❍	❍	❍	❍	❍
	❍	❍	❍	❍	❍

Teachers planning future inservice activities (4)					
Teacher leading faculty inservice activities (5)	❍	❍	❍	❍	❍
Observing teachers in classroom settings (6)	❍	❍	❍	❍	❍
Reviewing student work (e.g., Basic Doctrines Test) (7)	❍	❍	❍	❍	❍
Preparing lessons together (8)	❍	❍	❍	❍	❍
Teachers sharing lesson ideas (9)	❍	❍	❍	❍	❍

#	Question	Never	Rarely	Sometimes	Often	Very Often	Responses	Mean
1	Listening to a lecture or talk	13	41	61	16	9	140	2.76
2	Group discussion	0	1	14	62	63	140	4.34
3	Teachers practicing teaching skills	18	46	44	26	4	138	2.65
	Teachers	21	67	35	14	3	140	2.36

4	planning future inservice activities							
5	Teacher leading faculty inservice activities	13	22	48	38	18	139	3.19
6	Observing teachers in classroom settings	31	53	40	12	4	140	2.32
7	Reviewing student work (e.g., Basic Doctrines Test)	75	47	14	4	0	140	1.62
8	Preparing lessons together	37	54	31	15	3	140	2.24
9	Teachers sharing lesson ideas	5	26	53	38	18	140	3.27

Statistic	Listening to a lecture or talk	Group discussion	Teachers practicing teaching skills	Teachers planning future inservice activities	Teacher leading faculty inservice activities	Observing teachers in classroom settings	Reviewing student work (e.g., Basic Doctrines Test)	Preparing lessons together	Teachers sharing lesson ideas
Min Value	1	2	1	1	1	1	1	1	1
Max Value	5	5	5	5	5	5	4	5	5
Mean	2.76	4.34	2.65	2.36	3.19	2.32	1.62	2.24	3.27
Variance	0.99	0.47	1.05	0.87	1.30	1.01	0.61	1.06	1.05
Standard Deviation	0.99	0.68	1.02	0.93	1.14	1.01	0.78	1.03	1.02
Total Responses	140	140	138	140	139	140	140	140	140

During the SCHOOL YEAR, the faculty inservice training you receive is generally characterized by instruction that is deliberately consistent and connected over time, NOT training that is disjointed, fragmented, or unrelated.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Somewhat Disagree (3)
- ❍ Somewhat Agree (4)
- ❍ Agree (5)
- ❍ Strongly Agree (6)

#	Answer		Response	%
1	Strongly Disagree		7	5%
2	Disagree		17	12%
3	Somewhat Disagree		19	14%
4	Somewhat Agree		33	24%
5	Agree		44	31%
6	Strongly Agree		20	14%
	Total		140	100%

❍

Statistic	Value
Min Value	1
Max Value	6
Mean	4.07
Variance	1.97
Standard Deviation	1.40
Total Responses	140

During the SCHOOL YEAR, how often does your faculty inservice training build on previous inservice training?

- ❍ Never (1)
- ❍ Rarely (2)
- ❍ Sometimes (3)
- ❍ Often (4)
- ❍ Very Often (5)

#	Answer		Response	%
1	Never		6	4%
2	Rarely		33	24%
3	Sometimes		55	39%
4	Often		35	25%
5	Very Often		11	8%
	Total		140	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.09
Variance	0.97
Standard Deviation	0.99
Total Responses	140

During the SCHOOL YEAR, how often are you given assignments to prepare in advance for faculty inservice training? (For example, study a talk before an inservice discussion or observe a class).

- ❍ Never (1)
- ❍ Rarely (2)
- ❍ Sometimes (3)
- ❍ Often (4)
- ❍ Very Often (5)

#	Answer		Response	%
1	Never		3	2%
2	Rarely		10	7%
3	Sometimes		69	50%
4	Often		37	27%
5	Very Often		20	14%
	Total		139	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.44
Variance	0.81
Standard Deviation	0.90
Total Responses	139

During the SCHOOL YEAR, how often is there some form of follow-up to your faculty inservice training? (For example, informal self-reports by teachers on the application of an inservice training, an observation to see how a teacher is applying a new skill, or a review in a later inservice)

- ❍ Never (1)
- ❍ Rarely (2)
- ❍ Sometimes (3)
- ❍ Often (4)
- ❍ Very Often (5)

#	Answer		Response	%
1	Never		12	9%
2	Rarely		51	37%
3	Sometimes		49	35%
4	Often		21	15%
5	Very Often		6	4%
	Total		139	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	2.70
Variance	0.95
Standard Deviation	0.98
Total Responses	139

During the SCHOOL YEAR, how often is your faculty inservice attended ONLY by teachers from your own faculty?

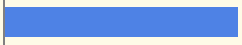
- ❍ Never (1)
- ❍ Rarely (2)
- ❍ Sometimes (3)
- ❍ Often (4)
- ❍ Very Often (5)

#	Answer		Response	%
1	Never		4	3%
2	Rarely		16	11%
3	Sometimes		13	9%
4	Often		47	34%
5	Very Often		60	43%
	Total		140	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	4.02
Variance	1.24
Standard Deviation	1.12
Total Responses	140

Although there are many purposes for inservice (e.g., building friendships, receiving encouragement, and obtaining renewal), this survey is focused on teacher LEARNING. Which of the following arrangements do you feel is the most effective at fostering your learning during inservice training?

- ❍ Individual teachers from all over the area participate together (1)
- ❍ Teachers from multiple faculties (but not the whole area) participate together (2)
- ❍ Teachers from a single faculty participate together (3)

#	Answer		Response	%
1	Individual teachers from all over the area participate together		10	7%
2	Teachers from multiple faculties (but not the whole area) participate together		60	44%
3	Teachers from a single faculty participate together		67	49%
	Total		137	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	2.42
Variance	0.39
Standard Deviation	0.63
Total Responses	137

I find SCHOOL YEAR faculty inservice training to be effective overall at improving teaching and learning in the classroom.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Somewhat Disagree (3)
- ❍ Somewhat Agree (4)
- ❍ Agree (5)
- ❍ Strongly Agree (6)

#	Answer		Response	%
1	Strongly Disagree		5	4%
2	Disagree		6	4%
3	Somewhat Disagree		11	8%
4	Somewhat Agree		51	37%
5	Agree		51	37%
6	Strongly Agree		15	11%
	Total		139	100%

Statistic	Value
Min Value	1
Max Value	6
Mean	4.31
Variance	1.29
Standard Deviation	1.13
Total Responses	139

I increase in gospel knowledge and improve in teachings skills as a result of my SCHOOL YEAR faculty inservice training.

- ❍ Never (1)
- ❍ Rarely (2)
- ❍ Sometimes (3)
- ❍ Often (4)
- ❍ Very Often (5)

#	Answer		Response	%
1	Never		1	1%
2	Rarely		11	8%
3	Sometimes		54	39%
4	Often		56	40%
5	Very Often		17	12%
	Total		139	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.55
Variance	0.70
Standard Deviation	0.84
Total Responses	139

I apply knowledge and skills from SCHOOL YEAR faculty inservice training to my classroom teaching

- ❍ Never (1)
- ❍ Rarely (2)
- ❍ Sometimes (3)
- ❍ Often (4)
- ❍ Very Often (5)

#	Answer		Response	%
1	Never		1	1%
2	Rarely		15	11%
3	Sometimes		51	37%
4	Often		53	39%
5	Very Often		17	12%
	Total		137	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.51
Variance	0.77
Standard Deviation	0.88
Total Responses	137

I perceive a positive impact in student learning and application as a result of the SCHOOL YEAR faculty inservice training I receive.

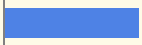
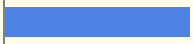
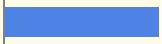
- ❍ Never (1)
- ❍ Rarely (2)
- ❍ Sometimes (3)
- ❍ Often (4)
- ❍ Very Often (5)

#	Answer		Response	%
1	Never		2	1%
2	Rarely		23	17%
3	Sometimes		55	40%
4	Often		44	32%
5	Very Often		14	10%
	Total		138	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.33
Variance	0.85
Standard Deviation	0.92
Total Responses	138

At what stage is inservice training more likely to cause a change in your attitudes and beliefs about teaching and learning?

- ❍ While receiving the inservice training (1)
- ❍ While implementing the inservice training (2)
- ❍ While observing the effects of the inservice training on students (3)

#	Answer		Response	%
#	Answer		Response	%
1	While receiving the inservice training		39	28%
2	While implementing the inservice training		54	39%
3	While observing the effects of the inservice training on students		45	33%
	Total		138	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	2.04
Variance	0.61
Standard Deviation	0.78
Total Responses	138

During the SCHOOL YEAR, I receive faculty inservice training that DIRECTLY prepares me to

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
Teach by the Spirit. (1)	❍	❍	❍	❍	❍	❍
Help my students learn by the Spirit. (2)	❍	❍	❍	❍	❍	❍
Cultivate a learning environment of love, respect, and purpose. (3)	❍	❍	❍	❍	❍	❍
Help my students to study the scriptures daily and read the text for the course. (4)	❍	❍	❍	❍	❍	❍
Help my students understand the context and content of the scriptures and words of the prophets. (5)	❍	❍	❍	❍	❍	❍
Help my students identify, understand, and apply gospel doctrines and principles. (6)	❍	❍	❍	❍	❍	❍

Help my students explain, share, and testify of gospel doctrines and principles. (7)	❍	❍	❍	❍	❍	❍
Help my students master key scripture passages and basic doctrines. (8)	❍	❍	❍	❍	❍	❍

#	Question	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree	Responses	Mean
1	Teach by the Spirit.	4	4	6	31	69	26	140	4.68
2	Help my students learn by the Spirit.	3	6	10	31	60	27	137	4.61
3	Cultivate a learning environment of love, respect, and purpose.	2	6	10	39	62	21	140	4.54
4	Help my students to study the scriptures daily and read the text for the course.	3	6	14	51	45	21	140	4.37
5	Help my students understand the context and content of the scriptures and words of the prophets.	4	5	13	45	56	17	140	4.39

6	Help my students identify, understand, and apply gospel doctrines and principles.	4	2	14	43	59	18	140	4.46
7	Help my students explain, share, and testify of gospel doctrines and principles.	3	6	16	48	52	15	140	4.32
8	Help my students master key scripture passages and basic doctrines.	8	16	25	46	32	12	139	3.82

Statistic	Teach by the Spirit.	Help my students learn by the Spirit.	Cultivate a learning environment of love, respect, and purpose.	Help my students to study the scriptures daily and read the text for the course.	Help my students understand the context and content of the scriptures and words of the prophets.	Help my students identify, understand, and apply gospel doctrines and principles.	Help my students explain, share, and testify of gospel doctrines and principles.	Help my students master key scripture passages and basic doctrines.
Min Value	1	1	1	1	1	1	1	1
Max Value	6	6	6	6	6	6	6	6
Mean	4.68	4.61	4.54	4.37	4.39	4.46	4.32	3.82
Variance	1.20	1.31	1.13	1.26	1.23	1.14	1.18	1.71
Standard Deviation	1.09	1.15	1.06	1.12	1.11	1.07	1.09	1.31
Total Responses	140	137	140	140	140	140	140	139

During the SUMMER, how often is each of the following subjects part of your faculty inservice training?

	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Very Often (5)
General teaching techniques and skills (1)	❍	❍	❍	❍	❍
Specific teaching strategies for teaching an upcoming scripture block (2)	❍	❍	❍	❍	❍
Topical study of basic doctrines (3)	❍	❍	❍	❍	❍
Study of doctrines and principles from an upcoming scripture block (4)	❍	❍	❍	❍	❍

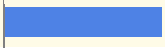
#	Question	Never	Rarely	Sometimes	Often	Very Often	Responses	Mean
1	General teaching techniques and skills	5	11	43	54	27	140	3.62
2	Specific teaching strategies for teaching an upcoming scripture	5	18	41	55	21	140	3.49

	block							
3	Topical study of basic doctrines	5	25	35	55	20	140	3.43
4	Study of doctrines and principles from an upcoming scripture block	3	18	36	56	27	140	3.61

Statistic	General teaching techniques and skills	Specific teaching strategies for teaching an upcoming scripture block	Topical study of basic doctrines	Study of doctrines and principles from an upcoming scripture block
Min Value	1	1	1	1
Max Value	5	5	5	5
Mean	3.62	3.49	3.43	3.61
Variance	1.00	1.03	1.11	1.02
Standard Deviation	1.00	1.01	1.05	1.01
Total Responses	140	140	140	140

During the SUMMER, the faculty inservice training you receive is generally characterized by an active learning approach NOT a lecture-style presentation.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Somewhat Disagree (3)
- ❍ Somewhat Agree (4)
- ❍ Agree (5)
- ❍ Strongly Agree (6)

#	Answer		Response	%
1	Strongly Disagree		8	6%
2	Disagree		6	4%
3	Somewhat Disagree		14	10%
4	Somewhat Agree		49	35%
5	Agree		46	33%
6	Strongly Agree		16	12%
	Total		139	100%

Statistic	Value
Min Value	1
Max Value	6
Mean	4.20
Variance	1.55
Standard Deviation	1.25
Total Responses	139

During the SUMMER, how often is each of the following activities a part of your faculty inservice activities?

	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Very Often (5)
Listening to a lecture or talk (1)	❍	❍	❍	❍	❍
Group discussion (2)	❍	❍	❍	❍	❍
Teachers practicing teaching skills (3)	❍	❍	❍	❍	❍
Teachers planning future inservice activities (4)	❍	❍	❍	❍	❍
Teacher leading faculty inservice activities (5)	❍	❍	❍	❍	❍
Observing teachers in classroom settings (6)	❍	❍	❍	❍	❍
Reviewing student work (e.g., Basic Doctrines Test) (7)	❍	❍	❍	❍	❍
Preparing lessons together (8)	❍	❍	❍	❍	❍
Teachers sharing lesson ideas (9)	❍	❍	❍	❍	❍

#	Question	Never	Rarely	Sometimes	Often	Very Often	Responses	Mean
1	Listening to a lecture or talk	6	24	40	46	22	138	3.39
2	Group discussion	0	5	38	70	25	138	3.83
3	Teachers practicing teaching skills	5	32	52	34	15	138	3.16
4	Teachers planning future inservice activities	15	55	38	27	3	138	2.62
5	Teacher leading faculty inservice activities	5	22	45	51	15	138	3.36
6	Observing teachers in classroom settings	39	51	26	15	6	137	2.26
7	Reviewing student work (e.g., Basic Doctrines Test)	77	46	11	4	0	138	1.58
8	Preparing lessons together	29	36	49	23	1	138	2.50
9	Teachers sharing lesson ideas	7	15	44	50	22	138	3.47

Statistic	Listening to a lecture or talk	Group discussion	Teachers practicing teaching skills	Teachers planning future inservice activities	Teacher leading faculty inservice activities	Observing teachers in classroom settings	Reviewing student work (e.g., Basic Doctrines Test)	Preparing lessons together	Teachers sharing lesson ideas
Min Value	1	2	1	1	1	1	1	1	1
Max Value	5	5	5	5	5	5	4	5	5
Mean	3.39	3.83	3.16	2.62	3.36	2.26	1.58	2.50	3.47
Variance	1.17	0.58	1.04	0.98	0.99	1.25	0.58	1.05	1.10
Standard Deviation	1.08	0.76	1.02	0.99	0.99	1.12	0.76	1.03	1.05
Total Responses	138	138	138	138	138	137	138	138	138

During the SUMMER, the faculty inservice training you receive is generally characterized by instruction that is deliberately consistent and connected over time, NOT training that is disjointed, fragmented, or unrelated.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Somewhat Disagree (3)
- ❍ Somewhat Agree (4)
- ❍ Agree (5)
- ❍ Strongly Agree (6)

#	Answer		Response	%
1	Strongly Disagree		5	4%
2	Disagree		8	6%
3	Somewhat Disagree		13	9%
4	Somewhat Agree		40	29%

5	Agree		56	40%
6	Strongly Agree		18	13%
	Total		140	100%

Statistic	Value
Min Value	1
Max Value	6
Mean	4.34
Variance	1.45
Standard Deviation	1.20
Total Responses	140

During the SUMMER, how often does your faculty inservice training build on previous inservice training?

- ❍ Never (1)
- ❍ Rarely (2)
- ❍ Sometimes (3)
- ❍ Often (4)
- ❍ Very Often (5)

#	Answer		Response	%
1	Never		5	4%
2	Rarely		17	12%
3	Sometimes		62	44%
4	Often		48	34%
5	Very Often		8	6%
	Total		140	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.26
Variance	0.77
Standard Deviation	0.88
Total Responses	140

During the SUMMER, how often are you given assignments to prepare in advance for faculty inservice training? (For example, study a talk before an inservice discussion or observe a class).

- ❍ Never (1)
- ❍ Rarely (2)
- ❍ Sometimes (3)
- ❍ Often (4)
- ❍ Very Often (5)

#	Answer		Response	%
1	Never		3	2%
2	Rarely		16	12%
3	Sometimes		44	32%
4	Often		54	39%
5	Very Often		22	16%
	Total		139	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.55
Variance	0.93
Standard Deviation	0.96
Total Responses	139

During the SUMMER, how often is there some form of follow-up to your faculty inservice training? (For example, informal self-reports by teachers on the application of an inservice training, an observation to see how a teacher is applying a new skill, or a review in a later inservice)

- ❍ Never (1)
- ❍ Rarely (2)
- ❍ Sometimes (3)
- ❍ Often (4)
- ❍ Very Often (5)

1	Never	9	7%
2	Rarely	37	27%
3	Sometimes	68	49%
4	Often	17	12%
5	Very Often	7	5%
	Total	138	100%

❍

Statistic	Value
Min Value	1
Max Value	5
Mean	2.83
Variance	0.83
Standard Deviation	0.91
Total Responses	138

During the SUMMER, how often is your faculty inservice attended ONLY by teachers from your own faculty?

- ❍ Never (1)
- ❍ Rarely (2)
- ❍ Sometimes (3)
- ❍ Often (4)
- ❍ Very Often (5)

#	Answer		Response	%
1	Never		13	9%
2	Rarely		43	31%
3	Sometimes		30	21%
4	Often		35	25%
5	Very Often		19	14%
	Total		140	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.03
Variance	1.48
Standard Deviation	1.22
Total Responses	140

I find SUMMER faculty inservice training to be effective overall at improving teaching and learning in the classroom.

- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Somewhat Disagree (3)
- ❍ Somewhat Agree (4)
- ❍ Agree (5)
- ❍ Strongly Agree (6)

#	Answer		Response	%
1	Strongly Disagree		3	2%
2	Disagree		7	5%
3	Somewhat Disagree		7	5%
4	Somewhat Agree		38	28%
5	Agree		59	43%
6	Strongly Agree		24	17%
	Total		138	100%

Statistic	Value
Min Value	1
Max Value	6
Mean	4.56
Variance	1.27
Standard Deviation	1.13
Total Responses	138

I increase in gospel knowledge and improve in teachings skills as a result of my SUMMER faculty inservice training.

- ❍ Never (1)
- ❍ Rarely (2)
- ❍ Sometimes (3)
- ❍ Often (4)
- ❍ Very Often (5)

#	Answer		Response	%
1	Never		0	0%
2	Rarely		10	7%
3	Sometimes		33	24%
4	Often		64	46%
5	Very Often		32	23%
	Total		139	100%

Statistic	Value
Min Value	2
Max Value	5
Mean	3.85
Variance	0.74
Standard Deviation	0.86
Total Responses	139

I apply knowledge and skills from SUMMER faculty inservice training to my classroom teaching

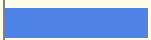
- ❍ Never (1)
- ❍ Rarely (2)
- ❍ Sometimes (3)
- ❍ Often (4)
- ❍ Very Often (5)

#	Answer		Response	%
1	Never		0	0%
2	Rarely		10	7%
3	Sometimes		41	29%
4	Often		64	46%
5	Very Often		24	17%
	Total		139	100%

Statistic	Value
Min Value	2
Max Value	5
Mean	3.73
Variance	0.69
Standard Deviation	0.83
Total Responses	139

I perceive a positive impact in student learning and application as a result of the SUMMER faculty inservice training I receive.

- ❍ Never (1)
- ❍ Rarely (2)
- ❍ Sometimes (3)
- ❍ Often (4)
- ❍ Very Often (5)

#	Answer		Response	%
1	Never		2	1%
2	Rarely		12	9%
3	Sometimes		41	30%
4	Often		61	45%
5	Very Often		21	15%
	Total		137	100%

Statistic	Value
Min Value	1
Max Value	5
Mean	3.64
Variance	0.81
Standard Deviation	0.90
Total Responses	137

During the SUMMER, I receive faculty inservice training that DIRECTLY prepares me to

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
Teach by the Spirit. (1)	❍	❍	❍	❍	❍	❍
Help my students learn by the Spirit. (2)	❍	❍	❍	❍	❍	❍
Cultivate a learning environment of love, respect, and purpose. (3)	❍	❍	❍	❍	❍	❍
Help my students to study the scriptures daily and read the text for the course. (4)	❍	❍	❍	❍	❍	❍
Help my students understand the context and content of the scriptures and words of the prophets. (5)	❍	❍	❍	❍	❍	❍

Help my students identify, understand, and apply gospel doctrines and principles. (6)	❍	❍	❍	❍	❍	❍
Help my students explain, share, and testify of gospel doctrines and principles. (7)	❍	❍	❍	❍	❍	❍
Help my students master key scripture passages and basic doctrines. (8)	❍	❍	❍	❍	❍	❍

#	Question	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree	Responses	Mean
1	Teach by the Spirit.	1	9	4	33	63	30	140	4.70
2	Help my students learn by the Spirit.	2	9	7	31	60	30	139	4.64
3	Cultivate a learning environment of love, respect, and purpose.	1	7	9	47	55	20	139	4.50

4	Help my students to study the scriptures daily and read the text for the course.	3	9	14	47	48	18	139	4.31
5	Help my students understand the context and content of the scriptures and words of the prophets.	3	6	8	38	61	24	140	4.57
6	Help my students identify, understand, and apply gospel doctrines and principles.	2	7	7	42	61	21	140	4.54
7	Help my students explain, share, and testify of gospel doctrines and principles.	2	8	15	52	42	20	139	4.32
8	Help my students master key scripture passages and basic doctrines.	4	13	26	51	29	16	139	3.98

Statistic	Teach by the Spirit.	Help my students learn by the Spirit.	Cultivate a learning environment of love, respect, and purpose.	Help my students to study the scriptures daily and read the text for the course.	Help my students understand the context and content of the scriptures and words of the prophets.	Help my students identify, understand, and apply gospel doctrines and principles.	Help my students explain, share, and testify of gospel doctrines and principles.	Help my students master key scripture passages and basic doctrines.
Min Value	1	1	1	1	1	1	1	1
Max Value	6	6	6	6	6	6	6	6
Mean	4.70	4.64	4.50	4.31	4.57	4.54	4.32	3.98
Variance	1.18	1.33	1.06	1.33	1.23	1.13	1.25	1.50
Standard Deviation	1.08	1.15	1.03	1.15	1.11	1.06	1.12	1.22
Total Responses	140	139	139	139	140	140	139	139

Is there anything you would like to say about your past experience with faculty inservice or what you would like to experience in the future?

Text Response
For some reason unbeknownst to me, it seems that the summer inservice training we receive has a greater impact, contains more depth, and is more applicable to personal and professional growth. Inservices during the year feel forced and unnatural. They interrupt the preparation process and often rushed and significantly more shallow in their breadth and depth than the summer inservices. Perhaps those presenting do not have the same amount of time to prepare. Perhaps it is the prescriptive nature of school year inservices. Perhaps it is the fatigue. Perhaps there are more distractions and challenges we face. I believe it is a mix of all of those ideas.
I always feel like it is beneficial. It's funny because you never want to stay after school for another "meeting" but I have never attended an inservice that I didn't feel made me a better teacher.
As shared numerous times over the years by many colleagues, one of the most valuable components of inservice, either during the school year or during the summer, is instruction aimed at edifying the instructors themselves apartment from student focused help. Instructors have their own spiritual batteries that need to be energized and recharged. I have discussed this with many and all strongly agree that this area is often neglected.

My inservice experiences have been very positive. The past ten years or so with the "Teaching Emphasis" has been negative for me. The previous 15 years were much more content oriented and much more helpful.
We seldom have faculty meetings during the school year, but we often share ideas and questions informally. As a former principal, I see the number one detractor from learning is teachers who do not know how or cannot discipline their class. Irreverence is the number one complaint of every faculty I have served on, yet in nearly thirty years of teaching, I have never seen an inservice that discusses the philosphy or mechanics of class discipline. (Environment, desk arrangement, holding on to rebellious kids at the expense of the class, sluffing, etc.). We lose a lot of coins holding on to prodigal sons. Teachers do not dare to seek help for fear of being perceived a failure. Until teachers learn how to discipline, I believe every other strategy will fall to the ground.
No
I am grateful for the efforts of those who have worked to teach me during inservice settings, it is no easy thing to do well. However most of the meetings are very predictable, even boring. Far too much lecture and not enough active discovery. Also, we always talk about the same topics over and over, what about other meaningful topics that get over looked....like special needs students, the differences between teaching boys from girls or how to better assist parents thoughout the year.
My summer inservices are very effective. Maybe I am focus on building my teaching skills more during that time. During the yearit is more difficult. Our monthly regional factulty meetings can be disjointed and "just another" meeting to go to. During the school year I ams mostly concerned with preparing the next lesson to be used in class rather than overall teaching skills.
I generally like all faculty inservice meetings, because I like to learn and like the people I work with. However, SCHOOL YEAR faculty inservices do not often positively influence my teaching (and they sometimes take time away from preparation and administration that is more valuable to me during the school year).
I'm in a two man faculty and it would be better with more teachers.
We seem to often focus on involved learning activities, but as a teacher I frankly enjoy and feel more edified by a good presentation style teaching with only a little class interaction.
I prefer inservice meetings that have some variety to them. In other words, we focus on teaching skills some times, then focus on doctrines and principles at others. I also think that we gain from emphasizing some teaching skills, it is not wise to put an emphasis on that teaching and exclude other important skills.
This is the first year in 8 that I have been in a faculty with several teachers. I have been alone in my assignemnt in the past. It has been great to have a faculty to inservice weekly.
I would like there to be follow-up.

during my career, the inservice meetings have always been worhwhile for me as a teacher, iff for nothing else they porvided a necesary feel good time and encouragement from other teachers. Those early days were generally once a month mtgs. with the whole area. it seems that we have consistently gotten better at focusing on the teaching. with the weekly faculty only meetings i feel that inservice is much more effectivve and allows faculties the ability to focus on local issues and needs. i really enjoy our inservice mtgs and look forward to participating in them.
Most of our summer inservice is done on an area level. When we meet as a faculty it is mostly to cover administrative issues for the upcoming school year.
Not held consistenty enough with meaningful follow up to help us make much of a change.
I have felt in the past that principles have us meet to have us meet. Normally inservice meeting are great, but especially toward the end of the school year the need for them and productivity goes way down. The only other thing I have noticed is the type of teaching performed. Many times my principles have asked faculty members to teach a block of scripture for inservice. While the teaching has been informative, fun, and relavent, it has in most cases not been curiculum based. Shouldn't we be modeling the curiculum as principles and faculty members in S&I?
We rarely (3-4 times) have faculty inservice in the summer, so I assume that you are asking about area inservice...
Some of the SUMMER inservice questions were answered not for the faculty but the area inservice in mind.
I like our faculty inservice much more than area or group becuase it allows us to discuss in a formal setting some of the challenges that pertain to our building. It is nice to have area or group inservice on occasion but for me it is more effective in my building. I find that as a faculty we are always talking and sharing ideas anyway, but inservice is important.
Overall faculty inservices have been very helpful, both those during the school year and summer. Although it is sometimes unconfortable those inservices where we prepare, teach and then share our lessons with others have proved to be most benifical to me.
It was difficult answering the "during the school year" inservice questions because of the limited times we held inservice. I enjoy learning and growing through inservice meetings. Finding a set time that works for everyone seems to be the key.
I just want to note that sometimes I experience my most active learning as I listen to a talk style inservice.
I welcome and enjoy each faculty member taking responsibility for inservice. Continuity from week to week is less important to me, then being taught by members of my faculty. It is a positive thing to inject other faculty members to join with us or us with them. But not too many! Keep it family size.

To be quite honest this last year has been a breath of fresh air in the faculty inservice area. Over the past years it was quite evident that the inservice leader didn't spend much time on inservice. It was generally a video from past summer inservices or was an inservice prepared by one of the faculty other than the inservice leader. I've found that the longer a man stays in as an inservice leader that they start to waste that 7 hours a day they have. The fact tha S&I gives a semnary principal 7 hours a day has always been ludicrous to me. I was a principal for 8 years and taught a full load and was the CES stake rep for two stakes and had the seminary council. I thought when this tragedy happened at Lone Peak high with the principal that S&I would wake up and see what's going on in the buildings with that 7 hours. I could tell them horror stories that I have seen personally on what principals do with that 7 hours. Thanks for your desire to improve inservice.
I love to be taught. I loved how Grant Anderson, our former Area Administrator, taught. Instead of teaching us teaching techniques or lecturing us on not complaining about changes to S&I (like I've heard dozens and dozens of times), he just opened up the scriptures and taught us. I remember every single lesson he taught because it impacted me of what I need to do to be a better teacher and increased my content mastery. For example, he taught James 1 and I use MANY of his ideas in my own teaching. He made the scriptures come to life. I'm not alone in my feelings. Many have expressed the same feelings without my solicitation. Instead of talking about teaching .... TEACH. Even in inservice. If every inservice was someone teaching a scripture block, I'd love it. Then the Spirit could show me what "techniques" are being used that work and wouldn't work for my teaching style.
I find that when summer inservice becomes overly structured with assignments and projects I do not have the time to adequately prepare myself for the coming year's students and curriculum. I feel that I need the time to organize, study, and make PERSONAL preparations. Every teacher's needs differ and when we get too cluttered with things from an "area focus," our individual needs may suffer a little bit.
Just to have them more, we very rarely have them and when we do there is normally bickering or looking for a reason to put it off. I think that it would be nice if we spent more time studying doctrines together and having discussions about the mission of CES.
Share more lesson prep. ideas for upcoming blocks of scripture. Definately need more sharing of ways to teach upcoming blocks. We have amazing talent and creative minds on how to teach or use a power point etc. but we do not use this the way we should as far as helping each other. This is what would be most beneficial to me in faculty meetings.
I have found that the faculty inservice training I have engaged in has been productive, helpful and enlightening. There really is a strength that comes from gleaning from other faculty members. Collegial approaches are effective I believe.

We never live what we teach when it comes to in-service. We should teach scripture block lessons in in-service that help us become better men. Why don't we actually mirror what we believe in in-service. "True doctrine understood, changes behavior" When we are fed (taught a scriptural based lesson) we not only witness and observe teaching, but we are moved by the spirit to become better. When we talk about skills, techniques, or practice finding principles; then we it is almost fried froth as we talk about applications without really being moved and fed spiritually. If you want us to be better teachers, then teach a scripture block or a lesson that helps us to become better men. Half the reason why people are not teaching well is because they need to be living the gospel better and they need to observe good teaching of scriptural based lessons. Not sit there and be lectured or practice teaching skills.... Watching an inservice leader teach me a scriptural based lesson that invites me to live principles does more for me as a teacher/person than all the talks in the world about skills, or heaven forbid, about how to get students to share, explain, and testify. Help us come to Christ and we will become Teachers like him.
When there is an anual plan in place with an outline of what is to be covered on a weekly & monthly basis, there is consistency & building upon the previous weekly, and monthly topic. The big picture is important to establish.
Well prepared and taught inservice meetings provide great example and encouragement for effective classroom teaching.
I generally enjoy summer inservice a lot more than inservice during the school year. I think a lot of this comes from the amount of planning they are able to put into summer inservice, compared to the amount of time for preparation of inservice during the year. There is often not enough time during the school year for proper preparation. I think more area in services during the year would be helpful.
I find the very best inservices are those that are held at the local level--faculty talking and discussing and sharing.
I would love more accountability. For example, each teacher could set a small, specific goal at the end of each inservice and share it with the others. During the week teachers could discuss their progress during lunch. We could report to each other at the next inservice. What happened? What did we learn? etc. We could actually USE the principles we LEARN!
During the summer I very much enjoy learning in multi-faculty inservice opportunities. I really appreciate the ideas and sharing from my faculty during the school year but it is very helpful/enjoyable to change things up in the summer. Inservice often feels like a chore when preparing for it, but I always come away feeling like it was beneficial to me personally and for my students.
I enjoy the summer experience for the time given to "unstring" the bow and relax and learn specific doctrines from other intructors in the area. It is almost like the summer session, for me, is a battery recharge time and a restock the quill with my teaching arrows for the fall. I am always better prepared in the fall by having participated in summer inservice and having that break time.

Consistency is key for me, I like knowing that every week we are having inservice meetings. That way I can rely on them during the year
I think faculty inservice is effective when there is a lot of practice. The best ones i have been to, have been student centered and allowed for us to put into practice what we are learning.
My preservice training was very impactful and relevant. I was able to incorporate much of my preservice training into my preparation, teaching, and classroom operations. Preservice was focused on specific things. The training, discussion, and practice had a focus which allowed one to hone-in, evaluate, and refine their skills or knowledge. That hasn't always been the case with inservice. I believe this is because the inservice leader hasn't the time nor perhaps the training to be as effective at inserviceing as one might hope. For me inservice has been mostly read a talk then come together and discuss whatever comes up. Now, most talks have a focus or topic so the discussion tends to reflect that topic, but I'm not sure the training has an end in mind. I think discussion and sharing of thoughts is one of many great inservice tools, but a discussion does not and inservice make. Discussions are easy to pull off especially when you lack the time to put together and more thoughtful, complete, and effective inservice. I would like to see more training, modeling, practice, evaluation, and follow-up with our inservice training not to replace our discussions, but to enhance them!
I hope this is helpful
Make it worth it.
I want to be taught the scriptures not the methods. i want to be taught by someone who can open the scriptures and just teach. no games, or EFY types. Just teach me the doctrine.
Just so that you understand, the faculty inservice during the school year is best described as a regional inservice since this year we have never had a faculty inservice involving just us three teachers. The regional inservice involves several faculties numbering about 20-25 people. When the area office people teach, it is wonderful, but when a teacher tries to teach what he is assigned to teach from the area leaders, it doesn't go very well. We also have one or two outspoken colleagues whose comments or questions take us so far off the subject or which bring a feeling of doubt that it has not been a good year this year. It's strange that when seminary teachers get together, they can be some of the most challenging students who don't show a lot of respect to the one who is presenting. I know of several in our region who have left our inservices doubting, resentful, or just plain not edified. Thank you!
Faculty inservice has always been a positive experience for me. We always have teachers from multiple faculties joined together which is a great experience. Our inservice group is unified and work together to achieve the same purpose. I feel I always improve as I attend inservice meetings.

Explanation: During the year, we meet as a small group of teachers weekly, but once a month during the school year and several times during the summer we get together as a region with 20+ teachers. There are great differences between the two inservice experiences. This made it difficult to consistently answer your questions. Having said that, my experience with faculty inservice at the regional level monthly, and during the summer has been very consistent and well organized, with purpose and planning tying things together. These regional inservices have been given direction largely by the area leadership. On the local faculty level, inservice is much more hit and miss. I've had 5 different principals in the last 11 years, and each had differing approaches to inservice, and differing commitments to improving teacher learning and teaching. Where there has been a greater committment to those areas, I've fexperienced a greater benefit.
I would like to see what is done during the summer be done during the school year. I would like for us to prepare upcoming lessons together from an upcoming scripture block
Not really. Thanks
Less on the WHAT & WHY, & more on the HOW.
I generally find faculty inservice to be a waste of time. I'm desperately trying to prepare lessons, and inservice competes with that demand.it feels like busy work. I would much rather work on lesson prep and techniques with other teachers.
I think some of the best inservice training is watching other teachers teach. I am sad that our area no longer provides an opportunity for us to visit other classes. I would much rather take one day a term or semester and visit and observe many teachers than sit in a desk for an hour after school and hear a lecture. That would be much more beneficial. if most learners are visual, doesn't it make sense that one of the most effective ways to learn is to watch other teachers.
I enjoy getting together with the other guys but my experience is that they rarely help me in the classroom.
Sometimes hit and miss during the school year due to scheduling conflicts among faculty members. But is usually beneficial when it is held.
I have been on two faculties that have had regular inservice. I have had regular inservice only 4 out of 21 years. I really enjoy inservice and get alot out of it. Area inservice is always good. I also enjoy multi-faculty inservice meetings. When I don't receive training on a regular basis I really miss it. It really does have a very positive effect on my teaching.
I would love to focus on the thought that the "best lessons in life are caught, not taught." not only for the classroom but for us at inservice.
I would like to see more study of the scriptures and the basic doctrines of the gospel in all inservice settings.

The faculty that I am on is awesome! We share, we help each other, we talk about struggles, and we really get along. We have the best interest of eachother in mind. I was on a faculty before where the principal seemed like he was against us. He didn't foster sharing, he was looking for the bad, and it was horrible. Our facutly meetings are timely, we focus on what is necessary, our principal really has the students' interest in mind and things are great. Our program is succeeding and I am happy to go to work and I think the seminary students are growing and learning!
I feel there is a great need for skills training and lesson preparation. Nothing seems to help a class more if the teacher is confident in his abilities in addition to his or her love of the students and a good understanding of lesson content I would love to see inservice done on a small faculty level, not region, because I believe you could help each other more since you are around each other all the time. This could only work in a multi man seminary, however, single man programs could link up somehow. I wonder if we really know how to do inservice according to the needs of faculty members verses something else.
Here in Utah South, I feel both our school year inservice and summer training are very good. Of the two, my current principal is perhaps the best I have seen in my career at preparing, presenting, involving, and linking inservice experiences. There are specific objectives for the inservice, and specific challenges to be used in the classroom thereafter, and always a follow up sharing of experiences using them. They are meaningful, very specific and applicable, and improve my students' classroom experience weekly. In the summer (and the nature of the beast of course is a bit different) I feel we are involved in meaningful training based on our Area Director's and Training Council's perspective of what our Area does well, and can improve doing. I do at times, however, feel like I need more time mastering content, i.e., spending meaningful time in the course of study (say, New Testament for next year), mastering the doctrines, understanding New Testament nuances, euphemisms, people, places, socioeconomic and political backdrops, and with curriculum and commentaries written by mainline LDS scholars, and the current conference issue of the Ensign, the S&I website reviewing the media, PowerPoints, pictures, quotes, provided for our use, and so on. The training itself of course is generally a 7-10 day all day commitment, and I would then have the remainder of the summer to do the things just mentioned, except we are generally given assignments/projects etc. from the training, and multi-faculty meetings to attend, and so on, so my time to master content is affected quite a bit more than you would at first think. I have no objections whatsoever to the Summer Training, and do my best to benefit from it, so my students will be blessed in turn, but over the past quarter-century of teaching, I find that (for me, this is not a broad-brush stroke) mastering the content and all that entails is generally when I receive the greatest expansion of my understanding, and as a result, numerous ideas (which I hope are inspired!) as to the 'how' in terms of classroom. This is when I go to the computer and produce a basic lesson plan, with readiness, participation, etc. that I can refer to later and adjust to the specific demographics of the classes I will have during the school year. Thanks for asking! Dan Evans

More focus on lesson ideas and the “how” of teaching is most beneficial to me
Over the years, I have found that faculty inservice training has not always been very beneficial, and seems to be more of just another meeting to have a meeting. Sharing of teaching ideas, methods, and lesson ideas are successful in changing students attitudes and behavior in the classroom. I would like to see more of that kind of training.
I hear often from teachers that they want to be fed during the summer. They want to gain a great understanding of the doctrines and principles in the book of scriptures being taught that year. Through the Spirit they are able to learn how to use the gifts they have been given to prepare how to teach the youth the doctrines and how to get the doctrines to their hearts. I have learned the most by sitting with teachers on my faculty and discussing the doctrines and principles in a scripture block and how they could be taught. I have never experienced this type of approach in an in-service meeting before.
The quality of the inservice meetings I have attended has improved over the years with the greatest improvement coming in the past two years.
No thanks. We just endure the weekly faculty meetings, to be honest.
We have our faculty meeting during the day when the kids are at advisory at the school and I enjoy that a lot more than having it after school. After school meetings in my opinion are very inaffective.
To be honest, since moving t here from my previous area(out of state), I have been frustrated and disappointed in faculty meetings. Frankly, many of the teachers see it as a hassle that they would rather not deal with. It could and should be better.
Sometimes we talk about things in theory instead of practically. At least that is the feeling that I get. We also talk about ideals, which are nice, but again, it would be nice to be practical as well. I always appreciate the time and thought that goes into the inservice. I appreciate hearing students of the scriptures teach what they have learned from them.
Hands on particularly observations is a key to a succesful inservice experience
Preparing lesson outlines with others is one of the most useful things for me.
This survey was very long!
The reason the “Summer In Service” answers leaned more to the negative is that we hold regional faculty meetings during the summer. Very rarely do we hold faculty in service during the summer due to the fact that as a faculty we are rarely together during the summer for various family or annual leave days. Thus the survey was somewhat confusing based on the “summer” in service day questions. Overall I find our faculty meetings to be very helpful and productive for our faculty needs.
I look forward to being with other teachers and faculties. It is a great time to strengthen one another and build relationships that foster a positive synergy.

My faculty has only had one inservice during this school year, and we did mandatory emergency training only. Sometimes we huddle at lunch and talk about life and our classes, but nothing that's organized. Since this is my first assignment in S&I, I don't have any other experience to base my answers on. Perhaps the first question on your survey should be "Does your Seminary hold Inservice DURING THE SCHOOL YEAR?" That might provide some interesting results.
Being taught on my level during meetings not on the level of my students helps me become more excited for the upcoming year.
I would LOVE more time for sharing ideas and teaching skills for specific blocks and lessons. I was in a one man seminary for 15 years and I thought there would be more sharing around the drinking fountain or during lunch or after school. Everyone kind of does their own thing with not much sharing unless we are looking over the shoulder of other teachers and request them to share. I have taught each book of scripture 4 or more times so I am looking for more ideas on "how to teach" than "what to teach". I have only seen my principal in my class once this year for a few minutes. We set goals and talk of observing and feedback, but it really is not happening in our faculty. Don't get me wrong, I LOVE our faculty! All good men and very unified. I just feel with the unity and love we could be helping each other more in our teaching. We really don't use a handbook ever for our faculty training. It seems to be more a Shotgun approach. No real connected theme we are building on.
This only my opinion, but I think as there has been more and more effort to hold highly oganized and structured inservices that seem to be an effort to justify 'summer work'. The actual quality of learning and applicable information has decreased. There seems to be too much cookie cutter approach to teaching presented. Less is more! (within reason)
The thing I feel is most effective in helping me as a teacher is direct observation of a teacher in a classroom setting, followed by sharing of experiences and collaboration between teachers who are working on similar blocks. Peer to peer associations. The area and faculty training is often disjointed and unrelated, it is also mixed in with other topics regarding administrative issues or distanced from the block being taught. Teacher presentations are simulated but cannot demonstrate actual in class experiences and are usually more a form of lecture. filled in with this is what I would do with students. Adult teaching is different and generally I feel adults are looking for someone who is an expert in a given area to learn from. I miss the symposium style experiences where multiple topics were presented by competent and willing presenters. I have used this most in my teaching along with personal hard work and study. I love teacher collaboration but wish it could be extended and more open than just those who form unique bonds {aka. buddies).
Because of pacing issues, i think during the school year that jr. highs should meet together instead of with a high school faculty for faculty inservices.
I sometimes feel that it is too frequent and interferes with the personal preperation that I am trying to do for my own classes. I do feel however, that after attending, I am always grateful for the effort made by the teacher and I come away feeling edified.

I love learnign new teaching ideas from the other teachers. summer inservices helps me get ready for the next year because of the dilligent preparation of all regional members in their teaching block assignments.
Most often I feel I could be more productive in my office studying on my own.

Statistic	Value
Total Responses	83

Appendix B

Seminary and Institutes of Religion Approval Letter

Church
Educational
System *The Church of Jesus Christ of Latter-day Saints*

16 February 2012

Mark A. Mathews
US Utah North Area
355S 600 W
Brigham City, UT 84302

Dear Brother Mathews:

The S&I Education Research Committee has approved your research project under the following conditions:

1. The collection of data will be limited to those efforts outlined in your proposal.
2. Any changes to your instrumentation or procedures will be submitted to the committee for approval.
3. You will contact your research subjects and their supervisors well in advance to permit maximum flexibility in managing their schedules.
4. You will obtain S&I approval to publish or present any of your research findings.
5. You will provide S&I with an electronic copy of your research report upon completion of your degree. The copy should be in .pdf format and include the signatures on the signature page. Please submit document to: SI_Research@ldschurch.org.

We look forward to learning from your research and using it to improve S&I programs.

Sincerely,

Randall Hall
Associate Administrator

Appendix C

Institutional Review Board Approval Letter

Institutional Review Board

USU Assurance: FWA#00003308

Exemption #2

Certificate of Exemption

FROM: Richard D. Gordin, Acting IRB Chair

True M. Rubal, IRB Administrator

To: Leslie Matthews, Mark Mathews

Date: April 05, 2012

Protocol #: 4398

Title: A Descriptive Analysis Of The Effectiveness Of Professional Development In LDS Seminaries

The Institutional Review Board has determined that the above-referenced study is exempt from review under federal guidelines 45 CFR Part 46.101(b) category #2:

> Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (a) information obtained is recorded in such a manner that human subjects can be identified, directly or through the identifiers linked to the subjects: and (b) any disclosure of human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

This exemption is valid for three years from the date of this correspondence, after which the study will be closed. If the research will extend beyond three years, it is your responsibility as the Principal Investigator to notify the IRB before the study's expiration date and submit a new application to continue the research. Research activities that continue beyond the expiration date without new certification of exempt status will be in violation of those federal guidelines which permit the exempt status.

As part of the IRB's quality assurance procedures, this research may be randomly selected for continuing review during the three year period of exemption. If so, you will receive a request for completion of a Protocol Status Report during the month of the anniversary date of this certification.

In all cases, it is your responsibility to notify the IRB prior to making any changes to the study by submitting an Amendment/Modification request. This will document whether or

not the study still meets the requirements for exempt status under federal regulations.

Upon receipt of this memo, you may begin your research. If you have questions, please call the IRB office at (435) 797-1821 or email to irb@usu.edu.

The IRB wishes you success with your research.

4460 Old Main HillLogan, UT 84322-4460

PH: (435) 797-1821 Fax: (435) 797-3769

WEB: irb.usu.edu EMAIL: irb@usu.edu

Appendix D

Survey Recruitment E-Mail and Informed Consent Letter

Original Recruitment E-Mail

Mark A. Mathews, a full-time seminary teacher working on his Ph.D. dissertation, and Dr. Joseph Matthews from the School of Teacher Education and Leadership at Utah State University are conducting a research study to find out more about faculty inservice training in LDS seminaries during the school year and during the summer. You have been selected to participate as part of a limited random sample of full-time LDS seminary teachers.

If you agree to participate in this research study, you will be asked to fill out an online survey asking you questions about your experiences in seminary faculty inservice activities. This survey should take about 20 minutes to complete. The link to the survey is found here:

Follow this link to the Survey:

Take the Survey

Or copy and paste the URL below into your internet browser:

https://qtrial.qualtrics.com/WRQualtricsSurveyEngine/?Q_SS=37AOIBoA8g89UEI_2sHXkZDrsdYoVpy&_=1

Participation in this research is entirely voluntary. You may refuse to participate or withdraw at any time without consequence or loss of benefits. However, we strongly encourage you to participate because we really need your help in completing this study. Because of the limited number of teachers selected to participate, your response is very important to the integrity of this research. Although this study is not conducted by the Seminaries & Institutes of Religion, It is hoped that the information gathered from teachers like you will help S&I to understand the inservice training that teachers are receiving and make any necessary adjustments in the future.

The information you provide will be kept confidential and data will be coded and recorded in a way that reduces the risk of subjects being identified by anyone other than the researchers conducting the study. For example, only Dr. Joseph Matthews and Mark Mathews will have access to the data, which will be kept in a locked file cabinet or on a password protected computer in a locked room. To protect your privacy, personal, identifiable information will be removed from study documents and replaced with a study identifier. Identifying information will be stored separately from data and will be kept for one year before being destroyed. However, as with most research of this nature, there is still a small risk of loss of confidentiality.

The Institutional Review Board for the protection of human participants at Utah State University has approved this research study. If you have any questions or concerns about your rights or a research-related injury and would like to contact someone other than the research team, you may contact the IRB Administrator at (435) 797-0567 or email irb@usu.edu to obtain information or to offer input. If you have other questions or research-related problems, you may reach (PI) Joseph Matthews at (435) 797- 0380 and Mark Mathews at (435) 723-8624

Appendix E

Survey Recruitment E-Mail

Reminder E-Mail

Dear fellow seminary teacher,

I really need your help. You are part of a very limited sample that S&I has allowed me to survey for my Ph.D. dissertation on seminary faculty inservice training. Only a few responded to the original invitation I sent out last week, but if not enough respond it will impact the integrity of the study and my ability to defend my dissertation. I know you are busy, but if you could please just find 20 minutes to take the survey it would be greatly appreciated. I cannot offer you any compensation for your time beyond the peace of mind that comes from knowing you have helped a brother in need. Thank you! Here is the link to the survey:

Follow this link to the Survey:

Take the Survey

Or copy and paste the URL below into your internet browser:

https://qtrial.qualtrics.com/WRQualtricsSurveyEngine/?Q_SS=37AOIBoA8g89UEI_2sHXkZDrsdYoVpy&_=1

Thank you!

Brother Mark Mathews

Brigham City Seminary

CURRICULUM VITAE

MARK MATHEWS

Seminary and Institute Teacher for Seminaries and Institutes of Religion.
Current assignment: Brigham City, Utah
Phone: 435-237-1908 email: mathewsma@ldschurch.org
435-239-8350 markandmandy@gmail.com

CAREER OBJECTIVE:

To serve as a teacher in the Church Educational System of The Church of Jesus Christ of Latter-day Saints.

EDUCATION:

B.S. Marriage, Family, & Human Development, Brigham Young University, 2002. GPA: 3.81

M.S. Marriage, Family, & Human Development, Brigham Young University, 2005. GPA: 3.81

Ph.D. Education: Curriculum & Instruction, emphasis in instructional leadership and marriage & family studies. Utah State University, 2012. GPA: 3.86

PUBLICATIONS:

Ingoldsby, B.B., Horlacher, G.T., Schvaneveldt, P.L., & Mathews, M. (2005). Emotional expressiveness and marital adjustment in Ecuador. *Marriage and Family Review, 38*, p. 25-44.

PROFESSIONAL PRESENTATIONS:

Mathews, M. A. (2007). Understanding Paul: How the Book of Mormon reveals the doctrine of grace. *Scripture Symposium,* February, 2007 Rexburg, Idaho.

Mathews, M.A. (2006) The Creation, Fall, and Atonement: A doctrinal foundation for understanding the temple endowment ceremony. *Scripture Symposium,* January, 2006 Rexburg, Idaho.

Mathews, M.A. (2004). Predictors of marital quality: A comparison of U.S. and Ecuador samples. *National Council on Family Relations,* November 17, 2004 Orlando, Florida.

Mathews, M.A. (2004). Predicting the transition to sexual activity: Profiles of race and gender. *Utah Council on Family Relations,* April, 2004, Logan, Utah.

Mathews, M.A., Horlacher, G. & Ingoldsby, B. (2003) Emotional expressiveness and marital adjustment: A follow-up cross cultural analysis. *National Council on Family Relations,* November 2003, Vancouver, British Columbia, Canada.

Horlacher, G. & Mathews, M.A. (2003) Emotional expressiveness and marital adjustment: A follow-up cross cultural analysis. *Utah Council on Family Relations* April 2003, Provo, Utah.

AWARDS AND SCHOLARSHIPS

Vice Presidential Fellowship from Utah State University 2004

EMPLOYMENT AND EXPERIENCE

Seminary & Institute Teacher for the Church Educational System (2004-present)
Seminary programs adjacent to Skyview and Box Elder High Schools.
Institute program adjacent to USU extension in Brigham City, UT
Responsibilities included: Religious instruction to high school and college-age students regarding the Standard Works of the Church, as well as other assigned topics.

Research and Teaching Assistant (2002-2004)
Dr. Bron Ingoldsby, Marriage, Family, and Human Development Department, Brigham Young University
Research Responsibilities included: Gathering articles for literature reviews, data entry, data analysis, preparing presentations for state and national conferences.
Teaching Responsibilities included: Substitute teaching courses regarding cross cultural marital issues, test review sessions, grading papers and recording grades.

Spanish Teacher (2001-2002) Missionary Training Center of The Church of Jesus Christ of Latter-day Saints