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Teachers' Participation in Formal Induction Programs and Their Subsequent Level of Professional Growth in Wisconsin Public Schools

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TEACHERS' PARTICIPATION IN FORMAL INDUCTION PROGRAMS AND THEIR SUBSEQUENT LEVEL OF PROFESSIONAL GROWTH IN WISCONSIN PUBLIC SCHOOLS

by

Paul Edmund Blanford, Sr.

A Dissertation
Submitted to the Graduate Studies Office
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

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ABSTRACT

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May 2008

This study investigated the relationship between teachers' participation in formal induction programs and their subsequent level of professional growth as measured by two variables (graduate level credits/graduate degrees attained) as reported by public school teachers in the State of Wisconsin. In addition, selected demographic variables (teachers' age; teachers grade level taught; teachers' school district size; training and support provided to teachers in their first years of teaching; participation by teachers in mentoring and induction programs; teachers' level of education) were examined for their predictive relationships with teacher induction and professional development.

This study was conducted during the spring of 2007. The participants were 429 teachers randomly chosen from the Department of Public Instruction of the State of Wisconsin database of public school teachers from grades Pre-School to 12^{th} grade and included all levels and content areas. The Blanford – Level of Teacher Induction Scale – 1 (B-LOTIS 1) developed by the researcher, was the survey instrument of this study and was to measure the level of teacher induction experienced by participants. The 40-item questionnaire was developed specifically for this study.

Analysis of data indicated that weak negative linear relationships existed between the variables of teachers' years of experience, grade level taught, and graduate level credits attained, and the variables of measure for teachers' experiences in induction related training and support. Other hypotheses indicated no linear relationships existed for this population. The overall findings of this study were inconclusive in determining if any relationships exist between teacher induction experiences and teachers' subsequent professional development as defined and measured in this present study. Based on the findings of this study, the researcher provides recommendations for further investigation of these topics and practical implication for school administrators.

DEDICATIONS

The writer would like to dedicate this project to his mother, Flavia Blanford, and to his wife, Karen Blanford. The writer's mother was very supportive through the years of his pursuing higher education by providing encouragement and enthusiasm. Although she passed away before the completion of this project, her spirit remained a driving force of inspiration. Thank you Mom!

The writer's wife Karen, was very supportive and played an essential role in the completion of this project. Her countless hours spent doing many things like proof-reading, stuffing envelops, and preparing the mail-out surveys, helped immeasurably. Her patience and support as well as her tolerance through the extent of this project helped more than she'll ever know. She did all of this while working full-time and as a full-time mother. Extraordinary! Karen, thank you.

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TABLE OF CONTENTS

LIST OF TABLES

Table

CHAPTER I

INTRODUCTION

Among educators, widespread concern at all levels about the quality of schools in the United States has led to renewed interest in the areas of teacher preparation and teacher induction (Blair-Larson, 1998). During the 1980's, the induction movement gained momentum throughout the country as a result of educational reform movements and legislative mandates. The 1990's provided more focus and research into induction issues and the promise of mentoring, along with investigation of issues impacting teacher attrition rates.

Teacher induction has been defined as the period of transition from student to professional (Blair-Larsen, 1998) or the period of transition experienced by beginning teachers (Brooks, 1987). According to Huling-Austin (1990), teacher induction should be considered a part of the teacher education continuum, beginning with pre-service education, followed by induction, with additional ongoing in-service – professional growth experiences.

New teachers often struggle as they attempt to translate knowledge they acquired during college into learning experiences that make sense to their students (Carter, 1988). Although college programs ensure new teachers are knowledgeable (through testing, evaluations and limited fieldwork), they may not necessarily prepare the new teacher to present this knowledge to others. With the transition from student teacher to teacher, there needs to be a bridge, as noted by the Education Research Information Center (ERIC): "Formal induction programs provide continuity between the closely supervised

pre-service experience and the assumption of full classroom responsibilities" (ERIC, 1986, p. 1).

According to the National Education Association (NEA) (2001), "Induction should be seen as an investment" (p.1). Issues such as teacher shortages and teacher retention (Ingersoll, 2001), poor working conditions in schools (Ingersoll, 2003; Ingersoll & Smith, 2003; Millinger, 2004), overall poor school climate (Brooks, 1987), and inadequate communication among teachers and administrators (Feiman-Nemser, 2001; Karge, 1993; Metropolitan Life, 1996) can be addressed by a comprehensive teacher induction program. Wong (2002) emphasized:

> You don't wait until after school begins and new teachers are in trouble to start a professional development program...all successful induction programs help new teachers establish effective classroom management procedures, routines, and instructional practices. They help develop teachers' sensitivity to and understanding of the community, as well as their passion for lifelong learning and professional growth. Successful programs also promote unity and teamwork among the entire learning community (p. 52).

According to Robinson (1998), successful induction practices have three main objectives: (a) to help new teachers settle into their environment, (b) to help them understand their responsibilities, and (c) to ensure that the school receives the benefits of a well-trained and highly motivated teacher as quickly as possible. New teachers who are successfully inducted generally become successful veteran teachers who continue to seek professional growth opportunities (Bobek, 2002; Williams, 2003). Professional growth can be enhanced through district in-service workshops, conferences, college coursework,

advanced degrees, national certification, and membership of and participation in professional organizations.

In 1999, the NCES survey on teacher quality with a 92% (3560 of 3866 eligible) return rate revealed that only 19 percent of the 4049 teachers surveyed had a mentor teacher and two thirds did not participate in a formal induction program during their first year on the job (United States Department of Education, 1999). Further, the survey indicated that traditional approaches to professional development (e. g., workshops, conferences, school wide presentations, etc.) have been criticized for being relatively ineffective because they typically lack connection to the challenges teachers face in their classrooms, and they are usually short term. With respect to graduate work, Stout (1996) argued that the current system of rewarding teachers with higher pay based on the number of graduate courses they have on their transcript encourages teachers to take unrelated miscellaneous courses that are not necessarily linked to the school's plans, students' needs, or teacher performance improvement.

Continued learning and professional development are particularly important for teachers because the nation's schools have been increasingly challenged to increase student achievement (Speck & Knipe, 2001). Teachers who pursue advanced learning are more likely to deepen their skills and knowledge not only in instructional techniques, but also in their subject matter. This makes teachers better able to make lessons meaningful, answer students' questions, and help students solve problems. Furthermore, these teachers learn how to better inspire their students and meet individual student needs. Research has shown that improving teacher knowledge and teaching skills is

essential to raising student performance (Desimone, Porter, Birman, Garet, & Yoon, 2002; Ferguson, 1990; Huling-Austin & Murphy, 1987).

Beginning teachers are often not fully prepared for the requirements of classroom teaching nor are they encouraged and supported to view teaching as a career-long proposition (Fullan with Stiegelbauer, 1991). The focus of this study will be on the relationship of participation in formal teacher induction programs and the extent to which first-year teachers pursue professional growth opportunities as measured by the number of graduate level credits and graduate degrees attained after they began teaching.

Problem Statement

The problem of this study will be to investigate the relationship between a new teacher's participation in a formal teacher induction program and the subsequent level of professional development achieved as measured by the number of graduate credits completed and graduate degrees obtained after they began to teach. The first year of teaching is difficult. The major concerns of new teachers have been identified as discipline and classroom management (Elias, Fisher, & Simon, 1980; Johnson & Birkeland, 2003a; Veenman, 1984), personal life adjustment and the teaching assignment itself (Johnson & Birkeland, 2003a), motivating students, planning lessons, and dealing with individual differences (Veenman, 1984) and finding and using appropriate materials (Elias, Fisher & Simon, 1980). During this induction phase, teachers and school administrators begin relationships that are of a fundamental importance not only in setting standards and behavioral patterns, but also for determining the direction of teachers' future professional development.

This study is designed specifically to answer research questions that follow and are translated into null hypotheses for statistical testing purposes later in the study. The level of teacher induction experienced by teachers will be measured by their responses to items 17-40 of the survey instrument.

1. What is the relationship between the extent of training and support services experienced by teachers in their first year of teaching and their total years of experience in teaching?

Hypothesis #1: There is a relationship between the extent of training experienced by teachers in their first year of teaching and their total years of experience in teaching.

Hypothesis #2: There is a relationship between years of teaching experience and the extent of support services experienced.

Years of teaching experience are expected to show statistically significant correlation between participation in teacher induction (i.e., training and support services) because teacher induction has become more prevalent in recent years. Thus, it is anticipated that hypotheses #1 and #2 will be accepted.

2. What is the relationship between the extent of training and support services experienced by teachers in their first year of teaching and their current school district size?

Hypothesis #3: There is a relationship between school size and the extent of training experienced.

Hypothesis #4: There is a relationship between school size and the extent of support services experienced.

School size is expected to show statistically significant correlation between participation in teacher induction (i.e., training and support services) because the literature shows less prevalence of teacher induction programs in smaller schools. Thus, it is anticipated that hypotheses #3 and #4 will be accepted.

2. What is the relationship between the extent of training and support services experienced by teachers in their first year of teaching and the current grade level they teach?

Hypothesis #5: There is no statistically significant difference between the training of secondary teachers (Grades 9-12) and elementary grade level teachers (PK-5).

Hypothesis #6: There is no statistically significant difference in the level of support services for secondary teachers (Grades 9-12) and elementary grade level teachers (PK-5).

Grade level taught by participants should show no statistically significant difference in participation in teacher induction (i.e., training and support services) because teacher induction programs are usually implemented on the district-wide level; hence, there is even distribution among all teachers. Thus, it is anticipated that the null hypotheses #5 and #6 will be accepted and their alternatives rejected.

3. What is the relationship between the extent of training and support services experienced by teachers in their first year of teaching and the number of graduate credits obtained after the teacher began to teach?

Hypothesis #7: There is a relationship between the number of graduate credits obtained after the teacher began to teach and the extent of training experienced.

Hypothesis #8: There is a relationship between the number of graduate credits obtained after the teacher began to teach and the extent of support services experienced.

Graduate credits are expected to have a statistically significant correlation between participation in teacher induction (i.e., training and support services) because, as the literature suggests, teacher induction programs result in higher teacher satisfaction, retention rates, and teacher quality. It is also expected that as a result of other aspects of teacher induction, such as mentoring, teachers are more likely to seek staff development/graduate degrees. Thus, it is anticipated that hypotheses #7 and #8 will be accepted.

4. What is the relationship between the extent of training and support services experienced by teachers in their first year of teaching and completion of graduate degrees?

Hypothesis #9: There is a relationship between completion of graduate degrees completed after the teacher began to teach and the extent of training experienced.

Hypothesis #10: There is a relationship between completion of graduate degrees completed after the teacher began to teach and the extent of support services experienced.

Graduate degrees completed after the teacher began to teach are expected to have a statistically significant correlation between participation in teacher induction (i.e., training and support services), although the completion rate will vary according to the total number of years in teaching, life events that interfere with or delay completion, school size, and or geographic locale. Thus, it is anticipated that hypotheses #9 and #10 will be accepted.

5. What is the relationship between teachers' completion of graduate degrees after the teacher began to teach and their overall experience in teacher induction utilizing the B-LOTIS 1 Scale?

Hypothesis #11: There is a relationship between completion of graduate degrees after the teacher began to teach and the overall extent of training and support experienced as measured by the B-LOTIS 1 Scale.

Graduate degrees completed after the teacher began to teach are expected to have a statistically significant correlation between participation in teacher induction (i.e., training and support services), although the completion rate will vary according to the total number of years in teaching, life events that interfere with or delay completion, school size, and or geographic locale. Thus, it is anticipated that hypothesis #11 will be accepted.

6. What is the relationship between teachers' completion of graduate credits after the teacher began to teach and their overall experience in teacher induction utilizing the B-LOTIS 1 Scale?

Hypothesis #12: There is a relationship between the number of graduate credits obtained after the teacher began to teach and the overall extent of training and support experienced as measured by the B-LOTIS Scale.

Graduate credits are expected to have a statistically significant difference with participation in teacher induction (i.e., training and support services) because, as the literature suggests, teacher induction programs result in higher teacher satisfaction, retention rates, and teacher quality. It is also expected that as a result of other aspects of teacher induction, such as mentoring, teachers are more likely to seek staff

development/graduate degrees. Thus, it is anticipated that hypothesis #12 will be accepted.

Rationale for Study

This study investigates the relationship between a new teacher's participation in a formal teacher induction program and the subsequent level of professional development achieved as measured by the number of graduate credits completed and graduate degrees obtained. This study is important to gain information about the relationship between teacher induction programs on teachers' continued professional development. This study yields an assessment tool to measure the level of teacher induction through collaboration with experts in the field of teacher induction and teacher mentoring. Specific universal components of teacher induction programs have been chosen based upon findings within the literature and input provided by the expert panel. This instrument is available to future researchers for use in further studies.

This study is needed to gain information for the field of Education/Educational Administration to examine the impact of teacher induction on professional growth. Findings of this study may provide valuable evidence for future consideration. Information is needed to assist educational administrators in making informed decisions regarding the initiation of teacher induction programs. This study may provide valuable information to other researchers studying teacher induction and teacher mentoring, and professional development of teachers.

Mandates of the "No Child Left Behind" Act, requiring that every classroom contain a "highly qualified" teacher, and other regulations placed on schools, have underscored the importance of understanding what inspires teachers to continue

professional growth and make improvements in their teaching. Knowledge gained from this study may aid school administrators in developing programs in school districts that enhance professional growth of teachers, in turn, be better for students.

Significance of the Study

This study contributes to the knowledge base relative to teacher induction and teacher professional development because exploring the usefulness and applicability of teacher induction initiatives and programs could make a contribution to improving teacher performance. To be effective, organizations must continually improve and adults must also continually learn and grow (Galbo, 1998). Teacher induction programs have the potential to create a culture in which learning is valued, individual contributors are recognized, teachers feel empowered, leadership is shared, communication is facilitated, and student achievement is affected (Hall, 1982; Jensen, 1986; Sparks & Hirsch, 2000). But, determining whether these characteristics are present in a school and whether they contribute to the improvement of teacher quality requires more investigation. More empirical research is needed to determine the extent that teacher induction programs change teaching practice and influence whether teachers seek additional professional development in the form of pursuing additional graduate degrees and graduate credits. This study addresses these issues and thus is significant to the area of teacher professional development in general and to teacher induction programs specifically. The results of this study may be important as the findings may add to the paucity of empirical data related to the extent to which teachers pursue graduate degrees and/or additional graduate coursework as part of their professional development.

The large numbers of beginning teachers in America's classrooms present the education professional with an opportunity to create a new conceptualization of teacher induction and teacher professional development. Therefore, the study may also serve to provide the foundation or groundwork for future conceptualizations and future research investigations that examine the relationship of induction programs and professional development.

Support for the Study

The beginning years of teaching can be enormously challenging and stressful: attrition rates can be as high as 50% in the first five years (Ingersoll, 2003).

> For the first time, the new teacher is in complete control of the classroom; he or she faces the demands of children and parents, and must prepare new lessons every day. Beginning teachers must meet these challenges with perseverance, hard work, and, increasingly, with the assistance of experienced teachers and administrators who recognize the need for extensive teacher support during the first year or two on the job (U.S. Department of Education, 1997a, p 1).

Induction can assist new teachers during this transitional phase in their teaching careers. Ingersoll (2001, 2003) found teacher retention rates significantly increased in schools that utilized teacher induction programs. While induction programs may help keep teachers teaching, does it influence other variables like professional growth?

Induction is a cyclical process within a school's culture. The culture serves to induct incoming teachers in a manner that is perpetuated and is returned back into this culture. Teacher induction models are intended to develop and enhance success in new teachers (Darling-Hammond, 1998). As Sergiovani (1995) stated, "the building of a

culture that promotes and sustains a given school's conception of success is key." (p. 88). Successful teacher induction programs can produce happier and more effective teachers, which benefits students and influences the overall workplace and the community it serves (Darling-Hammond, 1998).

Assumptions

Based on findings in the literature, the researcher assumed that variables such as age and number of years in teaching would show differences in participation in induction programs because the number of induction programs has increased in more recent years. Other assumptions are based on this study are:

1. The respondents had the same level of comprehension of the directions regarding the activities of the study.
2. Those responding are willing participants in the study.
3. Respondents understood the nature and purpose of the study.
4. Respondents answered questions honestly and to the best of their ability.

Delimitations

This study is delimited to public school teachers in the State of Wisconsin. Surveys were sent to 1000 teachers selected randomly from a Wisconsin Department of Public Instruction Database of approximately 63,000 public school teachers downloaded by the researcher November 10, 2006. The database contains only teachers employed for the 2006-2007 school year within all of the 426 public school districts in Wisconsin.

Definitions

B-LOTIS 1 – Blanford – Level of Teacher Induction Scale – 1 – instrument used within the survey of this study, piloted to measure the level of teacher induction experienced by respondents.

Graduate Credit – a unit of academic credit; one hour a week for an academic semester, recognized by a college or university as graduate level, above and beyond undergraduate level coursework; typically measured in semester hours (Bartleby.com., 2004).

Graduate Degree – a degree granted from an institution of higher learning, usually a division of a university, master's degree, specialist degree or doctorate degree (Bartleby.com., 2004).

Mentor teacher - Someone who guides the novice teacher during his or her first year(s) of teaching.

Mentoring – A formal pairing of a novice teacher with a veteran teacher to provide the novice teacher the support and guidance necessary for success (Blair-Larsen, 1998).

Novice Teacher - someone who is in his/her first or second year of teaching after initial teacher preparation.

Support – Support that subjects were provided during their first years of teaching.

Teacher Induction - a highly organized and comprehensive form of staff development, involving many people and components, that typically continues as a sustained process for the first two to five years of a teacher's career. Mentoring is often a component of the induction process. (Wong et al., 2005, p. 379).

Teacher Induction Program – Systematic approach that provides new teachers the necessary training and support to become successful teachers (Robinson, 1998).

Teacher Orientation – A brief program with intent to acquaint new teachers with their new school environment which may include building and community tours, introductions of new teachers to current staff, an explanation of district policies and procedures, school guidelines and rules, and teacher expectations. (Blanford, 2001)

Teacher Professional Growth/Development – For the purpose of this study, advanced activities in which teachers participate to increase their knowledge and skills in teaching. These include: in-service training; serving on school/district level committees; chairing school/district level committees; attending workshops; attending conferences; attaining membership and participating in professional organizations; gaining graduate level credit and attaining advanced degrees; attaining additional teaching certifications; and acquiring national teacher certification (Marx, Blumenfeld, Krajcik, & Soloway, 1998).

Teacher Quality – the extent to which teachers demonstrate content knowledge in the areas of subject matter content, pedagogical content, and curricular knowledge to be successful in the classroom (Shulman, 1986), as measured by student achievement.

Teacher Socialization - the process by which new teachers selectively acquire their values, attitudes, interests, skills and knowledge to adjust, adapt, and change in their perspectives, roles, and school environments (Feiman-Nemser, 2003; Staton & Hunt, 1992).

Training – Training that subjects were provided during their first years of teaching.

In the following chapters, related literature thoroughly discusses teacher induction and related components as well as teacher professional development. The methodology of this study is outlined, data is analyzed and discussed, and a summary of findings is outlined. In addition, implications of the study are expressed and recommendations for further research are listed.

CHAPTER II

LITERATURE REVIEW

Introduction

The notoriously high attrition rate of teachers within the first few years on the job has led to the depiction of teaching as "the profession that 'eats its young'" (Hope, 1999, p. 54). An estimated 40% to 50% of new teachers leave the profession within five years (Ingersoll & Kralik, 2004; Ingersoll & Smith, 2003). Attrition rates were especially high in economically disadvantaged school districts (Darling-Hammond, 2001, 2003). Roughly half of new teachers in urban schools left within five years and some 9.3% to 17% left before they had taught a full year (Hammer & Williams, 2005). To underscore the problem, in some school districts the dropout rate for teachers exceeded student dropout (Fulton, Yoon, & Lee, 2005).

In response to the urgent need for qualified teachers, there was a proliferation of programs providing support, guidance, and orientation for new teachers, classified under the umbrella of "induction" (Ingersoll & Kralik, 2004). However, a review of the literature indicated there were relatively few such programs that actually offered the comprehensive support implied by the term. National data revealed that fewer than 1% of teachers received a comprehensive induction package recommended by the Alliance for Excellence in Education (Wayne, Youngs, & Fleischman, 2005). A common complaint was that induction was typically short-term and involved little more than mentoring, which varied in quality (Feiman-Nemser, 2003; Fulton et al., 2005). In a parallel manner, professional development was often equated with "training" or "workshops" and criticized for being fragmented and ad hoc (Dufour, 2004; McCaughtry,

Cothran, Kulinna, Martin, & Faust, 2005; Sparks & Hirsh, 2000, Sparks & Loucks-Horsley, 1989).

The absence of cohesive programs in the United States for cultivating new teachers and advancing professional growth stood in sharp contrast to the practices of many Asian and European countries where professional development began in graduate education and extended throughout the teacher's career (Darling-Hammond, 1998, 2005; Feiman-Nemser, 1998; Wong, Britton, & Ganser, 2005). It should be noted that students in these countries surpassed their counterparts in the United States on international benchmarks in mathematics and science (Hiebert & Stigler, 2000). Furthermore, teacher shortages were rarely a problem in countries where teachers had high professional status and competitive salaries (Darling-Hammond, 2005).

Teacher shortages were most prevalent in low-income school districts and certain fields, notably mathematics, science, special education, and bilingual education (Darling-Hammond, 2001). Driven by the need for qualified teachers to raise student achievement, large and low-income school districts were in the forefront of providing teachers with reform-based professional development activities because of the new and more strict accountability measures imposed by state and federal mandates regarding school improvement related to legislation such as NCLB (Desimone, et al., 2002). However, teachers in mathematics (Cwikla, 2004), science (Luft, Roehrig, & Patterson, 2002), and special education (Billingsley, 2004) identified persistent barriers and issues of program design that impeded the successful induction of new teachers. Without addressing these issues, the shortages in these fields were likely to increase, as intensive recruiting cannot solely compensate for high rates of attrition (Ingersoll & Smith, 2003).

Historical Background and Current Trends

The recent attention to teacher induction and professional development in the United States marked a radical shift in attitudes toward the teachers' role in the educational process. There was compelling evidence that having qualified teachers were key factors in students' academic success (Darling-Hammond, 2001, 2003, 2005; Kent, 2004; Wong et al., 2005). However, it was only within the last decade that teachers, and more specifically, *teacher learning*, have been placed at the center of education reform (Darling-Hammond, 1998, 2003, 2005; Darling-Hammond & McLaughlin, 1995; Feiman-Nemser, 1998; Sparks & Hirsh, 2000).

Teachers were expected to raise an increasingly diverse student population to higher standards of academic performance (Darling-Hammond, 1998; Hargreaves & Fullan, 2000; Kent, 2004). Feiman-Nemser (2003) argued that it is not sufficient to regard induction programs as vehicles for teacher retention. Stated succinctly, "Keeping new teachers is not the same as helping them become good teachers" (p. 25). The way to achieve that aim is by conceptualizing the first five years of teaching as a learning experience in which novice teachers are surrounded by "a professional culture that supports teacher learning" (p. 25).

Professional developers noted that workshops can be an essential part of a model program (Brown, 2002; McCaughtry, et al., 2005; Wong, 2002); however, they failed as isolated, stand-alone interventions. Similarly, Hargreaves and Fullan (2000) argued that mentoring frequently failed due to lack of respect for the full potential of teachers' professional growth. In order to reach that potential, mentoring must be "guided by a

deeper conceptualization that treats it as central to the task of transforming the teaching profession itself" (p. 51).

Hargreaves and Fullan (2000) situated induction and mentoring within the context of four ages in the evolution of teachers' professionalism. First was the pre-professional age, reflecting a factory model of public education. Teachers learned their craft through practical apprenticeship and improved it according to what seemed to work. In an atmosphere that equated learning to teach with on-the-job training, mentors were largely irrelevant.

Beginning in the 1960s, the second age, the global status of teaching improved substantially (Hargreaves & Fullan, 2000). The term *professional* became intrinsically linked with *autonomy.* With the focus on autonomy and individualism, teachers practiced in isolation. The irony was that while it raised the status of teaching, "professional autonomy also inhibited innovation" (p. 51). Attending professional development workshops were typically a matter of choice, and the knowledge and skills teachers derived from workshops and seminars remained in individual classrooms (Sparks & Loucks-Horsley, 1989). In the 1970s and 1980s, induction and mentoring programs were introduced in response to a plethora of identified problems in public schools (Hargreaves & Fullan, 2000). However, in a climate of individualism, programs were narrowly focused on mentoring new teachers.

Feiman-Nemser (1998) believed the emphasis on individualism and autonomy that dominates teaching in the United States undermined the ability of mentors to be "teacher educators" and stood as a barrier to effective collaboration. According to Hargreaves and Fullan (2000), the "persistence of individualism in teaching" caused

problems in the third age or "the age of the collegial professional" when educators attempting to create collaborative cultures were forced to confront the uncoordinated efforts of the past (p. 51). International studies demonstrated that collaboration was a hallmark of excellent induction and professional development programs (Wong et al., 2005).

The fourth age of Hargreaves and Fullan (2000) described the entrance into the new millennium as the "edge of an age of postmodern professionalism, where teachers dealt with diverse clientele and increasing moral uncertainty, where many approaches are possible and more and more groups have influence" (p. 52). Things were changing for the teaching profession and at an increased pace.

Education reformers recognized that the demands placed on teachers in the age of technology, diversity, and globalization differed dramatically from those of past generations and required new modes of professional preparation (Darling-Hammond, 1998, 2005; Hargreaves & Fullan, 2000; Kent, 2004). Prospective and practicing teachers must be equipped to "explore implementation of research insights in their own classrooms regarding needs, interest, instructional history, and proficiency of individual students" (Kent, 2004, p. 427). Virtually all sources agreed that this required comprehensive and collaborative development models. Hargreaves and Fullan (2000) declared that, "The old model of mentoring, where experts who are certain about their craft can pass their principles to eager novices no longer applies" (p. 52). New teachers who have experienced this old type of mentoring reported dissatisfaction with their professional development (Cwikla, 2004).

Hargreaves and Fullan (2000) conceived mentoring in terms of *reculturing* (changing the capacity of teachers) as opposed to *restructuring* (adding formal roles). They outlined three strategic approaches for designing effective mentoring programs. First, as a mechanism for school reculturing, mentoring programs should be designed to build strong cultures of teaching in the schools. Second, mentoring should be directly aligned with other reform elements in transforming the teaching profession. Finally, mentoring was as a mechanism of defining the future of teaching. Darling-Hammond (2003) viewed mentoring as a cornerstone of effective professional development. Similarly, Hargreaves and Fullan (2000) envisioned mentoring as a powerful instrument of change for teachers at all stages of development. For new teachers, effective mentoring can be critical to their future success (Feiman-Nemser, 2001, 2003; Griffin & Ayers, 2005; Hammer & Williams, 2005; Ingersoll & Kralik, 2004). Fulton et al. (2005) cautioned that reliance on the traditional model of one-on-one, veteran/novice approach to mentoring would simply perpetuate the pre-professional "factory model" of teaching.

In the current environment of school reform, mentoring and induction programs for new teachers may be required by law. By 2004, 33 states had mandated mentoring for new teachers but only 22 of the 33 states provided funding for such mandates (Portner, 2005). Although less radical in his approach than Hargreaves and Fullan (2000), Portner (2005) recognized that a state or local imperative does not automatically translate into a successful program. The actions of school stakeholders were what ultimately created school cultures that supported student learning by supporting novice and veteran teachers alike. Dedicated, experienced teachers reported that they view change in terms of creativity and renewal (Williams, 2003). They were intrinsically

motivated to embrace changes they perceived as beneficial to students. The literature suggested that the early experiences of teachers may have had significant impact on whether they grew into resilient, committed teachers or left the profession without developing their capabilities.

Teacher Induction, Retention, and Socialization

Defining Induction

Several definitions of induction appeared in the literature, although all share common core characteristics. Blair-Larsen and Bercik (1992) defined teacher induction as "the period of transition from student to professional when beginning teachers are offered supervision and support as they adjust to their new roles" (p. 25). Expounding on this theme, *Recruiting New Teachers* refers to induction and mentoring as "socialization to the teaching profession, adjustment to the procedures and mores of a school site and school system, and development of effective instructional and classroom management skills" (cited in Portner, 2005, p. 31). Wong et al. (2005) offer the most detailed definition:

> Induction is a highly organized and comprehensive form of staff development, involving many people and components, that typically continues as a sustained process for the first two to five years of a teacher's career. Mentoring is often a component of the induction process. (Wong et al., 2005, p. 379).

Emphasizing that mentoring is *not* synonymous with induction, the National Commission on Teaching and America's Future (NCTAF) was careful to distinguish between the two. Mentoring referred to a formal or informal process whereby a more experienced or knowledgeable individual offered assistance to a relative novice (Fulton et

al., 2005). The NCTAF model of induction was similar to the one outlined by Wong et al. (2005). However, the NCTAF conceived of induction as a *system* in which mentoring was one component (Fulton et al., 2005). This system "should include a network of supports, people, and processes that are all focused on assuring that novices become effective in their work" (p. 4). An induction system consisted of both a phase (a set time duration) and a network of relationships and supports with clearly defined roles, activities, and outcomes.

Blair-Larsen and Bercik (1992) specifically used the term "transition." The idea of transition was implicit in most conceptions of teacher induction. According to Feiman-Nemser (2001), the term denoted that "induction brings a shift in role orientation and an epistemological move from knowing about teaching through formal study to knowing how to teach by confronting day-to-day challenges" (p. 1027). From this perspective, becoming a teacher involved the dual goals of "forming a professional identity and constructing a professional practice" (p. 1027). An effective induction program should smooth the transition and cultivate both elements of learning to teach to reinforce the capacity of novice teachers for further professional growth.

Characteristics of an Effective Induction Program

The Alliance for Excellence in Education delineated the features of a "comprehensive induction package": a reduction in course preparation, a "helpful" mentor in the same field, a seminar targeted to the needs of neophyte teachers, strong communication with administrators, and time for planning and collaboration with teaching colleagues (Wayne et al., 2005). In reality, few novice teachers experienced an induction program that met these standards. At the same time, programs with at least

some of these attributes could have a substantial effect on the future careers of new teachers. Induction programs, and mentoring in particular, have a marked positive impact on the retention of novice teachers (Ingersoll & Kralik, 2004). Research conducted by Recruiting New Teachers reported that induction programs can have a substantial impact on teachers' capabilities, and consequently, on the learning experiences of their students (Portner, 2005). Portner noted that more than 20 national, state, and local studies have yielded similar findings. Some school districts have experienced remarkable increases in the retention of new teachers and boasted exceedingly high retention rates.

Ingersoll and Smith (2003) considered mentoring to be "especially crucial" for the development of new teachers (p. 33). They pointed out that school conditions that underlie many decisions to leave (such as problems with student discipline and motivation, insufficient administrative support, and lack of influence in decision-making) were "policy-amenable" (p. 32). Providing new teachers with adequate support so they will not have to face a "sink-or-swim" initiation was an essential first step in making working conditions more conducive for the satisfaction of all teachers.

Researchers have observed a perennial gap between theory and practice in education (Buysse, Sparkman, & Wesley, 2003; Hiebert & Stigler, 2000). Buysse et al. (2003) advocated the *community of practice model* as a framework for bridging the persistent gap. Drawing from other disciplines, they explained that, "learners enter a community and over time they move closer to full, legitimate participation as they gain knowledge and learn the community's customs and rituals and adopt a view of themselves as members of the community" (p. 265-266). Newcomers gained status by

contributing to the professional community. Patton et al. (2005) used *communities of practice* as the conceptual framework for exploring the induction of physical educators.

The *community of practice model* was the antithesis of the traditional haphazard approach to teacher induction. Feiman-Nemser (2001) argued in favor of a professional learning continuum that extended from pre-service preparation through the first few years of teaching. Feiman-Nemser invoked Dewey, who warned that "preparation" was a "treacherous" idea in the context of education (p. 1015). Dewey regarded each experience as preparation for "later experiences of a deeper, more expansive quality" (p. 1015). In applying Dewey's ideas to teacher education today, Feiman-Nemser proposed that if teacher educators believed that they could rely on induction programs to scaffold and expand their work with student teachers, they could devote their coursework for creating a strong foundation for novice teachers. In addition to providing student teachers with a sound knowledge base, it would ease their transition into the dual roles of teaching and learning assumed in their first classroom experience.

Feiman-Nemser's (2001) model was grounded in the philosophy that new teachers need a coherent mechanism for connecting theoretical knowledge, or "knowledge of teaching" with actual application (p. 1048). Examining the essential tasks of learning to teach over time, the author discerned the recurrent themes of subject matter knowledge, inquiry, and repertoire development. Terms often applied to these tasks included "deepening," "refining," and "extending," thereby implying that ongoing growth and development were central to learning to teach. Although the process was continuous, it was also phase-specific. Teacher educators began the process by creating a strong foundation for subject matter knowledge for teaching and facilitating commitment to

teaching as a profession. Individuals involved with teacher induction should extend the process by helping new teachers formulate a professional practice identity that reflects both their vision of good teaching and the realities of schools and classrooms. After the induction phase, professional development served to further refine and expand professional practice for all teachers.

The NCTAF conducted extensive research with the goal of improving teacher induction in school districts throughout the nation. Fulton et al. (2005) outlined several insights derived from the studies:

1. *Induction should be a stage in a continuum of teacher development.* This idea is consistent with the vision of Feiman-Nemser (2001), and as Wong et al. (2005) note, it entails collaboration by multiple stakeholder groups.
2. *Induction should support entry into a learning community.*
3. *Mentoring is a valuable component of induction, but it is only one aspect of a comprehensive induction system.*
4. *External networks supported by online technologies add value to induction.* Online networks allow mentors, induction facilitators, curriculum specialists, and novice teachers to collaborate across barriers of time and locality.
5. *Induction is a good investment.* One recent study reported that the return on investment for each dollar allocated to induction is 1.5 (Fulton et al., 2005). Teachers produce better academic results after the first few years of experience—when a substantial proportion leave. Furthermore, high teacher turnover has a negative impact on districts, schools, and students. In contrast, effective

induction is linked with teacher retention and quality and higher student performance.

Qualitative Research

In an earlier study, Blair-Larsen and Bercik (1992) found that a strong support system was an essential element of an induction program for new and returning teachers in an urban parochial school. The induction program was designed according to three major objectives: 1) to help new teachers become successful; 2) to develop a support system for new teachers; and 3) to be facilitative but not evaluative. The researchers duplicated the study in a suburban public school setting. The participants were seven new hires representing grades one through six, high school English, and special education.

Based on data from *Monthly Teacher Diaries* and the final assessment, the new teachers conceptualized their success in terms of their own development and that of their students (Blair-Larsen & Bercik, 1992). Veteran teachers identified for exemplary practice drew motivation from interacting with students and watching them progress and develop (Williams, 2003). Too often novice teachers were placed in settings that virtually set them up to fail (Feiman-Nemser, 2001; Hope, 1999). Eliciting new teacher's perceptions about their success may be an excellent way to advance their fledgling professional commitment.

In terms of support systems, Blair-Larsen and Bercik (1992) observed a budding collegiality among the new teachers. Discussions often extended beyond regular meeting times, and although several group members were forced to confront personal problems, they received support from their colleagues and the group remained cohesive. With

respect to the issue of being facilitative but non-evaluative, the teachers commented that the researchers acted as nonjudgmental consultants, which allowed the teachers to comfortably express opinions and concerns. Blair-Larsen and Bercik identified certain successful program components they recommend for other induction programs. One was access to *facilitators* who could answer individual questions during external conferences. The regularly scheduled meetings were a second important feature. In fact, one teacher suggested adding more regular meetings throughout the school year.

Kyed, Marlow, Miller, Owens, and Sorenson (2003) described a high school *induction week program* implemented by the University of Colorado at Denver (UCD) as part of their teacher education redesign. The planning team was composed of two site coordinators and a professor *in accordance with the demands of the new program* and the team's experience working with the teacher candidates. Critical reflection and inquiry formed the theoretical framework for the activities that took place over the week.

The teacher candidates expressed positive attitudes toward participating in an organized program to expose them to the school setting and the various players they would encounter when they embarked on teaching (Kyed et al., 2003). The account of the UCD *induction week program* was consistent with Feiman-Nemser's (2001) continuum. In redesigning the program, the teacher educators took a decidedly innovative approach; they eliminated a semester of university preparation in favor of induction into the school culture. In addition to becoming staunch advocates for innovation, Kyed et al. (2003) also observed that, "Teacher candidate success is facilitated through a series of linked interventions and not through specific behaviors, goals, or methodologies" (p. 481). They attributed their success to a number of elements

including attention to site needs and concerns, the features of a professional environment, and the focus on inquiry and reflection as opposed to the details of induction design. Finally, they referred to the importance of the "human element." Through a synthesis of the structural, philosophical, experiential, and human aspects of teaching they helped foster a sense of collegiality and common purpose among a diverse group of teacher candidates. In the context of Feiman-Nemser's (2001) phase model, the program was effectively created for prospective teachers whose prior knowledge of teaching was confined to university coursework.

Alternative Support for Induction Science Teachers (ASIST) was devised to facilitate the transition of new science teachers from the university to the classroom (Luft et al., 2002). Developed in partnership with the University of Arizona, the program was available to secondary school science teachers in Tucson and rural communities in the region during their first three years of teaching. Overseen by a board of advisors, the program was aligned with state and district standards, and six staff members worked with up to 20 novice teachers each year. The staff was composed of one university science educator with experience in the professional development of pre-service and practicing teachers; three experienced science teachers who were trained as mentors and were articulate and informed about standards-based science instruction; and two graduate assistants who collected data and worked in various ways with the novice teachers.

A positive advantage of the program was that novice teachers who participated in Project ASIST subsequently became advocates and recruiters (Luft et al., 2002). The program's success also motivated districts to allocate resources to the project after the three-year duration of the Eisenhower grant funding. The mentors were deemed critical

to the program. Mentor teachers had to meet stringent criteria and undergo intensive training. The mentors offered suggestions for program improvement, and their competence increased with experience, thus contributing to a process of ongoing quality improvement. The mentors provided the new science teachers with "ongoing instructional, managerial, philosophical, and logistical support" (p. 226).

The support of administrators was less consistent; while some administrators were key players, others were less accessible (Luft et al., 2002). It was also found that contexts were more important than anticipated. Luft et al. (2002) stressed the need for program developers to pay attention to contexts such as district administrators, reform mandates, and budget constraints. They also emphasized the importance of keeping educators and administrators abreast of reform-based instruction, stated that all science teachers should participate in reform-based development activities. Finally, Luft et al. (2002) called on stakeholders to devise induction programs that match the unique concerns of science teachers making the transition to classroom teaching.

Administrative Support

One of the main reasons teachers cited for leaving their job is inadequate administrative support (Bobek, 2002; Ingersoll & Smith, 2003). Other sources agreed that the principal plays a vital role in the socialization of new teachers (Hope, 1999; Wayne et al., 2005; Wood, 2005). Bobek (2002) maintains that, "The relationship between school administrators and new teachers should be a partnership" characterized by mutual "respect for and understanding for each other's roles and a willingness to listen to and learn from one another" (p. 203). Hope (1999) envisioned the principal in the role of a "master teacher," devoting time to helping new teachers.

Discrepancy between the attitudes and expectations of new teachers and principals was a potential problem area. Brock and Grady (1998) investigated this issue in a study of 49 primary and secondary school teachers with one year's experience and 56 principals in Nebraska public, parochial, and private schools. The principals demarcated a set of competencies they expected of incoming teachers. These were: 1) a professional attitude, 2) adequate knowledge of subject content, 3) good classroom management skills, 4) excellent communication skills, 5) a belief that every child is capable of learning, and 6) a desire to help students succeed. For the teachers, the top priority was that principals should directly convey their expectations for good teaching (Brock & Grady, 1998). Without an explicit understanding of the behavior expected of them, the teachers expressed *role confusion*, even with a cordial and welcoming principal. Teachers complained they were not given adequate socialization to school staff, and many expressed a desire for regular meetings with the principal as well as classroom visits that would offer a forum for feedback, affirmation, and guidance. Sparks and Loucks-Horsley (1989) recommended classroom observation and assessment as a means of ensuring that teachers receive appropriate feedback. At the same time, they emphasized that feedback was most effective embedded in a comprehensive professional development program.

Of particular importance, Brock and Grady (1998) noted that contrary to the focus of most teacher induction literature, the novice teachers viewed principals, not mentors, as the central figures in their professional socialization. Both principals and teachers had similar priorities. Both groups placed classroom management and discipline at the top of their list of priorities. The major distinction was that the principals perceived their

current induction procedures adequate for helping new teachers adjust while the teachers saw it as too brief. Most principals offered a pre-semester orientation for new faculty followed by a fall induction program that included mentorship and formative and summative evaluation. The teachers expressed a decisive preference for induction and mentoring spanning the full school year.

Both teachers and principals recognized the importance of mentoring as an integral part of induction (Brock & Grady, 1998). However, the reports of the principals highlighted the problems with program quality that are ubiquitous in the literature. Less than one-third of the principals (29%) were part of a local or district-wide network that selected, assigned, and trained mentors. The remaining principals relied on informal programs with no mentorship training. Some principals outlined stringent criteria for the selection and assignment of mentors, while others suggested random procedures. The teachers were virtually unanimous in expressing the attributes they sought in a mentor. Specifically, they wanted someone who was experienced, taught the same content area, and could offer suggestions, engage in discussions, and be a good listener.

Despite the inadequacies in formal structure, most teachers were relatively satisfied with their mentors, and principals were satisfied with the performances of new teachers. However, Brock and Grady (1998) made it clear that there was ample room for improvement, and it was the principal who played the critical role. The two key areas for improvement were expanding the duration and comprehensiveness of induction and establishing set criteria for the selection, training, roles, and responsibilities of mentors. Additionally, the researchers stressed that the best induction was tailored to the school's

unique characteristics. Soliciting new teachers for their input ensured that induction was targeted to their concerns.

California mandated that schools provide novice teachers with an induction program based upon three sets of standards and performance expectations derived from the California Standards for the Teaching Profession (CSTP). Drawn on sources that cite the principal's key role in novice induction (Brock & Grady, 1998; Ingersoll & Kralik, 2004), Wood (2005) applied multiple methods to explore the principal's role in standards-based induction. Five schools from a single urban district were chosen for case study analysis.

Wood (2005) found that the principals in the district were more actively engaged in induction programs than is typically reported for urban principals. The principals acted as role models and mentors to novice teachers, in addition to being instructional leaders. Interestingly, half of the new teachers reported taking their teaching positions because the principal had recruited them. In fact, some attributed their current position specifically to the principal. Several teachers commented that friends, colleagues, or acquaintances had praised the principal and recommended that they visit the school. The policies and protocols of the district promoted high levels of commitment on the part of all school staff. First, it was requisite for principals, mentors, and novices to undergo the same professional development training. Second, visiting and observing the classrooms of new teachers was part of the principals' performance evaluation. Third, evaluation measures for principals and teachers used the same language to improve communication. Finally, the principals' support for induction was embedded in accountability and assessment standards.

Due to differences in school structure, secondary school principals were less involved with induction than their counterparts in elementary schools (Wood, 2005). The formality of secondary school organization limited the classroom involvement of principals, and under a more impersonal, and assessment-focused culture, principals had fewer interactions with new teachers and provided less direct support. In contrast, the more social and informal elementary school culture encouraged a wider, more flexible range of interactions among school staff members. In general, the school sites reflected best practice in novice teacher induction, highlighting both the importance of having formal standards and protocols and the need to recognize the impact of grade organization on the principals' roles.

Brown (2002) focused on the actions of South Carolina principals in the induction of new teachers in low-performing schools. The target schools share several characteristics: 1) situated in economically depressed urban or rural communities; 2) old building facilities; 3) minorities account for more than 50% of students but less than 25% of faculty; 4) annual teacher turnover ranges from 12% to 15%; 5) high percentage of inexperienced teachers; and 6) more than 50% of students fall below the 50^{th} percentile on norm-references tests.

At the onset of the school year, the principals typically offered new teachers a tour of the building, assigned them a mentor, and provided them with support tailored to the specific school setting. Induction procedures included raising novice teachers' awareness of the cultural factors, aspirations, and barriers confronting their students.

The state ADEPT model trained mentors to work with novices on an individual basis. Mentor and protégé met regularly to work on classroom management and

discipline issues and coordinated resources. Low-performing schools followed an apprenticeship or team model where experts guided novices on key issues such as lesson delivery, aligning curriculum to students' diverse learning needs, and managing classroom behavior. Classroom management was an overarching concern for new teachers (Blair-Larsen, 1998; Brock & Grady, 1998; Feiman-Nemser, 2001; Hope, 1999). As in California (Wood, 2005), the South Carolina principals acted as instructional leaders, regularly made classroom observations, and ensured that new teachers have adequate instructional resources (Brown, 2002).

The South Carolina principals selected mentors on the basis of strong interpersonal skills and professional expertise, and were encouraged to create profiles of novice teachers to ascertain their strengths, weaknesses, level of development, teaching philosophy, classroom practices, and other relevant factors (Brown, 2002). Principals accomplished this by means of a preliminary interview to set up a matrix for ongoing reference. Classroom visits were followed by discussions, and the administrator, mentor, and novice worked collaboratively to analyze school and district-wide ethnographic data and chart a plan for individual assistance.

Guskey (1995) cited the crucial importance of *contexts* in creating development programs and emphasized that the success of programs hinged on tailoring them to the unique features of the school or school district. He also contended that development should be placed at both individual and collective levels, promote teamwork and collaboration, and involve both short-term and long-range goals. The induction programs supported by the principals of low-performing South Carolina schools reflected these features. The collective knowledge of all partners (including the novices, who have the

most current information on best practices teaching and learning) forms a foundation for building a learning community. The matrix distributed leadership tasks and afforded the principals a mechanism for providing teachers with excellent leadership and support.

As depicted by Hope (1999), the principal played a key role in alleviating apprehension and building confidence in new teachers. It was an ironic fact that the least experienced teachers were routinely given the most challenging classroom assignments, frequently without adequate support (Darling-Hammond, 2001, 2003). Hope (1999) argued that assigning novice teachers to classrooms marked by academic and discipline problems were setting them up to fail. Although they may have exposure to state-of-the-art instructional methods, it does not compensate for "the fact that a new teacher does not possess the knowledge of classroom ecology that comes with years of experience" (p. 55). Hope recommended considering class structure, size, and teaching load as factors in the assignment of first-year teachers.

Feiman-Nemser (2001) voiced a similar perspective and agreed that novice teachers should have reasonable classroom assignments and workloads. In response to accomplishing this in schools and districts confronted by serious teacher shortages, Feiman-Nemser suggested teaming new teachers with strong, experienced teachers so they can learn from their skills. Administrative support for such practices would have to come from districts and unions with the power to create appropriate programs and incentives. For example, some districts had career ladders, peer assistance, and review programs where lead teachers coordinated grade level teams combining experienced and novice teachers.

Hope (1999) recognized that evaluation evoked apprehension in even experienced teachers. To alleviate the fears of new teachers, he recommended providing clear information on the evaluation process and how it affected them. Additionally, involving new teachers in the evaluation process made them aware of the importance of self-assessment on professional growth, and "builds goodwill and removes the one-sidedness that is characteristic of personnel evaluation" (p. 56). Hope proposed that principals facilitated the orientation and induction of new teachers through strategies such as coaching, conferencing, modeling, and sharing personal experiences.

Mentoring

Mentoring programs for new teachers surfaced during the 1970s as an antidote to the "sink or swim" experience that negatively impacts teachers and students alike (Ganser, 2002). There has since been an amazing proliferation of mentoring programs; however, the predominant view was that mentoring programs vary tremendously in quality. Mentoring programs typically had external sponsors (including school districts) or were based on school-university partnerships. Mentors were chosen selectively and given specific training. Additionally, mentoring took place as part of a broad program of "teacher induction supports." Ganser cautioned that attempting to design programs based on "first generation" mentoring principles which focused on teacher retention rather than teacher development, defied recent insights into what makes an effective mentoring program. In contrast, "second generation" mentoring programs had attributes including:

- Use of electronic communication.
- "Just in time" training for mentors.
- "Co-mentoring" or "team mentoring" approaches.

- Mentoring programs that extend into the second or third year of new teachers' induction.

The most effective mentoring programs were tailored to the unique characteristics of the school and responsive to teachers' identified needs (Blair-Larsen, 1998). Ideally, systematic evaluation was built into the program design with the goal of improving quality and adapting to changing conditions such as student demographics or education reforms. Analogous to the impact of teacher quality on student achievement, "The key to mentoring programs, whether working with new or experienced teachers, was the effectiveness of the mentor" (McCaughtry et al., 2005, p. 327).

Most of the research on professional development and mentoring focused on teachers in core curriculum subjects, in particular mathematics and science. The emphasis was not unwarranted; comparisons with other countries raised serious issues about the professional learning and classroom performance of math and science teachers in the U.S. (Hiebert & Stigler, 2000). At the same time, physical educators were faced with the challenge of defining their roles in the absence of legislative support and in view of the rising epidemic of obesity in American children (Patton et al., 2005). Two studies of mentoring physical educators (McCaughtry et al., 2005; Patton et al., 2005) captured the unique experiences of teachers in their discipline as well as provided information on mentoring and induction that was applicable to teachers in other fields.

The study of Patton et al. (2005) was part of the Assessment Initiative for Middle School Physical Education (AIMS-PE) project funded by the Center for Disease Control (CDC). The study involved 12 middle school physical education teachers mentored by experienced K-12 physical educators in partnership with university researchers.

Communities of Practice was chosen as the theoretical framework for the program, whose goal was to help practicing teachers improve their instruction and add value to their professional discipline.

Patton et al. (2005) described the 12 middle school teachers as "one micro-community of practice" (p. 311). All of the teachers, particularly those participant teachers who were the only participant from their school, welcomed the chance to extend their professional network in an environment of support, training, and reflection. Some related that without formal program support they would not be able to revise their current teaching practices. The mentors also formed a community of practice and perceived their participation as a learning experience for themselves as well as their protégés. The mentors agreed that effective mentoring entailed adapting the relationship to the unique characteristics of the individual mentor and protégé. In effect, "each mentoring relationship within the project was unique and shaped by the individuals involved, their goals, and the school context" (Patton et al., 2005).

Patton et al. (2005) noted that, "mentors and researchers had to enter the teacher's world and construct a new community of practice" (p. 314). A major challenge was transcending difference in the beliefs and agendas of each professional group. United by their collective commitment to their discipline, the three groups found commonalities that allowed them to form a collaborative working relationship. The mentors worked to gain the protégés' acceptance and trust. As the level of trust was built, mentors were perceived by the protégé teachers as skilled, dependable, and supportive. The researchers identified certain themes that contributed to the development of a shared community of practice. These included commonalities ("like-minded people"), reflection and

improvement, and individualized mentoring relationships, in conjunction with support, "give and take," and trust. The result was an "empowerment model of mentorship" that facilitated learning and community for both mentors and protégés (p. 319).

McCaughtry et al. (2005) explored the mentoring experiences of 15 veteran teachers helping elementary school physical educators adopt the Exemplary Physical Education Curriculum (EPEC). The mentors had all undergone comprehensive training and demonstrated excellence in implementing EPEC, and all were committed to the advancement of the curriculum and the development of new teachers. The 15 protégés included novice teachers and experienced teachers changing from high school to elementary school physical education. None were familiar with EPEC.

Results demonstrated that the formal program effectively enhanced experienced teachers' confidence in their ability to engage in reform-based mentorship (McCaughtry et al., 2005). The mentors' perceived efficacy for helping new teachers adopt the new curriculum increased over time. However, the researcher observed an interesting phenomenon: "two major drops in mentors' perceived mentoring aptitude...coincided with two knowledge-intensive workshops" (p. 338). McCaughtry et al. suggested that the new knowledge might have made the mentors acutely aware of their present limitations, which in turn, might have made them sensitive to their legitimacy in the eyes of the protégés. The researchers advised that designers of mentorship programs should be cognizant of potential dips in mentors' confidence as they navigate the complex process of mentoring new teachers. This implied that mentors may require more support as they learned to become more secure in their knowledge and skills.

One point that appeared to affect the mentors' confidence was teaching the novices to work with pedometers, a device the new teachers were more familiar with (McCaughtry et al., 2005). It was a common occurrence for new teachers to be more knowledgeable about teaching advances than their experienced mentors (Cwikla, 2004; Darling-Hammond & McLaughlin, 1995; Feiman-Nemser, 2001; Hammer & Williams, 2005). McCaughtry et al. (2005) noted that the most successful encounters were between mentors and protégés who both had limited experience with pedometers. In these relationships, both partners engaged in collaborative problem-solving. In the ideal mentoring relationship, mentors were aware that learning should be part of the experience for both partners (Darling-Hammond, 2003). Rather than feeling threatened by the knowledge of their protégés, they were stimulated to further their own professional learning. With respect to reform-base mentoring, McCaughtry et al. (2005) argued that mentors should have up-to-date knowledge of new curriculum and technologies.

The novice elementary school physical educators had very positive perceptions of the mentoring program (McCaughtry et al., 2005). Even after the first workshop, the protégés were favorably impressed by the psychosocial dynamics with their mentors and felt that the mentors could play an important role in enhancing their teaching and career development. These positive beliefs were sustained and reinforced over time. McCaughtry et al. attributed the success of the program to several features that have implications for the design of reform-based mentoring. The mentors and protégés were carefully matched. Older, more experienced mentors were matched with teachers who were older although new to the project. Younger mentors were matched with younger protégés. As in the community of practice model (Patton et al., 2005), the participants

were united in their commitment to their particular discipline. Ongoing support and communication were built into the project, and active learning opportunities were incorporated in all meetings (McCaughtry et al., 2005). Finally, adult learning theory (andragogy) served as the conceptual framework for all activities. Interestingly, there are few references to adult learning theory in the teaching development literature, compared to its popularity in continuous education in the health professions and business. It may have valuable potential for improving reform-based professional development.

While admitting that the mentor program was "far from perfect," McNaughtry et al. (2005) concluded that both mentors and protégés saw the program as successful in influencing the way mentors perceived their roles and protégés felt about the role the mentors played in their conceptions of teaching and career progress. In contrast to the success of the two physical education programs, Cwikla (2004) detailed the dissatisfaction of novice mathematics teachers with mentoring and early professional development experiences. Cwikla contended that the key to retaining new teachers was to solicit their input on activities related to professional development and support. The participants were 10 middle school mathematics teachers with fewer than seven years of teaching experience involved with a mandatory statewide reform-driven professional development program. Four prominent themes emerged: 1) mentoring, 2) collaboration, 3) content knowledge, and 4) classroom observations.

Despite being part of the same discipline, six of the 10 teachers had negative perceptions of their mentoring experience (Cwikla, 2004). Unlike the matching formula that fostered success used in the physical education project (McCaughtry et al., 2005), differences in age and experience inhibited constructive mentoring relationships for the

math teachers (Cwikla, 2004). Instead, the teacher preferred collaborating with colleagues who were similarly inexperienced teachers. Participants who reported productive collaborative relationships were the exception. Although all 10 teachers sought opportunities for "meaningful collaboration and a sharing of ideas about teaching and learning," most failed to attain them (p. 189).

Content was a major concern for the novice teachers. Most felt they had stronger mathematics content knowledge than their more experienced colleagues and were more qualified to provide reform-based instruction (Cwikla, 2004). Feiman-Nemser (2001) argued that this should be an issue for designing mentoring and induction programs. In short, the mathematics program did not address the current phase of the participants' teaching. The math teachers favored activities that emphasized students' learning, presentational methods, and new curriculum materials (Cwikla, 2004). They were unanimously in favor of opportunities to observe and learn from other teachers' classroom activities and receive feedback on their own classroom teaching. These activities reflected the concept of *lesson study* recommended for developing mathematics teachers (Hiebert & Stigler, 2000).

Overall, the mathematics teachers were strongly dissatisfied with the quality of their professional development experience (Cwikla, 2004). Quality was a critical element in using induction and mentoring to retain and cultivate new teachers (Ingersoll & Kralik, 2004). Most sources stressed the need to tailor activities to the context in which professional development took place. Cwikla (2004) concluded that the teachers would have benefited far more from a program where they had personal input.

The Novice Teacher Induction Program (NTIP), a grant partnership between the Texas State University System and Houston Endowment, Inc., was an example of a successful mentoring program. When the state introduced the program, stakeholders found themselves facing the problem of where to find mentors with not only the professional expertise, but also the time to devote to working with protégés (Hammer & Williams, 2005). The grant director chose the innovative solution of calling on retired teachers and administrators. Grant funding paid the salaries of the mentors and provided NTIP students with six hours of graduate tuition. Mentors usually met with 10 novice teachers each week and the novices attended seminars led by mentors and professors every other week throughout the school year. The classes were highly interactive. Based on the principle that mentors should provide both practical and psychosocial support, the seminars were structured so the mentors got to know the novice teachers, "and the cohort forms a tight network that makes mentors feel needed" (p. 22).

Since its inception in 2002, NTIP recruited participants from roughly 37 urban, suburban, and rural districts and 151 campuses (Hammer & Williams, 2005). Systematic data collection on the retention of the novice teachers for five years was built into the project. Hammer and Williams described the results as "impressive" (p. 22). The overwhelming majority chose to remain in teaching. Of 377 teachers surveyed from the 2003-2004 cohort, 95.5% were still teaching and 86.7% remained in the same district. Funding for NTIP was extended as a result of its success.

Hammer and Williams (2005) attributed much of the program's success to coordinators who interviewed and selected the mentors. For the attributes of a good mentor, the authors draw on Troubowitz, who identified being "professional, positive,

collegial, supportive, empathic, and nonjudgmental" as ideal mentor qualities (p. 23). Hammer and Williams added that a mentor should also be a "counselor, friend, cheerleader, colleague, advisor, expert, coach, confidant, problem solver, helper, supporter, and teacher" (p. 23). Of foremost importance, the mentor must be flexible in choosing the appropriate role and switching when needed. In addition, a good mentor understood that the relationship is collaborative. Instead of adhering to the traditional notion that the mentor should be the expert, mentors actively brainstormed ideas with protégés. In addition to enhancing the protégés' confidence, the mentors' themselves advanced their own learning.

International Perspectives

In 1995, Darling-Hammond and McLaughlin (1995) advocated a fluid professional development model that eroded distinctions between pre-service and practicing teachers. International research indicated that other countries have adopted such initiatives while realization of this paradigm in the U.S. appeared to be universally unrecognized. In a number of high-performing countries, which included Japan, Germany, Belgium, France, Luxembourg, and Taiwan, intensive professional development was integrated throughout teacher education and practice (Darling-Hammond, 1998). In addition to these countries, Australia, Finland, Hong Kong, Ireland, Italy, the Netherlands, New Zealand, and Portugal have raised teacher education to the graduate level, enhancing a strong undergraduate knowledge base with detailed pedagogical study and rigorous internship or practicum participation in the school setting (Darling-Hammond, 2005). Darling-Hammond consistently stressed that teachers in these countries enjoyed high professional status.

According to Clement (2000), some New Zealand educators label the summer months "the American season" due to an influx of American teachers visiting schools. The global popularity of Reading Recovery and success of other New Zealand literacy programs typically drew educators in the field; however, Clement noted that a broader attraction for U.S. teachers is the comprehensive approach to induction in New Zealand schools.

New Zealand was one of five countries, including Switzerland, Japan, France, and China (Shanghai) described by Wong et al. (2005) for their exemplary induction practices. Each country had a unique approach, reflecting its particular culture. Within these differences, the programs had three key commonalities. Foremost, all five approaches were "highly structured, comprehensive, rigorous, and seriously monitored" (p. 383). Staff developers, administrators, and mentors (or *formateurs)* all had clearly delineated roles. Wong et al. contrasted these cohesive, formal programs with the traditional approach to staff development in the U.S., which was widely denounced for being sporadic and incoherent (Dufour, 2004; McCaughtry et al., 2005; Sparks & Hirsh, 2000; Sparks & Loucks-Horsley, 1989).

Secondly, the induction programs in the five countries emphasized professional learning and growth; the focus goes beyond developing individual teaching to advancing the professionalism of teaching (Wong et al., 2005). They accomplished their goals through sustained professional development activities that reflected a broad repertoire of strategies. Wong et al. noted that induction in the United States was often reduced to mentoring; even then, the assignment of mentors could be haphazard and the mentor and protégé are left on their own. Some of the most effective mentoring programs in the U.S.

appeared to have powerful state support, with standards for procedures and evaluation (Brown, 2002; Hammer & Williams, 2005; Wood, 2005).

The third outstanding feature of the five international programs was a strong emphasis on the power of collaboration. In all five countries, "Collaborative group work is understood, fostered, and accepted as part of the teaching culture… Experience, practices, tools, and language are shared among teachers" (Wong et al., 2005, p. 384). Wong et al. implicated the isolation of American teachers for undermining their aspirations to succeed and "make a difference' (p. 384). To correct this pervasive situation, "collegial interchange, not isolation, must become the norm for teachers" (p. 384).

Citing the work of Breaux and Wong, who investigated more than 30 induction programs, Wong et al. (2005) noted that successful programs invariably had a leader who created structured and comprehensive induction programs designed to promote teachers' ongoing collaboration and professional growth. Model programs in the U.S. included the Flowing Wells School District in Tucson, Arizona; the Lafourche Parish Public Schools in Thibodaux, Louisiana (where Breaux was director); and the Port Huron Area Schools in Port Huron, Michigan (Wong, 2002). Induction programs in these districts were committed to the growth and development of teachers and students alike. Indeed, Darling-Hammond (1998) emphasized that the education of children depended upon cultivation of a high quality professional teaching force. Wong et al. (2005) expressed this as the aim of every school district: "improved student learning through improved professional learning" (p. 384).

A defining characteristic of New Zealand teacher induction was the provision of *release time* (Clement, 2000). The U.S. literature indicated that without formal supports, mentors and novices were typically left to meet with each other in their spare time, which is often negligible. Since its inception in the early 1990s, New Zealand induction for K-8 teachers stipulated that teachers should be released up to 20% of the work week—a figure that translated as "*one day per week* [original emphasis]" (Clement, 2000, p. 330). Clement acknowledged that one day per week is the maximum figure and not always viable; release time equaling one-half day was more usual. However, principals, mentors, and novice teachers in a range of New Zealand schools were satisfied with the support system and new teachers reported they "used every minute of it," describing the time they spent with their tutors (p. 330). The teachers unanimously endorsed the need for release time to keep novices from being "overwhelmed." Clement concluded by proposing that U.S. schools set at least a minimum amount of release time for supporting new teachers.

Clement (2000) used the term "tutors" to denote the expert teachers who mentor novices. Feiman-Nemser (1998) observed that in the United States, teachers in mentor roles do not envision themselves "teacher educators." Many teachers conceived of teaching as a "practical art" that cannot be taught, but must be learned by experience. Yet paradoxically, some of the same teachers argued that the university's job is to teach teacher candidates to teach. Prior to the 1990s, there were no references in the literature to conceptions of mentors' roles in terms of novices' learning (Griffin & Ayers, 2005). Few references were found that gave a clear description of how mentor roles evolved.

Feiman-Nemser (1998) was part of a research project sponsored by the National Center for Research on Teacher Learning (NCRTL) that explored the way mentors support novices in learning to teach according to reform-based practices. Studies were conducted in select sites in the U.S., England, and China. All expert teachers (mentors, support teachers, and cooperating teachers) were characterized as reformers. The data was collected from 24 mentor/novice pairs.

According to the author:

> Educative mentoring rests on a vision of good teaching. Mentors who think seriously about how to help novices learn to teach have clear ideas about the kind of teaching they want novices to learn and what that teaching entails. (Feiman-Nemser, 1998, p. 71).

Many of the mentors taught in ways that were consistent with students' thinking and believed that novice teachers should learn to solicit and interpret students' ideas to inform their teaching practices (Feiman-Nemser, 1998). These teachers embrace an inquiry-oriented, developmentally appropriate curriculum. The beliefs of exemplary mentors about how teachers learn to teach and the kinds of learning opportunities needed by novice were typically based on observation and empirical evidence. Beliefs for promoting good teaching reflected Japanese lesson study, advocated by U.S. educators to improve mathematics instruction (Hiebert & Stigler, 2000). The mentor teachers believed novices needed assistance in learning to focus on the main features of a lesson, decide what they wanted students to learn, analyze the strengths and weaknesses of their plans, and anticipate potential problem areas and appropriate responses (Feiman-Nemser, 1998). They strongly believed their role was to provide the needed support. In short,

"Because they saw their novices as learners, they were always trying to figure out what the novice needed to work on and what kinds of experiences or guidance or resources might be helpful" (p. 72).

The NCTRL researchers concluded that effective mentoring is an elaborate process that demands judgment, flexibility, focus, and a range of strategies (Feiman-Nemser, 1998). The most effective mentors learned and refined their skills as part of a collaborative program. The American and British mentors were typically involved in reform-based initiatives. Some American mentors taught in professional development schools where they collaborated with school and university colleagues on innovative approaches to mentoring. In contrast, continuous professional development is ingrained in Chinese culture; mentoring is one of its essential elements.

Professional Development

There has been a decisive trend in professional development away from the ubiquitous (and ineffective) one-shot workshops toward a more comprehensive, collaborative model. With professional development built into the tenets of No Child Left Behind (NCLB), evaluation has become a prominent concern. According to Desimone et al. (2002), systematic evaluation and feedback are essential to the design of successful standards-based development programs. Specifically:

> Continuous improvement means more than establishing goals, measuring progress toward those goals, assessing the needs of teachers and evaluating professional development activities. Continuous improvement also means communicating with schools and teachers about district goals; standards and assessments; and needs assessment data. (Desimone et al., 2002, p. 1272).

The literature revealed that most programs lag far behind the intended goals of education reform. As Portner (2005) observed, legislated mandates do not translate into successful programs without the commitment of players and stakeholders. Cwikla's (2004) study illustrated the flaws in state-mandated professional development that do not consider the specific concerns of the participants.

The National Center for Education Statistics (NCES) routinely sponsored research into teachers' professional development and its impact on school climate and classroom instruction. Combining data from the 1998 Fast Response Survey on Professional Development (FRSS), with a data subset from 1993-1994, NCES researchers examined the impact of teacher preparation on teaching quality (NCES, 1999). The data was analyzed according to four major topics: 1) pre-service learning and teaching assignment; 2) continued learning; 3) supportive work environment; and 4) teacher perceptions of preparedness.

The vast majority of teachers reported participating in at least one formal professional development activity and one teacher collaboration activity (NCES, 1999). Most activities centered on curricular and pedagogical reforms, including the implementation of state or district curricula, the integration of technology into classroom instructions, and the adoption of new teaching strategies. Not unexpectedly, the researchers found that the more time teachers were involved with these activities, the more successful they were in improving their teaching methods. Collaborative activities had the most pronounced impact on teaching quality.

The data indicated that, "in many respects, teachers work in supportive environments" (NCES, 1999, p. 58). However, the researchers noted that many areas

needed improvement. Of particular relevance, only a minority of new teachers had participated in a formal induction program. Although the number increased from 1994 to 1998, only one third of the new teachers had been involved in an induction program.

A majority of teachers described themselves as "very well prepared" to manage classrooms and 41% felt well prepared to implement new teaching strategies (NCES, 1999). On the other hand, only 20% felt sufficiency prepared to deal with current expectations for teacher efficacy, with particular respect to integrating technology into instruction and working with culturally and linguistically diverse students, or with students with disabilities (NCES, 1999). These remained important priorities for professional development (Darling-Hammond, 1998, 2003, 2005; Kent, 2004). Underscoring the need to improve teacher induction, many special education graduates felt unprepared for the realities of working with students with disabilities (Billingsley, 2004). Although they may choose to remain in teaching, their disillusionment may lead to migration to regular education, thus still leaving an acute shortage of special educators.

Data from the 2000 FRSS showed that the professional development activities of most teachers still reflected the traditional model of isolated workshops, conferences, and seminars (NCES, 2001). Interestingly, a smaller proportion of teachers in 2000 than in 1998 reported participating in several types of professional development and collaboration activities. The researchers observed declines in the areas of new teaching methods, student performance assessment, and classroom management and discipline. New teaching strategies and assessment were identified needs areas for many teachers (Kent, 2004), and classroom management and discipline is perennially challenging for

new teachers (Blair-Larsen, 1998; Brock & Grady, 1998; Feiman-Nemser, 2001; Hope, 1999; Ingersoll & Smith, 2003).

Teachers in 2000 were also less likely to report engaging in regularly scheduled collaboration with teaching colleagues (NCES, 2001). In fact, this area showed a sizable decline, from 81% in 1998 to 71% in 2000. A similar pattern was observed for a common planning period for team teachers, which declined from 62% to 56%. If these figures were evidence of a de-emphasis on collaboration and teamwork, the pattern runs counter to the best practices of teachers in other countries (Clement, 2000; Wong et al., 2005). On a positive note, a higher proportion of teachers engaged in peer mentoring in 2001 (22%) versus 1998 (19%). However, this still means that only a small proportion of teachers have access to mentoring, and as the literature has shown, mentoring quality varied dramatically.

Project ASIST was funded by the Eisenhower Mathematics and Science Program (Luft et al., 2002). The Eisenhower Professional Development Program was an extensive project dedicated to improving mathematics and science education by enhancing teachers' knowledge and skills (Desimone et al., 2002). By synthesizing program data with identified best practices from professional development literature, Desimone et al. examined policies and procedures linked with high quality professional development. At the district level, these were alignment and coordination with other programs (co-funding), ongoing availability of professional development opportunities, and strategic planning initiatives with active teacher involvement. Districts where these elements were in place most often had programs that demonstrated an empirically based impact on teachers' knowledge and skills.

The defining features of a high quality professional development program included an emphasis on facilitating teachers' in-depth content knowledge and understanding of how children learn, active, hands-on learning experiences, and a cohesive framework for professional development (Birman, Desimone, Porter, & Garet, 2000). A survey of more than 1,000 teachers involved with the Eisenhower Professional Development Program disclosed that most teachers do not have access to programs with these characteristics (Birman et al., 2000). As in the FRSS (NCES, 1999, 2001), more than three-quarters of the math and science teachers (79%) attended workshops and conferences as opposed to being actively involved in integrated development activities. Only 20% of the teachers engaged in activities involving collective participation. Roughly half the teachers (51%) engaged in activities that emphasized content, whereas only 5% to 16% had the chance to engage in active learning activities such as having their teaching observed or leading a group discussion. On the whole, the activities were antithetical to the professional development opportunities desired by novice mathematics teachers (Cwikla, 2004).

More positively, 80% of the Eisenhower Program teachers were involved in professional development activities aligned to state and district standards and consistent with other goals), and roughly three-quarters teachers (73%) had opportunities to engage in discourse with other teachers (Birman et al., 2000). In general, the findings indicated that most teachers do not have access to professional development activities reflecting identified best practices.

According to Birman et al. (2000), "Given the central role of teachers in making standards-based reform successful, it is essential that staff development provide the

content and opportunities necessary to foster teacher learning and changes in practice" (p. 32). The researchers targeted expense as a major obstacle. However, Darling-Hammond (2005) pointed out that far less money is invested in improving classroom instruction in the U.S. than in other countries. There was powerful evidence that investing in teacher quality produces a strong return on investment (Fulton et al., 2005; Ingersoll & Kralik, 2004; Ingersoll & Smith, 2003; Portner, 2005).

Professional Development Schools

The Carnegie Foundation recommended that professional development schools (PDS), along with internship sites, act as settings where novices learn to teach alongside experienced teachers who are engaged in ongoing learning to change and improve their teaching practice (Feiman-Nemser, 1998). Professional development schools were an extension of university-based programs, from which innovative ideas on new teacher induction often emerge (Kyed et al., 2003). Typically, critical reflection and inquiry were an essential part of helping teachers to cultivate and refine knowledge and schools.

Professional development schools were committed to expanding the role of teachers in all dimensions of school leadership and transforming the school setting into a learning community (Darling-Hammond, Bullmaster, & Cobb, 1995). In an environment characterized by shared governance, curriculum building, peer coaching, and collaboration, the overarching goal is the "continual redesign of teaching and schooling" (p. 88). In essence, the PDS represented the realization of Hargreaves and Fullan's (2000) vision for mentoring in the 21st century.

Samuels, Rodenberg, Frey, and Fisher (2001) described the transformation of a culturally diverse, impoverished urban middle school into a PDS. According to Samuels

et al. (2001), novice teachers were better equipped to meet the challenge of teaching diverse learners when they have opportunities to master "multi-cultural, multi-leveled, inner-city classrooms" (p. 311). This was the rationale offered for some assignments of new teachers to inner city schools (Feiman-Nemser, 2001). However, there was substantial evidence that without strong support, many quickly become disillusioned and retreated from teaching. In fact, Samuels et al. (2001) considered intensive support for new teachers an essential condition for translating their up-to-date theoretical and pedagogical knowledge into actual practice.

The PDS project was guided by standards for professional teaching practice and student learning (Samuels et al., 2001). The project's core component, a literacy leadership team, outlined several pathways for ongoing professional development. One was support for attaining a master's degree onsite. Other channels included peer coaches and site-based supervisors. Teachers of all experience levels attended ongoing professional development seminars. Both novice and veteran teachers derived benefits from the program, and the positive impact was illustrated by a rise in student achievement and decline in disciplinary problems. The teachers continued to engage in a number of best practices including requesting follow-up support, sharing lesson plans and samples of student work, and participating in a variety of professional development activities.

The teachers at the PDS effectively advanced their education and professional growth. Samuels et al. (2001) noted that seven of 15 interns were hired as full-time teachers at the school site, 26 teachers obtained masters degrees, and seven teachers completed one or two years of onsite induction. Mentoring in induction took the form of

peer coaching. The mentoring relationship began during the pre-service year and extended over the first two years of teaching. In general, the PDS stood as a model school that put best practices into operation and encouraged experimentation with new modes of teaching and strategies for transforming the educational process. The literature suggested that an overwhelming number of interns who entered teaching through professional development schools were satisfied with their teaching and learning experience.

Conclusion

New teacher induction began in the 1970's and gained momentum with the drive to retain good teachers and improve the quality of teachers overall. Most induction programs focused on mentoring. The emphasis was not unwarranted; virtually all sources agreed that mentorship was the critical element of an effective induction program. More explicitly, however, the quality of the mentor was the key to program success. There was tremendous variation in the quality and design of mentoring programs. The most successful programs diligently matched mentors with protégés on a number of characteristics and provided the mentor with targeted training. Most were part of a broader-based structured program that provided both mentors and protégés with a strong support system. Ideally, a good mentoring program should be collaborative and promote the learning and development of both partners. This was especially relevant to reform-based mentoring in which novice and experienced teachers often have complementary knowledge and skills.

Teacher induction and professional development were parallel processes in the advancement of teaching as a profession. The idea of a comprehensive approach to either

teacher induction or professional development in the U.S. is a relatively recent phenomenon. Research shows that few teachers, novice or experienced, have access to the comprehensive development programs recommended for achieving excellence in education. American educators can learn from the continuum of activities and supports that comprise the induction and further development of teachers in many Asian and European countries.

Hallmarks of a successful program include clear structure and goals, attention to contexts so the program can be strategically focused, input from participants regarding their needs and priorities, strong administrative support, and collaboration. In fact, collaboration and administrative support stood out as the most important attributes of a successful program. Successful induction programs vary in design but there were few that do not have a coherent support system and ongoing collegial collaboration.

CHAPTER III

METHODOLOGY

Introduction

The purpose of this chapter is to explain the methodology of the study. Included in this portion will be an explanation of the research design, participants, instrument, and method of data collection.

Research Design

To investigate the relationship between a new teacher's participation in a formal teacher induction program and the level of professional growth development as measured by graduate credit/graduate degrees attained, the researcher conducted a quantitative study. Specifically, the investigation consisted of these steps:

1. Gather data by creating and administering a questionnaire to the sample population.

   The survey questionnaire approach has been chosen because it is the most common method of generating and collecting primary data (Babbie, 1998). It is also an excellent way to measure views and opinions (Rea & Parker, 1997). According to statistical authorities, the survey method is the better technique for producing meaningful data to support or answer research questions such as these posed in this study (Blaxter, Huges, & Tight, 1996).

2. Answer the research questions that have been developed for this study: (1) What is the relationship between the extent of training and support services experienced by teachers in their first year of teaching and their years of service? (2) What is the relationship between the extent of training and support services experienced by teachers

in their first year of teaching and school district size? (3) What is the relationship between the extent of training and support services experienced by teachers in their first year of teaching and the grade level they teach? (4) What is the relationship between the extent of training and support services experienced by teachers in their first year of teaching and the number of graduate semester hours of credit they obtain? (5) What is the relationship between the extent of training and support services experienced by teachers in their first year of teaching and completion of graduate degrees? This study was approved by The University of Southern Mississippi Human Subjects Review Board (Appendix A).

Variables of the Study

In evaluating the extent of training and support services experienced in teacher induction programs by teachers in their first year of teaching, the researcher chose dependent variables that seemed important and capable of being measured. These dependent variables are: years of teaching experience, school size, grade level taught, graduate credits earned, and graduate degrees completed.

Participants

The participants for this study were public school teachers from the State of Wisconsin. Participants were randomly selected from the 426 public school districts listed on the Wisconsin Department of Public Instruction Database containing approximately 63,000 teachers, downloaded by the researcher on November 10, 2006. The database included public school teachers in Wisconsin ranging from Pre-Kindergarten through 12^{th} grade levels and all content areas taught for the school year 2006- 2007. The database included only teachers. Survey questionnaires were mailed

out via First Class Postage. Because of time, location, and financial restrictions this type of selection was deemed most appropriate.

Instrument

The Blanford – Level of Teacher Induction Scale I (B-LOTIS 1, APPENDIX B) was specifically designed by this researcher to collect data pertinent to the level of teacher induction and professional growth of teachers. The first section of the questionnaire solicits demographic data from respondents for comparison and purposes of analysis. The demographic section includes 6 questions regarding gender, age, ethnicity, years as teacher, grade level taught, and school district size. The second section solicits data from respondents regarding their professional growth experience. The professional growth section includes 12 questions regarding workshops attended, state level conferences attended, national level conferences attended, conference presentations, highest degree attained when began teaching, current highest degree attained, graduate coursework beyond highest degree, National Board Certification, membership in state of national professional education organizations, number of areas currently certified in, school district reimbursement for workshops and conferences, and school district reimbursement for graduate coursework. The third section of the Blanford - Level of Teacher Induction Scale 1 (B-LOTIS 1) solicits data from respondents regarding the level of training and support experienced by teachers in their first years of teaching. The items in this section specifically solicit data to determine the level of induction teachers experienced. This section includes 24 questions regarding an assigned mentor, duration of mentor relationship, participation in induction, training in curriculum development, classroom management, classroom instruction, communication with parents, local school

policy and procedures, coping with stress on the job, school safety and procedures, personnel policies, training provided by veteran teachers in one's content area, training in conflict resolution, support provided by supervisor in dealing with problem student behavior, support provided in curriculum development, solving issues with parents, coping with stress relating to teaching, managing conflicts in school, by an assigned mentor, setting goals for personal professional development, by teachers within content area, and support provided by direct supervisor as part of the supervision and evaluation process.

The B-LOTIS 1 Scale was scored on a maximum score of 100. Items 18 and 20 were assigned a maximum score of 25 points each (APPENDIX C).

Item 18	**Response Score**
Response	
I did not participate in a mentor program	0
6 Months or less	5
1 year	10
2 years	15
3 years	20
4 or more years (Maximum Score)	**25**

Item 20	
Response	**Response Score**
I did not participate in a new teacher induction program	0
6 Months or less	5
1 year	10
2 years	15
3 years	20
4 or more years (Maximum Score)	**25**

Teacher induction is the main focus of this study. A thorough review of literature suggested that the duration of comprehensive induction programs was quite significant to the success of the programs. In order to measure induction with and without mentoring as a component, items 17-20 were used. Since the literature revealed mentoring was such an essential component of successful comprehensive induction programs, items 18 and 20 were given equivalent values in regard to duration and participation.

For the purpose of this study, items 21-40 of the B-LOTIS 1 Scale were given maximum score values of 2.5 each. In the literature it was not specifically clear which individual component reported in items 21-40 were most significant to the success of induction programs. Findings in literature were mixed on individual components. Various studies have shown the importance of these individual components although the impact of these components differs among the studies. For example, the needs of each individual school district utilizing induction programs, the focus of various studies, and lack of studies specifically measuring these components showed variance in the significance of the individual components impact. It was apparent in the literature and from the expert panel that reviewed the instrument, items 21-40 are essential components and the list of these components is comprehensive. For this study, each component is weighted equally and will be examined independently and collectively.

Hypothesis #1 was tested by data collected on items 4, and 21-30. The years of experience reported on item 4 was compared to responses in items 21 – 30 that specifically relate to training experience. Each training experience was individually evaluated with item 4 utilizing SPSS and an analysis using correlation techniques.

Hypothesis #2 was tested by data collected on items 4, and 21-30. The years of experience reported on item 4 was compared to responses in items 31 – 40 that specifically relate to support provided. Each support provided was individually evaluated with item 4 utilizing SPSS and an analysis using correlation techniques.

Hypothesis #3 was tested by data collected on items 6, and 21-30. The district size reported on item 6 was compared to responses in items 21 – 30 that specifically relate to training experience. Each training experience was individually evaluated with item 6 utilizing SPSS and an analysis using correlation techniques.

Hypothesis #4 was tested by data collected on items 6, and 21-30. The district size reported on item 6 was compared to responses in items 31 – 40 that specifically relate to support provided. Each support provided was individually evaluated with item 6 utilizing SPSS and an analysis using correlation techniques.

Hypothesis #5 was tested by data collected on items 5, and 21-30. The grade level taught reported on item 5 was compared to responses in items 21 – 30 that specifically relate to training experience. Each training experience was individually evaluated with item 5 utilizing SPSS and an analysis using correlation techniques.

Hypothesis #6 was tested by data collected on items 5, and 31-40. The grade level taught reported on item 5 was compared to responses in items 31 – 40 that specifically relate to support provided. Each support provided was individually evaluated with item 5 utilizing SPSS and an analysis using correlation techniques.

Hypothesis #7 was tested by data collected on items 13, and 21-30. The graduate level credits attained reported on item 13 was compared to responses in items 21 – 30 that

specifically relate to training experience. Each training experience was individually evaluated with item 13 utilizing SPSS and an analysis using correlation techniques.

Hypothesis #8 was tested by data collected on items 13, and 31-40. The graduate level credits attained reported on item 13 was compared to responses in items 31 – 40 that specifically relate to support provided. Each support provided was individually evaluated with item 13 utilizing SPSS and an analysis using correlation techniques.

Hypothesis #9 was tested by data collected on items 12, and 21-30. The highest degree attained after the teacher began to teach reported on item 12 was compared to responses in items 21 – 30 that specifically relate to training experience. Each training experience was individually evaluated with item 12 utilizing SPSS and an analysis using correlation techniques.

Hypothesis #10 was tested by data collected on items 12, and 31-40. The highest degree attained after the teacher began to teach reported on item 12 was compared to responses in items 31 – 40 that specifically relate to support provided. Each support provided was individually evaluated with item 12 utilizing SPSS and an analysis using correlation techniques.

Hypothesis #11 was tested by data collected on items 12, and 17-40 (B-LOTIS 1 Scale). The highest degree attained after the teacher began to teach reported on item 12 was compared to B-LOTIS 1 Scale score derived from values assigned to responses in items 17-40. Item 12 response was analyzed utilizing SPSS with the Scale Score of Items 17-40.

Hypothesis #12 was tested by data collected on items 13, and 17-40 (B-LOTIS 1 Scale). The graduate level credits attained after the teacher began to teach reported on

item 13 was compared to B-LOTIS 1 Scale score derived from values assigned to responses in items 17-40. Item 13 response was analyzed utilizing SPSS with the Scale Score of Items 17-40.

Survey items were derived from the literature review related to new teacher induction programs and professional development of teachers. The instrument was reviewed by four noted experts in the field of teacher induction/mentoring. These individuals include published active professional researchers and/or professors from around the United States.

Data Collection Procedures

The survey instrument was delivered via first class mail through the United States Post Office to 1000 public school teachers selected randomly from the Wisconsin Department of Public Instruction database. For this study, a random list of 1000 teachers was derived from the Wisconsin Department of Public Instruction database, downloaded by the researcher on November 10, 2006, using the random number generator function in Excel. To ensure that an equal number of elementary teachers, middle school teachers, and high school teachers were chosen to receive a survey, the list of approximately 63,000 PK-12 teachers were separated into three grade range categories. Elementary included grades Pre-school (PK) through fifth grade, middle school will include grades 6 through 8, and high school will include grades 9 through 12. A total of 334 elementary teachers, 333 middle school teachers and 333 high school teachers were selected, N = 1000. The list included teachers' name, teachers' school mailing addresses, and teachers' grade level taught. Included with the survey instrument was a self-addressed stamp envelop provided to each respondent to return the completed

survey to the researcher if they chose to participate in this study. The questionnaire included a cover letter (Appendix D) explaining the reason for the study and survey procedures. The researcher's address, telephone number and e-mail address was also included.

The expected return rate was 30-40% or 300 to 400 completed surveys with the actual return of 429 completed surveys returned (43%). The researcher accepted returned surveys for four weeks from the date of mailing. Surveys returned within the four week period were included. Surveys returned after the deadline were not included in the sample.

To assure anonymity, participants were instructed to return their responses directly to the researcher using the self-addressed-stamped envelope included with the survey. Participants were informed that their participation was voluntary. Informed consent was implied by the return of participants' responses.

Data Analysis

Descriptive statistics were used by the researcher to compare responses. After data from B-LOTIS1 were collected, the means of responses were calculated and used to analyze the survey data, a practice supported by Marshall & Rossman (1999). Data was processed through SPSS.

The validity and reliability of the questionnaire used by the researcher was determined in three ways. First, each of the questions was related to critical elements identified in the literature. Second, content validity was established based on feedback about the items included in the questionnaire from field experts in teacher induction/mentoring. To determine instrument reliability and subjectivity to random

error, the questionnaire was administered to a test group of fifteen participants. Feedback data was utilized to make this determination. SPSS was used to compute Cronbach's alpha. Reliability was determined by achieving a reliability coefficient of .70 or higher which is necessary for the instrument to be considered "acceptable". Survey questions 21 – 30 yielded .875 and questions 31-40 yielded .872.

Expected Findings

The researcher expected to find that teachers who have had low levels of induction and training in the beginning years of teaching would show a lesser degree of professional development (fewer graduate credits completed and fewer graduate degrees attained) than teachers who received higher levels of induction and training, regardless of years of teaching experience, school size, or grade level taught. In addition, it was expected that this study would find that teachers who had low levels of support services in the beginning years of teaching would show a lesser degree of professional development than teachers who received higher levels of support services, regardless of years of teaching experience, school size, or grade level taught.

CHAPTER IV

ANALYSIS OF DATA

Introduction

This chapter reports the findings of the survey, including response rates, participants' demographic information, descriptive analyses of included variables, analyses of group comparisons, and analyses of correlations. The participants for this study included public school teachers from the State of Wisconsin. Participants were randomly selected from the 426 public school districts listed on the Wisconsin Department of Public Instruction Database containing approximately 63,000 teachers, downloaded by the researcher on November 10, 2006. The database included public school teachers in Wisconsin ranging from Pre-Kindergarten through 12^{th} grade levels and all content areas taught for the school year 2006- 2007. Survey questionnaires were mailed out via First Class Postage. Because of time, location, and financial restrictions this type of selection was deemed most appropriate. Participants were selected to investigate the possible relationship between a new teacher's participation in a formal teacher induction program and their subsequent level of professional growth development as measured by graduate credit/graduate degrees attained. To fulfill this purpose, the mail-out survey was conducted during March, 2007 in Wisconsin. Of the 1000 surveys mailed out, a total of 429 completed surveys were received from, yielding a 43% response rate.

Descriptive

Demographic Information

Participants' were asked to self-identify their gender, age, race, number of years of teaching, current grade level taught, district size, number of workshops attended, number of state level conferences attended, number of national level conferences attended, number of presentations made at workshops or conferences, highest degree attained when they began to teach, current degree level, number of graduate credits beyond current degree, percentage of tuition paid by employer/district, attainment of National Board Certification, membership in professional organizations, and the number of areas certified to teach. The following paragraphs and tables describe the information obtained from the survey data about these items.

The majority of participants (66.4%) were female (n = 285); male participants (n = 144) composed 33.6% of the group. Refer to Table 1 for gender information. In the area of race, the majority of participants (97.2%) were white. One participant did not report. Refer to Table 1 for more information about racial breakdown of participants.

Table 1

Demographic Information for Gender and Race of Participants

	Number/Category	Percentage
Gender ($N = 429$)		
Male	144	33.6
Female	285	66.4
Race ($N = 428$)		
Asian	2	.5
Black	4	.9
Hispanic	1	.2
Indian	1	.2
White	417	97.2
Did Not Report	1	.2

The participants' ages spanned a total of 49 years with the youngest participant 22 years of age and the oldest, 71. The average age of participants was 44 with the most common age reported ($n = 22$) being 56. Two participants did not report age. Refer to Table 2 for more information about the age breakdown of participants. In the area of years of teaching experience, participants' experience ranged from 1 year to 50 years with the average ($M = 17.31$) number of years of experience being 17. Participants ($n = 23$) with 5 years of experience was the most common response reported while one participant did not report number of years of teaching experience. Refer to Table 2 for

more information about teaching experience.

Table 2

Participants' Age and Number of Years of Teaching Experience

Minimum	Maximum	Mean	Std. Deviation
Participants' age (n = 427)			
22	71	43.83	11.04
Participants' number of years of teaching experience (n = 428)			
1	50	17.31	10.89

Current grade level taught by participants was reported in grade level categories divided into Pre-Kindergarten (PK)-5, 6-8 and 9-12. Participants were asked to check all grade level categories that applied to them. It was possible for participants to mark more than one grade level category. Refer to Table 3 for more information about grade level of participants. In the area of district size the most common district size of participants (n = 115) was fewer than 500 total students. About 3/4 of all participants taught at a school district of fewer than 2000 students. Refer to Table 4 for more information about district size of participants.

Table 3

Grade Level Taught by Participant (N = 429)

	Number/Category	Percentage
PK – 5 Only	125	29.1
PK – 5 & 6-8	4	.9
PK – 5 & 9-12	1	.2
6-8 Only	83	19.3
6-8 & 9-12	36	8.4
9-12 Only	177	41.3
Other	3	.7
Total	429	100.0

Table 4

District Size of Participant (N = 429)

	Number/Category	Percentage
Fewer Than 500	115	26.8
500 - 1000	95	22.1
1000 -2000	109	29.4
2000 - 5000	66	15.4
More Than 5000	41	9.6
Did Not Report	3	.7
Total	429	100.0

The average number of local workshops attended by participants (M = 14.93) was 15 with attendance ranging from 0 to 150 workshops attended. A total of 7% of participants (n = 29) attended no workshops. The most common response (n = 48) was 10 workshops. Three participants' did not report. Refer to Table 5 for more information about participants' attendance at workshops. The average number of state level conferences attended by participants (M = 6.53) was 6.5 with attendance ranging from 0 state level conferences to 60. About 28% of participants (n = 120) reported they had not attended a state level conference (28%) while the majority of participants (n = 229) attended 10 or fewer state level conferences. Three participants did not report. Refer to Table 5 for more information about participants' attendance at state level conferences. The average number of national level conferences attended (M = .81) was less than 1.

Most participants (n = 303) 71% reported never attending a national level conference. The most common response for those who did attend was one national level conference (n = 51). Three participants did not report. Refer to Table 5 for more information about participants' attendance at national level conferences. Most participants (n = 268) reported they had not made a presentation at a workshop or conference. The average number of presentations made (M = 1.74) by participants was fewer than 2 with the range of 0 and 100 presentations made. One participant did not report. Refer to Table 5 for more information about participants' presentations experience.

Table 5

Number of Local Workshops, State Conferences and National Conferences Attended by Participants and Number of Presentations Made by Participants

	Minimum	Maximum	Mean	SD
Number of local workshops attended by participant (n = 426)				
	0	150	14.93	17.97
Number of state conferences attended by participant (n = 426)				
	0	60	6.53	9.56
Number of national conferences attended by participant (n = 426)				
	0	20	.81	2.07
Number of presentations made by participant (n = 428)				
	0	100	1.74	6.14

Most participants (n = 396) began teaching with a bachelor degree while the remainder of participants (n = 31) started to teach with a master's degree. Refer to Table 6 for more information about participants' degree status as a new teacher. The majority (n = 248) of participants at the time of this study had a master's degree while a smaller number (n = 13) had a specialist's degree and 1 participant had a doctorate degree. Nearly 39% (n = 165) remained at the bachelor level. Refer to Table 6 for more information about participants' degree status at the time of this study.

Table 6

Highest Degree Attained When Participant Began to Teach and Current Degree

	Category/Number	Percentage
Highest degree attained when participant began to teach (n = 427)		
Bachelor	396	92.3
Master	31	7.2
Did not report	2	.5
Participants' Current Degree (n = 427)		
Bachelor	165	38.5
Master	248	57.8
Specialist	13	3.0
Doctorate	1	.2
Did not report	2	.5

The average number of graduate level credits (M=20.13) beyond the current degree reported by participants was 20 credits with the number of credits ranging between 0 and 93 credits. The most common response (n = 61) reported was 0 credits beyond their current degree. Most participants (n = 365) had taken some graduate level credits beyond their current degree. Three participants did not report. Refer to Table 7 for more information about graduate level credits attained by participants. Most participants (n = 307) reported their districts did not pay for any of their tuition while about 30% of participants received some form of tuition benefit from their district. Some districts paid an amount per credit while others gave a set amount per year. Data on tuition reimbursement indicated a wide variety of experiences among those receiving this benefit.

Table 7

Graduate Level Credits Attained Beyond Current Degree (n = 426)

Minimum	Maximum	Mean	Std. Deviation
0	93	20.13	16.07

Slightly over 3% of participants (n = 13) indicated they were National Board Certified while the majority of the participants (n = 347) indicated they were not Board Certified and not planning to attain this credential. Approximately 13% (n = 55) were planning on working toward the certification while fewer than 3% (n = 10) were working on the credential at the time of this study. Refer to Table 8 for more information about the National Board Certification status of participants.

Table 8

National Board Certified (NBC) Status of Participants (n = 425)

	Category/Number	Percentage
Not NBC	347	80.9
Plan to become NBC	55	12.8
Working toward NBC	10	2.3
Currently NBC	13	3.0
Did not report	4	.9
Total	429	100.0

About 1/3 of participants (n = 148) indicated they did not belong to any professional organizations. For participants who indicated belonging to a professional organization, it was most common for participants to belong to only one (n = 125) or two (n = 105) professional organizations while belonging to three (n = 36), four (n = 5), or five (n = 5) professional organizations was less common. Responses ranged from belonging to 0 – 14 professional organizations. One participant did not report.

Slightly over a third of participants (n = 149) indicated they had only one certification while another third (n = 144) indicated they were certified in two areas. The remaining participants, slightly less than a third, indicated having 3, 4, or more certifications. Refer to Table 9 for more information about the number of certifications of participants.

Table 9

Number of Certifications (N = 429)

	Category/ Number	Percentage
1 Certification	149	34.7
2 Certifications	144	33.6
3 Certifications	72	16.8
4 or more certifications	64	14.9
Total	429	100.0

Descriptive Statistics

The following paragraphs and tables provide descriptive information related to survey items (Items 17 – 40). This information is specific to participants' participation in induction programs and mentoring programs. This portion of the survey instrument is the *Blanford Level of Teacher Induction Scale 1* (B - LOTIS 1) which includes a scoring index devised to measure the level of induction experienced by teachers. Although not all participants of this study indicated participation in induction and/or mentoring programs, individual identified components were broken down and measured. Results of data collection on these items follow.

About 2/3 (n = 280) of participants indicated that they did not have a mentor as a new teacher while just over 1/3 (n = 149) did have a mentor. In regard to the length of time spent with a mentor, again, about 2/3 (n = 280) of participants indicated that they did not have a mentor as a new teacher while about 1/3 (n = 149) did have a mentor. Of the

participants with mentors, it was most common for teachers to have a mentor for only one year (n = 116) while those reported being mentored six months (n = 14), two years (n = 13) and three or more years (n = 6) were less common. Refer to Table 10 for more information about participants' experience with a mentor. About 2/3 of participants (n = 276) indicated no participation in an induction program while the remaining participants (n = 152) had participated in an induction program. One participant did not report. In regard to the length of time in an induction program, again, about 2/3 of participants (n = 276) indicated no participation in an induction program while the remaining participants (n = 152) had participated in an induction program with short-term programs of six months (n = 69) and one year (n = 71) being the most commonly experienced. Programs of two years (n = 8) and three or more years (n = 5) were not as common. Refer to Table 10 for more information about participants' experience in length of induction program.

Table 10

Length of Time with Mentor and in Induction Program

	Number	Percentage
Length of time with mentor ($N = 429$)		
No mentor	280	65.3
6 months or less	14	3.3
1 Year	116	27.0
2 Years	13	3.0
3 or more years	6	1.4
Length of induction program ($N = 429$)		
No induction	276	64.3
6 Months or less	69	16.1
1 Year	71	16.6
2 Years	8	1.9
3 or more years	5	1.2

About 48% of participants reported that training in curriculum was helpful to them to some degree including 3.3% indicating the training was essential to them. About 46% (45.8%) of participants indicated receiving no training in curriculum as a new teacher while a small percentage (3.8%) found such training not helpful (Table 11). About 57% of participants reported that training in classroom management was helpful to them to some degree including 5.1% indicating the training was essential to them. About

36% of participants indicated receiving no training in classroom management as a new teacher while a small percentage (6.4%) found such training not helpful (Table 11).

Table 11

Training Received in Curriculum and in Classroom Management

	Category/Number	Percentage
Training received in curriculum (n = 426)		
Did not receive	195	45.5
Not helpful	16	3.7
Minimally helpful	89	20.7
Helpful	79	18.4
Very helpful	33	7.7
Essential	14	3.3
Did not report	3	.7
Training received in classroom management (n = 425)		
Did not receive	152	35.4
Not helpful	27	6.3
Minimally helpful	98	22.8
Helpful	98	22.8
Very helpful	28	6.5
Essential	22	5.1
Did not report	4	.9

About 60% of participants reported that training in classroom instruction was helpful to them to some degree including 5.1% indicating the training was essential to them. About 35% of participants indicated receiving no training in classroom instruction (Table 12). About 42% of participants reported that training in communicating with parents was helpful to them to some degree including 2.1% indicating the training was essential to them. Receiving training in communicating with parents was less common as 51% of participants indicated receiving no training in this area (Table 12).

Table 12

Training Received in Classroom Instruction and in Communicating With Parents

	Category/Number	Percentage
Training received in classroom instruction (n = 425)		
Did not receive	148	34.5
Not helpful	21	4.9
Minimally helpful	67	15.6
Helpful	113	26.3
Very helpful	54	12.6
Essential	22	5.1
Did not report	4	.9
Training received in communicating with parents (n = 426)		
Did not receive	222	51.7
Not helpful	26	6.1
Minimally helpful	84	19.6
Helpful	63	14.7
Very helpful	22	5.1
Essential	9	2.1
Did not report	3	.7

About 65% of participants reported that training in school board policies and procedures was helpful to them to some degree including 2.6% indicating the training was essential and 10.3% indicating the training was very helpful. About 26% did not receive training in this area (Table 13). About 1/3 of participants reported that training in coping with stress on the job was helpful to them to some degree. About 58% received no training in this area (Table 13).

Table 13

Training Received in School Board Policy and Procedures, and Coping With Stress on the Job

	Category/Number	Percentage
Training received in school board policy and procedures (n = 427)		
Did not receive	113	26.3
Not helpful	37	8.6
Minimally helpful	98	22.8
Helpful	124	28.9
Very helpful	44	10.3
Essential	11	2.6
Did Not report	2	.5
Training received in coping with stress on the job (n = 425)		
Did not receive	247	57.6
Not helpful	40	9.3
Minimally helpful	66	15.4
Helpful	55	12.8
Very helpful	14	3.3
Essential	4	.9
Did not report	4	.9

About 65% of participants reported that training in school safety and procedures was helpful to them to some degree including 2.6% indicating the training was essential to them while about 26% did not receive training in this area (Table 14). About 68% of participants reported that training in personnel policies was helpful to them to some degree including 4.0% indicating the training was essential to them while about 23% did not receive training in this area (Table 14).

Table 14

Training Received in School Safety and Procedures, and in Personnel Policies

	Category/Number	Percentage
Training received in school safety and procedures (n = 427)		
Did not receive	113	26.3
Not helpful	37	8.6
Minimally helpful	98	22.8
Helpful	124	28.9
Very helpful	44	10.3
Essential	11	2.6
Did not report	2	.5
Training received in personnel policies (n = 428)		
Did not receive	98	22.8
Not helpful	38	8.9
Minimally helpful	103	24.0
Helpful	125	29.1
Very helpful	47	11.0
Essential	17	4.0
Did not report	1	.2

About 54% of participants reported that training received from a veteran teacher in the participants' own content area was helpful to them to some degree including 14.7% indicating the training was essential to them and 14.9% reporting the training was very helpful (Table 15). About 1/3 of participants reported finding the training they received in conflict resolution provided helpful to some degree while about 60% of participants indicated receiving no training in this area (Table 15).

Table 15

Training Provided by Veteran Teacher in Content Area and in Conflict Resolution

	Category/Number	Percentage
Training provided by veteran teacher in content area (n = 427)		
Did not receive	175	40.8
Not helpful	21	4.9
Minimally helpful	39	9.1
Helpful	65	15.2
Very helpful	64	14.9
Essential	63	14.7
Did not report	2	.5
Training received in conflict resolution (n = 427)		
Did not receive	253	59.0
Not helpful	31	7.2
Minimally helpful	64	14.9
Helpful	56	13.1
Very helpful	17	4.0
Essential	6	1.4
Did not report	2	.5

Approximately 84% of participants reported that support provided to them by their principal in dealing with problem student behavior was helpful to some degree. Fewer participants (9.6%) reported not receiving this type of support (Table 16). About 44% of participants reported finding support received in developing lesson plans helpful to some degree while over 47% reported not receiving this type of support (Table 16).

Table 16

Support Provided by Principal for Dealing with Problem Student Behavior and Support Provided in Developing Lesson Plans

	Category/Number	Percentage
Support provided by principal for dealing with problem student behavior (n = 427)		
Did not receive	41	9.6
Not helpful	26	6.1
Minimally helpful	96	22.4
Helpful	120	28.0
Very helpful	106	24.7
Essential	38	8.9
Did not report	2	.5
Support provided in developing lesson plans (n = 427)		
Did not receive	202	47.1
Not helpful	35	8.2
Minimally helpful	84	19.6
Helpful	67	15.6
Very helpful	30	7.0
Essential	9	2.1
Did not report	2	.5

About 45% of participants indicated that support provided in developing curriculum was helpful to some degree while another 45% reported not receiving this type of support (Table 17). Over 60% of participants reported that support provided to them in solving problems with parents was helpful to some degree. About 1/3 of participants reported not receiving this type of support (Table 17).

Table 17

Support Provided in Developing Curriculum and in Solving Problems with Parents

	Category/Number	Percentage
Support provided in developing curriculum (n = 427)		
Did not receive	192	44.8
Not helpful	41	9.6
Minimally helpful	85	19.8
Helpful	71	16.6
Very helpful	30	7.0
Essential	8	1.9
Did not report	2	.5
Support provided to them in solving problems with parents (n = 427)		
Did not receive	133	31.0
Not helpful	35	8.2
Minimally helpful	98	22.8
Helpful	90	21.0
Very helpful	54	12.6
Essential	17	4.0
Did not report	2	.5

About 34% of participants reported support provided to them in coping with stress as a new teacher was helpful to some degree while nearly 60% of participants (58.1%) reported not receiving this type of support (Table 18). About 51% of participants indicated support provided to them in dealing with conflicts in school was helpful to some degree while just over 40% reported not receiving this type of support (Table 18).

Table 18

Support Provided in Coping with Stress and in Dealing with Conflicts in School

	Category/Number	Percentage
Support provided in coping with stress (n = 427)		
Did not receive	248	57.8
Not helpful	34	7.9
Minimally helpful	72	16.8
Helpful	47	11.0
Very helpful	21	4.9
Essential	5	1.2
Did not report	2	.5
Support provided in dealing with conflicts in school (n = 428)		
Did not receive	172	40.1
Not helpful	39	9.1
Minimally helpful	95	22.1
Helpful	86	20.0
Very helpful	32	7.5
Essential	4	.9
Did not report	1	.2

About 35% of participants reported that support provided to them by an assigned mentor as a new teacher was helpful to some degree while nearly 62% reported not receiving this type of support (Table 19). About 35% of participants reported support received in developing and setting goals for professional development as a new teacher was helpful to some degree while about 48% reported not receiving this type of support (Table 19).

Table 19

Support Provided by Assigned Mentor and in Developing / Setting Goals for Professional Development

	Category/Number	Percentage
Support provided by assigned mentor (n = 426)		
Did not receive	264	61.5
Not helpful	13	3.0
Minimally helpful	27	6.3
Helpful	45	10.5
Very helpful	34	7.9
Essential	43	10 .0
Did not report	3	.7
Support provided in developing / setting goals for professional development (n = 427)		
Did not receive	206	48.0
Not helpful	29	6.8
Minimally helpful	79	18.4
Helpful	78	18.2
Very helpful	26	6.1
Essential	9	2.1
Did not report	2	.5

About 77% of participants found support provided to them by teachers in their content area helpful to some degree including over 20% finding this support essential to them while about 19% reported not receiving this type of support (Table 20). About 71% of participants reported support provided by direct supervisor during supervision and evaluation as a new teacher was helpful to some degree including 5.6% finding this support essential to them while about 18% reported not receiving this type of support (Table 20).

Table 20

Support Provided by Teachers in Content Area and by Direct Supervisor During Supervision and Evaluation as a New Teacher

	Category/Number	Percentage
Support provided by teachers in content area (n = 426)		
Did not receive	82	19.1
Not helpful	13	3.0
Minimally helpful	44	10.3
Helpful	91	21.2
Very helpful	109	25.4
Essential	87	20.3
Did not report	3	.7
Support provided by supervisor as a new teacher (n = 427)		
Did not receive	77	17.9
Not helpful	46	10.7
Minimally helpful	99	23.1
Helpful	117	27.3
Very helpful	64	14.9
Essential	24	5.6
Did not report	2	.5

Analysis of Data

Research Question 1

What is the relationship between the extent of training and support services experienced by teachers in their first year of teaching and their total years of experience in teaching?

Hypothesis #1: There will be a relationship between the extent of training experienced by teachers in their first year of teaching and their total years of experience in teaching.

This hypothesis was tested using Pearson's correlation to determine if a linear relationship existed between the extent of training experienced by participants in their first year of teaching and their total years of experience in teaching. The possible range on the extent of training was 0 – 25, where higher scores indicated higher levels of training. The obtained range was 0 – 25 ($M = 8.1$, $SD = 5.37$). The possible range on years of experience was 1 or above, where higher scores indicated higher number of years of experience. The obtained range was 1 – 50 ($M = 17.39$, SD 10.89). The analysis conducted indicated a weak negative correlation within the sample ($n = 427$) between the extent of training experienced and number of years of experience ($r = -.18$, $p < 0.01$); therefore, this hypothesis was accepted however, the relationship revealed in the data was very weak.

Hypothesis #2: There will be a relationship between years of teaching experience and the extent of support services experienced.

This hypothesis was tested using Pearson's correlation to determine if a linear relationship existed between the extent of support experienced by participants in their

first year of teaching and their total years of experience in teaching. The possible range on the extent of support was 0 – 25, where higher scores indicated higher levels of support. The obtained range was 0 – 24 ($M = 8.8$, $SD = 5.27$). The possible range on years of experience was 1 or above, where higher scores indicated higher number of years of experience. The obtained range was 1 – 50 (M=17.39, SD 10.89). The analysis conducted indicated a weak negative correlation within the sample ($n = 427$) between the extent of training experienced and number of years of experience ($r = -.22$, $p < 0.01$); therefore, this hypothesis was accepted however, the relationship revealed in the data was very weak.

Research Question 2

What is the relationship between the extent of training and support experienced by teachers in their first year of teaching and their current school district size?

Hypothesis #3: There will be a relationship between school district size and the extent of training experienced.

This hypothesis was tested using Spearman's rank correlation coefficient to determine if a linear relationship existed between the extent of training experienced by participants in their first year of teaching and the participants' current school district size. The possible range on the extent of training was 0 – 25, where higher scores indicated higher levels of training. The obtained range was 0 – 25 ($M = 8.1$, $SD = 5.37$). The district size measure was categorical according to Pre-School -12th grade student enrollment, less than 500 ($n = 115$), 500-1000 ($n = 95$), 1000 – 2000 (n = 109), 2000-5000 ($n = 66$), and more than 5000 ($n = 41$). The analysis conducted indicated no correlation existed within the sample ($n = 426$) between the extent of training

experienced and district size (r_s = -.02, p = .71); therefore, this hypothesis was not accepted.

Hypothesis #4: There will be a relationship between school district size and the extent of support experienced.

This hypothesis was tested using Spearman's rank correlation coefficient to determine if a linear relationship existed between the extent of support experienced by participants in their first year of teaching and the participants' current school district size. The possible range on the extent of support was 0 – 25, where higher scores indicated higher levels of support. The obtained range was 0 – 24 (M = 8.1, SD = 5.37). The district size measure was categorical according to Pre-School -12th grade student enrollment, less than 500 (n = 115), 500-1000 (n= 95), 1000 – 2000 (n = 109), 2000-5000 (n = 66), and more than 5000 (n = 41). The analysis conducted indicated no correlation existed within the sample (n = 426) between the extent of training experienced and district size (r_s = -.03, p = .61); therefore, this hypothesis was not accepted.

Research Question 3

What is the relationship between the extent of training and support experienced by teachers in their first year of teaching and the current grade level they teach?

Hypothesis #5: There will be no statistically significant difference between the training of secondary teachers (Grades 9-12) and elementary grade level teachers (PK-5).

This hypothesis was tested using Spearman's rank correlation coefficient to determine if a statistically significant difference between the training of secondary participants (Grades 9-12) and elementary grade level participants (PK-5) existed. The possible range on the extent of training was 0 – 25, where higher scores indicated higher

levels of training. The obtained range was 0 – 25 (M = 8.1, SD = 5.37). The grade level taught measure was categorical, elementary PK – 5 (n = 125) and secondary 9-12 (n = 177). The analysis conducted indicated a weak negative correlation existed within the sample (n = 425) between the extent of training experienced and grade level taught (r_s = -.11*, p = .02); therefore, this hypothesis was accepted however, the relationship revealed in the data was very weak.

Hypothesis #6: There will be no statistically significant difference in the level of support services for secondary teachers (Grades 9-12) and elementary grade level teachers (PK-5).

This hypothesis was tested using Spearman's rank correlation coefficient to determine if a statistically significant difference between the level of support services of secondary participants (Grades 9-12) and elementary grade level participants (PK-5) existed. The possible range on the extent of support was 0 – 25, where higher scores indicated higher levels of support. The obtained range was 0 – 24 (M = 8.8, SD = 5.27). The grade level taught measure was categorical, elementary PK – 5 (n = 125) and secondary 9-12 (n = 177). The analysis conducted indicated no correlation existed within the sample (n = 425) between the extent of training experienced and grade level taught (r_s = -.07, p = .14); therefore, this hypothesis was accepted however, the relationship revealed in the data was very weak.

Research Question 4

What is the relationship between the extent of training and support services experienced by teachers in their first year of teaching and the number of graduate credits obtained after the teacher began to teach?

Hypothesis #7: There will be a relationship between the number of graduate credits obtained after the teacher began to teach and the extent of training experienced.

This hypothesis was tested using Pearson's correlation to determine if a linear relationship existed between the extent of training experienced by participants in their first year of teaching and the number of graduate credits obtained after the participants began to teach. The possible range on the extent of training was 0 – 25, where higher scores indicated higher levels of training. The obtained range was 0 – 25 ($M = 8.1$, $SD = 5.37$). The possible range on the number of graduate credits obtained after the teacher began to teach was 0 – or above. The obtained range was 0 – 93 ($M = 20.13$, $SD = 16.07$). The analysis conducted indicated a weak negative correlation within the sample (n = 426) between the extent of training experienced and number of graduate credits obtained ($r = -.14$, $p = 0.005$); therefore, this hypothesis was accepted however, the relationship revealed in the data was very weak.

Hypothesis #8: There will be a relationship between the number of graduate credits obtained after the teacher began to teach and the extent of support services experienced.

This hypothesis was tested using Pearson's correlation to determine if a linear relationship existed between the extent of support services experienced by participants in their first year of teaching and the number of graduate credits obtained after the participants began to teach. The possible range on the extent of support was 0 – 25, where higher scores indicated higher levels of support. The obtained range was 0 – 24 ($M = 8.8$, $SD = 5.27$). The possible range on the number of graduate credits obtained after the teacher began to teach was 0 or above. The obtained range was 0 – 93 ($M =$

20.13, *SD* = 16.07). The analysis conducted indicated a weak negative correlation within the sample (n = 426) between the extent of support experienced and number of graduate credits obtained (r = -.13, p = 0.006); therefore, this hypothesis was accepted however, the relationship revealed in the data was very weak.

Research Question 5

What is the relationship between the extent of training and support services experienced by teachers in their first year of teaching and completion of graduate degrees?

Hypothesis #9: There will be a relationship between completion of graduate degrees completed after the teacher began to teach and the extent of training experienced.

This hypothesis was tested using Spearman's rank correlation coefficient to determine if a linear relationship existed between the extent of training experienced by participants in their first year of teaching and the completion of graduate degrees completed after the participants began to teach. The possible range on the extent of training was 0 – 25, where higher scores indicated higher levels of training. The obtained range was 0 – 25 (M = 8.1, SD = 5.37). The completion of graduate degrees measure was categorical Master (n = 248), Specialist (n = 13), Doctorate (n = 1). The analysis conducted indicated no correlation existed within the sample (n = 426) between the extent of training experienced and completion of graduate degrees (r_s = -.02, p = .71); therefore, this hypothesis was not accepted.

Hypothesis #10: There will be a relationship between completion of graduate degrees completed after the teacher began to teach and the extent of support services experienced.

This hypothesis was tested using Spearman's rank correlation coefficient to determine if a linear relationship existed between the extent of support services experienced by participants in their first year of teaching and the completion of graduate degrees completed after the participants began to teach. The possible range on the extent of training was 0 – 25, where higher scores indicated higher levels of training. The obtained range was 0 – 24 ($M = 8.8$, $SD = 5.27$). The completion of graduate degrees measure was categorical Master ($n = 248$), Specialist ($n = 13$), Doctorate ($n = 1$). The analysis conducted indicated no correlation existed within the sample ($n = 426$) between the extent of training experienced and completion of graduate degrees ($r_s = -.04$, $p = .48$); therefore, this hypothesis was not accepted.

Research Question 6

What is the relationship between teachers' completion of graduate degrees after the teacher began to teach and their overall experience in teacher induction utilizing the B-LOTIS 1 Scale?

Hypothesis #11: There will be a relationship between completion of graduate degrees after the teacher began to teach and the overall extent of training and support experienced as measured by the B-LOTIS 1 Scale.

This hypothesis was tested using Spearman's rank correlation coefficient to determine if a linear relationship existed between the completion of graduate degrees completed after the participants began to teach and the overall extent of training and support experienced by participants as measured by the B-LOTIS 1 Scale . The completion of graduate degrees measure was categorical Master ($n = 248$), Specialist ($n = 13$), Doctorate ($n = 1$). The possible range on the extent of training and support

experienced as measured by the B-LOTIS 1 Scale was 0 – 100, where higher scores indicated higher levels of training and support experienced. The obtained range was 0 – 78.5 ($M = 23.4$, $SD = 15.71$). The analysis conducted indicated no correlation existed within the sample ($n = 426$) between the extent of training experienced and completion of graduate degrees ($r_s = -.03$, $p = .60$); therefore, this hypothesis was not accepted.

Research Question 7

What is the relationship between teachers' completion of graduate credits after the teacher began to teach and their overall experience in teacher induction utilizing the B-LOTIS 1 Scale?

Hypothesis #12: There will be a relationship between the number of graduate credits obtained after the teacher began to teach and the overall extent of training and support experienced as measured by the B-LOTIS Scale.

This hypothesis was tested using Pearson's correlation to determine if a linear relationship existed between the number of graduate credits obtained after the participants began to teach and the overall extent of training and support experienced by participants as measured by the B-LOTIS Scale . The number of graduate credits obtained measure was 0 or above. The obtained range was 0 -93. The possible range on the extent of training and support experienced as measured by the B-LOTIS 1 Scale was 0 – 100, where higher scores indicated higher levels of training and support experienced. The obtained range was 0 – 78.5 ($M = 23.4$, $SD = 15.71$). The analysis conducted indicated a weak negative correlation within the sample ($n = 426$) between the overall extent of training and support experienced as measured by the B-LOTIS Scale and

number of graduate credits attained ($r = -.22$, $p < 0.01$); therefore, this hypothesis was accepted however, the relationship revealed in the data was very weak.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The dissertation investigated teachers' participation in formal induction programs and their subsequent level of professional growth in Wisconsin Public Schools. The participants were teachers who were randomly chosen from the Department of Public Instruction of the State of Wisconsin database of public school teachers ranging from grades Pre-School to 12th grade and included all levels and content areas. The goal of this study was to determine if participation in teacher induction was related to participants' subsequent level of professional growth development as measured by graduate credit/graduate degrees attained. For this study, specific variables were chosen to measure to investigate if relationships exited between participation in teacher induction and teachers' subsequent professional development. These variables included: teachers' age; teachers grade level taught; teachers' school district size; training and support provided to teachers in their first years of teaching; participation by teachers in mentoring and induction programs; teachers' level of education; and the number of graduate level credits attained by teachers after they began to teach. Chapter V will present the results of the findings. The chapter headings include: (a) introduction, (b) summary, (c) limitations,(d) conclusions, (e) recommendations and (f) implications for future studies.

Summary

Twelve hypotheses were developed in this study to investigate the possibility of relationships that may have existed between participation in teacher induction programs and latter professional development of participants. Specifically, the factors relating to

teacher induction, the extent of training and support provided to teachers in their first years of teaching, and the chosen factors to measure professional development, the number of graduate credits and the graduate degrees attained after the participant began to teach. This study overall, sought to determine if the level of induction experienced by the participants as measured by the B-LOTIS1 Scale showed a relationship with the level of professional development attained by participants as measured by the number of graduate credits and the graduate degrees attained after the participants began to teach.

Hypotheses 1 and 2 revealed very weak negative correlations between the extent of training and support services experienced by teachers in their first years of teaching and teachers' years of experience. According to the literature, formal teacher induction programs have existed in relatively recent times, the past 25 – 30 years with prevalence increasing with time (Blair-Larsen, 1998). The correlations indicated in these measures were statistically weak. Although the relationships were very weak, they were slightly negative which indicated that teachers with more experience had less induction, as anticipated. It was anticipated that a relationship between the prevalence of induction programs/participants' participation in induction and the number of years of experience would exist because induction programs have been increasing in recent years. In this study, one cannot generalize with all teachers because only 35% of participants (n = 153) indicated participation in teacher induction and of those who did participate, 92% (n = 140) of participation in programs lasted one year or less. According to Wong et al. 2005, "Induction is a highly organized and comprehensive form of staff development, involving many people and components, that typically continues as a sustained process for the first 2 to 5 years of a teacher's career" (Wong et al., 2005, p. 379). If this is the case with

typical induction programs, only 3% (n = 13) participants in this study who were involved in an induction program experienced a typical program. Making generalizations on 3% of the sample would e inappropriate. Although there was a slight correlation, a clear relationship could not be established based on the data.

The factor of school district size tested by hypotheses 3 and 4 showed no correlation. This measure was taken to check for differences that may have existed between district sizes. Evidently, in this study, school district size had little or no direct relationship with experience of teachers regarding the extent of training and support services provided. School district size often translates into lower prevalence of formal induction programs because smaller schools may have fewer resources to support such programs although, smaller schools tend to be more supportive by their nature (Feiman-Nemser, 2001). Again, due to the low incidence of participants actually experiencing a typical induction program, it is difficult to make any generalities based on school district size. In this study, there was no correlation based on school district size.

The grade level taught by teachers as measured by hypotheses 5 and 6 was found to have little significance and showed a weak negative correlation between elementary and secondary teachers' experience with the extent of training experienced and no correlation with the extent of support services provided. Results indicate that grade level taught is not likely a factor that influences teachers' participation in induction related activities because such activities typically are delivered at the district level. Although the relationships were very weak, they were slightly negative indicating that teachers had less induction the higher the grade level they taught. Interestingly, Wood (2005) found that due to differences in school structure, secondary principals were less involved in

induction than their elementary counterparts. It is possible, even though induction is likely to be delivered at the district level, factors within each grade level building may play a part on the implementation, effectiveness and subsequent success. In addition, little variances in this study may be attributed to participants who may have taught at school districts other than PK-12, for example, a PK – 8 school district or a 9-12 school district. The differences were too small to reveal any significance worth speculating.

Hypotheses 7 and 8 revealed weak negative correlations between the extent of training and support experienced and the number of graduate credits attained by teachers after they began to teach. Although a negative correlation exists, the level is too weak to point to clear relationship. Although the relationships were very weak, they were slightly negative which indicated that teachers with graduate credits had less induction. This slightly indicates that teachers with higher induction have fewer graduate credits. This is not compelling enough to make generalizations but the pattern of negative correlation does draw attention.

Hypotheses 9 and 10 revealed no correlation between the extent of training and support experienced and the graduate degrees attained by teachers after they began to teach. It is evident that the extent of training and support experienced within the sample ($N = 429$) had little or no relationship with the attainment of graduate degrees. Furthermore, hypothesis 11 revealed no correlation between the overall score on the B-LOTIS1 scale and the completion of graduate degrees.

Hypothesis 12 revealed a weak negative correlation between overall extent of training and support experienced as measured by the B-LOTIS Scale and the number of graduate credits obtained after the teacher began to teach. Although a negative

correlation exists, the level is too weak to point to clear relationship. It is interesting that Hypotheses 11 and 12 differ. This shows that the B-LOTIS-1 scores corresponded with the respective hypotheses that looked at graduate credits and degrees.

Again, as previously discussed, the low number of participants who actually experienced a typical induction program was too small to reveal significant correlation between these variables although, it is important to point out teachers who pursued advanced learning were more likely to deepen their skills and knowledge not only in instructional techniques, but also in their subject matter. This makes teachers better able to make lessons meaningful, answer students' questions, and help students solve problems. Furthermore, these teachers learn how to better inspire their students and meet individual student needs. Research has shown that improving teacher knowledge and teaching skills is essential to raising student performance (Desimone et al., 2002; Ferguson, 1990; Huling-Austin & Murphy, 1987).

Limitations

This study included only teachers from the State of Wisconsin Public Schools. It is likely that teachers of other regions of the country may have different experiences and results to such a study. Although teacher induction is widespread and exists to some degree in all states, the overall experiences in this sample population may be different from other areas of the country.

Although a definition was provided to them in the cover letter, it was apparent by some of the written comments added by participants to the survey that the term induction was unfamiliar to some participants. Although many districts have formal induction programs in place, the terminology associated with induction may vary among school

districts thus contributing to the confusion of what induction is. It is possible teachers participated in such a program as a new teacher and didn't realize it.

The overall participant sample had an average age of 44 ($M = 43.83$) which was older in regard to teacher induction. Induction is a more recent phenomenon and it is possible the average teacher did not experience any induction and if they had, it would have likely been a less comprehensive program. According to Blair-Larsen (1998) and Hargreaves & Fullan (2000), the earliest formal induction programs began in the later 1970's and early 1980's with prevalence levels relatively low until the 1990's. This sample did not show an anticipated relationship even though the most common level of experience reported was five years. It was evident the participants in the sample with only 3% ($n = 13$) of the total ($N = 429$) experiencing a typical induction program would likely present findings that revealed little in regard to correlations.

The design of this study may in itself be limiting. A total of 1000 surveys were mailed out. A total of 429 valid surveys were returned and included in this sample. The actually percentage of Wisconsin teachers experiencing typical induction programs may be higher or lower than revealed in this study.

Conclusions

This study yielded no significant findings to indicate that participation in new teacher induction is related to the subsequent level of professional development as measured by the number of graduate credits attained and/or the attainment of graduate degrees. It was apparent, that within this sample, the overall experiences of the participants with regard to their level of induction, as measured by the B-LOTIS1 and other measures, showed little or no relationship the teachers' subsequent level of

professional development as measure by credits and degrees attained. However, this sample from the State of Wisconsin included only 3% who indicated participation in a typical program lasting 2 to 5 years.

Recommendations

A larger number of individuals experiencing induction should be examined in order to adequately determine if any relationships exist between induction and/or mentoring and professional development. To increase the number, a study designed to specifically recruit only teachers that have participated in a typical induction program may yield the best results. This study yielded inconclusive results based on the low number of actual cases where participants experienced a typical induction program.

Designing a study to increase the percentages may yield results that correlate more with findings in the literature. Literature indicated that there may be positive benefits from teachers' participation in formal induction programs and mentoring. "Formal induction programs provide continuity between the closely supervised pre-service experience and the assumption of full classroom responsibilities" (ERIC, 1986, p. 1). Issues such as teacher shortages and teacher retention (Ingersoll, 2001), poor working conditions in schools (Ingersoll, 2003; Ingersoll & Smith, 2003; Millinger, 2004), overall poor school climate (Brooks, 1987), and inadequate communication among teachers and administrators (Feiman-Nemser, 2001; Karge, 1993; Metropolitan Life, 1996) can be addressed by a comprehensive teacher induction program. Ingersoll (2001, 2003) found teacher retention rates significantly increased in schools that utilized teacher induction programs. Successful teacher induction programs can produce happier and more effective teachers, which benefits students and influences the overall workplace and the

community it serves (Darling-Hammond, 1998). The researcher attempted to link teacher induction and related activities to teachers' professional development. It is believed by the researcher that this study was a worthwhile endeavor although, it is believed further investigation is needed. In Hiebert & Stigler (2000), it was found practices of many in Asia and Europe cultivated new teachers and advancing professional growth where professional development began in graduate school and extended throughout the teacher's career. A teachers' success is measured by their students' success. There was compelling evidence that qualified teachers were key factors in students' academic success (Darling-Hammond, 2001, 2003, 2005; Kent, 2004; Wong et al., 2005). However, it was only within the last decade that teachers, and more specifically, *teacher learning*, have been placed at the center of education reform (Darling-Hammond, 1998, 2003, 2005; Darling-Hammond & McLaughlin, 1995; Feiman-Nemser, 1998; Sparks & Hirsh, 2000). It may be easier as time passes to make a clearer link between induction and professional development although, it is clear that both are desired outcomes for teachers and both are interlinked though this study showed no such correlation between the them.

Implications for Future Studies

Further investigation is needed to determine if the level of teacher induction experienced shows any relationship with the subsequent level of professional development. A longitudinal type study of teachers may yield more specific data in this area. For example, a group of teachers who experienced an extended comprehensive induction program could be compared with a group of teachers who did not participate in induction.

This study as designed yielded little evidence that a relationship exists between participation in teacher induction and subsequent professional development as measured by graduate credits/degrees attained by teachers. Although the instrument administered was comprehensive, the method of mail-out survey may not be the best approach to investigating the specific nature of induction programs and their relationship to teachers' professional development. The researcher discovered that much of the research findings in the literature were derived from other means than mail-out surveys. Fulton et al. (2005) reviewed several studies which closely examined specific induction programs through a variety of means such as interviews, journals, and surveys, Blair-Larson and Bercick (1992) collected qualitative data from participants via monthly diaries/journals while others like Darling-Hammond (1998, 2003, 2005); Darling-Hammond & McLaughlin (1995); Feiman-Nemser (1998); and Sparks & Hirsh (2000) used a variety of methods including personal interviews, surveys, focus groups, etc. Gaining accurate relevant input from teachers is essential in determining if any relationship exists between teacher induction and professional develop. It is likely, this would best be done utilizing a research method other than mail-out surveys because other methods may focus more specifically on teachers who have typical induction experience. Additional research methodology could also afford more prescriptive analysis that may reveal relationships more effectively and efficiently.

APPENDIX A

IRB APPROVAL LETTER

The University of Southern Mississippi
Institutional Review Board

118 College Drive #5147
Hattiesburg, MS 39406-0001
Tel: 601.266.6820
Fax: 601.266.5509
www.usm.edu/irb

HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE
NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: **27022601**
PROJECT TITLE: **Teachers' Participation in Formal Induction Programs and Their Subsequent Level of Professional Growth in Wisconsin Public Schools**
PROPOSED PROJECT DATES: **02/01/07 to 09/01/07**
PROJECT TYPE: **Dissertation or Thesis**
PRINCIPAL INVESTIGATORS: **Paul E. Blanford**
COLLEGE/DIVISION: **College of Education & Psychology**
DEPARTMENT: **Educational Leadership & Research**
FUNDING AGENCY: **N/A**
HSPRC COMMITTEE ACTION: **Expedited Review Approval**
PERIOD OF APPROVAL: **02/26/07 to 02/25/08**

Lawrence A. Hosman
Lawrence A. Hosman, Ph.D.
HSPRC Chair

2-28-07
Date

APPENDIX B

SURVEY INSTRUMENT

Blanford Doctoral Research Survey 2007 ©

As a teacher, guidance counselor, and now an educational leader, I believe strongly in the importance of providing new teachers the guidance and support necessary to become a successful teacher. It is important for teachers to obtain professional growth throughout their career as an educator. Participation by teachers in teacher induction and mentoring programs may enhance the levels of their professional development. By completing this survey, you are helping make that determination.

Thank you for completing this survey.

Paul E. Blanford

Please carefully read and complete all items (1 – 16) listed below. Some items may require the response (X) and some items may require a numerical response _____.

1	Your Gender (X)	Male ( )	Female ( )				
2	Your Age	_____ Years of age.					
3	Your Race (X)	American Indian ( )	Asian ( )	Black or African American ( )	Hispanic ( )	White ( )	Other ( )
4	Number of years you have been a teacher. _____ Years						
5	Current grade level range you teach. (X) (Please mark all that apply to you.)	PK-5 ( )	6-8 ( )	9-12 ( )	Other (please specify)		
6	What is your current school district student population range? (X)	Les than 500 students ( )	500- 100 students ( )	1000- 2000 students ( )	2000-5000 students ( )	More than 5000 students ( )	
7	Since you began to teach, have you attended educational workshops outside of your district? (X)	I have not attended this type of workshop. ( )				If yes, how many? _____	
8	Since you began to teach, have you attended state level conferences? (X)	I have not attended any state level conferences. ( )				If yes, how many? _____	
9	Since you began to teach, have you attended national level conferences? (X)	I have not attended any national level conferences. ( )				If yes, how many? _____	
10	Have you yourself given presentations at an educational workshop or conference? (X)	I have not given a presentation at an educational workshop or conference. ( )				If yes, how many? _____	
11	What was your highest degree attained at the time you began to teach? (X)	Bachelors ( )	Masters ( )	Specialist ( )	Doctorate ( )		
12	What is your highest degree attained at present? (X)	Bachelors ( )	Masters ( )	Specialist ( )	Doctorate ( )		
13	Have you completed any graduate level credits beyond your highest degree? (Please do not include courses earned prior to teaching) (X)	I have not completed an additional college course beyond my highest degree after I began to teach. ( )	If yes, how many graduate level credits? _____ What percentage did your school district pay for your tuition? _____%				
14	Are you a National Board Certified Teacher? (X)	No, I am not a National Board Certified Teacher and do not plan to seek this credential. ( )	I am not currently working on National Board certification but plan to acquire this credential. ( )	I am currently working on National Board Certification. ( )	Yes, I am a National Board Certified Teacher. ( )		
15	Do you belong to any state or national level professional education organizations? (X)	No, I do not belong to any state or national level professional education organizations. ( )	If yes, how many? _____				
16	How many areas are you currently certified in? (please include all teaching, pupil services, , administrative, etc. areas in your total) (X)	Only one area ( )	Two areas ( )	Three areas ( )	Four or more areas ( )		

Blanford Level of Teacher Induction Scale 1 (B - LOTIS 1) ©

The following 4 questions (17 – 20) are in regard to the experience you had as a new teacher. These questions are specific to your experience in your first year(s) of teaching in regard to your participation in school district programs provided to you. Please check the response that best describes your experience.

17	When you were a new teacher, were you assigned a mentor? (X)		No, I was not assigned a mentor. ( )		Yes , I was assigned a mentor ( )		
18	How long did the mentor program you participated in last? (X)	I did not participate in a mentor program ( )	6 Months or less ( )	1 year ( )	2 years ( )	3 years ( )	4 years or more ( )
19	When you were a new teacher, did you participate in a new teacher induction program? (X)		No, I did not participate in a new teacher induction program. ( )		Yes, I did participate in a new teacher induction program. ( )		
20	How long did the induction program you participated in last? (X)	I did not participate in a new teacher induction program ( )	6 months or less ( )	1 year ( )	2 years ( )	3 years ( )	4 years or more ( )

For the following items (21 – 30), please circle the corresponding number from below that best describes your experience of training provided to you as a new teacher in the areas listed.

0 Did not receive this type of training.	1 Training was not at all helpful.	2 Training was minimally helpful.	3 Training was helpful.	4 Training was very helpful.	5 Training was essential to me.

21	Training in curriculum development	0	1	2	3	4	5
22	Training in classroom management and student discipline	0	1	2	3	4	5
23	Training in methods of classroom instruction	0	1	2	3	4	5
24	Training in communicating with parents	0	1	2	3	4	5
25	Training in local school policy and procedures	0	1	2	3	4	5
26	Training in coping with stress on the job (Wellness programs, staff socials, workshops, etc.)	0	1	2	3	4	5
27	Training in school safety and procedures	0	1	2	3	4	5
28	Training in personnel policies (your job description, teacher handbook, employee benefits, district expectations)	0	1	2	3	4	5
29	Training provided to you from a veteran teacher specific to your content area.	0	1	2	3	4	5
30	Training in conflict resolution.	0	1	2	3	4	5

For the following items (31 – 40), please circle the corresponding number that **best describes the extent of support** provided to you as a new teacher in the areas listed below.

0 Did not receive this type of support.	1 Support was not at all helpful.	2 Support was minimally helpful.	3 Support was helpful.	4 Support was very helpful.	5 Support was essential to me.

31	Support provided to you from your building principal or asst. principal in dealing with problem student behavior.	0	1	2	3	4	5
32	Support provided to you in developing lesson plans.	0	1	2	3	4	5
33	Support provided to you in developing curriculum for courses taught by you.	0	1	2	3	4	5
34	Support provided to you in solving problems with parents.	0	1	2	3	4	5
35	Support provided to you in coping with stress related to teaching.	0	1	2	3	4	5
36	Support provided to you in dealing with or managing conflicts in school.	0	1	2	3	4	5
37	Support provided to you by your assigned mentor.	0	1	2	3	4	5
38	Support provided to you in developing and setting goals for your own professional development.	0	1	2	3	4	5
39	Support provided to you from teachers in your content area.	0	1	2	3	4	5
40	Support provided to you from your direct supervisor during supervision and evaluation of you as a teacher.	0	1	2	3	4	5

APPENDIX C

TEACHER INDUCTION INDEX SCALE (B-LOTIS-1)

Teacher Induction Index Scale Score Range			**0-100**
Item 18	Maximum Score	25	= 25
Item 20	Maximum Score	25	= 25
Items 21 -40	Maximum Score	2.5 each item (X 20)	= 50
TOTAL	**Maximum Score**		**=100**

Level of induction scale will be scored 0- 100 based on the above index.

Item 18

Response	**Response Score**
I did not participate in a mentor program	0
6 Months or less	5
1 year	10
2 years	15
3 years	20
4 or more years (Maximum Score)	**25**

Item 20

Response	
I did not participate in a new teacher induction program	0
6 Months or less	5
1 year	10
2 years	15
3 years	20
4 or more years (Maximum Score)	**25**

Items 21-40 (Total of 20 items)

Response	
Did not receive this type of training/support	0
Some level of training/support was provided	2.5
Total Maximum Score on Items 21-40 (20 x 2.5)	**50**
Total Maximum Index Score of Induction Scale	**100**

APPENDIX D

COVERLETTER

Dear Fellow Wisconsin Educator,

My name is Paul Blanford and I am a graduate student conducting educational research as part of my doctoral dissertation in Educational Leadership through the University of Southern Mississippi (Brett Favre's Alma Mater). You have been chosen for this study because your name was randomly selected from the Wisconsin Department of Instruction (DPI) public school teacher database. This may sound impersonal, but random selection provides the most powerful level of significance to a study. Your participation is important to my success. Please consider completing this survey. The survey will take you approximately 5-10 minutes to complete. For your participation, I offer you a copy of my results via email. A self-addressed stamped envelop is provided for the return of your completed survey. Please take time and respond promptly.

Please realize the data obtained from this survey will be used to determine the importance and overall influence of teachers' participation in teacher induction and mentoring programs on their professional growth. Do these programs help teachers develop?

Participation in this survey is completely voluntary and your participation may be discontinued at any time without penalty or prejudice. This survey is anonymous and the data obtained will be kept confidential and used only for the purposes of this research project. Completed surveys will be destroyed upon completion of this project.

As a teacher, guidance counselor, and now an educational leader, I believe strongly in the importance of providing new teachers the guidance and support necessary to become a successful teacher. It is important for teachers to obtain professional growth throughout their career as an educator. Participation by teachers in teacher induction and mentoring programs may enhance the levels of their professional development. By completing this survey, you are helping make that determination.

If you have any questions regarding this research project, you may contact me personally via email at blanfordp@mudlake.net or by telephone at 208-374-5215.

With sincere thanks,

Paul E. Blanford

This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820.

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