TEACHERS LEARNING TOGETHER:

THE ROLE OF PROFESSIONAL CONFERENCE ATTENDANCE

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By

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The undersigned, appointed by the Dean of the Graduate School, have examined the dissertation entitled

TEACHERS LEARNING TOGETHER:

THE ROLE OF PROFESSIONAL CONFERENCE ATTENDANCE

presented by Kathy Lynn Sigler Long,

a candidate for the degree of Doctor of Education,

and hereby certify that, in their opinion, it is worthy of acceptance.

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Dedication

Thanks to my loving mother, husband, children and grandchildren who never gave up on me and have seen me through this long process. We have gone from the *empty nest syndrome* after the four children graduated from high school to all of you earning college degrees and three marriages creating a full house again with five grandchildren. I am so thankful we have created music and life together. I love you all and can now be daughter, wife, mom, and grandma to Reba, Vernon, Melynni, Clint, Amanda, Royce, Jake, Brittney, Julie, Joshua, Talon, Leah, Tinley and Abigail. Thank you for loving me! Let's read, as the grandchildren would say!

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ABSTRACT

The purpose of this study was to explore the connections to professional development, professional conferences, professional learning communities, benefits associated with conversing and collaborating with educators, and qualities of highly effective teachers. This study was designed to further the understanding of professional development practices and characteristics of highly qualified and highly effective teachers.

This descriptive study was primarily qualitative; however, some items from the online survey were quantitative in nature. Participants in the study provided information about their self perceived strengths as teachers. They answered questions about their use of information learned from the conference along with the effect the conference had on their teaching styles. Professional learning communities were investigated to determine if teachers had opportunities to converse and collaborate on information learned from the conference. Teachers' strengths were analyzed and compared to other research on highly effective and highly qualified teachers. The results of this survey supported other research on the benefits of collaboration and the skills of effective teachers.

CHAPTER ONE

INTRODUCTION TO THE STUDY

In 1983 the Reagan administration released *A Nation at Risk,* a report on the status of public education in the United States. The report created a feeling of urgency to make changes in education so students could compete in the world resulting in educators‘ focusing on ways of increasing student achievement leading to many changes in the educational system including the federal *No Child Left Behind Act* (NCLB) of 2001, the reauthorized Elementary and Secondary Education Act of 1965 (ESEA) (U.S. Department of Education, 2003); requiring districts‘ hiring highly qualified teachers, making measurable yearly progress raising math and reading achievement, and narrowing the gap between subgroups of student population; forcing states to make changes in education so as to reach the goal of every child‘s achieving at proficiency level by 2014; and mandating school districts‘ seeking answers of achieving NCLB goals. Reading First, a part of NCLB ensured students would be reading at grade level by third grade. Looking for solutions to problems associated with increasing achievement for all students in math and reading grade level by third grade, educators began making changes using research-based strategies. One program school districts began implementing was establishing professional learning communities (PLC) to guide teachers in identifying successes and failures in individual classrooms.

Education, specifically teaching, was a complex and sometimes lonely occupation. Teachers were isolated and expected to create their own learning environment in the classrooms without any other teachers‘ collaboration. Satisfaction from the job had to come from within each individual teacher. Often the only interactions

teachers had with other educators were on a surface level with little personal contact involved (DuFour & Eaker, 1998). NCLB had left teachers working longer, creating more vigorous learning environments, and striving to keep the students engaged in learning. Many times teachers did not have opportunities to engage in meaningful conversations with colleagues about strategies, problems, and concerns about reaching all students in the learning process. Philosophically, professional learning communities relieved some of the stress and rewarded successful teaching strategies through the camaraderie and association with fellow teachers. Teachers were learning together by collaborating in teams and conversing about solutions to educational problems through regularly scheduled meeting times.

Background

Effective teaching in organizations, especially in public schools, was a challenge every district was dealing with because of the federal *No Child Left Behind Act of 2001*. The task of acquiring and maintaining effective and highly qualified teachers placed tremendous accountability on school boards and community members along with superintendents, principals, and school districts. As the demands of accountability influenced the school environment, organizational health was affected. The public demanded accountability in teachers and administrators who promoted and sustained a school‘s health and culture. Public-relations, including networking and collaboration with all stakeholders in an organization, were essential in establishing effective and satisfied educators.

Several options were provided by the NCLB legislation for schools to meet increased accountability standards including options embracing more flexibility for states

and districts to develop their own improvement plans, choices for parents from disadvantaged backgrounds, and implementation of programs based on scientific research (U.S. Department of Education, 2002). NCLB did not specify how educators were to meet the mandates, therefore, the lack of specificity allowed districts to implement new programs to achieve improvement in student learning.

Many implications and consequences, focusing on teacher quality and accountability, resulted from the signing of the *No Child Left Behind Act* on January 8, 2002 by President George Bush. The added emphasis on accountability created a need for high quality, continuous, rigorous, and classroom-focused activities to improve instruction. Teachers were required to advance in effective teaching strategies and to increase knowledge of the academic subjects to become highly qualified in their areas. Problems associated with teachers‘ being in isolated classrooms or communities created a need for revising professional development, encouraging ongoing conversations, and learning in teams. Therefore, the concept of professional learning communities was begun (DuFour & Eaker, 1998).

Consequently, President Obama signed the American Recovery and Reinvestment Act of 2009 (Recovery Act) on February 17th, 2009 that provided funding for strengthening teacher education and improving teacher quality through the Race to the Top (RTT) Fund (Department of Education, The Economic Recovery Act of 2009). The funding, providing incentives for education, was distributed through competitive grants issued to states after submitting proposals for improving teacher education and teacher quality (Crowe, 2011). Therefore, states desiring to increase funding for education were

eager to provide teacher improvement programs and initiated plans for developing highly qualified teachers.

Underpinnings of this Study

Four concepts were reviewed through literature to examine the role of professional conference attendance in teachers learning together. First, professional development for sustaining highly qualified teachers was examined. Second, the literature establishing professional learning communities (PLC) was examined to determine the role PLCs play in creating opportunities for continuous learning after attending professional conferences. Third, literature was considered pertaining to the concept of learning and collaboration along with the leadership‘s role in providing time for collaboration among teachers to improve student learning. Finally, qualities of highly effective teachers were examined through professional resources. The review of literature identified the role of professional learning communities as a necessary component of school organizational learning in creating high quality, sustained, intensive, and classroom focused activities that produced positive and lasting impact on instruction and student learning.

Professional Development

Guidelines for professional development were provided in the *No Child Left Behind Act* (NCLB). According to National Staff Development Councils‘ (NSDC) Standards for Staff Development revised (2001), ―staff development is the means by which educators acquire or enhance the knowledge , skills, attitudes, and beliefs necessary to create high levels of learning for all students‖ (p. 2). The same idea was presented by Guskey (2000) when he defined professional development as: ―those

processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students" (p. 16). Traditionally, professional development had been through conferences, workshops, or one-day in-service meetings for teachers in the district, through breakout sessions or professional speakers (Darling-Hammond & Sykes,1999; Ormiston, 2011). However, the Standards (NSDC) and current research indicated educators' need to expand their knowledge base through other means of professional development (Ormiston, 2011).

Professional development standards (NSDC) were arranged according to context, process, and content. The context standards were learning communities, leadership, and resources (NSDC). The standard for learning communities was ~~"s~~taff development that improves the learning of all students organizes adults into learning communities whose goals are aligned with those of the school and district" (NSDC, 2001, p. 5). The process for developing effective staff development was different than the traditional work-shop meetings. Research suggested the most effective form of staff development is on-going, data driven, purposeful and focused (Darling-Hammond & Sykes, 1999; Guskey, 2000; Ormiston, 2011). The content referred to the knowledge and skills that ensured all students were successful. Context, process, and content standards were important aspects of professional development to improve student learning (NSDC, 2001).

Activities associated with professional development that were high quality, sustained, intensive, and classroom-focused had a lasting impact on classroom instruction and teacher performance in the classroom. According to Guskey (2000), there were four common principles of professional development that improve student learning: a clear

focus on learning and learners, an emphasis on individual and organizational change, small changes guided by grand vision, and ongoing professional development that was procedurally embedded (pp. 36-38). Title IX, Part A, Section 9101 of the *No Child Left Behind Act* (NCLB) provided the foundation for professional development. Major ideas were improving teachers‘ knowledge; creating school and district educational improvement plans; providing teachers, principals, and administrators skills and knowledge to increase student achievement; improving classroom management skills; promoting activities that would increase classroom instruction and teacher performance; continuing instructions through workshops and conferences; and advancing teacher understanding. Emphasis was placed on improving and increasing teachers‘ knowledge of academic subjects taught, enabling teachers to become highly qualified, advancing teacher understanding of effective instructional strategies through ongoing workshops and conferences. Teachers who participated in professional development planning and having adequate time to discuss student learning achieved high quality professional development (NCLB).

Professional Learning Communities

Conducted on the need for collaboration among teachers and participation in professional learning communities, intensive research led to Dufour and Eaker‘s (1998) being instigators in establishing the foundation for implementing professional learning communities in the United States. The *No Child Left Behind Act* (NCLB) emphasized the need to increase student achievement. This led to a change from traditional professional development activities to learning within the school setting. DuFour and Eaker (1998) wrote in their book on professional learning communities the phrase was chosen on

purpose, because a person who was an expert was considered a professional, learning referred to a lifelong commitment of ongoing study and practice for continuous improvement, and the word community suggested a group with common interests. Therefore, according to DuFour and Eaker, ―educators create an environment that fosters mutual cooperation, emotional support, and personal growth as they work together to achieve what they cannot accomplish alone" in a professional learning community (p. xii). This brief review of literature examined the foundation and structure of professional learning communities revealing current schools' using professional learning communities to focus on increasing student achievement and providing high quality professional development..

DuFour and Eaker (1998) provided specific information on changing schools into results oriented professional learning communities. Characteristics of professional learning communities as outlined by DuFour and Eaker are shared mission, vision, and values; collective inquiry; collaborative teams; action orientation and experimentation; continuous improvement; and results orientation. The authors continued providing examples of ways to promote collaboration: implementing team concept by grade level or subject, creating teams centered on shared students, creating a team as a school wide task force, and promoting professional development. (pp.118-120). After the teams were formed other specific recommendations existed for creating effective teams including time to meet during the school day, purpose, training, support, and learned responsibility. This study focused on the collaborative team's role in developing highly effective teachers.

Collaborative Learning Through Conversation

According to Bruffee (1999), learning was a process of participating and collaborating in communities through conversation and thought processes of relating and building knowledge within groups of students or teachers. He explained, "Education initiates us into conversation, and by virtue of that conversation initiates us into thought" (p. 133). Collaborative learning occurred when individuals talked about their beliefs and obtained feedback from others. Bruffee emphasized this concept through crossing over boundaries and creating knowledge communities. These practices utilized in professional learning communities and individual classrooms created and allowed discussions of diversity where individuals became actively engaged in the learning process in a non-threatening environment that was conducive to learning as they reflected on their own beliefs and expanded those beliefs into newly created knowledge (Bruffee, 1999).

Bruffee (1999) discussed learning between teachers and students who both constructed knowledge by conversing with their peers continuously. Conversation began the process of sharing tacit knowledge (Nonaka & Takeuchi, 1995). However, many times conversation was not encouraged; therefore, educators slacked in facilitating more interaction and conversation among students and teachers.

Highly Effective Teachers

Another component of the *No Child Left Behind Act* (NCLB) was the demand for highly qualified teachers. According to NCLB, to be considered a highly qualified teacher, one had to have a bachelor's degree, full state certification and demonstrate competency in the academic subjects that they taught. The demonstration of competency was difficult to determine and define in characterizing teacher characteristics. Some

research had been conducted to further define characteristics of highly effective teachers; however, little was known about distinctiveness of highly qualified teachers. Also, according to Glatthorn, Jones, & Adams Bullock (2006), three other aspects of teaching existed as follows: quality learning, the science of teaching, and teacher professionalism. The authors explained quality learning brought results. The science of teaching was also a component in Marzano's (2007) framework for effective instruction. Included in the science of teaching were knowledge and skills founded by research to produce student learning (Marzano; Glatthorn et al.). The third component was teacher professionalism. These characteristics of highly qualified teachers were the basis for this study.

Developing highly qualified and effective teachers dominated as the purpose of many studies and books written in the past (Billingsley, 2005; Breaux & Whitaker, 2006; Darling-Hammond & Sykes, 1999; Fisher & Frey, 2007; Garner, 2007; Glatthorn, Jones, & Adams Bullock, 2006; Lemov, 2010; Marzano, 2007; Marzano, Pickering, & Pollock, 2001; McEwan, 2002; Strong, 2007; Strong, Tucker, & Hindman, 2004; Tomlinson & McTighe, 2006; Tucker & Stronge, 2005). Many scholars attempted to define highly effective teachers by presenting practices and traits associated with learning and student achievement.

McEwan (2002) divided 10 traits of highly effective teachers into the following three areas of teacher effectiveness: personal traits, teaching traits and intellectual traits. The personal traits that indicated a teacher's character were as follows: mission-driven and passionate, positive and real, and teacher-leader. Four teaching traits that brought results explained what a teacher did. One was with-it-ness, being in control and aware of classroom happenings. Another trait was style which let the teacher show personality in

teaching. The other two were motivational expertise and instructional effectiveness. The intellectual traits were book learning, street smarts, and a mental life, further discussed in the review of literature in chapter two.

Statement of the Problem

While evidence of the benefits of high quality professional development, professional learning communities and hiring highly qualified teachers had been researched, little was known about the extending effect of attendance at a professional conference had on subsequent instructional practices and developing effective teachers. High quality professional development continued to be a challenge for schools. McEwan (2009) explained, "professional development is still regarded as something that people go to or have done to them…often considered to be a one-time event…" (p. 49). Not enough was known about the impact professional development through conference attendance had on teachers after they returned to their schools including implementation of effective instruction strategies and continuation of the strategies learned from the conference.

Purpose of the Study

The purpose of this study was to explore the connections to professional development, professional conferences, professional learning communities, benefits associated with conversing and collaborating with other educators, and qualities of highly effective teachers. The study was designed to further the understanding of professional development practices and characteristics of highly qualified and highly effective teachers.

Research Questions

The following research questions will determine the value of developing connection with stake holders in the educational community.

1. To what extent does professional development through conferences affect the teaching practices of teachers?
2. To what degree does conversation facilitate the learning and professional growth of teachers?
3. What characteristics are most common among teachers who voluntarily participate in professional development?

Limitations and Assumptions

This study was limited to a specific group of over 400 teachers from all over the United States who attended a professional conference in a midwestern state during the summer. Participants were asked to provide e-mail addresses if they were willing to complete an online survey on professional development. Approximately 140 e-mail addresses were obtained from the participants at the conference. The conference was designed to introduce and train participants in the whole brain teaching methods of instructional strategies. Further limitations were those who returned questionnaires sent through e-mail inviting them to participate in this study. It was assumed all participants were honest in answering the questions on the survey.

Definitions of Key Terms

This study included teachers who attended a professional development conference during the summer on whole brain learning. For the purpose of clarity and reporting the

terms *professional learning communities*, *collaboration*, and *highly qualified teachers* will be defined.

Professional learning community. A professional learning community can be defined as a group of experts in a specialized field who met together and practiced as a group with common interests. "Educators create an environment that fosters mutual cooperation, emotional support, and personal growth as they work together to achieve what they can not accomplish alone" (DuFour & Eaker, 1998, p xii).

Collaboration. Collaboration was defined as teachers working together, with a shared mission and vision, focusing on student achievement, continuously reflecting on their own professional practices to try new strategies to increase student learning (DuFour & Eaker, 1998).

Highly qualified teachers. Highly qualified teachers had to possess a bachelor's degree, full state certification and demonstrate competence in the academic subjects that they taught. Some research was conducted to further define characteristics of highly effective teachers; however, little was known about distinctiveness of highly qualified teachers. Also, according to Glatthorn et al. (2006), three other aspects the teaching had to be included: quality learning, the science of teaching, and teacher professionalism. For the purpose of this study *highly effective* and *highly qualified* were used interchangeably.

Summary

NCLB initiated reforms in education to meet the guidelines that all students would achieve at grade level. Districts were evaluating education and educators through different lenses to determine how to increase student achievement. This study determined

the role of professional conference attendance on teachers and the implementation of strategies learned at the conference.

This dissertation was organized into five chapters. Chapter one included a brief overview and statement of the problem as well as the identification of the questions. Chapter two contained a review of related literature pertaining to professional development, professional learning communities, collaborative learning, and highly effective teachers. Chapter three provided the background for the methods and design of this study. Chapter four described the findings and analysis of the data. Chapter five summarized the conclusions, implications and described the overall impact of the professional conference on attendees.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

Accountability for schools was a local, state, and national issue with the reauthorization of the existing Elementary and Secondary Education Act (ESEA), a federal funding program for education. This reauthorization created a dynamic change in federal law concerning public schools (US Department of Elementary and Secondary Education, 2002) when President George Bush signed the authorization law titled *No Child Left Behind Act* (NCLB). NCLB included substantial accountability standards for public schools and contained the goal that all children were proficient in reading and math by the year 2014. Reading First, a part of NCLB, designated all students would read at grade level by third grade. To ensure schools reached this ambitious goal, public schools were required to improve performance in student achievement and hire qualified teachers so districts would make satisfactory progress each year in order to reach that goal (US Department of Elementary and Secondary Education, 2003). These yearly targets were known as Adequate Yearly Progress (AYP).

Schools were expected to achieve AYP; therefore, schools faced consequences if they failed to meet the annual target in a subject area for two consecutive years. On an annual basis, each state reported which schools met and did not meet AYP and designated schools not meeting the targets after two consecutive years as needing improvement (U.S. Department of Education, 2003). The schools with this designation were often referred to as failing schools in the media (Kernan-Schloss, 2004). This label was especially troublesome to school administrators.

Educational leaders needed to focus on gaining results, as measured by AYP since school districts were challenged to achieve higher academic standards. Relationships between student achievement and effective leadership of administrators had been studied (Fisher & Frey, 2008; Marzano, Waters, & McNulty, 2005; Sandholtz, 1998; Schmoker, 1999, 2008). Educational leaders needed to examine indicators of effective schools through various methods of meeting AYP to identify and solve the challenges facing educators within the requirements of NCLB. Professional development activities and hiring highly qualified teachers were indicators of effective schools that impact student learning.

The NCLB had played an enormous part in changes required for schools across America. Demands to meet the mandates and requirements for achieving student success across all curriculums had put large burdens on administration and teachers to meet the requirements established by NCLB. Professional development was an integral component of the NCLB and was a requirement to provide high quality, sustained, intensive, and classroom-focused activities for increased learning for both teachers and students (*No Child Left Behind Act of 2001)*. Districts were required to have highly qualified teachers in every classroom; however, the lack of funding for professional development made it difficult to provide workshops and conferences for rural educators (Mollenkopf, 2009). Schools needed to be creative in providing the required professional development for teachers at a low or no cost for the district and teachers in order to advance teacher understanding and create highly effective teachers who were also highly qualified in their subject areas. Some districts had been successful in providing professional development for teachers; therefore, retaining highly qualified and highly effective teachers who are

making a positive and lasting impact on student achievement. Other districts had not. Literature examining professional development, collaboration through professional learning communities and characteristics of highly effective teachers was the basis of this study.

The purpose of this research was to examine the role professional conference attendance played on professional development of teachers, determining the role of professional learning communities on collaboration and sustainment of learning provided through professional development. Conversation and collaboration in professional development activities within school districts commonly called professional learning communities (PLC) were researched. .Common characteristics of teachers who were considered highly qualified and highly effective in the classrooms were found to determine the effect on student and teacher learning.

Professional Development

According to National Staff Development Councils' (NSDC) Standards for Staff Development (2001), "staff development is the means by which educators acquire or enhance the knowledge, skills, attitudes, and beliefs necessary to create high levels of learning for all students" (p. 2). The same idea was presented by Guskey (2000) when he defined professional development as: "those processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students" (p. 15). Traditionally, professional development had been through conferences, workshops, or one-day in-service meetings for teachers in the district, through breakout sessions or professional speakers (Darling-Hammond & Sykes, 1999; Guskey, 2000; Ormiston, 2011). However, the NSDC Standards (NSDC) and

current research indicated educators needed to expand their knowledge base through other means of professional development (Darling-Hammond & Sykes, 1999; Guskey, 2000; Ormiston, 2011).

Professional development standards (NSDC, 2001) were arranged according to context, process, and content. The context standards were learning communities, leadership, and resources (NSDC, 2001). The standard for learning communities was ―staff development that improves the learning of all students organizes adults into learning communities whose goals are aligned with those of the school and district" (NSDC, 2001, p. 8). The process for developing effective staff development was different than the traditional workshop meetings. Research suggested the most effective form of staff development was on-going, data driven, purposeful and focused (Guskey, 2000). The content referred to the knowledge and skills that ensured all students were successful. Context, process, and content standards are important aspects of professional development to improve student learning (NSDC, 2001).

Activities associated with professional development that were high quality, sustained, intensive, and classroom-focused had a lasting impact on classroom instruction and teacher performance in the classroom. According to Guskey (2000), four common principles of professional development improved student learning. These principles were ―a clear focus on learning and learners", ―an emphasis on individual and organizational change", ―small changes guided by grand vision", and ―ongoing professional development that is procedurally embedded" (pp. 36-38). Title IX, Part A, Section 9101 of the *No Child Left Behind Act (NCLB)* laid the foundation for professional development. Major ideas were improve teachers' knowledge; create school and district

educational improvement plans; provide teachers, principals, and administrators skills and knowledge to increase student achievement; improve classroom management skills; promote activities that would increase classroom instruction and teacher performance; continual instructions through workshops and conferences; and advance teacher understanding. Emphasis was placed on improving and increasing teachers‘ knowledge of academic subjects that teachers taught, enabling teachers to become highly qualified, and advancing teacher understanding of effective instructional strategies through ongoing workshops and conferences. Teachers who participated in professional development planning and had adequate time to discuss student learning achieved high quality professional development.

When time for professional development was built into teachers' working time instead of requiring additional hours, their learning activities could be ongoing and sustained and could focus on specific issues over time. Job embedded professional learning time supported the kind of context specific professional learning and action research that was effective in catalyzing change (Wei, Andree, & Darling-Hammond, 2009).

Professional development policies and practices in high-achieving nations reflected many of the principles of effective professional learning outlined by research. Other nations provided sustained and extensive opportunities to develop practice that went well beyond the limited one-shot workshop approaches still commonly found in the United States. They treated teachers as professionals and made teachers' professional learning high priority (Wei et al., 2009).

Many researchers had shown the importance of high quality professional development (Darling-Hammond & Sykes, 1999; Guskey, 2000; Ormiston, 2011). Guskey announced, ―Never before in the history of education has greater importance been attached to the professional development of educators" (p. 3). Many educators regarded professional development as special events during the school year. According to Guskey, other educators considered college classes and professional development hours as a means to keep their jobs and certification. Some teachers preferred obtaining required professional development hours during the summer. These required workshops or classes provided continuous learning that were generally unrelated with little follow-up or guidance. Guskey proposed, ―Practices such as these encourage teachers and administrators to view their involvement in professional development as something they must endure and get out of the way" (p.15).

Guskey (2000) defined professional development as ―activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students" (p.16). Professional development should be an ongoing process with clear worthwhile goals. Guskey (2000) suggested the following:

> Viewing professional development as special events that occur on 3 or 4 days of the school year severely restricts educators' opportunities to learn. But if we view professional development as an ongoing, job-embedded process, every day presents a variety of learning opportunities. These opportunities occur every time a lesson is taught, an assessment is administered, a curriculum is reviewed, a professional journal or magazine is read, a classroom activity is observed, or a conversation takes place with another teacher or administrator. The challenge is to

take advantage of these opportunities, to make them available, to make some purposeful, and to use them appropriately. (p. 19)

Thus, professional development should be an ongoing, systemic process.

According to Guskey (2000), Sparks and Loucks-Horsley (1989) and Drago-Severson (1994) described the following professional development models in their research: "(a) training, (b) observations/assessment, (c) involvement in a development/ improvement process,(d) study groups, (e) inquiry/action research, (f) individually guided activities, and (g) mentoring" (p. 22). These models have been used in the past and are sometimes still used for professional development. Guskey suggested four principles of effective professional development should be considered. These principles are "clear, consistent, and appear to be integral to the process of improving results" (p. 36).

Other authors had indicated the impact of professional development on education. Bennett's (2003) study, initiated by the British Government in 1997, was very similar to the NCLB requirements. The characteristics of the program, which was created by the National Standards for Headteachers and Subject Leaders, were as follows: create a vision, infuse that vision, motivate and inspire staff members, create change, and empower staff. This study showed the impact professional development activities have on teachers and students as well as making a connection between global learning and standards in the United States (Bennett, 2003).

In another study, Petzko (2004) compared characteristics of highly successful schools to those of a national sample of middle schools in the United States. This research showed the importance of professional development in improving teacher knowledge, collaboration skills, pedagogy, and mastery learning of all students.

Professional development activities should be emphasized to create highly effective professional development for teachers and highly successful schools to meet requirements of NCLB, according to Petzko (2004).

According to Guskey (2005), professional development should be evaluated at five different levels. Participants‘ reactions to the activity should be evaluated to determine the satisfaction of the program. Next, the participants‘ learning should be questioned to determine if they acquired the intended knowledge and skills. Thirdly, the organization should be evaluated for its support and change. Participants application of the new knowledge and skills should be questioned. Finally, student learning outcomes should be evaluated. The author further stated evaluation of professional development was necessary to fulfill the increased demands of accountability of NCLB (Guskey, 2005).

Effective professional development added to a teacher‘s knowledge, skills, and attitudes to increase student learning (Buffum, Mattos, & Weber, 2009; David, 2008; Zmuda, Kuklis, & Kline, 2004). When the training was on-going, data driven, purposeful and focused, then with this type of professional development, teachers became highly skilled in their fields. Professional learning communities provided the foundation for providing sustained professional development during the school day and throughout the school year for increasing student learning.

Professional Learning Communities

The *No Child Left Behind Act (NCLB)* emphasized the need to increase student achievement. This mandate led to a change from traditional professional development activities to learning within the school setting where activities were continuous and were

provided through professional learning communities that met regularly in the schools during the school day. Based on the need for collaboration among teachers and participation in professional learning communities, intensive research led to Dufour and Eaker's (1998) being instigators in establishing the foundation for implementing professional learning communities in the United States. The *No Child Left Behind Act* (NCLB) emphasized the need to increase student achievement. This led to a change from traditional professional development activities to learning within the school setting. DuFour and Eaker (1998) chose the phrase professional learning communities, because each word signified a special meaning. A person who was an expert was considered a professional, learning referred to a lifelong commitment of ongoing study and practice for continuous improvement, and community suggested a group with common interests. Therefore, according to DuFour and Eaker, "educators create an environment that fosters mutual cooperation, emotional support, and personal growth as they work together to achieve what they cannot accomplish alone" in a professional learning community (p. xii). DuFour and Eaker (1998) provided specific information on changing schools into results oriented professional learning communities. Characteristics of professional learning communities outlined by DuFour and Eaker are "shared mission, vision, and values"; "collective inquiry"; "collaborative teams"; "action orientation and experimentation"; "continuous improvement"; and "results orientation" (pp. 25-29). The authors continued providing examples of ways to promote collaboration: grouping teams by grade level or subject, creating teams consisting of shared students, building teams as an all school effort, and promoting professional development.

After the teams were formed other specific recommendations existed for creating effective teams including time to meet during the school day, purpose for meeting, training in PLC concept, support for collaboration, and learned responsibility. In order to have effective collaborative teams, DuFour and Eaker (1998) specified four essential elements of professional learning communities: building collaboration time into a regular school day, making the purpose clear, knowing the achievable results, and teaching effective collaboration to avoid the time spent in a negative way. The focus of the team had to always be instruction, curriculum, assessment practices, and strategies for improvement. Norms had to be set with reflections of the team‘s accomplishments. Finally, teachers had to accept the responsibility to work together as true professional colleagues. The collaborative team‘s role in developing highly effective teachers was a primary responsibility of learning communities.

The goal of professional learning communities was to improve student achievement; therefore, teachers increased their own knowledge and skills with the belief that the shared expertise of individuals would drive the instructional change (Fullan, 2001, 2003; Schmoker, 2006). This was an ongoing process for improving staff capacity for learning and change (Hord, 2004). Teachers were the first learners, resulting in better student learners. Successful learning communities exhibited a democratic accountability recognizing individuals taking responsibility for the outcome of the organization‘s goals (Preskill & Torres, 1999).

Professional learning communities were researched and studied for over a decade as a means of achieving student success and providing high quality professional development that was on-going and beneficial for increasing teacher and student learning.

Many researchers identified collaboration as the foundation for successful learning (Buffum, Mattos, & Weber, 2009; Fisher & Frey, 2008).

Collaborative Learning

Learning had been researched and studied in many different ways throughout the history of education. Literature was reviewed and assimilated to analyze learning theories and instructional practices. Many articles and books focused on content and context of learning within organizations. Associated with learning were the concepts of diverse learners, learning theories, instructional models, technology used in learning, research, assessments, and ethical practices in the learning process. Many consequences occurred because of unethical research in organizations (The Belmont Report, 1979; Campbell, 2003; Stuart, 1998; Young, 2003). Some articles dealt with leadership and relationships embedded in learning within organizations. The impact of culture on relationships and leadership in the learner-centered environment was emphasized (Bruffee, 1999; Flannery & Vanterpool, 1990; Katzenbach & Smith, 1993; McCombs & Whistler, 1997; Peterson & Smith, 2000). Building relationships to form working teams, using them effectively, and using leadership to deal with ethnic and gender diversity was key to learning within organizations (Bruffee; Flannery & Vanterpool; Katzenbach & Smith; Kotter, 1994; Lencioni, 2002; McCombs & Whistler; Nonaka & Takeuchi, 1995; Peterson & Smith). This idea of building teams and learning collaboratively was the focus of this section of literature review.

Collaboration. Several authors felt that having a sense of belonging and feeling like one was being taken seriously as a member of the community even when discourse occurred was critical in developing appropriate relationships (Larson & Ovando, 2001;

Nonaka & Takeuchi, 1995). Minority populations often had difficulties developing relationships because they had not developed the reacculturation from knowledge community to knowledge community (Bruffee, 1999). Connections, trust or a sense of belonging had not been built. Often anxiety about people who were different added to this problem by further preventing relationships to develop. Larson and Ovando discussed the idea that developing human relationships required recognition and respect of personal identification.

Leadership roles. Leadership could enhance the development of relationships (Ogawa & Bossert, 1995) by utilizing different roles to provide access to different resources. These resources could then be used to influence others who needed resources for themselves. The idea of role theory discussed in Peterson and Smith (2000) tied in with developing relationships. One‘s role, whether it was as superior, peer, or subordinate, could affect how one related to someone else. New roles developed as situations occurred, giving one the resources needed to address the situation. Young (2003) noted, having the skills to develop good human relation and collaboration skills were seen as critical to obtaining a job within the realm of educational leadership.

Larson and Ovando (2001) contended human beings all shared the universal desire to be treated as full and equal citizens; however, this desire might often be overshadowed by personal connections to individual‘s segments of the community. This connection blocked one‘s ability to be able to see and appropriately serve those from other parts of the community. Furthermore, stereotyping often prevented people from understanding other people as they really were without trying to mold them into what we thought they should be. Young (2003) asserted this tendency was at the heart of the

problem with the shortage of women administrators in Iowa. Since men held the majority of administrative positions in the state, they were in charge of hiring new administrators and often hired those like themselves, bringing new men into whatever positions were vacant. Whether this practice was intentional or not, it was what appeared to be common practice. Leaders needed to examine their own beliefs and practices and how they might be contributing to the problem before attempting to make connections from those outside one's personal community. Mendez-Morse (2003) added another dimension to this view by encouraging people to look at how these differences between people could sometimes serve as restraints and sometimes as benefits. Cultural roles such as symbols, rites, and heroes varied from one constituency to the next (Peterson & Smith, 2000) and often helped educate those from the outside about a segment of the community.

Discussion was important for developing an understanding of democracy, diversity, and tolerance for all cultures. Dedicated to preparing students to live in a culturally diverse society, teachers needed to be clear of "the extent to which that preparation should be included in the classroom and the logistics of how it can be done" (Flannery & Vanterpool, 1990, p. 159). Discussions within the classroom would facilitate knowledge creation (Nonaka & Takeuchi, 1995) through double-loop learning (Morgan, 1997). To facilitate maximal learning, a social interaction process involving the individual, group, or organization needed to take place in order to transfer knowledge (Bruffee, 1999; Nonaka & Takeuchi).

As the organizational leader of the classroom, teachers needed to address the moral confusion by identifying and defining beliefs through "reflective attention" (Willower & Licata, 1997, p. 21). To solve problems in the classrooms, teachers

constructed opportunities for students to enter into new knowledge communities that would require them to reacculturate to new values, systems, and expertise (Bruffee, 1999). This could be accomplished through discourse and collaborative conversations that valued all cultures (Bruffee, 1999). Valuing culturally receptive students as well as culturally resistant students would provide personal relevance for diverse groups and promote a better understanding of diversity (Flannery & Vanterpool, 1990). Students had to be able to take the explicit knowledge presented by peers and convert it to tacit knowledge (Nonaka & Takeuchi, 1995). Teachers had to be prepared to assist students as they mourned their former beliefs and values (Skrla, 2003) and eased their transitions into new knowledge communities (Bruffee, 1999). By applying these concepts, teachers made better choices among competing values and ~~–d~~eal with the complexities of the particular circumstances at hand" (Willower & Licata, 1997, p. 20).

Applying Content and Context for Learning

Teachers in leadership roles needed to determine who their constituencies were in order to establish groundwork for developing appropriate relationships inside and outside the organization. Teachers needed to examine differences and similarities among all those dealing with the organization. Different segments of the population had to all be considered—faculty, parents, students, and community members (Bruffee, 1999; Flannery & Vanterpool, 1990). Once similarities and differences of these constituencies had been identified, educators needed to start making connections between school and those in the constituencies. A sense of belonging and trust had to be developed (McCombs & Whisler, 1997). In order to do this, meetings and activities were held where people felt more at ease in the school. Teachers talked to other staff members where they

were most comfortable to begin establishing relationships and developing trust to show a caring community. As educators became comfortable with others, they felt more comfortable dealing with problems in the school. ―Trust is often depicted as the glue that holds effective systems together" (Larson & Ovando, 2001, p. 62). Building trust and establishing relationships helped develop a sense of belonging for all involved. These implications to learning could be applied to professional development practices in professional learning committees.

One of the primary interpretations and implications for school districts was the requirement to create knowledge within the organization. The learning was created through the various stages of tacit and explicit knowledge exchange (Nonaka & Takeuchi, 1995). Taking teachers and students from their prior knowledge to new realms of knowledge created learning. This learning was achieved through collaborating, collecting data, and assimilating it into newly created information (Bruffee, 1999). Teachers and students needed to be encouraged to take their individual knowledge and add it to the group knowledge. Bruffee described learning as conversation. Teachers and students moved into a knowledge community when external conversation was internalized. Learning took place and was referred to as knowledge creation by Bruffee. This became part of the knowledge created in the organization as suggested by Nonaka and Takeuchi (1995).

Collaborative learning occurred when individuals talked about their beliefs and obtained feedback from others. Bruffee (1999) emphasized this concept through crossing over boundaries and creating knowledge communities. These practices could be utilized in professional learning communities and individual classrooms by creating and allowing

discussions of diversity. Individuals were actively engaged in the learning process in a non-threatening environment that was conducive to learning. They reflected on their own beliefs and expanded those beliefs into newly created knowledge (Bruffee, 1999).

Learning occurred among teachers and students who constructed knowledge by conversing with their peers continuously as discussed by Bruffee (1999). Conversation began the process of sharing tacit knowledge (Nonaka & Takeuchi, 1995). Many times conversation was not encouraged; therefore, educators needed to facilitate more interaction and conversation among students and teachers ensuring learning was transpiring.

Collaborative learning facilitated learning through reacculturation and interdependence among students. Teachers and students learned to work together effectively and to converse about what they were learning. Knowledge was a social construct, developed through conversation with peers from the same community of knowledge (Bruffee, 1999; Nonaka & Takeuchi, 1995). Through the process of reacculturation, students joined new communities of knowledge and expanded their learning.

The process of reacculturation involved transitioning from one knowledge community into new knowledge communities. As students worked together with peers, they gained trust and internalized the language and values of the new knowledge community. The most powerful force that changed individuals as they grew was the influence they had on each other (Bruffee, 1999).

Collaborative reacculturation helped people learn more through group interactions than they would have been able to learn on their own. Boundary conversation occurred as

individuals crossed over boundaries of the old knowledge into new arenas of thought brought out by their peers (Bruffee, 1999).

Learning was achieved through consensus groups (Bruffee, 1999). Negotiating among themselves to arrive at a final product, people worked collaboratively on an open-ended task. Through professional learning communities, teachers were divided into groups of five to six and given a task to accomplish. The group was given time to work, preferably during the school day. The groups came back together to analyze, compare, and synthesize the decisions in order to come up with an acceptable consensus with which the whole group could live. The leader had to be careful not to insert judgments, but rather to let the group lead toward consensus. The social interaction among the individuals became a contributing factor to the success of the task. This process was not always easy. Chaos occurred as well as feelings of being uncomfortable. These feelings were often overcome as conversation continued to take place and teachers were supported by their peers (Bruffee, 1999).

Collaborative learning tasks were open-ended, with no one correct answer or one method of arriving at the answer. Two types of collaborative learning tasks included Type A asking a question to which there was no clear and ready answer, and the purpose of these tasks was to generate talk about the kinds of consensus that might be reached in response to the question; and Type B asking a question providing an acceptable community consensus answer, and the purpose of these tasks was to generate talk about what the small group had to do to attain the consensus reached by the larger community. The purpose in both cases was to help individuals work collaboratively in order to

develop knowledge that was basic to the knowledge community involved (Bruffee, 1999; Nonaka & Takeuchi, 1995).

Bruffee (1999) said one of the leader‘s main jobs in working with group consensus tasks was to remain uninvolved and to act as a referee when needed. Drawing together the major points, the group synthesized the group‘s effort. Disagreement among the group members was important because dissenting opinions helped generate good discussions where individuals argued the merit of their ideas. Another way teachers became involved was to represent the larger knowledge community they belonged to and invited others to join. Discussion helped open the door to the new community. Through collaboration teachers were able to expand their knowledge (Bruffee, 1999).

It was important to create knowledge within the school organization by allowing various beliefs to be discussed and conversation to happen. Through the conversation and acceptance of others, learning was achieved (Bruffee, 1999). Teachers learned to accept others by understanding other‘s thoughts and actions. They did not always agree and did not necessarily need to agree, but could agree to disagree as implied by Bruffee (1999).

This review of literature provided an assimilation of learning theories and instructional practices that werc utilized in collaborating and learning in professional learning communities as a means to professional development in schools. These practices provided resources and experiences to develop highly qualified teachers who were highly effective in increasing student achievement.

Highly Effective Teachers

Another component of the *No Child Left Behind Act* (NCLB) was the demand for highly qualified teachers. According to NCLB, to be considered highly qualified, teachers

had to have a bachelor‘s degree, full state certification and demonstrated competency in the academic subjects that they taught. Some research had been conducted to further define characteristics of highly effective teachers; however, little was known about distinctiveness of highly qualified teachers. Also, according to Glatthorn et al. (2006), other aspects of teaching included quality learning that got results, the science of teaching, and professionalism of teachers. The science of teaching was explained as a component in the framework of Marzano‘s (2007) guide for effective instruction, and included knowledge and skills founded by research to produce student learning (Marzano, 2007; Glatthorn et al., 2006). The third component was teacher professionalism. These characteristics of highly qualified teachers were the basis for this section of review of literature.

Glatthorn et al. (2006) reiterated the requirements of NCLB that all teachers in the core academic subjects had to be highly qualified. In order to be considered highly qualified, teachers had to possess the necessary credentials including a bachelor's degree and full certification. Glatthorn et al. also developed three other aspects of teaching that were to be included: quality learning, the science of teaching, and teacher professionalism. The authors explained, ―Highly qualified teachers get results, producing quality learning” (p. 4). The science of teaching element ―includes the knowledge and skills that have been found by the research to produce student learning” (p. 5). Glatthorn et al. (2006) further divided the science of teaching into essential skills and subject skills. The essential skills were the foundation of effective teaching. These skills were planning, knowledge, teaching and learning strategies, and assessment and feedback. The subject skills went beyond the basic skills of each core area. The third aspect of quality teaching

was professionalism. The professional teacher did not view teaching as a job or a vocation, but the teacher knew the impact of effective teaching went beyond students and extended into the family and community (Glatthorn et al., 2006).

Marzano (2007) explained studies showed effective schools had a ―well-articulated curriculum and a safe and orderly environment, the one factor that surfaced as the single most influential component of an effective school is the individual teachers within the school" (p. 1). Marzano further stated, ―a good part of effective teaching is an art" (p. 5). He emphasized characteristics of effective teaching were as follows:

1. Use of effective instructional strategies,
2. Use of effective classroom management strategies,
3. Effective classroom curriculum design. (p. 5)

Setting and communicating learning goals, tracking student progress, and celebrating success were the most important elements practiced by effective teachers (Marzano, 2007).

Ten traits of highly effective teachers who had more than just a degree, certification, and knowledge, as defined by McEwan (2009) in her book, *10 Traits of Highly Effective Schools*, and as listed below were emphasized.

1. The highly effective teacher is mission driven, feeling a call to teach as well as a passion to help students learn and grow.
2. The highly effective teacher is positive and real, demonstrating the qualities of respect, caring, empathy, in fairness in his or her communications and relationships with students, parents, and colleagues.

3. The highly effective teacher is a teacher leader who positively impacts the lives of students, parents, and colleagues.
4. The highly effective teacher demonstrates "with-it-ness": the state of being on top of, tuned into, aware of, any in complete control of three critical facets of classroom life: (1) the management and organization of the classroom, (2) the engagement of students, and (3) the management of time.
5. The highly effective teacher exhibits his or her own unique style, bringing drama, enthusiasm, liveliness, humor, charisma, creativity, and novelty to his or her teaching.
6. The highly effective teacher is a motivator par excellence who believes in his or her own ability to make a difference in the lives of students and relentlessly presses and pursues students to maintain the highest possible behavioral and academic standards.
7. The highly effective teacher is an instructional virtuoso: a skilled communicator with a repertoire of the essential abilities, behaviors, models, and principles that lead all students to learning.
8. The highly effective teacher has a sound knowledge of content (the structure of the discipline) and outcomes (what the school, district, or state has determined as essential for students to know).
9. The highly effective teacher has knowledge of the students, the school, and the community in which he or she is teaching and uses this knowledge to solve problems in the instructional setting: street smarts.

10. The highly effective teacher has a substantive thought life that includes the abilities to be: (1) metacognitive: able to read one's own mental state and then assess how that state will affect one‘s present and future performance; (2) strategic: able to think aloud and model strategic learning for students; (3) reflective: able to think about personal teaching behaviors for the purposes of self-growth; (4) communicative: able to articulate ideas, issues, beliefs, and values about the act of teaching with colleagues, students, and parents; and (5) responsive: able to adjust to the changing needs and demands of the profession. (pp. 36-37)

Many authors in this review of literature interchanged the terms ―highly qualified" and ―highly effective" teachers and provided characteristics associated with both highly qualified and highly effective teachers although some others made distinct difference in the terms.

According to Scribner (2003), teaching was a combination of teachers, students, and content of subject matter. A teacher learned best teaching practices within the context of the work environment; therefore, it was important to have high quality professional development to cultivate effective teaching practices. Core content knowledge was important, according to Scribner (2003). However, interaction with colleagues on a state level appeared to be more important in professional development for rural high school teachers as suggested by Scribner (2003). Scribner‘s (2003) research indicated administrators, also, needed professional development activities beyond the school environment. Professional learning communities provided opportunities to grow professionally and learn effective teaching strategies for students to achieve

academically. Therefore, professional learning communities developed, nurtured and encouraged by administrators to motivate teachers to implement effective teaching practices were the catalyst for providing effective teaching practices for obtaining increased student success. As teachers obtained success the enthusiasm for learning grew among teachers and students to increase learning (Scribner, 2003).

Every year was different in education as teachers had to be able to change and adapt because effective teaching was an ongoing process (Stronge, 2007; Stronge, Tucker, & Hindman, 2004). The authors further suggested prerequisites for effective teachers were necessary. These prerequisites were "verbal ability", "content knowledge", "educational coursework", "teacher certification", and "teaching experience" (Stronge et al, 2004, p. 8). Other qualities of effective teachers were classroom management and organization, organizing instruction, implementing instruction, and monitoring student progress and potential (Stronge, 2007; Stronge et al., 2004). The authors also stressed highly effective teachers expected the best from the students and relayed the expectations on to obtain high success. The above qualities were considered essential for effective teaching.

Whitaker (2003) emphasized the importance of treating everyone with respect all day every day. Effective principals treated teachers with respect, and effective teachers treated students with respect. The author recommended hiring teachers for their talent. "Talent means the total package: love of students, bright mind, positive attitude, congenial personality, great work ethic, leadership skills, charisma" (p. 45). According to Whitaker, great teachers expected great things. "They set expectations early and then

follow through" (p. 50). Therefore, highly effective teachers strove to accept only the best from their students.

Additional qualities of highly effective teachers were shared in another book by Breaux and Whitaker (2006). The authors provided seven simple secrets that best teachers knew and did. First, best teachers always over planned the activities. Next, the most effective classroom teachers had great management skills. The best teachers also taught real life skills that involved students in every part of the lesson making every student successful. The fourth secret was attitude. Then, best teachers were always professional, dressing, acting, and appearing professional all the time. Secret number six was effective discipline. Best teachers appeared calm, were consistent, relieved stress with psychology, gave students what they wanted and needed, were self-disciplined, and found the good in every child. Finally, secret seven was the secret of motivation and inspiration. The authors suggested how to make every student feel valued. Teachers took a special interest in every student. The best teachers knew how to reward appropriately and use praise. The authors further stated the teacher's influence was forever. Many of the same qualities are repeated by Lemov (2010) in his book, ***Teach Like a Champion.***

Lemov (2010) provided 49 techniques for great teachers to use from kindergarten to twelfth grade. Setting high academic standards was important quality in teaching. Planning that insured student success was another characteristic of good teaching. Engaging all students in the lesson and making sure students were involved was a habit of great teachers. Highly effective teachers had a strong classroom culture. Students knew what they were supposed to do at all times. Great teachers set and maintained high behavioral expectations. The author suggested the importance of building character and

trust with students. Lemov provided techniques to challenge students to think critically. He also emphasized the fact that all teachers should be reading teachers and should provide techniques for teaching reading in all grades and subjects. These characteristics were all important for highly qualified teachers.

The teacher had an image of a respected member of society, community, and school in which he or she worked. This image was portrayed by always doing, talking, and acting like a professional. Other staff members knew if a teacher was for real. The image of a teacher was a professional who taught students to be better than they had been and knew more than they ever had. Although, it was difficult to instill a desire to learn in students who had never been successful, highly effective teachers made students successful in academics and in life (McEwan, 2002).

A teacher taught students to evaluate situations, apply knowledge, and think for themselves. Sometimes it was difficult to make students realize they could think and should think. Highly effective teachers not only disseminated knowledge, but also initiated learning through discovery, teamwork, cooperation, and individual research. (McEwan, 2002)

Many authors articulated characteristics associated with effective teachers. They provided frameworks for effective instruction (Marzano, 2007), traits of effective teachers McEwan (2009), a handbook for developing highly qualified teachers (Glatthorn et al., 2006), and qualities of effective teachers (Breaux & Whitaker, 2006; Scribner, 2003; Stronge, 2007; Whitaker, 2003). Through the review of literature pertaining to highly effective teachers, many characteristics of highly qualified teachers emerged applicable to education increasing teacher and student learning.

Conclusion

NCLB had initiated changes for school to make in professional development, teaching practices and evaluations. Effective professional development added to a teacher‘s knowledge, skills, and attitudes to increase student learning. The training needed to be on-going, data driven, purposeful, and focused. By providing this type of professional development, teachers became highly skilled in their fields. Professional learning communities (PLC) provided the foundation for on-going, sustained professional development during the regular school day throughout the school year. PLCs were researched and studied for over a decade as a means of achieving student success and providing high quality professional development. Many researchers identified collaboration as the foundation for successful learning. The literature focused on collaboration provided an assimilation of learning theories and instructional practices that could be utilized in collaborating and learning in professional learning communities as a means to professional development in schools. These practices provided resources and experiences to develop highly qualified teachers who were highly effective in increasing student achievement. Many authors articulated characteristics associated with effective teachers. They provided frameworks for effective instruction (Marzano, 2007), traits of effective teachers McEwan (2009), a handbook for developing highly qualified teachers (Glatthorn et al., 2006), and qualities of effective teachers (Breaux & Whitaker, 2006; Scribner, 2003; Stronge, 2007; Whitaker, 2003). Through the review of literature pertaining to highly effective teachers, many characteristics of highly qualified teachers surfaced and were applied to education to increase teacher and student learning. The literature review provided the foundation for a study on the role of attendance at a

professional learning conference on developing highly qualified teachers and on affecting teachers‘ learning together in professional learning communities.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Introduction

Recent changes in funding for education required a restructuring for professional development within the educational society. Because of economic cutbacks in spending for furthering the knowledge of teachers, districts were required to provide professional development at the local level. The passage of the *No Child Left Behind Act* (NCLB), signed into law on January 8, 2002, by President George W. Bush reauthorized the Elementary and Secondary Education Act (ESEA) passed in 1965 which threatened Federal funding if rigid accountability measures were not followed. ESEA expected states to set high standards for K-12 schools. NCLB expanded the standards and accountability provisions to allow more local control and flexibility stressing teaching practices based on scientific research. Title I, a major component of NCLB, set the standards, assessment, and accountability requirements for teaching all students in the core areas of reading, math, and science. This change required schools to meet high standards to ensure students reached grade level expectations in those areas. Key provisions of NCLB were provide state assessments, attain adequate yearly progress (AYP), identify schools for improvement, provide public school choice and supplemental educational services, take corrective actions, implement school restructuring plan, and hire highly qualified teachers (Stevenson, Schertzer, & Ham, 2008). According to NCLB, to be considered highly qualified, teachers had to possess a bachelor‘s degree, full state certification, and demonstrate competence in the academic subjects they taught. Some research had been conducted to further define characteristics of highly effective teachers;

however, little was known about the effect of attendance at a professional conference and the distinctiveness of highly qualified teachers.

The purpose of this study was to explore the connections to professional development, professional conferences, professional learning communities, conversing and collaborating practices, and qualities of highly effective teachers. The study was designed to further the understanding of professional development practices and characteristics of highly qualified and highly effective teachers. This study explored common characteristics as perceived by teachers in a self-reported survey of teaching habits and strategies of attendees of a two day professional development conference on whole brain teaching methods making connections to professional development, professional learning communities, conversing and collaborating practices, and traits of highly effective teachers as presented in the literature review from chapter two.

Research Questions

Within the context of this study, the following research questions were addressed:

1. To what extent does professional development through conferences affect the teaching practices of teachers?
2. To what degree does conversation facilitate the learning and professional growth of teachers?
3. What characteristics are most common among teachers who voluntarily participate in professional development?

Design for the Study

This descriptive study with both qualitative and quantitative items examined ways involvement in professional learning communities, and conversation and collaboration

with colleagues, facilitated learning and professional growth of teachers. The study determined characteristics of highly effective teachers who voluntarily participated in a professional learning conference and responded to open-ended questions on the Teachers Learning Together Questionnaire (TLTQ) distributed by the researcher via surveymonkey.com. The open-ended questions determined self-perceived strengths of the teachers participating in professional development activities. Characteristics that were most common among teachers who voluntarily participated in professional development as measured by the on line questionnaire were analyzed to determine connections to past research.

Population and Sample

This study was conducted using a convenience sampling of teachers who voluntarily participated in a free conference in a rural setting. The conference was conducted by Chris Biffle and Chris Rekstad, co-founders of *Whole Brain Teaching*. Brain-based learning was one of the fastest growing reform movements in America. Over four hundred teachers registered to attend the free professional development conference in a rural school in a midwestern state. Information was distributed and an invitation extended to participants asking for email addresses and volunteers to participate in a study on professional development. Participants were asked to voluntarily complete a survey on line after providing consent. The informed consent was attached to the survey initiating a response to agree or not agree to participate in the survey. If the participants agreed, they were directed to the Teachers Learning Together Questionnaire (TLTQ) to complete questions by checking a box or filling in answers in a text box. The informed consent and TLTQ are included as Appendix A and B respectively.

Data Collection and Instrumentation

The survey was designed, distributed, and collected via the Internet using a commercially available survey tool (i.e. Survey Monkey.com). This survey instrument and method for collecting information is a viable option for this research project, because the majority of teachers has and use email as a source of communication. The researcher constructed a survey consisting of 10 questions that focused on the continuation of learning after attending a two day workshop during the summer. The instrument, Teachers Learning Together Questionnaire (TLTQ), was created to determine the role professional conferences play on teachers‘ learning (Appendix B). The questions were formulated to determine the effects a two day workshop had on teaching practices. Teachers were asked to check boxes to indicate if they attended alone or with a group from their schools who were members of a PLC. The survey included text boxes for teachers to put into words why they attended, and how they will use the information they learned from the conference. Other questions were related to collaboration in PLCs or blogging on the WBL website. Demographic information was obtained to determine the characteristics of the teachers along with an open ended question asking teachers to identify teaching strengths. The ten items on the survey will be analyzed to determine characteristics of teachers attending the conference, motive for attendance, and the role attendance had on teaching practices after the conference.

Data Analysis

This study compiled common characteristics of teachers who are considered to be highly qualified for their teaching positions and have grown professionally through conversation in professional learning communities. The data were analyzed according to

answers provided on the survey using the Teachers Learning Together Questionnaire (TLTQ).

The purpose of this study was to explore the connections to professional development, professional conferences, professional learning communities, qualities of highly effective teachers, and benefits associated with conversing and collaborating with other educators. The study was designed to further the understanding of highly qualified and highly effective teachers.

Conversation. In what ways does conversation facilitate the learning and professional growth of teachers? Collaboration in professional learning teams and other methods such as on line blogs and exploring the website for whole brain teaching practices were explored through the TLTQ. Professional learning communities (PLC) are commonly used as ways for teachers to collaborate and improve conversation to increase teacher effectiveness and student learning (DeFour & Eaker, 1998). This study used questions from the TLTQ to determine the extent of participation in PLC by asking participants if they regularly participate in PLCs during the school year and how often they meet. The results were analyzed for frequencies and percentages to determine the effects of PLCs on teaching practices after attending a professional development conference.

Characteristics of highly qualified teachers. What characteristics are most common among teachers who voluntarily participate in professional development? Teachers who voluntarily attended the professional development conference were asked to list their strengths as a teacher. They were also asked to list any changes they would make in their teaching. The characteristics and changes teachers reported as their

strengths and perceived weaknesses were analyzed and categorized looking for dominant qualitative themes to determine their correspondence to the traits of highly effective teachers identified by McEwan (2009). The traits were compared to the self-reported strengths of teachers who attended the conference on Whole Brain Teaching during the summer of 2011.

Professional development impact on teaching practices. How does professional development through conferences impact the teaching practices of teachers? Professional development occurs in many different ways. The impact of the two day workshop for professional development was analyzed by looking for dominant qualitative themes related to use of information learned, planned implementation, and changes in teaching after attending the free conference for teaching according to the whole brain learning concept which is based on scientific research.

This study compiled common characteristics of teachers who are considered to be highly qualified for their teaching positions and have grown professionally through conversation in professional learning communities. The data were analyzed looking for dominant qualitative themes for items with test boxes for answers provided on the survey. The items with boxes to check were analyzed according to frequencies and percentages to determine teachers‘ relationships and conversations in collaborative learning as professionals.

Summary

School districts are required to hire and retain highly qualified teachers on a limited budget and with few guidelines. Many times professional development has to be obtained through district activities or on a teacher‘s personal time frame. There are

common characteristics of teachers who are willing to use their own resources that contribute to their professionalism and qualifications. These characteristics were analyzed for districts to utilize in hiring practices and facilitate learning.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

Introduction

The purpose of this study was to explore the connections between professional development, professional learning communities, conversation and collaboration among teachers, and qualities of highly qualified and highly effective teachers. Through an online survey, data were collected and then analyzed by determining emergent themes and commonalities among the responses from the participants. The method and design of the research were presented in chapter three. The findings from the Teachers Learning Together Questionnaire (TLTQ) developed by the researcher and provided to participants in the study through email will be presented in this chapter. The study is primarily qualitative and is a convenience sampling of participants in a Whole Brain Teaching conference held during the summer of 2011 in southwest Missouri.

Money constraints affecting school districts across the nation that created strict guidelines and evaluations of involvement in professional development activities including conferences, professional learning communities, and district in-service days were the basis for this study. The findings were guided by the following research questions:

1. To what extent does professional development through conferences affect the teaching practices of teachers?
2. To what degree does conversation facilitate the learning and professional growth of teachers?

3. What characteristics are most common among teachers who voluntarily participate in professional development?

This chapter was organized by demographics and findings that corresponded to the research questions.

Data Sources

Responses obtained from an online survey developed by the researcher were the source of the findings for this study. Emails were delivered to 141 persons who provided their e-mail addresses to the researcher at the Whole Brain Learning conference in the summer of 2011. From the 141 invitations that were sent, 52 participants responded to the survey delivered through Survey Monkey giving the study a return rate of 37%. The survey consisted of 30 questions grouped according to demographics; professional development and teaching practices; conversations and collaboration; and characteristics of teachers who voluntarily participate in professional development. There were four questions on demographics. Six questions were directed toward the use of effective teaching practices of teachers who attend professional development conferences. Eight questions were used to determine the degree of conversation and collaboration for the professional growth of teachers. The researcher used 10 questions plus two of the demographic questions to determine characteristics most common among teachers who voluntarily participated in professional development activities. All of the questions except one yes or no question had the option for respondents to explain their answers to the responses. The researcher asked that many responses be specific to describe activities or explain answers. Two questions were open ended with respondents giving specific responses to ways they would change their teaching and their strengths as a teacher. The

survey was developed to derive information pertaining to teacher involvement and use of information learned from professional development conferences, collaborative skills, professional learning communities, and qualities of highly effective teachers.

Participants

The group of participants in this study consisted of 45 teachers, two administrators, and others listed as an instructional coach, paraprofessional, preschool lead teacher with other college student-workers, school counselor, elementary counselor, and a teacher of gifted grades three through five. To better understand characteristics of the teachers, the survey determined that the respondents‘ range of employment in education was from zero through 36 years. Figure 1 provides details as to the distribution of years in education.

Demographics of Participants

According to the responses, the majority of the teachers (*N*=41, 87.2%) worked in an elementary school, 19.1% (*N*=9) worked in the middle school, and three (6.4%) were at the high school. Other places of employment were listed as a fifth grade intermediate school (*N*=1), head start (*N*=1), preschool on a university campus (*N*=1), second year new charter school (*N*=1), and a K-8 district (*N*=1). The majority of the participants (*N*=43, 86%) responded that they teach in Missouri. However, other places where respondents taught were listed as Dubai; Baku, Azerbaijan; Pennsylvania; Illinois; Oklahoma; and Kansas. Most of the school districts represented were classified as rural (*N*=36, 75%); although, urban (*N*=7, 14.6%), city (*N*=5, 10.4%), and two others listed as suburban were represented.

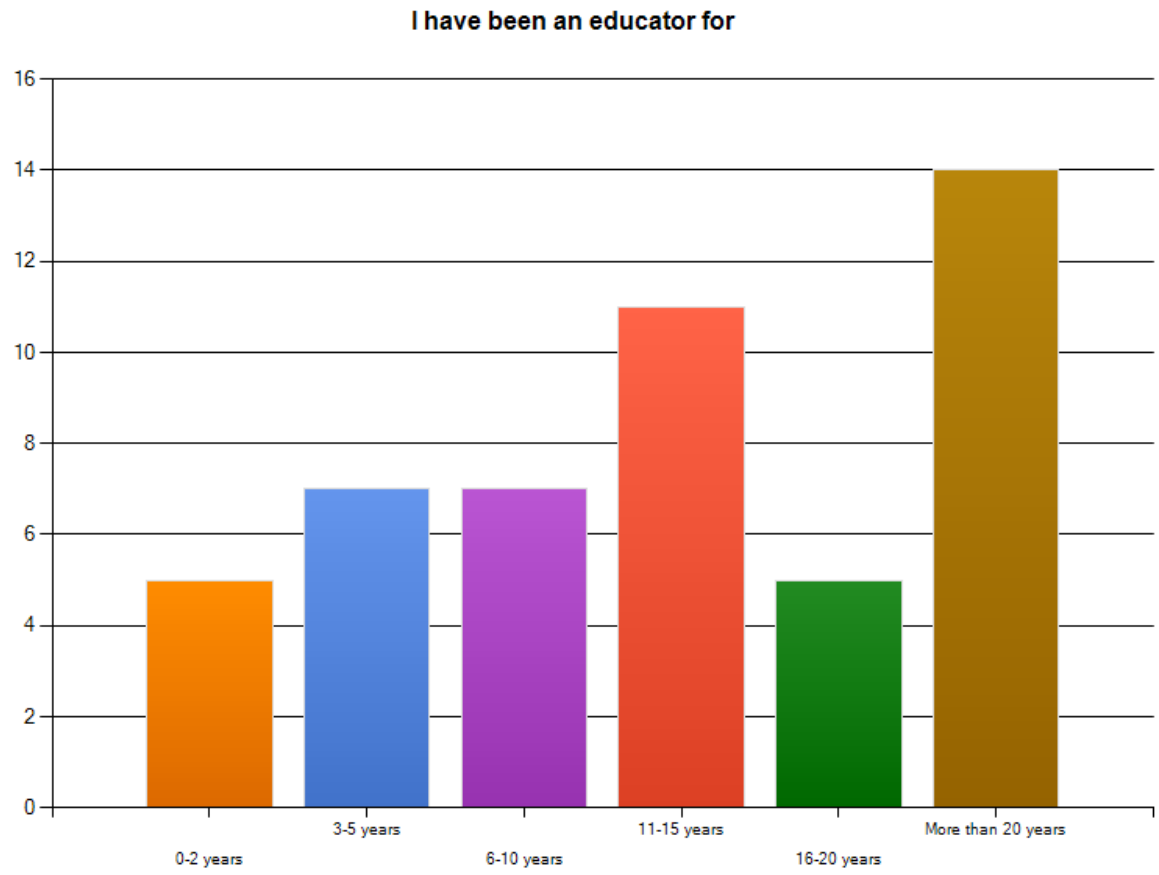

Figure 1. Online Survey Participants' Years in Education (*N*=49).

Data Results

Qualitative research is somewhat a mystery of the results and analysis of the data (Merriam, 1998; McEwan & McEwan, 2003). ~~–~~Qualitative researchers take in as much detail and information as possible, recording the most insignificant and seemingly unimportant tidbits" (McEwan & McEwan, 2003, p. 78). In the analysis and results of the data collected from Survey Monkey the researcher will provide percents for responses on the questions along with direct quotes to answer the three research questions for this study. The analysis will focus on determining significant thoughts and phrases, emerging

themes, and developing meaning from the responses (Merriam, 1998) of the participants in the study to determine the role of professional development conference attendance on teachers learning and implementing that learning into their daily teaching activities.

How Does Professional Conference Attendance Affect Teaching Practices?

The first research question asked, "To what extent does professional development through conferences affect the teaching practices of teachers?" There were four questions directly focused on the use of information learned from the Whole Brain Teaching (WBT) conference on teaching practices. Two other questions pertained to teaching practices; however, they are also included in the collaboration of teachers because they referred to the technology used to teach and collaborate with other teachers.

Use of information. All responses indicated some use of the information learned from attending the conference. However, the use of information varied from 51.1% (*N*=24) indicating they taught and used WBT classroom rules as a structure for management and discipline to 10.6 % (*N*=5) had implemented the WBT Model classroom. Figure 2 summarizes the results from this question.

As shown on Figure 2, 13 participants used the information occasionally and 17 used it daily. Individual responses from 29 participants indicated the teachers had made WBT strategies a regular part of their classroom activities. The classroom rules were used by 39 teachers as indicated in other responses. Teachers also used "Class – Yes" as attention getters as indicated by 13 teachers. Many (*N*=14) had implemented the gestures, mirror, and teach –ok to turn and teach a partner a new concept. The numbers do not add up correctly because respondents had the option of choosing as many selections as applied to their use of the information learned from the conference. Some respondents

skipped the question, nevertheless of the 47 teachers who responded to the question, all had implemented some form of WBT in their teaching practices after attending the conference.

Implementation in required curriculum. Of the 47 responses, 74.5% (*N*= 35) said the information learned at the conference had changed the implementation of the required curriculum. Teachers indicated they taught in smaller bits, and students were more engaged in their learning. The teachers had used WBT practices for teaching sight words, grammar, storytelling, math, science, and social studies. One teacher said, "I'm implementing the required curriculum using more meaningful hand gestures, turn and teach, storytelling with gestures." Another teacher wrote, "I am now trying to implement a Whole Brain Classroom 100%. So my discipline is different, instruction is different, etc. I went from lecturing and doing a lot of thematic projects to doing WBT methods." Activities that changed the way the teachers taught the required curriculum were described by 27 teachers.

Teaching changed. Of those who answered the question, the majority of the teachers (77.1%, *N*=37) who attended indicated the conference had changed their teaching. Changes described by the respondents were classroom management, engagement, involvement, and motivation. One teacher reported, "I realized from the conference, that moving increases learning. The students love my lessons!" Another teacher said, "I am a much better teacher. Lessons seem simplified, yet easier for students to understand." Additionally a teacher wrote, "It made me think of the different ways that I can make things stick and make it enjoyable." Similarly a teacher reported, "I feel my teaching is more energized and student-friendly." As one teacher indicated, "Again, I

have changed my method of delivery and my kids are more engaged than ever. I have cut the lessons into bits of info for Teach/Okay and I have added the Writing Game to better do what I was already doing." According to the responses, only 11 teachers, or 22.9%, did not change their teaching after attending the conference.

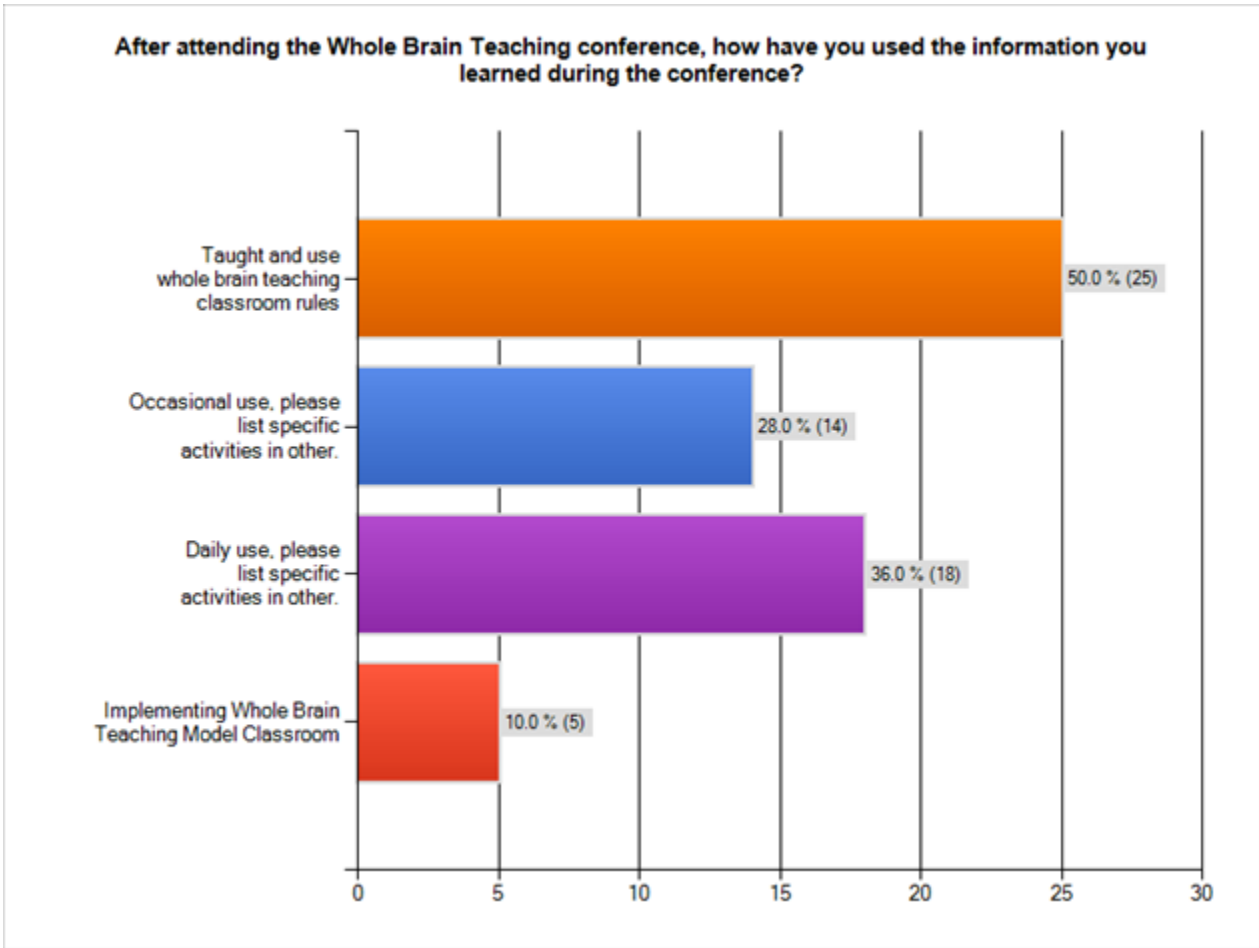

Figure 2. Online Survey Participants' Use of Information from the Conference (*N*=47).

Impact on students' learning. As a result of attending the conference, 84.8% (*N*= 39) of the teachers reporting changes in their teaching indicated the changes did impact students' learning. Seven participants (15.2%) indicated the conference did not change

teaching or students‘ learning. Not only were the students reported as enjoying their learning, but they were listening, focusing, actively engaging, and participating in their learning, according to 19 of the teachers. Five teachers reported students retained the information longer. One teacher wrote, ―Research states that 10% retention is obtained with lecture type lessons. I have 90% retention because of whole brain teaching activities that follow the lessons.” Another stated, ―When we use the gestures I feel like they are retaining the information faster.” Teachers who described the changes in students‘ learning believed students were more motivated and had taken responsibility for their learning. Students‘ learning was impacted positively according to the teachers‘ reporting change.

Planned changes in teaching. Many teachers (*N*=28) indicated they would like to make changes in their teaching after attending the conference. Some teachers (*N*=4) reported they wanted to change the way they used technology. However, 10 teachers wrote they would use more whole brain teaching techniques in their classrooms. ―I am striving to teach every concept using whole brain methods therefore my teaching has changed for the better…” said one teacher.

Technology use. After attending the WBT conference teachers were using technology to further their skills and knowledge of WBT practices, as shown in Figure 3. One teacher used the WBT website daily, 10 used it weekly, and 24, or 49%, used it two to five times. In contrast eight teachers visited the website one time, and six had never used the website. The most common use of the website by those who used it weekly or monthly was for videos, books, teaching ideas, lesson plans, and to get and share ideas. One teacher wrote she collaborated online for ―lessons prepared in whole brain format.”

Nevertheless, 62.5 % (*N*=25) indicated they did not collaborate online. The responses from the same questions pertaining to the use of the WBT website were further analyzed to determine how conversation and collaboration facilitate the learning and professional growth of teachers. The findings indicated nine teachers were using websites to collaborate and converse with other teachers through the WBT website, blogs, moodle, Twitter, and Facebook. Some teachers were conversing daily and hourly for social purposes along with collegial discourse and research.

Learning and Professional Growth through Conversation

In an attempt to answer research question number two, "To what degree does conversation facilitate the learning and professional growth of teachers?" the data were examined for connections in responses to team learning. Through responses to survey questions about teachers' use of online technology, attendance to the conference either alone or with a group, and attributes of the group members, the researcher attempted to determine the amount of collaboration that took place after the conference. Other questions concerning use of technology for collaboration and conversation were used to determine the amount of collaboration teachers utilized for learning and professional growth through websites. Survey questions about the attendees' involvement and activities in professional learning communities were used to determine connections between colleagues and conversations. These findings were detailed in the following sections.

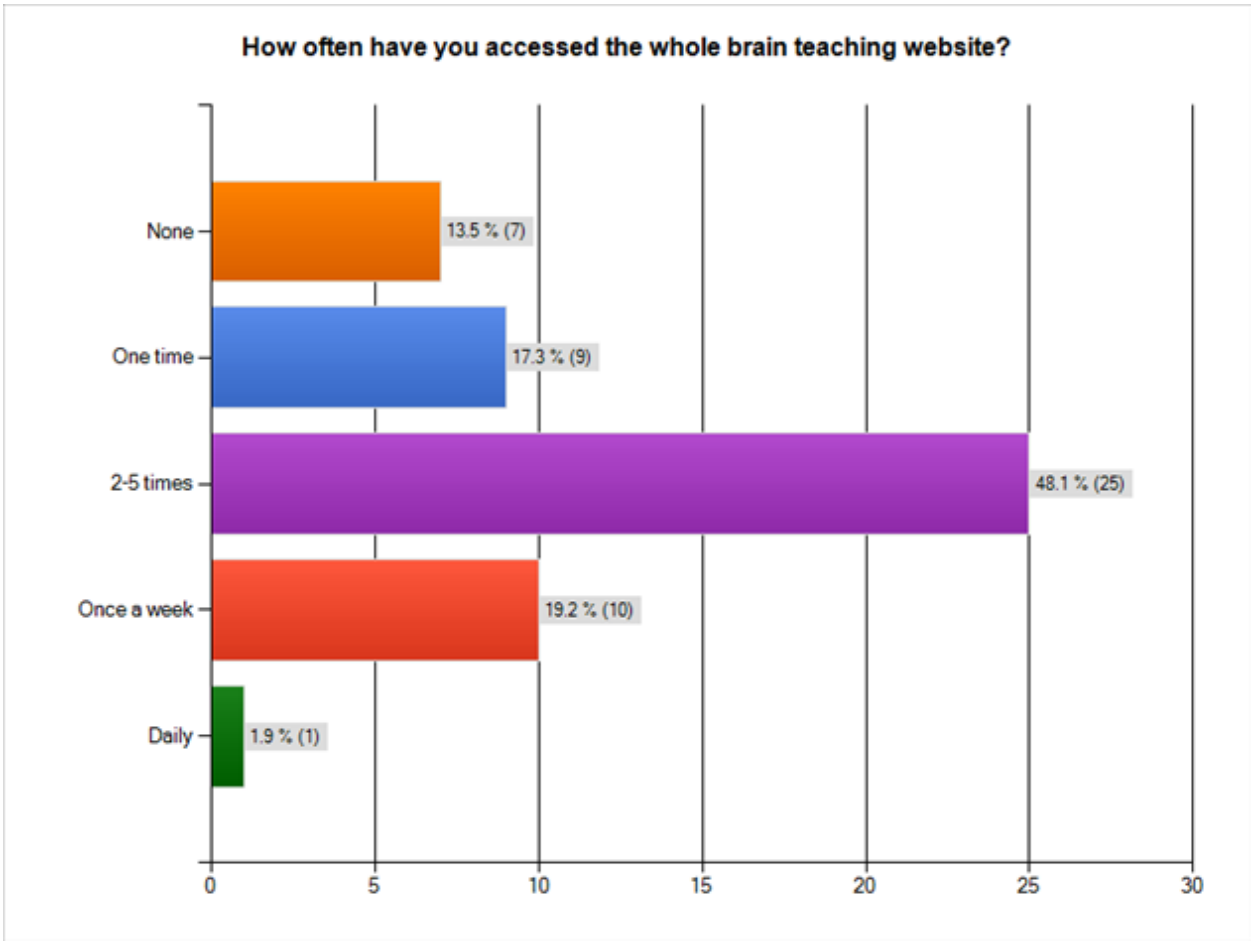

Figure 3. Online Survey Participants' Use of WBT Website (*N*=52).

Online collaboration. As indicated in the previous section, teachers used collaboration on- line to share ideas. One teacher indicated the school used collaboration online for professional development. Another stated use of web sites was for ~~–e~~ollegial discourse and research." Therefore, online conversations were used for professional growth.

Group learning. Further analysis of the data determined professional growth was through group learning or professional learning communities. In an effort to determine if participants would be meeting together after the conference, participants were asked if

they attended alone or with a group and who attended with them. As shown on Figure 4,

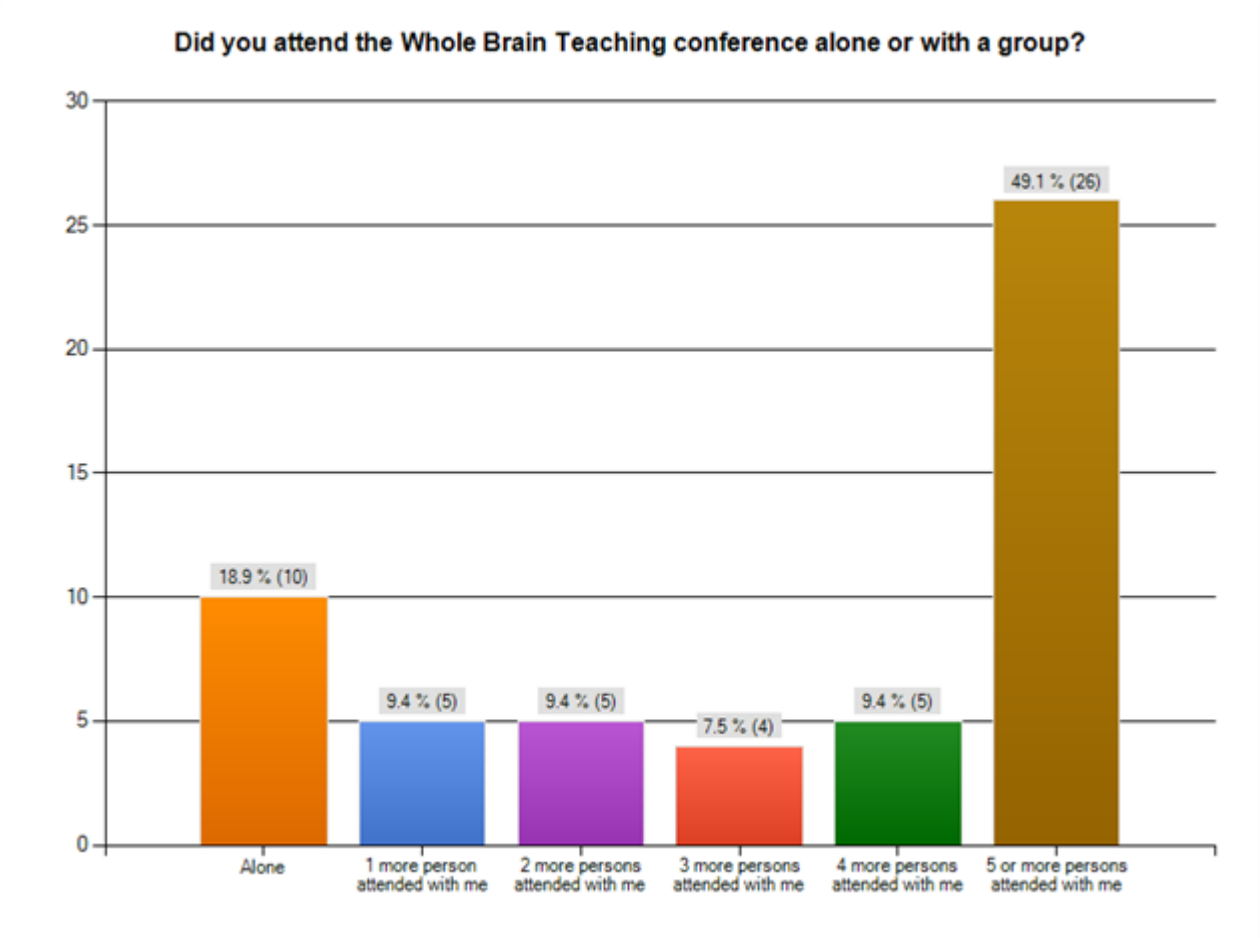

Figure 4. Online Survey Participants Attending as a Group (*N*=50).

50% (*N*=26) attended with a group of 5 or more other people. The groups were primarily random teachers, different grades or disciplines than the attendees, with nine administrators attending with their groups, as shown on Figure 5. The different groups were identified as special education, instructional coach and counselor, and elementary groups, specifically kindergarten, second, fourth, and fifth grades. Some respondents were members of more than one group; therefore, the numbers were not consistent.

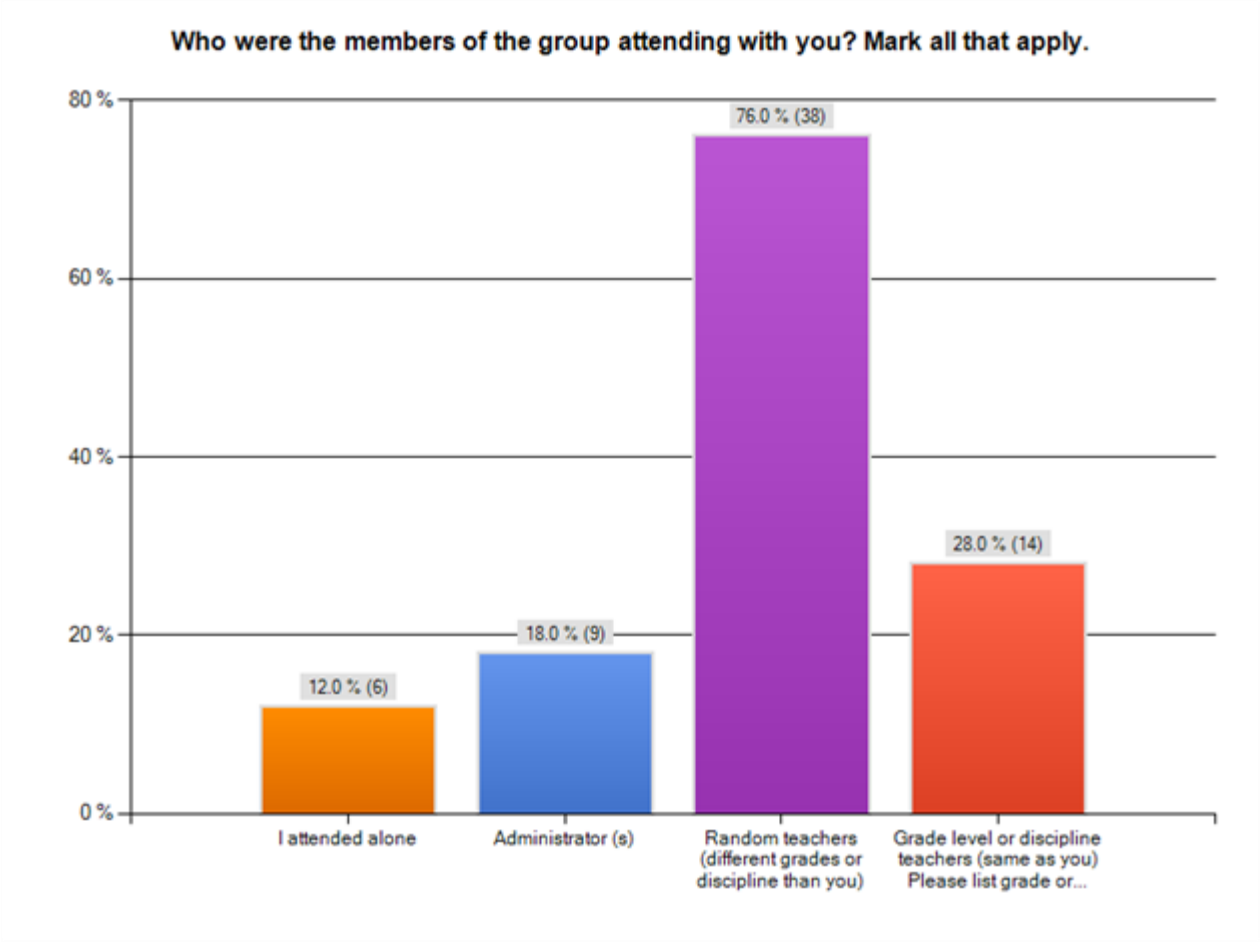

Figure 5. Online Survey Participants Attending in Groups (*N*=47).

Involvement in PLCs. In order to determine the impact of conversations on learning and professional growth of attendees, participants were asked about their involvement in professional learning communities. Of the 50 participants who responded to the survey, 29 participants attended with other teachers from their PLC and met on a regular basis. In addition, 76.6% (*N*=36) regularly participated in PLCs during the school year with the majority (*N*=23) of the 30 who responded to how often indicated meeting weekly in their groups. Again, the majority of the teachers (63.6%, *N*=28) said the PLC groups met during the school day, with the most frequent meeting time during their

common plan time (*N*=12). Other meeting times were during lunch, before school, after school, early release, and planned professional development days. The meetings normally lasted from 30 minutes to an hour.

Ways to improve student learning. Emerging themes were discovered through the examination of data regarding the impact of teacher collaboration on ways to improve student learning. Teachers (93%, *N*=40) indicated they collaborated as a team to determine various ways to improve student learning. They used student data from benchmark assessments to set goals and monitor progress toward reaching the goals for student success. Many teachers (*N*=12) indicated participating in discussions on instructional methods; curriculum ideas and techniques; classroom strategies that work; and teaching ideas. One teacher wrote, "We talk about classroom management and classroom strategies that work. We talk about technology that we need to learn and use, and we discuss different kinds of learning centers." According to another teacher, they "talk about where we are and what we are doing to help students learn at their level. Share ideas about what is working and how can we adjust what is not getting the desired results. Brainstorm ideas on how we can meet the needs of all learners." A different teacher stated, "Student data is assessed with specific needs of each student highlighted. Teachers then work with students according to their personal needs." The major theme that emerged was summarized by a teacher who said, "Look at latest progress monitoring and test scores, evaluate present instruction and impact, plan for future instruction (keep, change, etc.)." Data indicated teacher collaboration through group conversations facilitates learning and professional growth of teachers to a major degree.

Lack of conversation. Of the participants who did not participate in PLCs (*N*=20), 75% indicated a desire to have regular conversations with others who attended the conference. One teacher said, ―I tell everyone I can about WBT. Only a few of us from our school went and they really aren't doing WBT 100%. They use pieces. So I feel pretty isolated. I LOVE bumping into others who love it like I do." Other respondents indicated the same feelings of needing someone to talk to about the strategies learned during the conference.

Common Characteristics of Teachers Attending WBT Conference (Research Question 3)

Through data categorization, the researcher explored research question number three by examining characteristics of the respondents to the survey and categorizing them according to the distinctiveness of highly qualified and highly effective teachers as described by McEwen (2002). Characteristics of participants in the study were analyzed according to commonalities and shared traits of the teachers attending the conference. For the majority of respondents (69.8%; *N*=37) attendance was completely voluntary, attending because they wanted to learn more about whole brain teaching (*N*=39). Respondents were able to indicate as many reasons as they wanted for attending the conference; therefore, some discrepancies in numbers and percentages appear on Figure 6 showing the responses to why respondents of the survey attended the conference.

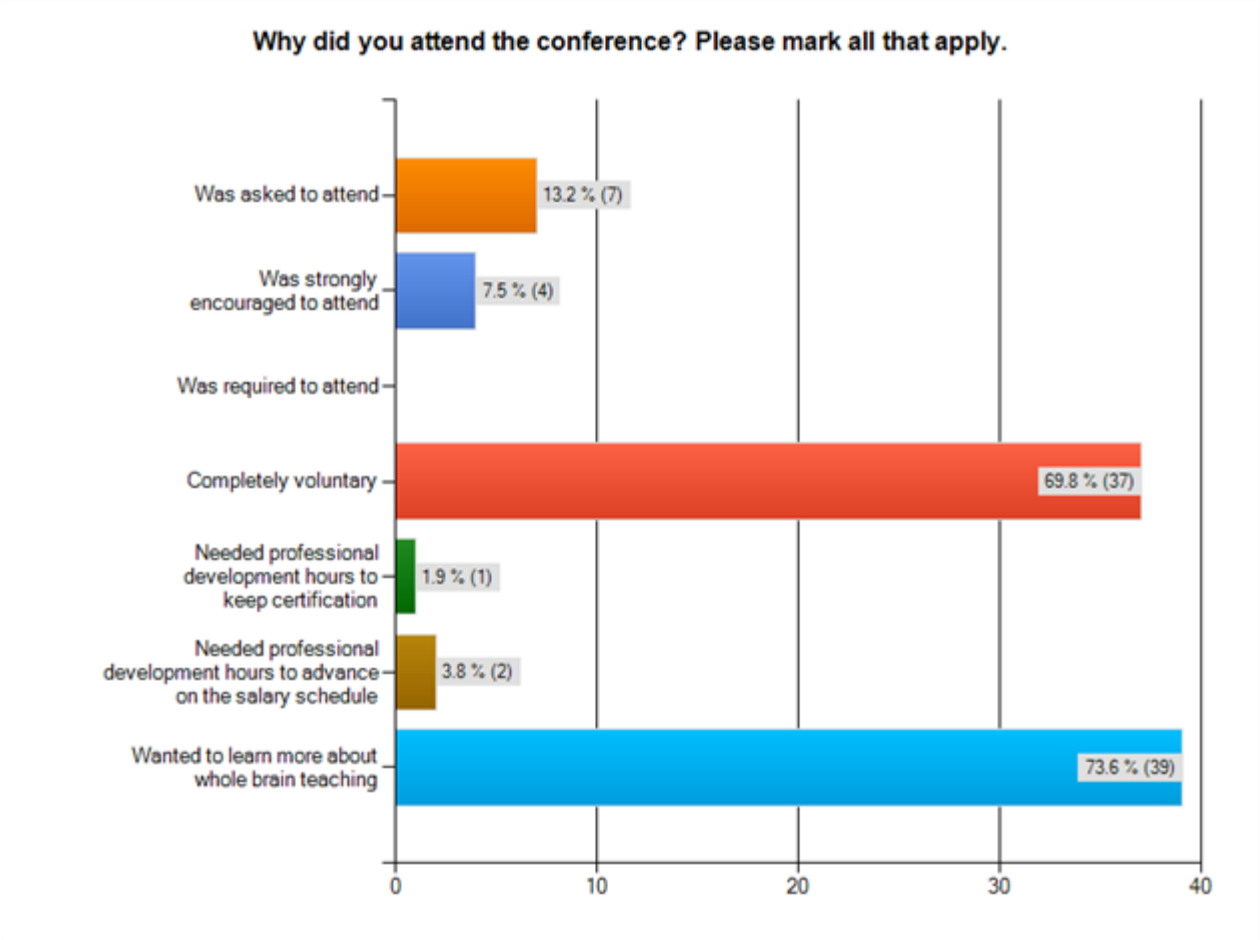

Figure 6. Online Survey Participants' Reasons for Attending Conference (*N=50).*

Employment characteristics. As described in a previous section pertaining to the participants of the study, teachers had been in education from 0 to 36 years (Figure 1). Of these respondents, their employment in their current districts varied only slightly from 18.8% (*N*=9) who had been employed in their current district from 0-2 years to 16.7% (*N*=8) being employed in their districts for more than 20 years. The mode was the 6-10 years category with 22.9%. When asked how long the teachers had been employed in their current buildings, 30.2% (*N*=13) were in their buildings from 0-2 years. Only six

teachers had been in their buildings for more than 20 years with one teacher being employed in the building for more than 30 years.

Certification in teaching areas. The majority of the participants of the survey was teaching in the area of their degree and was fully certified in the area which they were teaching. Out of 47 teachers, 40 (85.1%) indicated they were currently teaching in the area of their degree. Furthermore 97.7% (*N*=43) indicated they were fully certified in the area in which they were teaching. Of the other respondents, one had an endorsement in social studies K-8; two had certification through the praxis in special education,

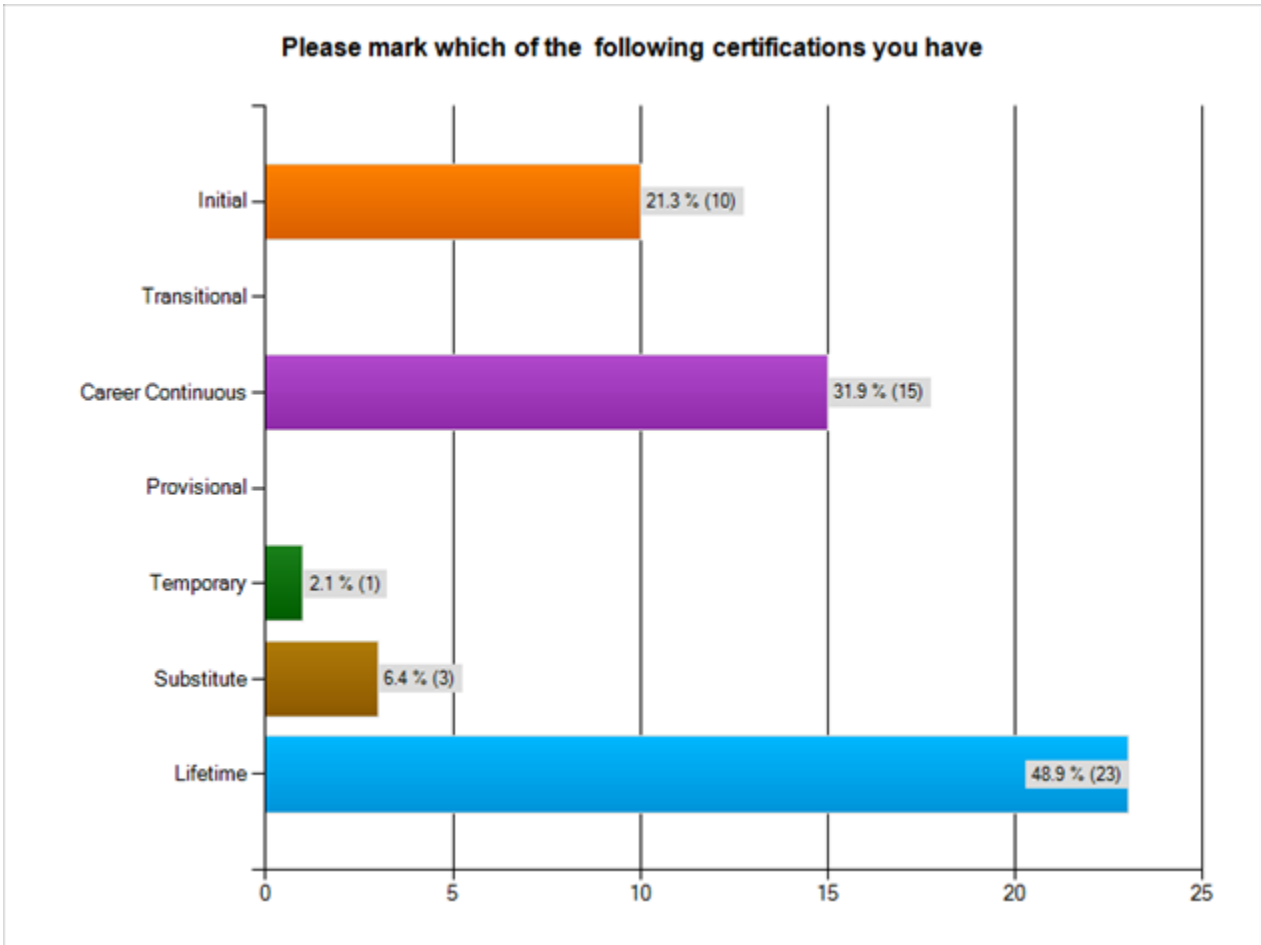

Figure 7. Certifications of online survey participants (*N*=52).

elementary education, and middle school history; and two others indicated they were currently getting more education and getting early childhood certification. The data indicated 48.9% (*N*=23) of the teachers had lifetime certification (see Figure 7). In contrast 21.3% (*N*=10) of teachers had initial certification, 31.9% (*N*=15) had continuous certification, one had temporary certification, and three had substitute certification. Teachers were considered highly qualified if they have full certification in the areas in which they teach according to NCLB. The data indicated the teachers were fully certified.

Educational degrees of attendees. Teachers attending the conference were highly qualified according to the requirements for NCLB highly qualified teachers. The data indicated the majority of the attendees (67.3%, *N*=37*)* were teachers with Masters degrees; 28.6% (*N*=14) had Bachelor's degrees; and two had Specialist degrees. One respondent indicated obtaining an Associates degree, and another listed a Doctorate of Education. Figure 8 shows the college degrees of the survey participants.

Strengths of Teachers

The third research question, "What characteristics are most common among teachers who voluntarily participate in professional development?" was considered when analyzing the data from survey question #17. To determine common characteristics of the participants in the professional development conference, qualitative data were gathered from the open ended question that asked teachers, "What do you believe are your strengths as a teacher?" All 50 participants of the survey answered this question stating their self-perceived strengths. Three common themes, caring for students, desiring to help students learn, and adjusting to changes, dominated the responses from the teachers. Other common themes were respecting students, parents, and other teachers; believing in

students; being organized and in control; motivating to achieve high academic standards; enthusiasm; flexibility; willingness to accept and implement new ideas; and knowledgeable of the content. Data were organized and analyzed according to commonalities and correlating teacher strengths to the traits of highly effective teachers as presented by McEwan (2002). The common threads among the strengths of the teachers were presented in the following sections.

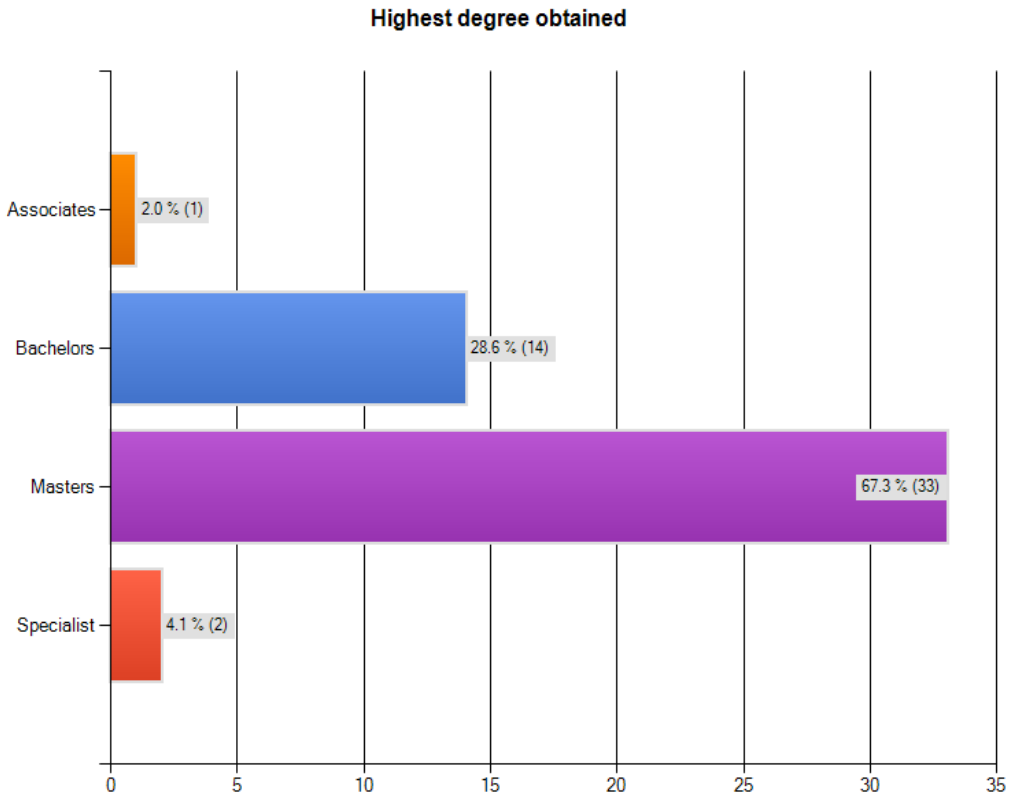

Figure 8. Online Participants‘ Highest Degree Obtained (*N*=49).

Experience. An important quality of the teachers participating in professional development by attending the whole brain teaching conference was the amount of

experience in education that was discovered in the data. Although this characteristic was only reported by two individual teachers (one with 26 years of experience and another with 29 years) as a strength, it was a common characteristic most prevalent in analyzing the reported data.

Driven to help students learn. Many teachers reported having a passion to teach and a belief that all students can learn. One teacher wrote she has a "willingness to do whatever it takes to ensure student success." Another said, "I put forth a lot of effort and energy to make my classroom an enjoyable place to learn." Several teachers reported they were caring and believed every child could learn. A different respondent wrote one of her strengths was a "desire to work together to help kids improve their abilities and reach their potential." The teachers cared about their students and were driven to help students learn.

Positive relationships. Strengths of the teachers as reported on the open ended question number 17 on the survey included words such as sharing, respect, empathy, nurturing, passion and compassion. One teacher wrote, "passion for people and profession, energy and drive to do better than my best and to expect the same from others, love and empathy for children." One respondent said, "I am respected and liked by my peers and students." Another said, "positive encourager and love life." Another person wrote, "relationship builder." One respondent summed up her strengths as "compassion and positive rapport with students." A special education teacher said, "my ability to work with special needs children and might interpersonal skills. I also am able to develop positive relationships with students so they are more receptive to learning in

my classroom." Many participants reported positive relationships with students and parents.

Management and organization. Another reoccurring theme that appeared in the strengths of teachers was that of being in control through management and organization of the classroom. This was evidenced by comments such as very organized, classroom management, student engagement, strong discipline, well organized, and set daily routine. One teacher wrote, "I believe that I am a good a planner and I try to meet all of my students' needs."

High expectations and motivator. Teachers reported strengths in believing in students. A teacher wrote, "I take each child and try to find his/her strengths and build on that. In the meantime, I encourage different ways to problem solve." Another teacher replied about her strengths as being "flexible, high expectations, meeting children at their own levels, use lots of learning styles, make learning fun." "I am a caring teacher who believes every child learns in different ways. Motivating the child to learn is challenging and to make a subject fun for a child is what I do best," wrote a respondent. Several teachers wrote they have high expectations and very high expectations for their students.

Variety in presentation. According to the responses, teachers believed they demonstrated teaching strengths by "being able to connect subject matter with my students." One teacher wrote she had the "ability to modify for individual students." Another wrote her strength was "differentiating for special needs students." Still another respondent said, "I use a variety of academic structures. I attempt to meet individual needs." In addition, a teacher wrote her strength was "willingness to do whatever it takes

to ensure student success." In summation, a teacher was willing to "change my teaching to meet the needs of my students."

Content knowledge. Many teachers indicated they had a sound knowledge of the content they were expected to teach. One teacher reported her strength as "content knowledge [and], strong pedagogy." Another teacher reported, "I am also strong in my content area." Several reported strengths as knowing the curriculum and presenting it to the students.

Flexibility and willingness to learn. A predominant theme that emerged from the strengths of the teachers who attended the conference was the flexibility in their teaching styles and the willingness to learn new methods of teaching children. Willingness to change, grow, improve, and be flexible were mentioned by 21 of the 50 respondents as their strengths. One teacher wrote, "willingness to learn new ideas, flexibility, love of learning, love kids, very high expectations of my students and myself." "Flexibility and willing to accept and implement new ideas," was a strength mentioned by another teacher. Teachers who attended the conference were flexible, willing to learn new ideas, and implement them in their teaching strategies.

Participation in professional learning communities. The researcher was seeking to determine the extent of conversations and collaboration that were occurring after attending the professional conference by asking how much training and experience participants had with PLC. According to the survey, there were minimal differences in the training and experience associated with the professional learning communities as shown in Figure 9. Participants (N=11) reported no training, and eight said they had

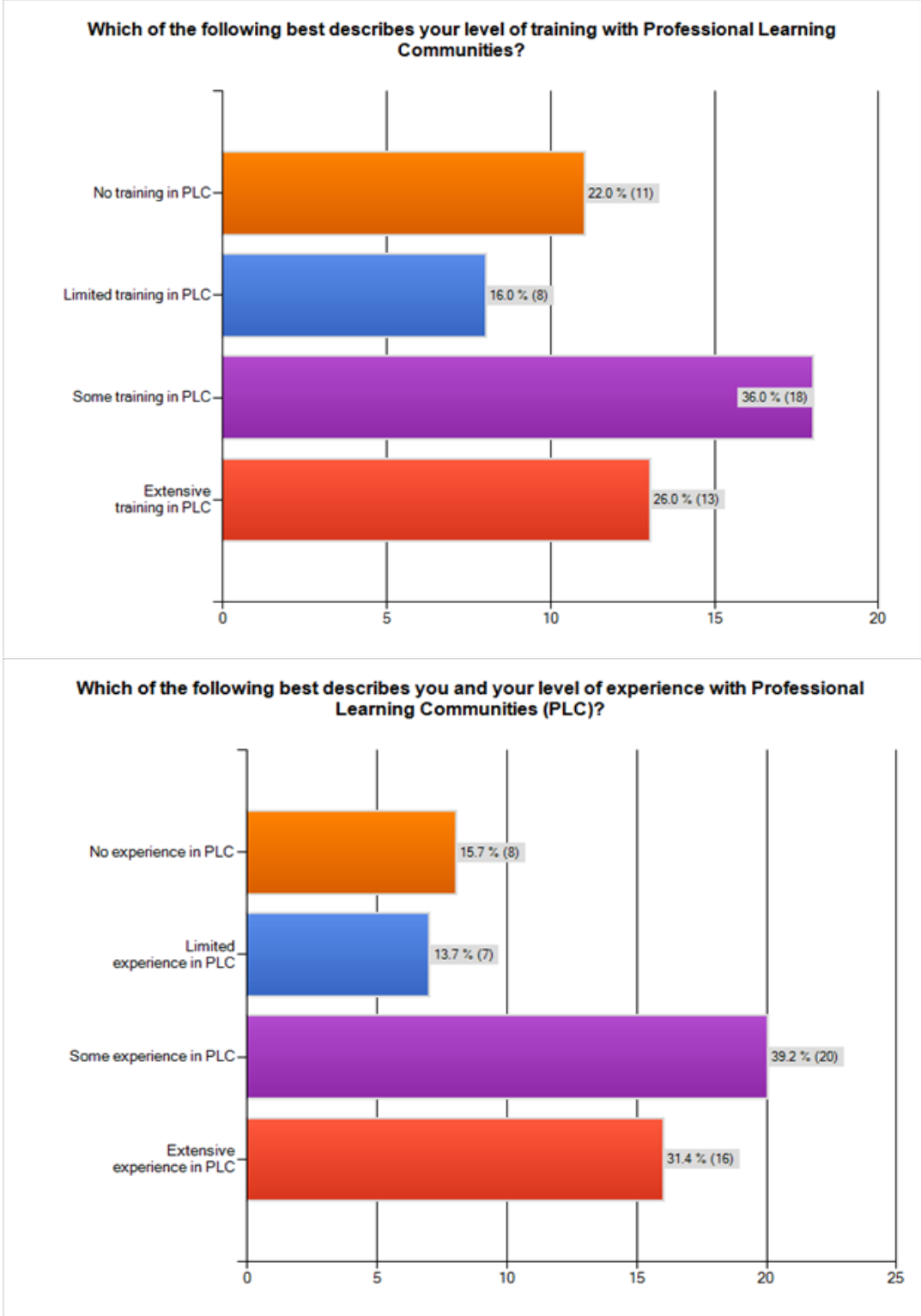

Figure 9. Comparison of participants‘ levels of training and experiences in PLC (*N*=51).

no experience in PLC. Also, seven respondents indicated limited training, and six said limited experience. However, of the 20 teachers who indicated they had some experience in PLC, 18 said they had training in PLC. Out of the 16 participants who described their level of experience with PLC as extensive, 13 participants also indicated extensive training in PLC's. Data showed 70% of the participants had some or extensive experience in professional learning communities in their schools. The majority of the participants had both training and experience with professional learning communities.

Summary

Chapter Four provided a summary and analysis of the data collected from an online survey to determine the role professional development conference attendance played on teachers learning together. Characteristics, portrayed as strengths of teachers, were described through emergent themes and commonalities to depict the traits of teachers who voluntarily attend conferences to improve their teaching abilities.

Chapter Five will summarize the findings and compile recommendations for further professional development practices. Implications for districts to consider in developing professional development programs and furthering teacher knowledge to increase student achievement will be discussed. Limitations of the study will be given along with recommendations for further studies on professional development.

CHAPTER FIVE

SUMMARY AND CONCLUSIONS

Introduction

In the world today educators are constantly striving to increase student achievement and provide better teaching methods for classroom instruction. School districts examine research based strategies for improving student achievement and strive to provide instruction to as many teachers as possible through professional development (Guskey, 2000). Because of tight financial budgets professional development has changed in recent years from large professional development conferences to local training activities with local follow-up within the district. According to Guskey, "Harsh lessons from the past have taught educators that fragmented, piecemeal approaches to professional development do not work. Neither do one-shot workshops based on the most current educational fad" (p.19). The role of professional conference attendance on teachers learning together was the basis for this study.

The purpose of this research was to explore the characteristics of highly qualified teachers through self-perceived strengths of respondents using an online survey, Teachers Learning Together Questionnaire, along with the extent their participation in professional conferences and professional learning communities had on the attendees who completed the survey to determine what role the conference played in developing new teaching strategies. Dufour and Eaker (1998) provided structure for implementing professional learning communities and providing time for collaboration within the school day. The authors said, "Teachers increase the effectiveness of their schools when they collectively identify and work toward the results they desire, develop collaborative strategies to

achieve their goals, and create systems to assess student learning" (Dufour & Eaker, p. 152). The researcher also collected data from educators that supported research on highly effective teachers (McEwan, 2002). According to the strengths provided by teachers, evidence pointed back to the characteristics of highly effective teachers as defined by McEwen. Many times educators do not implement information learned from conferences because of the lack of communication and collaboration between members of the team. Reeves (2008) suggested there is a gap between information learned and implementation because of retention and action; therefore, he recommended creating short-term wins. ~~"~~The key to effective short-term wins is that the objectives are meaningful, are attainable, and provide immediate feedback to reinforce effective practice and modify ineffective practice" (p. 24). The research provided evidence that supported his findings; however, ~~"~~because qualitative research typically provides detailed observations about a limited number of subjects, the results cannot be generalized to a large population" (Reeves, 2008, p. 34). Therefore, data collected were analyzed to determine common themes and dominant characteristics of the educators who attended the local free conference on Whole Brain Teaching. Practices of teachers who attended the conference were analyzed to determine commonalities and characteristics of the teachers according to responses from the survey.

Chapter five is divided into five sections. The first section summarized the findings through an analysis of the data obtained from an online survey, Teachers Learning Together Questionnaire (TLTQ), delivered through Survey Monkey. The next section compared data to findings from the literature review in chapter two to link conclusions to past research through a discussion of the results. Implications for practice

and recommendations for future professional development practices districts should consider before implementing professional development programs to further teacher knowledge and increase student achievement were discussed in the third section. Possible limitations of the study were presented next. Implications for future studies were suggested in the last section.

Summary of Findings

In summarizing the data found through a descriptive study with quantitative and qualitative analysis of answers obtained from the survey, Teachers Learning Together Questionnaire (TLTQ), answers were grouped according to the corresponding research questions that were the foundation for the study. The quantitative items examined ways involvement in professional learning communities, and conversation and collaboration with colleagues, facilitated learning and professional growth of teachers. The study determined characteristics of highly effective teachers who voluntarily participated in a professional learning conference and responded to open-ended questions on the Teachers Learning Together Questionnaire (TLTQ) distributed by the researcher via surveymonkey.com. The open-ended questions determined self-perceived strengths of the teachers participating in professional development activities. Characteristics that were most common among teachers who voluntarily participated in professional development as measured by the on line questionnaire were analyzed to determine connections to past research. The participants of the study were primarily teachers who worked in elementary schools from rural school districts in the state of Missouri. The teachers‘ years of experience ranged from zero to 36 years. The data were divided according to the three research questions to determine the effect of the conference on teaching practices, the

degree conversation facilitated learning and professional growth of teachers, and common characteristics of conference attendees.

Effect of Conferences on Teaching Practices

Professional conferences are frequently attended by teachers wanting to learn the latest research based teaching strategies. However, there has been little evidence of the effect of the conference on the teaching practices after the conference is over and teachers return to the classroom. The researcher speculated that many times the information obtained from the conference was never implemented and had no effect on teaching practices.

Question one. The researcher used data from TLTQ to answer the first research question, ―To what extent does professional development through conferences affect the teaching practices of teachers?" In order to answer this question, data were grouped by use of information, implementation, changed teaching, impact on student learning, and planned changes. According to the data collected, all of the teachers had used information learned from attending the conference in their teaching practices.

Use of information. The teachers' use of the information learned from the WBT conference varied from slight use to creating a model classroom. Some teachers had implemented only a small portion of the information learned such as *class-yes* for an attention-getting tool, while other teachers utilized the classroom rules for management and discipline. Five teachers had embraced all aspects of the whole brain teaching to create a model classroom. Those teachers represented the highest extent of influence the conference had on teaching practices. Some participants used the information occasionally, yet, others used it daily. However, the data showed the teachers had made

WBT strategies a regular part of their classroom activities. All responses indicated some use of the information learned from attending the conference.

Implementation in required curriculum. Teachers indicated information learned at the conference had changed the implementation of the required curriculum. The data showed, according to teachers‘ responses, students were more engaged in their learning. The teachers had used WBT practices for teaching sight words, grammar, storytelling, math, science, and social studies. Methods of teaching changed from lecturing and doing a lot of thematic projects to letting students teach each other the major concepts of the required curriculum in small learnable ideas through gestures and mirroring. By integrating the WBT strategies into the required curriculum, attendees of the conference changed their teaching strategies.

Teaching changed. Teachers indicated there were changes made in their teaching styles. Some of the changes were classroom management, engagement, involvement, and motivation. After attending the conference, teachers reported being more energized in their teaching, making learning more enjoyable and understandable for students, and allowing movement to increase learning. Lessons were simplified, and easier for students to understand. Teachers created different ways to increase learning for their students by engaging the whole brain in the process. Other teachers changed the method of delivery and engaged students by cutting lessons into small bits of information to use for *Teach/Okay* instruction. As a result of changed teaching, students‘ learning was also changed after attending the conference.

Impact on students' learning. A large majority of the teachers reported changes in their teaching methods impacted students‘ learning. Not only were students enjoying the

lessons, but they were listening, focusing, actively engaging, and participating in their learning. Also, teachers reported students retained the information longer. Participants described the changes in students‘ learning by saying students were more motivated and had taken responsibility for their learning. Data findings consistently reported students‘ learning was impacted positively by the changed teaching.

Planned changes in teaching. Teachers planned on using the information from the conference to make changes in their everyday teaching strategies used for instruction to students. Although, some teachers reported they wanted to change the way they taught by integrating technology in delivering the curriculum, other teachers planned to use more whole brain teaching techniques in their classrooms by striving to teach every concept using whole brain methods.

Technology use. After attending the WBT conference, teachers were using technology to further knowledge and develop skills by accessing the WBT website daily. Some teachers utilized it weekly and almost half of the teachers had used the website two to five times. Teachers accessed videos, books, teaching strategies, lesson plans, and shared new ideas. In contrast, other teachers used websites such as WBT, blogs, moodle, Twitter, and Facebook to collaborate and converse with other teachers. The findings indicated the teachers were conversing daily and hourly for social purposes along with collegial discourse and research using technology.

The data indicated after attending the conference teachers used information gained from the conference to change teaching methods, implement the required curriculum, positively impact students‘ learning, and use technology to further their knowledge of whole brain teaching strategies. Data collected from the respondents

indicated the professional development conference the teachers attended had a major effect on their teaching practices.

Learning and Growth through Conversation

Collaboration and conversation facilitates learning (Bruffee, 1999). When external conversation is internalized and moves the student into another knowledge community, then learning takes place, according to Bruffee. Data were collected and analyzed to determine the connection between the information obtained through the WBT conference and professional growth of teachers through collaboration and conversation with others who attended the conference. This section was organized by the analysis of data concerning online collaboration, group learning, involvement in PLCs, ways to improve student learning, and the lack of conversation.

Question two. Research question number two, "To what degree does conversation facilitate the learning and professional growth of teachers?" was answered by the data that examined connections in responses to team learning. Through responses to survey questions about teachers' use of online technology, attendance to the conference either alone or with a group, and attributes of the group members, the researcher attempted to determine the amount of collaboration that took place after the conference. Other questions concerning use of technology for collaboration and conversation were used to determine the amount of collaboration teachers utilized for learning and professional growth through websites. Survey questions about the attendees' involvement and activities in professional learning communities were used to determine connections between colleagues and conversations. These findings were detailed in the following sections.

Online collaboration. Teachers used collaboration online to share ideas, view WBT videos, learn teaching strategies for implementing WBT, access information from abcteach.com, Pinterest.com, wholebrainteaching.com, groups.yahoo.com/moretprs, for social reasons, professional development, collegial discourse, and research. Data indicated the attendees did collaborate on line with other teachers who were familiar with whole brain teaching concepts. Therefore, online conversations were used for professional growth after attending the conference.

Group learning. Further analysis of the data determined professional growth was through group learning. Participants were asked if they attended alone or with a group and who attended with them. Half of the teachers attended with groups of five or more other people. The groups were primarily random teachers, different grades or disciplines than the attendees, with nine administrators attending with their groups. The different groups were identified as special education, instructional coach and counselor, and elementary groups, specifically kindergarten, second, fourth, and fifth grades.

Involvement in PLCs. Participants were asked about their involvement in professional learning communities in order to determine the impact of conversations on learning and professional growth of attendees. Over half of the participants who responded to the survey attended with other teachers from their PLC group and met on a regular basis. In addition the majority of the teachers regularly participated in PLCs during the school year with many indicating they met weekly in their groups. Again, the majority of the teachers met with the PLC groups during the school day, with the most frequent meeting time during their common plan time. Other meeting times were during lunch, before school, after school, early release, and planned professional development

days. The meetings normally lasted from 30 minutes to an hour. Attendees were involved in professional learning communities where conversation and collaborative learning was occurring.

Ways to improve student learning. Emerging themes were discovered through the examination of data regarding the impact of teacher collaboration on ways to improve student learning. Teachers indicated they collaborated as a team to determine various ways to improve student learning. They used student data from benchmark assessments to set goals and monitor progress toward reaching the goals for student success. Many teachers indicated participating in discussions on instructional methods, curriculum ideas and techniques, classroom strategies that work, and teaching ideas. The teachers indicated they confer about ways to use technology, and share ideas of how to adjust teaching methods to increase student learning. The major theme that emerged was teachers monitor progress by examining test scores, evaluating instructional practices, and planning for future instruction. Data indicated teacher collaboration through group conversations facilitated learning and professional growth of teachers to a major degree.

Lack of conversation. Participants who did not participate in PLCs indicated a desire to have regular conversations with others who attended the conference. The teachers indicated the collaboration was missing, and they felt isolated in implementing WBT strategies. Other respondents indicated the same feelings of needing someone to talk to about the strategies learned during the conference.

The second research question was "To what degree does conversation facilitate the learning and professional growth of teachers?" Teachers used collaboration online to learn from other teachers according to survey questions. The data also showed teachers

who were members of professional learning communities conversed weekly looking at student progress and ways to improve student learning through instructional practices and classroom strategies that were successful. Data indicated teacher collaboration through group conversations facilitated learning and professional growth of teachers to a major degree.

Common Characteristics of Conference Attendees

The Whole Brain Teaching conference was provided free to participants with speculations that teachers would pass the information on, thus spread the teaching strategies to others and provide successful learning for students. Attendees registered prior to the conference but were responsible for all personal costs. So why did teachers attend this conference, and what were the common characteristics of these teachers? The researcher speculated these teachers were highly qualified and highly effective in their fields of education.

Question three. The TLTQ was used to determine "what characteristics are most common among teachers who voluntarily participate in professional development?" Several characteristics emerged from the questions asked in the survey. Characteristics of the respondents to the survey were similar to the traits of highly qualified and highly effective teachers as described by McEwen (2002). The majority of the respondents attended voluntarily because they wanted to learn more about whole brain teaching. The commonalities and shared traits of the teachers attending the conference were categorized by employment, certification, educational degrees, strengths, and PLC training and participation.

Employment. The participants of this study were teachers who had been in education from zero to 36 years. Employment in their current districts varied only slightly from zero to two years to being employed in their districts for more than 20 years. More teachers had been in their districts six to ten years than in the other categories. Almost a third of the teachers had been employed in their current buildings from zero to two years with only six teachers in their buildings for more than 20 years. However, one teacher had been employed in the building for more than 30 years. Common employment characteristics of attendees were experienced, tenured teachers who had been employed in the same building for more than six years.

Certification in teaching area. The teachers indicated they were currently teaching in the areas of their degrees, and were fully certified in the areas in which they were teaching. Only a few of the respondents were not fully certified in the area in which they were teaching. One had an endorsement in social studies K-8; two had certification through the praxis in special education, elementary education, and middle school history; and two others indicated they were currently getting more education and getting early childhood certification. The data indicated almost half of the teachers had lifetime certification, while another 15 had continuous certification. In contrast, one teacher had temporary certification, and three of the attendees had substitute certification. Other teachers had initial certification. Over all, the data indicated the teachers attending the conference were highly qualified, according to NCLB, with full certification in the areas in which they teach.

Educational degrees of participants. The range of the educational degrees of teachers attending the conference was from associates to doctorate of education.

However, the majority were teachers with masters degrees and bachelors degrees. Using the data linked to the education of the teachers who attended the conference, the teachers met the educational requirements for NCLB highly qualified teachers.

Strengths of teachers. To determine common characteristics of the participants in the professional development conference, qualitative data were gathered from an open ended question that asked teachers, ―What do you believe are your strengths as a teacher?" All 50 participants of the survey responded to this question stating their self-perceived strengths. Although experience was not reported as a strength of the attendees, the researcher's perception through qualitative analysis of the data indicated experience as a major contributing factor in the characteristics of the participants in this study. Three common themes, caring for students, desiring to help students learn, and adjusting to changes, dominated the responses from the teachers. Other common themes were respecting students, parents, and other teachers; believing in students; being organized and in control; motivating to achieve high academic standards; having enthusiasm; being flexible; willing to accept and implement new ideas; and being knowledgeable of the content. Data were organized and analyzed in relation to commonalities of effective teachers (Darling-Hammond & Sykes, 1999; McEwan, 2002; Stronge, 2007).

An important quality of the teachers participating in professional development by attending the whole brain teaching conference was the amount of experience in education that was discovered in the data. While this characteristic was only reported by two individual teachers (one with 26 years of experience and another with 29 years) as strength, it was a common characteristic most prevalent in analyzing the reported data.

Many teachers reported having a passion to teach and a belief that all students can learn. Teachers were willing to provide needed instruction, resources, effort and energy to ensure student success. The participants reported they were caring and believed every child could learn. The attendees cared about their students and were driven to help students learn.

Other strengths of the teachers as reported on the open ended question number 17 on the survey included words such as sharing, respect, empathy, nurturing, passion, and compassion. The respondents had passion for people and the teaching profession striving to improve their teaching methods thus increasing student success. They were driven to do better than their best and expected the same from others. By developing positive relationships with students, the teachers indicated students were more receptive to learning. The teachers believed they had created a positive rapport with colleagues, parents, and students; consequently, they were respected and liked. Many participants reported positive relationships with students and parents.

Another reoccurring theme that appeared in the strengths of teachers was that of being in control through management and organization of the classroom. This was evidenced by comments such as very organized, classroom management, student engagement, strong discipline, well organized, and set daily routine. Thus, the teachers believed they had good management and organizational skills.

Teachers reported high expectations and motivators as strengths in dealing with students. Teachers accomplished those skills by finding student strengths, setting high expectations, and encouraging different ways to solve problems. Motivating children to learn was challenging for the teachers, but they reported making school enjoyable was

one of their strengths. Several teachers wrote they set high expectations and relay high expectations to their students.

After analyzing the responses, the researcher determined teachers believed they demonstrated teaching strengths by providing a variety of academic structures in the presentation of the subject matter. Teachers were able to connect subject matter with students and modify to differentiate and meet individual needs of students. In summation, teachers were willing to change teaching methods to meet the needs of students.

Knowledge of the content area was another strength that emerged from analyzing the data. Teachers indicated they had a strong pedagogy and a sound knowledge of the content they were expected to teach. Several reported strengths as knowing the curriculum and presenting it to the students.

A predominant theme that emerged from the strengths of the teachers who attended the conference was the flexibility in their teaching styles and the willingness to learn new methods of teaching children. Willingness to change, grow, improve, and be flexible were mentioned by many of the respondents as their strengths. Teachers who attended the conference were willing to learn new ideas and implement them in their teaching strategies.

PLC training and participation. The extent of conversations and collaboration that was occurring after attending the professional conference was determined by asking how much training and experience participants had with PLCs. According to the survey, there was a minimal difference in the training and experience associated with the professional learning communities. However, the majority of the conference attendees had experience in professional learning communities in their schools; consequently,

conversations and collaboration were presumably taking place regularly among the participants of the conference. In summation, the majority of the participants had both training and experience with professional learning communities.

Characteristics of the survey participants who attended the conference were very similar to traits of highly qualified teachers identified by other researchers. The majority of the teachers attended voluntarily because they wanted to learn more about whole brain teaching. The teachers who attended were primarily experienced teachers who cared about their students and wanted to ensure student success. Teachers strove to develop strong relationships with their students. They used words such as sharing, respect, empathy, nurturing, passion and compassion when describing their strengths. Another characteristic of these teachers was that of being in control through classroom management and organization. The teachers believed in their students; therefore, they motivated and set high standards for all. These teachers believed they were strong in their content areas and did everything they could to meet the needs of their students. Flexibility and willingness to learn new ideas and change were common characteristics of these teachers. The data indicated the teachers who responded to the survey had strong characteristics of highly effective teachers. The common threads in the self reported strengths of the teachers were experience, drive to help students learn, positive relationships, management and organization skills, motivator with high expectations, variety in presentation, content knowledge, flexibility, and eagerness to learn. The teachers were trained and experienced in PLC; therefore, collaboration and conversation were initiated during group time to facilitate learning and sustain the implementation of teaching strategies learned at the whole brain teaching conference.

Discussion

Findings from the data were compared to the literature review in chapter two to connect data to past research. The data collected showed a strong connection to past research from the review of the literature. According to Guskey (2000), professional development should be continuous, increase teachers‘ knowledge, and improve student learning. Data from the survey indicated the professional learning conference did increase teachers' knowledge, improved student learning, and was continuous because of the involvement of the teachers in professional learning communities. The data also supported the literature pertaining to professional learning communities. The teachers were conversing and collaborating on teaching methods to learn from the conference in order to improve teaching practices and increase student achievement according to their self perceptions. The characteristics identified as strengths of the teachers who attended the conference aligned almost perfectly to the characteristics identified by McEwen (2002) in her book, *10 Traits of Highly Effective Teachers.* The only characteristic that was difficult to identify in the self-identified strengths of the teachers was that of being knowledgeable of the students and community in which they lived. Although this characteristic was not directly stated by the respondents, it was implied in their answers on the survey.

Professional Development Effect on Teaching Practices

Many times professional conferences were attended by teachers who needed to advance on the salary schedule or to continue their certification. Some teachers wanting to learn the latest research based teaching strategies, attended conferences to further their knowledge. There had been little evidence of the effect of the conference on the teaching

practices after the conference was over and teachers returned to the classroom. The researcher speculated that many times the information obtained from the conference was never implemented and had no effect on teaching practices. Research had suggested attending conferences had little effect on teaching practices because of the lack of ongoing training (Guskey, 2005; Ormiston, 2011; Petzko, 2004). Guskey (2005) suggested professional development should be evaluated in order to make recommendations for further professional development activities. Activities that had a clear focus, emphasized change, and were an integral part of the day to day activities of the professional (Guskey, 2002) had a lasting effect on education. The data from TLTQ contradicted this research because the whole brain teaching conference did not involve continuous training to attendees after the conference. However, teachers continued utilizing information learned from the conference by collaborating and accessing information from the Internet. Data showed the teachers had made WBT strategies a regular part of their classroom activities. All responses indicated some use of the information learned from attending the conference. Even though the research suggested attending conferences had little effect on teaching practices, the data indicated just the opposite.

Learning and Growth through Conversation

The data supported Bruffee‘s (1999) research by showing the growth of teachers professionally, according to their reports, through collaboration and conversation with others who attended the professional conference. The data showed growth by accessing online collaboration, group learning through involvement in PLC's, and improvement in student learning because of conversations. Participants who did not participate in group

learning and were not involved in PLC felt isolated when implementing teaching strategies from the conference.

Dufour and Eaker's (1998) research was supported by the majority of the teachers who met with the PLC groups during the school day. Emerging themes discovered through the examination of data regarding the impact of teacher collaboration on ways to improve student learning, indicated teachers collaborated as a team to determine various ways to improve student learning. They used student data from benchmark assessments to set goals and monitor progress toward reaching the goals for student success also supporting Dufour and Eaker (1998). Many teachers indicated participating in discussions on instructional methods, curriculum ideas and techniques, classroom strategies that work, and teaching ideas. The teachers indicated they confer about ways to use technology and share ideas of how to adjust teaching methods to increase student learning. The major theme that emerged was that teachers monitor progress by examining test scores, evaluating instructional practices, and planning for future instruction. Data indicated teacher collaboration through group conversations facilitated learning and professional growth of teachers to a major degree.

Common Characteristics of Conference Attendees

The Whole Brain Teaching conference was provided free with directions for teachers to pass on the information and spread the concept among educators nationwide. The majority of the teachers who attended were at the conference because they wanted to learn more about whole brain teaching. Therefore, the researcher speculated teachers were highly qualified and highly effective in their fields of education. The respondents' strengths were analyzed and categorized, then compared to traits of highly effective

teachers as presented by Glatthorn et al. (2006), Marzano (2007), McEwan, (2002), and Whitaker (2003). The data analyzing the common characteristics of the teachers who attended the conference supported the research that reported traits, characteristics, and practices of highly effective teachers.

Three common themes, caring for students, desiring to help students learn, and adjusting to changes, dominated the responses from the teachers. Other common themes were respecting students, parents, and other teachers; believing in students; being organized and in control; motivating to achieve high academic standards; having enthusiasm; being flexible; willing to accept and implement new ideas; and being knowledgeable of the content. Data supported the commonalities of effective teachers (Darling-Hammond & Sykes, 1999; McEwan, 2002; Stronge, 2007).

The extent of conversations and collaboration that was occurring after attending the professional conference determined the experience participants had with PLCs. According to the survey, the majority of the conference attendees had experience in professional learning communities in their schools; consequently, conversations and collaboration were presumably taking place regularly among the participants of the conference. The participants who attended the conference had very similar traits of highly qualified teachers identified by other researchers (Darling-Hammond & Sykes, 1999; McEwan, 2002; Stronge, 2007). The majority of the teachers attended voluntarily because they wanted to learn more about whole brain teaching. The teachers who attended were primarily experienced teachers who cared about their students and wanted to ensure student success. Teachers strove to develop strong relationships with their students. They used words such as sharing, respect, empathy, nurturing, passion and

compassion when describing their strengths. Another characteristic of these teachers was that of being in control through classroom management and organization. The teachers believed in their students; therefore, they motivated and set high standards for all. These teachers believed they were strong in their content areas and did everything they could to meet the needs of their students. Flexibility and willingness to learn new ideas and change were common characteristics of these teachers. The data indicated the teachers who responded to the survey had strong characteristics of highly effective teachers. The common threads in the self reported strengths of the teachers were experience, drive to help students learn, positive relationships, management and organization skills, motivator with high expectations, variety in presentation, content knowledge, flexibility, and eagerness to learn. The teachers were trained and experienced in PLC; therefore, collaboration and conversation were initiated during group time to facilitate learning and sustain the implementation of teaching strategies learned at the Whole Brain Teaching conference.

When effective professional development added to a teacher‘s knowledge, skills, and attitudes to increase student learning, and when the training was on-going, data driven, purposeful and focused, then with this type of professional development, teachers became highly skilled in their fields, and professional learning communities provided the foundation for providing sustained professional development during the school day and throughout the school year for increasing student learning.

Implications for Practice

Districts should consider creating an environment during the school day so teachers could collaborate, reflect, and learn to implement the knowledge obtained from

professional development activities before implementing new programs furthering teacher knowledge and increasing student achievement. Teachers who were in PLC teams continued practicing their new learning and were able to change teaching methods and student learning. Training in PLC should be provided prior to implementing the groups and providing time to meet on a regular basis. Collaboration had a positive effect on sustaining the information learned from the conference.

Data from the study showed the importance of continuing conversations and collaboration with other teachers after attending a one or two day conference. Teachers who attended as groups of five or more showed a better understanding of the material taught and stronger implementation in their regular school practices. Providing groups of teachers opportunities to attend conferences together and allowing weekly time for collaboration during the regular school day would be recommendations for future professional development practices made from data collected from this study.

Limitations

There were several limitations to this study that restricted the extent of the findings. Two limitations were defined by time constraints and limited respondents to the online survey. Of approximately 400 attendees, 141 volunteers provided e-mail addresses to the researcher volunteering to participate in an online survey concerning professional development practices. Only 52 of those volunteers responded to the survey within the time allowed. Because of the location of the conference, the majority of the respondents were from Missouri; however, some were located from other states and countries. Answers to the questions on the survey were limited to the amount of space provided; therefore, respondents were limited to how much information they could give to the

researcher. The researcher was a novice researcher; consequently, all questions and data were collected and analyzed by one inexperienced person. There may have been some bias from the researcher because of the extent of the participation at the same conference being researched and possible employment from one of the schools that some respondents may have been employed. The data was limited to attendants from one conference held at one location in one state.

Further Research Implications

There were several questions pertaining to professional development that were not answered from this study. Research over a longer period of time could be repeated to determine if teachers sustained their teaching practices after a year, two years, or more. Other studies could be conducted from other professional learning conferences to determine if the characteristics of teachers were the same. Research could also be done to determine if participation in professional learning activities indicated a higher level of job satisfaction. Participants from other professional learning conferences could be researched to determine the effects of the conference on learning of teachers. Student achievement is another area that could be researched to determine if teachers with characteristics of highly effective teachers have an impact on student achievement. Implications for future studies concerning professional learning conferences, professional learning communities, and highly qualified teachers are limitless. Only a few were identified in this section of this study.

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Appendix A

Email message

< name>

My name is Kathy Long. You provided me with your email address for a survey on professional development at The Whole Brain Teaching Conference in West Plains, Missouri during July. I would greatly appreciate your time to complete the attached survey via surveymonkey.com. It should take between 10-15 minutes to complete. I will be glad to answer any questions you have about my study. Thank you again for participating and giving of your time and thoughts.

Kathy Long

Doctoral student at the University of Missouri - Columbia

Appendix B

Informed Consent Form

Dear Research Participant:

Thank you for considering participation in the study "Teachers learning together: The role of professional conference attendance." This study is being conducted in partial fulfillment of the requirements for the Doctor of Education degree in Educational Leadership and Policy Analysis at the University of Missouri-Columbia.

The purpose of this study is to explore the connections in professional development, professional conferences, and professional learning communities. This information will be useful to understand the role of professional development in schools in the 21st century.

Before you make a final decision about participation, please read the following about how your input will be used and how your rights as a participant will be protected:

- Participation in the study is completely voluntary. You may stop participating at any point without penalty.
- You need not answer all of the questions.
- Your answers will be kept confidential. Results will be presented to others in summary form only, without names or other identifying information.
- Your participation will take approximately 10-15 minutes. During this time you will answer some demographic questions along with questions on your participation in the learning conference you attended in July at West Plains using an online survey.
- The data collected will be held in a locked file cabinet in the researcher‘s office and disposed of at the conclusion of the study.
- The survey is anonymous and your privacy will be protected.

This project has been reviewed and approved by the University of Missouri-Columbia Campus Institutional Review Board (IRB). The IRB believes that the research procedures adequately

safeguard the subject's privacy, welfare, civil liberties, and rights, and may be contacted at 573.882.9585. The project is being supervised by Dr. Cindy MacGregor, Professor, CLSE, Missouri State University (417.836.6046).

If at this point you are still interested in participating and assisting with this important research project please click on the following link to access the survey. You may fill out the consent form below, print it, and keep for future reference. By accessing the survey you have agreed to participate in the study. You can contact me at 417.284-3246 if you have questions or concerns about your participation. All responses will remain confidential. Thank you very much for your time and consideration.

Sincerely,

Kathy Long

University of Missouri-Columbia

I, _____, agree to participate in the study of "Teachers learning together: the role of professional conference attendance," conducted by Kathy Long. I understand that:

- My answers will be used for educational research.
- My participation is voluntary.
- I may stop participation at any time without penalty.
- I need not answer all of the questions.
- My answers and identity will be kept confidential.

I have read the information above and any questions I asked have been answered to my satisfaction.

[Boxes will be provided for participant to check.]

____ I agree to participate in this activity, realizing that I may withdraw without prejudice at any time.

By continuing with this survey, I am indicating that I have read the above statement and have been given the opportunity to express concerns by contacting the investigator. Furthermore, I am indicating that I understand the purpose of the study, as well as the potential benefits and risk that are involved. I am, additionally, giving my permission to participate in the research described above.

____ I do not wish to participate in this study.

Appendix C

Teachers Learning Together Questionnaire (TLTQ)

Conference Attendance Portion [radial buttons provided for each set of indented choices]

1. After attending the Whole Brain Teaching conference, how have you used the information you learned during the conference?

Taught and use whole brain teaching classroom rules

Occasional use, please list specific activities. [text box]

Daily use, please list specific activities. [text box]

Implementing Whole Brain Teaching Model Classroom

2. How has the information you learned changed your implementation of the required curriculum?

[text box]

3. How has the conference changed your teaching?

[text box]

4. How have the changes in your teaching that resulted from the conference impacted students‘ learning?

[text box]

Conference has not changed my teaching

5. How often have you accessed the whole brain teaching website?

None

One time

2-5 times

Once a week

Daily

6. How do you collaborate on line?

Blog, how often? [text box]

What websites (be specific)

For what purpose? [text box]

7. If you could make any changes in your teaching, what would those be? [text box]

Professional Growth Portion [radial buttons provided for each set of indented choices]

8. Did you attend the conference alone or with a group?

Alone

1 more person attended with me

2 more persons attended with me

3 more persons attended with me

4 more persons attended with me

5 or more other persons attended with me

9. Who were the members of the group attending with you? Mark all that apply.

Administrator (s)

Grade level or discipline teachers (same as you) please list grade or discipline_____

Random teachers (different grades or discipline than you)

I attended alone

10. If you are in a professional learning community (PLC) meeting on a regular basis, did other teachers in your PLC attend the conference?

Yes

No

11. If you are not part of a PLC, are you planning to, or will you be able to, have regular conversations with anyone who attended the conference?

No, why not [text box]

Yes, please explain how [text box]

12. Do you regularly participate in a professional learning community during the school year?

No

Yes, How often? [text box]

13. Is your PLC participation during the scheduled school day?

No, when? [text box]

Yes, when? [text box]

I do not participate in a PLC

14. In your team do you collaborate on ways to improve student learning?

No

Yes, how? Please be specific [text box]

Teacher characteristics

15. Why did you attend the conference? Please mark all that apply.

Was asked to attend

Was strongly encouraged to attend

Was required to attend

Completely voluntary

Needed professional development hours to keep certification

Wanted to learn more about whole brain teaching

Other, please explain:_____

16. How did you pay for your expenses?

I covered all expenses.

All expenses were paid by my district.

My district reimbursed me for part of the expenses. Please specify what was paid by you and what was paid by the district.[text box]

17. What do you believe are your strengths as a teacher? Please be specific. [text box]

Demographic Portion of Survey [radial buttons provided for each set of indented choices]

18. I am a:

Teacher

Administrator

Other, please give title: _____

19. I currently work at a/an

Elementary School

Middle School

High School

Other, please describe:_____

20. I live in:

Missouri

Other State, please list:_____

21. I have been an educator for:

0-2 years

3-5 years

6-10 years

11-15 years

16-20 years

More than 20 years

22. I have been employed in my current district for:

0-2 years

3-5 years

6-10 years

11-15 years

16-20 years

More than 20 years

23. I have been employed in my current building for:

0-2 years

3-5 years

6-10 years

11-15 years

16-20 years

More than 20 years

24. Highest degree obtained:

Associates

Bachelors

Masters

Specialist

Other, please list:_____

25. I am currently teaching in the area of my degree:

Yes

No, I have a degree in [text], but am teaching [subject, grade level]

26. I am fully certified in the area in which I am teaching:

Yes

Endorsement [explain]

Praxis [explain]

No, Explain [text box]

27. Please mark which of the following certifications you have:

Initial

Transitional

Career Continuous

Provisional

Temporary

Substitute

Lifetime

Other, please list:_____

28. Which of the following best describes you and your level of experience with

Professional Learning Communities?

No experience in PLC

Limited experience in PLC

Some experience in PLC

Extensive experience in PLC

29. Which of the following best describes you and your level of training with Professional Learning Communities?

No training in PLC

Limited training in PLC

Some training in PLC

Extensive training in PLC

Thank you very much for completing this survey. You may contact me at any time about the results of this study.

VITA

Kathy Lynn Sigler Long was born to two loving parents, who supported her throughout her education and career in education. Her elementary, middle school, and high school education were from Turner Schools in Kansas City, Kansas. She attended York College, obtaining an associate‘s degree, Oklahoma Christian University for her bachelor‘s degree in elementary education, and after four years of teaching at Cassville, Missouri received a master‘s degree from Missouri State University. When her parents retired from their jobs in Kansas City to move to the farm in southern Missouri, she followed them to the country where her grandmother lived to continue her teaching career as an elementary teacher at West Plains. That was where she met her loving husband of almost 33 years. After staying home with her children for ten years, Kathy went back to her dream job of teaching children. She and her husband have built a strong family with three daughters, one son, two son-in-laws, one-daughter-in-law, and five wonderful GRANDchildren. She was a teacher for 28 years while her husband operated a dairy farm.

The family farm was where she and her husband provided the work ethic for their four children to be successes on their own. One daughter is a pharmacist, one a nurse educator, the son is an educational administrator, and the youngest daughter is a high school math teacher. After obtaining her doctorate in education, Kathy plans to enjoy life and her grandchildren on the farm while continuing to teach.