

Quality Induction: The Effects of Comprehensive
Induction on New Teacher Retention
and Job Satisfaction

by

Mary Therese Hendricks-Harris

A Dissertation submitted to the Education Faculty of Lindenwood University
in partial fulfillment of the requirements for the
degree of

Doctor of Education

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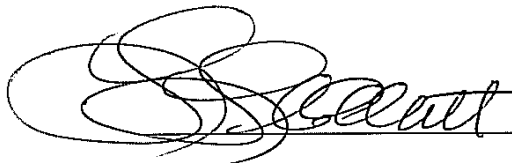
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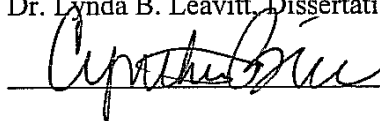
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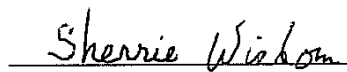
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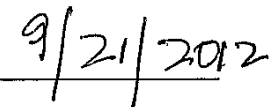
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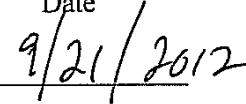
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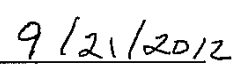
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Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

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Signature: MT Harris Date: 10-2-12

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Abstract

This investigation examined the effect of a comprehensive new teacher induction program on teacher retention and job satisfaction in one suburban school district. New teachers are retained at low rates, and districts are spending resources in an attempt to decrease this number. New teacher induction includes supports for new teachers in their first years that may include orientation, professional development, and formal mentoring, and often has retention as a goal. The researcher collected retention data and compared it to the different induction components provided in various years throughout the study. In addition, six retained teachers were interviewed in order to determine if there was a link between induction and job satisfaction or retention. Existing survey data was also considered. While there is some indication that mentoring and comprehensive induction increase job satisfaction and retention, the researcher found no definitive data that would indicate that comprehensive induction or any specific component increases retention or job satisfaction. One unanticipated finding was that teachers with a connection to the school or district community had a deeper sense of commitment to the school/district, which in turn increased job satisfaction and desire to continue to be employed in the district. Recommendations focus on the need for district specific data on reasons teachers leave, the effectiveness of the induction component, and new teacher perceptions. Having accurate data on reasons for exit would allow districts to be more diagnostic in their support. If districts evaluated induction regularly, changes could be made to better align with new teacher needs. Suggestions are also made regarding the hiring of new teachers and the need for further studies that consider the effects of school culture and district demographics on induction and retention.

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Chapter One: Contextual Introduction

New teacher induction is a vital factor in the future of education. Quality instruction begins with quality induction (Moir, 2005). Teacher quality has more influence on student achievement than school quality (Wright, Horn, & Sanders, 1997). New teachers do not remain in education; half of new teachers leave the profession in their first five years (Ingersoll, 2003). If teachers receive the appropriate level of support from their first day of employment, they will be more likely to not only remain in the profession and increase student achievement, but to have an effect on the future of education (Moir, 2005). This study examines the teacher induction program in one school district and its evolution over a span of five years.

The school district included in this study was located in a suburban area outside of St. Louis, Missouri that served 17,824 students in 20 schools, with an additional 4,268 early childhood students at three sites. There were 1,228 certified staff and 70 administrators. The district student population included 2% Hispanic, 5.7% Black, and 2.4% Asian students, as noted by the Missouri Department of Elementary and Secondary Education (MODESE), with 11% who qualified for free and reduced lunch status (MODESE, School District Profile, 2008b). Both student attendance (94.9%) and graduation rate (91%) were above the state average. Students in the district scored above the state and other schools in their county on the ACT and the Missouri Assessment Program state tests. In 2008 there were 301 incidents that caused students to be suspended for 10 consecutive days or more, slightly lower than the state average (MODESE, School District Profile, 2008b).

The student-to-classroom teacher ratio at the time of the study was slightly above the state average (19:1 versus 18:1), while the student-to-administrator ratio was above the state average (244:1 versus 189:1) (MODESE, School District Profile, 2008b). More than 99% of the teaching staff were fully certificated, and the average teacher had 12.7 years of experience; slightly above the state average of 12.4 years. The salary for teachers was above the state average; \$52,011 compared to \$43,236 in the state of Missouri (MODESE, School District Profile, 2008b).

Through data collected in the district, the researcher was able to determine that the district hired an average of 36 first-year teachers annually, and in recent years these new teachers have had a variety of induction experiences, which, while not required by the state, were provided by the district. In the 2005–2006 school year, new teachers participated in a week of orientation activities and were assigned building mentors. The district provided brief training for building mentors who were veteran teachers in the same building content or grade level assigned by administrators and members of the District Professional Development Committee. Mentors completed typical mentoring tasks such as a review of beginning year tasks and an observation of the new teachers for half of a day. The researched district also provided new teachers with a half day release time to observe their mentor in the mentor's classroom. Induction activities prior to 2005 were similar in structure, but also at times included a "triad principal," who was an administrator in the building who did not supervise the new teacher, but met with the new teacher regularly for problem-solving and advice. This component was not implemented regularly or with fidelity and is not considered a component in this study.

In 2007, new teacher induction continued with a similar structure, but added two professional development days provided during the school year. On these days the district provided professional development for the new teachers on a variety of topics including classroom management, instructional strategies, and technology. Appendix A includes a sample agenda. The new teacher induction programs in 2005-2007 were typical of many other districts across the nation, but in 2008 district leaders made dramatic changes.

The most recent induction program, provided during the 2008–2009 and 2009–2010 school years, and the focus of this study included the use of instructional mentors. In addition to the other supports noted previously, this induction component included intensive mentor services provided primarily in a one-on-one setting with a focus on instruction. These fully released mentors made visits to the classrooms of the new teachers on a regular schedule as well as on an as-needed basis. The instructional mentor qualifications included five years of teaching experience as well as some administrative experience. During their visits to the new teacher classrooms, the mentors provided observations, coaching, lesson modeling, feedback, and moral support. The typical teacher received between two and four hours per month of direct support from the instructional mentors, who did not have other classroom responsibilities and were provided in-depth training through The New Teacher Center.

The instructional mentors provided this service in addition to the supports provided by building mentors whose primary focus shifted from instructional support to building acclimation when the instructional mentoring component was introduced.

Table 1 summarizes the different components of the induction program in the years included in this study.

Table 1

Induction Components by Year

Year	Building mentor	Professional development	Orientation	Instructional mentor
2005-2006	X	X	X	
2006-2007	X	X	X	
2007-2008	X	X	X	
2008-2009	X	X	X	X
2009-2010	X	X	X	X

Nationally, districts struggle with how induction can support new teachers, 50% of whom leave the profession within the first five years (Ingersoll & Merrill, 2010). Kardos and Liu(2009) found 50% of teachers also had no extra assistance in their first year of teaching. As districts increase in their support of new teachers, it is imperative that resources be targeted at the most effective induction components (Kapadia et al.,2007). Instructional mentoring, mentoring by fully released veteran teachers, is a component worth additional research (Johnson, 2009).

Statement of the Problem

The power of induction affects more than new teacher retention. Effective induction can increase student achievement, improve job satisfaction of both mentors and

new teachers, and improve school climate (New Teacher Center, 2007). Moir (2005) stated, “As we welcome those new teachers aboard our vessel, it is not as passengers along for the ride, but as colleagues and fellow crew members who are there eventually to take the helm” (p. 13). In this researcher’s opinion, school districts do not value or understand the elements of effective new teacher induction programs, and new teachers are expected to learn by doing; the sink-or-swim method of induction with no thought given to the needs of new teachers for information, coaching, moral, and instructional support. Studies indicated 40–50% of new teachers leave within their first five years (Ingersoll & Merrill, 2010), and more importantly, a large number of former teachers have left the profession feeling frustrated, disillusioned, and discouraged about the future of education (Moir, 2005).

Purpose of the Study

The purpose of this study was to determine the significance of an intensive new teacher induction program that included instructional mentoring on the new teacher retention rate and job satisfaction measured by new teacher interviews. The independent variable in this study was new teacher participation in an induction program that included a multiple-day orientation session, instructional coaching that included classroom observations, conferences, and a building mentor who was primarily in charge of building acclimation. The experimental group consisted of those first-year teachers that participated in the induction program during the 2008–2009 and 2009–2010 school years. The control group consisted of those first-year teachers that participated in the less-structured and less intense program in the schools years between 2005 and 2007. The dependent variable will be retention of those teachers for one school year beyond the

first-year induction period (teacher retained in the school district for a second year). In addition, the researcher reviewed data from six interviews of retained teachers and identified themes as related to job satisfaction, retention, and induction. Secondary data in the form of existing surveys was also reviewed.

Research Questions and Hypotheses

The following research questions were answered in this study:

RQ1: “How does the addition of each new element of the new teacher induction program influence the retention rate in the district?” This researcher will answer this question by conducting a statistical analysis to address the following hypothesis:

Alternative Hypothesis 1: There will be a difference in proportions in first-year teacher retention rates when different induction components are provided to teachers compared to years when fewer induction components were provided.

Null Hypothesis 1: There will be no difference in proportions in first-year teacher retention rates when different induction components are provided to teachers compared to years when fewer induction components are provided.

RQ 2: “How do participants perceive each element of the induction program contributing to their retention, job satisfaction, and teaching effectiveness?” This question will be answered by analyzing responses from interviews with retained teachers during the years in study. The researcher will analyze the responses for themes.

Overview of Methodology

This study incorporates both qualitative and quantitative data in order to answer the research questions. The researcher calculated retention rates for each group of first-year teachers throughout the study. This data was used to run a z-test to provide

comparisons between induction years, and a chi-square test for independence was run to compare the different characteristics offered each year from a statistical standpoint.

Interviews were held with retained teachers to determine if induction components contributed to retention or job satisfaction. The researcher coded, identified themes, and further analyzed responses from the interviews. The researcher also reviewed secondary data from existing survey questions that related to induction, job satisfaction, and mentoring.

Limitations

Methodological Limitations. The range of sample sizes between the years studied was large. The samples ranged from year to year from 31 to 50 new teachers, making the largest sample size 40% greater than the smallest. While retention rates were measured in percentages, the smaller sample sizes were more sensitive to change, due to the overall smaller population.

There are a number of outside factors not included in this study that could affect retention and job satisfaction. In the years of study the economy drastically changed, causing fewer openings both within and outside of the district. Several districts, including the one studied, laid teachers off, provided retirement incentives, and cut the total number of full-time positions (Walker, 2011). The educational job market within the researched district was much more competitive at the end of the study, with fewer openings and more applicants than at the beginning of the study (G.Griggs, personal communication, January 8, 2012).

The scope of the study is limited; all teachers included in the study worked in the same district. The district had higher performance, less diversity, fewer incidents of

suspensions, and a higher average salary than the state average (MODESE, 2008b).

These factors would make this study difficult to generalize to all districts across the state or nation.

Other limitations include minor inaccuracies in the data. While the researcher reviewed the data for accuracy using multiple checks and balances, there could still be a very small number of teachers that were reported as no longer working for the district that were actually retained. This would be due only to a change in last name, typically due to marriage, that could not be accounted for in the district database. This type of error was minimized by cross-checking by employee number as well by using informal measures (asking other staff and mentors). This type of error is unlikely, but possible. When comparing the data in the study to national data, there are several limitations to consider. First, the district included in the study issued “one-year contracts.” This classification indicated to new teachers that there was no intent on the part of the district to hire the teacher long term; the commitment was only for one school year. This type of classification was not noted in national data or research and is not commonplace. The district used this classification to fill leaves of absence, positions that would potentially be cut from the budget, or when enrollment numbers were at the lower limit and not projected to get larger.

There is also a limited amount of research that identifies a one-year retention rate. Many studies, including the state data, provide longitudinal retention rates for three and five years (Anderson, 2010; Alliance for Excellent Education, 2005; Ingersoll & Merrill, 2010), but the researcher found only one study that provided one-year retention rate of first-year teachers as a point of contextual comparison (Smith & Ingersoll, 2004).

The study included a total of five years of data, with only two years of comprehensive induction, resulting in a short timeline to complete the research. Future studies should include more cohorts of teachers studied over a longer period of time and comparing five-year retention rates of several types of induction would be ideal.

In addition, the study did not control for a difference in assigned school, school demographics, differences in the two instructional mentors, type of teacher (content or grade level), or amount or quality of administrative support. These factors could change from year to year, and may be a factor in retention and job satisfaction.

Definition of Terms

Comprehensive Induction – Isenberg and Glaserman (2009) define comprehensive induction as:

carefully selected and trained full-time mentors; a curriculum of intensive and structured support for beginning teachers; a focus on instruction, with opportunities for novice teachers to observe experienced teachers; formative assessment tools that permit evaluation of practice on an ongoing basis and require observations and constructive feedback; and outreach to district and school-based administrators to educate them about program goals and to garner their systemic support for the program. (p. xxvi)

Fully Released – Fully released is a term used to describe mentors who have no other classroom responsibilities; they are fully released from traditional teaching duties (Fletcher & Strong, 2009). For the purposes of this study, mentors assumed no direct responsibility for students, lesson implementation, grading, et cetera and are considered to be instructional mentors.

Induction – “Teacher induction can refer to a variety of different types of activities for new teachers—orientation sessions, faculty collaborative periods, meetings with supervisors, developmental workshops, extra classroom assistance, reduced workloads, and especially mentoring” (Ingersoll & Strong, 2004, p. 5).

Instructional Mentor – “This level of the Professional Mentoring Program provides for an in-depth collegial examination of teaching and learning between an Instructional Mentor and a new teacher” (Dubuque Community Schools Professional Mentoring, n.d., n.p.). For the purpose of this study, instructional mentors were also fully released, were employed by the school district, and worked with 10-50 teachers both in small groups and individually.

Mentor – For the purpose of this study, mentors are more experienced teachers who are paired with novice teachers to provide guidance and support. The amount of time and types of supports provided by mentors may include observations, conferences, lesson modeling, data analysis, and coaching (Andrews, Gilbert, & Martin, 2006). Generally, mentors were in the same building and in taught the same content, but exceptions were made where this was not possible.

New Teachers – For purposes of this study, new teachers will be defined as full-time certified teachers with no prior teaching experience who entered the profession and began teaching in the years of study. Special education teachers were not included in the quantitative study.

Professional Development – Mizell (2010) defines professional development as: a formal process such as a conference, seminar, or workshop; collaborative learning among members of a work team; or a course at a college or university . . .

[it] can also occur in informal contexts such as discussions among work colleagues, independent reading and research, observations of a colleague's work, or other learning from a peer. (p. 5)

Retention – Retention, as defined in this study, is the percentage of first-year teachers who returned to the studied district. Teachers were considered retained if they returned in any teaching capacity, including changing positions or buildings. Teachers were not considered retained if they left the district for any reason, even if they remained in the field of education or took a similar position in another district. This definition varies throughout the literature review; some studies considered teachers retained if they remained in the field of education or changed jobs in education for personal reasons such as a move to another state (Anderson, 2010; Camilli, 2004; Ingersoll & Merrill, 2010).

Triad Principal – A term used informally to describe a non-supervisory principal in the same building, who met regularly with both new teachers and building mentors.

Conclusion

New teacher induction can be comprised of a variety of components. New teacher retention rates are low, and districts are spending “scarce resources on induction” (Strong & Villar, 2007). The New Teacher Center reported, “An upfront investment in high-quality induction yields cost savings and improved student outcomes” (New Teacher Center, 2007). Osa, Robinson, and Oliver (2009) wrote:

There is a dire need to help new teachers transition from university classroom environment to public school setting, and from meeting the requirements of a professional teacher preparation program to effectively meeting the required

professional knowledge, skills and dispositions necessary for effective student learning. (p. 2)

The intent of this mixed methods study was to determine the relationship between new teacher induction components, retention, and job satisfaction. Results gained from this study could be generalized to other similar districts to assist these districts in identifying the most efficient and effective methods to induct teachers and use resources. By comparing retention rates and analyzing teacher interviews, the relationship between induction supports and job retention and satisfaction will be determined.

Chapter Two: Review of the Literature

School districts must determine and implement those factors that lead to retention of effective teachers. Districts are investing precious resources in their new teachers, and yet half of new teachers leave the profession in their first five years (Ingersoll, 2003). This high turnover rate is detrimental to the new teachers, to school districts, schools, and students. Successful induction, including instructional mentoring, can be a factor in changing this trend (Portner, 2005).

The review of the literature will focus on five aspects reported in the current literature; the current state of typical induction programs both nationally and in the state of Missouri, the significance of induction programs on retention, the effects of new teacher induction on student achievement and teacher quality, beginning teacher job satisfaction and a comparison of fully-released mentors to site-based mentors. These components will support the researcher in clarifying the issues regarding this study.

The Current State of Induction Programs

Background. Nationally, the number of induction programs is increasing, and the condition of induction programs continues to vary from state to state, even with an increase, many teachers' needs are still not being met (Kapadia et al., 2007). More than 50% of states have formal induction programs and in the decade between 1990 and 2000 the number of teachers who participated in teacher induction activities almost doubled (Kapadia et al. ,2007). In 2008, The National Council on Teacher Quality, reported 25 states had mandated and funded mentoring programs for new teachers while 22 states had mandated induction programs of some sort without the benefit of funding. According to a report released by The National Staff Development Council, the number of teachers

who report they participated in mentoring and induction activities had significantly increased 15% in the decade prior to 2004 (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009). This increase in induction may explain why more than half of principals in a recent survey reported, “The quality of new teachers entering the profession today is better than in the past” (MetLife, 2008, p. 49).

Activities designed to support new teachers in their transition to the classroom are often referred to as new teacher induction (Lopez, Lash, Schaffner, Shields, & Wagner, 2004). These activities vary by program, district, and state, but typically include orientation activities, observations of other teachers, professional development, additional meetings with administrators, and mentoring (National Council on Teacher Quality, 2008). While this study compares several different components of induction, instructional mentoring is the aspect that most differentiates induction programs in the years of study.

At the national level, induction programs continue to evolve, and states have identified the need to improve further in this area (National Council on Teacher Quality, 2008). Many states have increased their supports of new teachers, and are more cognizant of the leverage of these programs. Missouri has taken steps, including identifying state standards for mentoring; however, as a state, it is not implementing best practices in new teacher induction. There is nothing in Missouri policy that requires mentoring be in place at the beginning of the school year. Missouri policy does not outline criteria for mentor selection, training or evaluation, and mentor compensation is optional (National Council on Teacher Quality, 2008).

In 2003, Kardos and Liu surveyed a random sample of over 400 teachers in four different states regarding their new teacher induction program. The researchers reported 50% of new teachers had no extra assistance in their first years of teaching. In addition, they found:

Forty-three percent of new teachers go through their entire first year of teaching without being observed by a mentor or a more experienced teacher, and seventy-seven percent of new teachers shoulder the same load of academic and administrative responsibilities carried by their veteran colleagues. (Kardos & Liu, 2003, para. 11)

In a study of induction in New Jersey, Kardos (2002) found similar statistics: 55% of those surveyed reported they usually worked alone, 38% reported discussing instructional practice at faculty meetings, and 17% reported their mentors observed them in their classrooms. However, a much higher rate of teachers, 90%, report they meet with their mentors monthly, and more than half reported they met with their mentors weekly. Sixty percent reported they discussed issues related to instruction with their mentors. Lesson planning, instruction, and classroom discipline were the most frequently discussed topics. The researcher also reported almost half of new teachers report they meet and seek support from unofficial mentors; 81% of new teachers in the study report they were observed by principals an average of twice yearly for an average of 42 minutes. The researcher noted the difference in the number of observations by administrators and mentors—81% compared to 17%; however, 61% did report they were observed by another administrator or department chairperson (Kardos, 2002).

Kardos (2002) also reported new teachers are more likely to have conversations about instruction in informal and unofficial conversations than in formal planned meetings. The researcher recommends further research be completed on the effects of professional culture on new teachers.

Hewitt (2009) identified three types of induction programs currently being implemented: the basic orientation model, the instructional practice model, and the school transformational model. The basic orientation model is the simplest of models and provides basic professional development on responsibilities and district policies, informal mentors, and minimal lesson modeling.

The instructional model provides more extensive professional development, including topics such as classroom management and quality instruction as well as provides well-trained mentors. Professional development in this model is provided over the course of two or more years. The school transformational model is the least frequently used model due to the amount of time, resources, and complexity. In addition to the components of the other models, this model uses formative assessment of standards to identify professional development needs (Hewitt, 2009).

A study of new teacher induction in Illinois found not all induction programs were being implemented as the district or state intended. More than 50% of teachers in the study did not participate in the required 1.5 hours of mentoring per week. Teachers in the study rarely observed or were observed by their mentors, and new teachers reported infrequently participating in supports such as workshops, meetings with principals, and participating in new teacher networks. The researchers noted it is difficult to control for

fidelity of induction when comparing any outcome (Wechsler, Caspary, Humphrey, & Matsko, 2010).

Literature that addresses new teachers' perceptions of induction programs is minimal. One large study in Colorado investigated which aspects of induction new teachers found most helpful (Danin & Bacon, 1999). While the teachers in the study perceived monthly meetings as a non-critical element of the new teacher induction process, some did report that mentoring *and* meetings with their administrators were vital (Danin & Bacon, 1999). Fifty-nine percent of the teachers in the study reported they did not have an adequate introduction in order to begin their work. Seventy-nine percent attributed much of their success as beginning teachers to their knowledge of daily operations within their building, and the majority of new teachers in the study reported feeling knowledgeable about district operations and goals (Danin & Bacon, 1999).

The Colorado study (Danin & Bacon, 1999) also validated the need for mentoring to be a component of induction, recommending making this support central to induction based on teacher perception reports. Eighty-eight percent of the teachers in the study had a mentor, and the researchers reported most participants spoke about this component as being a key support (Danin & Bacon, 1999). There was a connection, both positive and negative, between participants' view of their mentoring and the degree to which they believed their induction was successful (Danin & Bacon, 1999).

The Public Education Network (2003), in its study of over 200 teachers in four communities across the United States, found 48% of new teachers believe their induction program provided poor or no support in teaching reading, 47% felt the same about writing, and 55% reported the same about teaching English Language Learners. Teachers

in the study, however, felt induction adequately prepared them to plan instruction (61%), create a collaborative classroom (57%), and teach students at high standards (57%).

Best Practices in Induction. Several authors and researchers have outlined what they consider to be best practices in induction. Wong (2004) identified induction programs with four to five days of orientation activities, ongoing and systematic professional development over two to three years, new teacher networks and professional learning communities, administrative support, mentoring, modeling effective teaching, and new teacher observations of other classrooms to be best practice programs.

American Institutes for Research's Learning Point Associates (n.d.) identified the following 15 strategies:

1. Create a comprehensive induction system in which mentoring and formative assessment are key components.
2. Open induction programs to all new teachers, regardless of entry point, preparation model, or certification route.
3. Structure mentoring and assessment sessions according to an existing district guide.
4. Hold basic orientation for new teachers before the first day of school or on the first day of employment.
5. Schedule time for teachers to confer with their principals or other administrators; keep an open door for questions, problems and to offer guidance; seek out teachers that appear to be reluctant to ask for assistance from the administration.
6. Facilitate schedules and allocate time for multiple observations for both new and experienced teachers.

7. Designate time for teachers at all levels of experience to collaborate on lessons, teaching strategies, new requirements, and classroom management.
8. Create a training program and guide for mentors and school leaders, on how to act as a mentor, observe teaching practice and conduct formative assessment.
9. Offer stipends to mentors and solicit feedback from new teachers on mentors' effectiveness.
10. Offer professional development for teachers with various levels of experience that is focused on specific content areas, based on student achievement data and school improvement goals, adapted to the needs of the district, and scheduled at convenient times.
11. Create professional development plans through a collaborative approach.
12. Create new teacher networks for conversation, support, debriefing, exchange, and learning.
13. Include all parties along the professional development curriculum in designing programs to support teachers with resources.
14. Send teachers into high risk schools in teams with experienced teachers.
15. Establish school-based libraries of professional materials on the needs of new teachers.

Wechsler et al. (2010) outlined similar characteristics of strong induction components: stringent mentor requirements, ongoing mentor training, accountability, a focus on instruction, and intense expectations for mentoring. The study suggested a focus on mentors is an important best practice in induction.

In addition to best practices mentioned in other studies, Moir (2009), the Executive Director of the New Teacher Center in Santa Cruz, stated there is a need for full time mentors that are provided orientation and professional development. In addition, Moir reported there is a need for teacher standards, formative assessment of new teacher skills, mentoring focused on instruction, clear expectations of administrators, key stakeholder participation, and a focus on equity. Moir also cited linking to pre-service, evaluation of induction programs, new teacher advocates and providing networks for new teachers as being important.

The Alliance for Excellent Education (2004) also outlined what effective induction is not: Specifying induction is not a “crash course in teaching . . . an orientation session . . . a stand-alone mentoring program . . . a string of disconnected on-day workshops . . . a unidirectional approach to teacher learning . . . just of benefit to beginning teachers or a way to help teachers cope with dysfunctional schools” (p. 3). In addition to the basic components mentioned in other studies, this study recommends certain elements in place to ensure new teachers work in “high functioning learning communities” (Alliance for Excellent Education, 2004, p. 3). These include strong building leadership, dedicated and high quality providers of induction, incentives for induction participation, adequate funding, more support for teachers with little preparation and alignment of teacher needs, teaching standards, and induction.

The report provided details on each of these seven components. Principals should provide instructional leadership in the context of induction, monitor mentor and mentee interactions, and carefully select mentors. The report also stated the providers of induction must be of the highest quality and recommended districts consider including

higher education institutes, state departments of education, unions, and outside organizations in induction. The providers must not only coordinate, but evaluate the program and must be able to forge excellent relationships with school staff. The report recommended differentiating induction supports perhaps for teachers with lower degrees of preparation such as teachers without proper certification. Like The Alliance for Excellent Education (2004), the report recommended incentives such as stipends or additional professional development funds be provided for both new teachers and mentors to increase attendance and participation. Requiring induction for certification is also cited as an incentive. The report discussed the need for alignment; teachers need practical professional development that can be used in their classrooms, and the standards used in induction should align to new teacher needs. Finally, the report discusses the need for adequate and stable funding (Alliance for Excellent Education, 2004). While more states fund mentoring in isolation (The National Council on Teacher Quality, 2008) induction is only funded and required in fifteen states. The Alliance for Excellent Education (2004) report stated:

Without steady funding, the financial responsibility for induction shifts to local school districts, forcing poor districts to create and finance their own programs. . . . The unfortunate and inequitable reality is that high-poverty schools, which need induction the most, are usually too poor, too small, or too understaffed to adequately support their teachers. (p. 27)

Most studies included professional development as a necessary component (Moir, 2009; Alliance for Excellent Education, 2004; Wong, 2004; American Institutes for Research's Learning Point Associates, n.d.). Feiman-Nemser (2003) reported the

professional development component in induction must include curriculum, assessment, and instruction and be of practical use for new teachers. In regards to instruction, the researcher reported, “by most accounts new teachers need three or four years to achieve competency and several more to reach proficiency” (p. 27). Like other studies, the author reiterated the need for new teachers to be provided with lesser workloads and responsibilities such as supervision in order to be able to meet their early learning needs.

Both the American Federation of Teachers (AFT, 2001) and National Education Association (NEA, n.d.) have taken stances on induction. The AFT outlined what it considers to be essential characteristics of induction programs. Like the other studies, AFT stated all beginning teachers should participate in an induction program that extends beyond one year, that new teachers have qualified mentors, reduced teaching loads, but also added that a summative review of teaching be established, preferably by the mentor teacher. The report does acknowledge that only the state of New York currently requires a reduced teaching load, allowing new teachers to teach fewer classes and have fewer students (AFT, 2001).

The AFT (2001) makes recommendations for states; states should develop policies that reflect the importance of induction, make comprehensive induction mandatory, states should fund induction, at least partially, and states should learn from successful policies of other states. The AFT believes higher education should share the responsibility with school districts and state to ensure new teachers are well-prepared as they enter education (AFT, 2001).

The NEA (n.d.), another large teacher union, also takes a stance on new teacher supports. In a position statement, NEA outlined its support of formal systems of

induction for no less than two years, reducing workload, assessing new teacher performance, increasing support for administrators in districts with high teacher turnover, and implementing policies and funding to address schools or districts with high teacher turnover (NEA, n.d).

Teacher Induction in Missouri

Johnson (2007) stated, “National data on statewide induction suggests that Missouri has wavered in the requirements and finances for induction for all new teachers since 1996” (p. 6). Johnson (2007) reported that in 1996 Missouri mandated and funded new teacher induction, but a year later rescinded the mandate and no longer provided funding. In 2009, the Missouri Department of Elementary and Secondary Education (2008) adopted mentoring standards, but provided no direct funding. These standards outlined what Missouri considers to be a quality mentoring program: an introduction to the teaching environment including the school, district, and community, an evaluation of the mentoring program, a plan developed specifically for new teachers that is aligned with the district’s Comprehensive School Improvement plan, criteria for mentor selection, training of mentors and time for mentors to observe new teachers (MODESE, 2008a). Prior to 2008, mentoring was a Missouri certification requirement, but the state did not further define parameters (Johnson, 2007).

In 2008, The National Council on Teacher Quality published the “State Teacher Policy Yearbook: What states Can Do To Retain Effective New Teachers for Missouri”; this report gave Missouri an overall performance rating of D+ in this area. The report identified three areas of weakness; identifying effective teachers, retaining those deemed effective, and exiting those deemed ineffective (National Council on Teacher Quality,

2008). In addition in the area of retention, Missouri was given a “D-”; the report identified the following as reasons for this rating: a lack of support for retention bonuses, no differential pay for teachers working in high-need schools or area, an inflexible retirement system, and no requirement for compensation for previous experience. The report did an extensive comparison of each state’s mentoring practices to those practices that are considered research based, and in Missouri only two of the eight criteria in the study were met: (1) Missouri does require mentoring for two years for all new teachers, and (2) the state also requires mentoring of sufficient frequency and duration (National Council on Teacher Quality, 2008).

The report determined Missouri fell short in the following six criteria:

(a) mentoring provided at the beginning of the school year, (b) careful selection of mentors, (c) mentors must be trained, (d) mentors must be evaluated, (e) use of a variety of induction strategies, and (f) compensation for the mentor (National Council on Teacher Quality, 2008). Even though Missouri does not have a state induction policy, it does have state standards and various components are in place in many districts. (National Council on Teacher Quality, 2008). Compared to the nation, Missouri is one of 14 states the study determined to have limited or weak induction programs. Twenty-four states in the study were found to have strong induction programs, and 13 states had no induction requirements (National Council on Teacher Quality, 2008). Illinois, a neighboring state, was included in those with no requirements (National Council on Teacher Quality, 2008).

In a 2012 report, Education Week’s *Quality Counts State Highlights Report* found Missouri continued to provide no funding for induction or mentoring, no standards for

mentoring programs, and no requirement for reduced workloads for a first-year teacher.

This report gave Missouri an overall grade of D+ in its efforts to improve teaching.

Johnson (2009) reviewed new teacher induction programs in 12 school districts, six of which were in Missouri, while the remaining six were in nearby Kansas. The study, which included both surveys and focus groups and primarily focused on teacher perception, determined the following: 54% of new teachers reported “a great deal” or “quite a bit” of their success could be attributed to their mentor relationship, more than 10% of teachers reported their support program was “hardly at all” or “not at all effective.” In addition, the typical new teacher met with his or her mentor for 30 minutes or less, two to four times per month. New first- and second-year teachers in the study reported matching their mentor by content, grade level, and building was most effective. Most teachers in the 12 districts received some form of mentoring, orientation, professional development, and communication with their administrators; two of the final nine districts included in the study had fully released mentors (Johnson, 2009).

It is worth noting that the instructional mentors included in this study would be considered fully released mentors and were provided more extensive training than in other programs (Johnson, 2009). The researcher calculated composite scores “from the summation of items from both interviews of professional development coordinators and online surveys of new teachers’ interviews” (p. 37). Cut-off scores were then set for low, mid-range, and high scores. One of the two instructional mentoring districts was determined to have “mid-range” level of new teachers support while the other “high” (Four of the nine districts in the study were determined to have “low” levels of support). The authors also noted that in Kansas districts were financially penalized, since this type

of mentoring does not meet the state mandates. Johnson (2009) also reported that 64% of the new teachers in the study reported their induction program met their needs, and survey responses did not match the actual data in regards to retention. More respondents reported they intended to return than were actually retained. Johnson's study determined there was no difference in the effectiveness of new teacher induction based on state policies (Kansas has mandated and funded new teacher induction, while Missouri has not).

The Significance of Induction Programs on Retention

Retention is a significant issue in education. As the Alliance for Excellent Education (2004) stated:

The real crisis is created by the large number of beginning teachers who leave the profession before they can become the kind of high-quality teachers who consistently improve student learning. Currently, the rate of attrition among beginning teachers is astronomical. (p. 7)

Many studies have reported that retention rates in the field of education are low and induction components including the primary component, mentoring, have proven effective in increasing retention and job satisfaction (Anderson, 2010; Alliance for Excellent Education, 2005; Ingersoll & Smith, 2004). Studies address years of experience compared to retention, specific induction components' effect on retention, overall induction effects, and factors not related to induction and retention (Ingersoll & Smith, 2004).

Studies indicated 40–50% of new teachers leave within their first five years (Ingersoll & Merrill, 2010). The turnover rate in education is greater than some

high-status professions such as doctors, lawyers, or engineers, and has about the same as some mid-status professions such as police officers, with fewer turnovers than lower-status occupations such as a child care worker (Ingersoll & Merrill, 2010).

Researchers also found that teacher turnover is worse in areas that are high-poverty and high minority (Ingersoll & Merrill, 2010). While this problem is well documented, the researcher found little literature on effective methods to increase retention.

Increasing the retention of new teachers is especially vital in the current tough economic times when education budgets are becoming tighter and tighter (Alliance for Excellent Education, 2005). Low retention rates are costly to education considering the cost of recruiting, retaining, and using less experienced teachers is extensive. The Alliance for Excellent Education (2005) estimates 2.2 billion dollars per year are spent for teacher replacement with the national total being 4.9 billion if costs for teacher transfers are included. These estimates do not factor in the costs of decrease in teacher quality and student achievement associated with retention. For this reason, some estimates are even higher. Missouri's Department of Elementary and Secondary Education (2007) estimate the cost to the state for teachers who leave the profession to be \$43,169,611. The study estimates for the costs of teacher transfers in Missouri to be \$68,474,496, bringing the total costs to \$111,644,106 (Alliance for Excellent Education, 2005).

In one study by Smith and Ingersoll (2004), closely related to the study presented here, the number of induction components in relation to the number of new teachers that either left the field of education or moved schools or districts after their first year was reviewed. The study reviewed the effects of seven components of induction including

mentoring, common planning time, new teacher seminars, communication with administration, a support network, reduced teaching load, and assignment of a teacher's aide (Ingersoll & Smith, 2004). The study found a direct correlation between the amount of induction support and new teacher retention. Forty percent of those with no induction left or moved, 27% of those with four induction components also moved or left, and 18% those with seven components moved or left (Smith & Ingersoll, 2004). Figure 1 illustrates Ingersoll and Smith's findings and delineates between leavers, those leaving the field of education, and movers, those moving to another school:

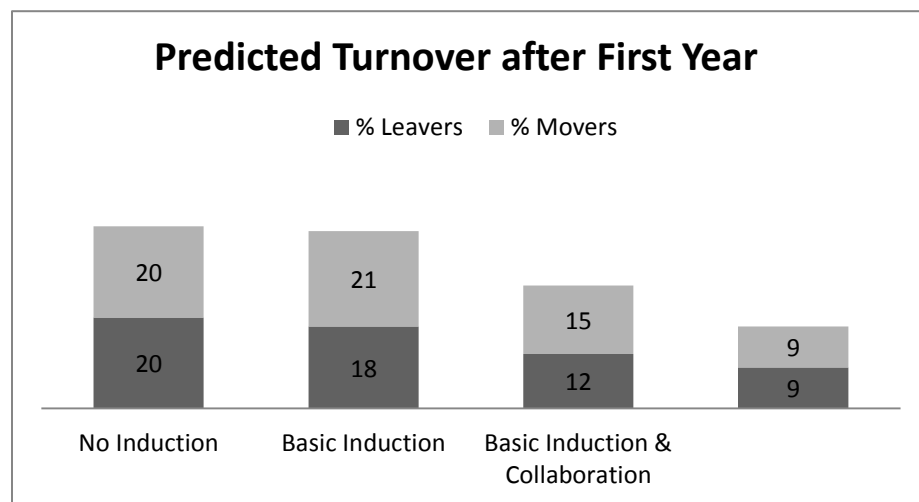


Figure 1. Predicted Turnover After First Year. Adapted from Ingersoll, R. M., & Smith, T. M. (2004). "Do Teacher Induction and Mentoring Matter?" *National Association of Secondary School Principals Bulletin*, 88(638), 28-40.

Ingersoll and Smith (2004) found the induction factors that impacted retention rates the most were as follows: (a) a mentor from the same field, (b) a common planning time with other teachers in the same subject, and (c) participating in an external network of teachers. They found the following to be weak factors as they relate to retention: (a)

reducing teaching schedule, (b) reducing number of preparations, and (c) extra classroom assistance.

Most induction programs include multiple components and the authors of this study “packaged” a variety of components together to determine their effect(s) on teacher retention (Smith & Ingersoll, 2004). Results of this study revealed that the more components in an induction program, the higher the retention rate (Smith & Ingersoll, 2004). Of the induction components in this national study, mentoring, seminars, and supportive communication were the most frequently reported new teachers supports (Smith & Ingersoll, 2004).

Smith and Ingersoll (2004) reported having a mentor in the same field as the new teacher decreased the chances of teachers leaving by 30%, while having mentors in another field decreased the chances by 18%. The study found the same field mentors decrease was statistically significant, but found no statistically significant findings when the mentors were from different fields. This study also found no statistically significant impact of other extra resources, such as decreased workload or additional preparation periods, except for providing extra help in the classroom. Extra classroom help did not affect the number of teachers who left the field of education, but did impact whether or not a teacher changed schools (Smith & Ingersoll, 2004).

Isenberg and Glazerman (2009) in a national study of 17 school districts, “did not find statistically significant impacts of comprehensive teacher induction on teacher retention rates in the school district or profession after two years” (Isenberg & Glazerman, 2009, p. xxxii). In this study, the researchers expanded the research to consider the effects of comprehensive teacher induction on changing schools, moving to

a different school system, and any other placement that was not continued employment in the new teachers' original schools. There was no statistically significant impact on any of the identified outcomes, although teachers in the treatment group (with comprehensive induction) were retained in their school and district at slightly lower percentages than the control group, while the reverse was true for remaining in education.

In a 2010 summary of four years of research, researchers from SRI International, Chicago Schools Research, and the Illinois Education Research (Wechsler et al., 2010) reviewed the effects of induction at 39 sites. The study used surveys, retention, student achievement, and extant data. The study found there was not a clear connection between induction and teacher retention. The teachers in the study all had access to high quality induction including mentoring; the one year retention rate was found to be 84%. The study compared this to another study in 2007 with a 73% retention rate. While those in the study, with comprehensive induction, were retained at a higher rate, the researchers stated they believed the economic climate affected the retention rate, and did not attribute the higher retention rate to induction. The researchers concluded, "The association between induction and teacher retention . . . was less clear" (Wechsler et al., 2010, p. ii).

Lopez et al. (2004) completed a review of research on the impact of teacher induction on retention and teacher quality, measured in student achievement. These researchers excluded a significant number of reports that did not meet quality research standards or the criteria set forth in the study for inclusion. The report found that three studies demonstrated a positive relationship between retention and induction activities, although two were not of statistical significance, two had mixed results, and one study reported no impact.

In this 2004 review, one of the studies with a positive relationship reported a statistical significance in the impact of induction on retention. In all of the studies reviewed, there were inconsistencies in methodology and definitions of induction. Based on these six studies, induction activities, while providing some benefit to new teachers, do not significantly increase retention (Lopez et al., 2004). This result is contrary to other studies included in this literature review.

In their meta-analysis, Ingersoll and Strong (2004) reviewed seven studies on the effects of induction on retention. Of the studies that focused on state or specific school district programs, all found that there was a positive effect of induction on retention or job satisfaction. Ingersoll and Strong also looked at studies that included a larger set of national data. Of these four national studies, three reported positive effects of induction on retention and job satisfaction while the fourth showed no effects. The researchers pointed out the fourth study had “serious flaws that undermined its validity” (Ingersoll & Strong, 2011, p. 15). They summarized their findings:

Overall, the studies we have reviewed provide empirical support for the claim that induction for beginning teachers, and teacher mentoring programs in particular, have positive impact. Almost all of the studies we reviewed showed that beginning teachers who participated in some kind of induction had higher satisfaction, commitment, or retention. Likewise, for teachers’ classroom practices, most of the studies reviewed showed that beginning teachers who participated in some kind of induction performed better at various aspects of teaching. . . . Finally, for student achievement, almost all of the studies reviewed showed that students of beginning teachers who participated in some kind of

induction had higher scores, or gains on academic achievement tests. (Ingersoll & Strong, 2011, p. 38)

One of the largest studies reviewed in the literature included over about 1,000 teachers in 418 elementary schools during the 2005–2006 school year. The U.S. Department of Education study by Glazerman et al. in 2008 found no statistical difference in the retention rates of beginning teachers after one year. Further analyses revealed a retention rate of 75% during the second year of teaching if they had received a formal comprehensive induction, including mentoring (Glazerman et al., 2008). Teachers in the comprehensive program had weekly meetings with trained mentors, professional development sessions, and observations with feedback from their mentors (Glazerman et al., 2008). The same study also found that 95% of teachers in both groups returned to jobs in the education profession in their second year. These three components (weekly meetings, professional development, and observations) are also included in this research study.

A report from the California Commission on Teacher Credentialing (2002) compared national retention rates to California retention rates, and reported significant results. After six years, the national average retention rate was 56%, while the rate in California as a whole was 76%. At the time of the 2002 study, The Santa Cruz New Teacher Project, nationally known for implementing best practices, was associated with The New Teacher Center (The project provided comprehensive induction to first year teachers that included support from fully released mentors). Strong (2006) reported that new teachers were retained at 88% after six years if they were associated with The New

Teacher Center. Strong (2006) reported the study was replicated four years later with similar results.

While there are many studies that address the relationship between new teacher supports and retention, there are also many studies that connect other elements as well (Ingersoll & Smith, 2004; Johnson & Birkeland, 2003; Stockard & Lehman, 2004). These factors include workload, grade level, certification, class size, poverty levels, planning time, and collaboration levels with teachers (Ingersoll & Smith, 2004; Johnson & Birkeland, 2003; Stockard & Lehman, 2004). McLaurin, Smith, and Smillie, (2009) reported:

[S]everal causes of teacher retention have been identified such as: lack of teacher preparation, absence of stress management skills, non-supporting environment and administrators, and No Child Left Behind accountability factors. Prior research has shown clearly that these high-turnover schools are likely to serve large populations of low-performing, non-white, and low-income students. (p. 6)

The Effects of Induction on Student Achievement

There is very little research on the effects of new teacher induction programs on the achievement of students (New Teacher Center, 2009). Since 1998 the New Teacher Center has served over 49,000 teachers and 5,000 mentors. In a research brief, the center admits there is insufficient data to determine which induction components are most effective in increasing student achievement (New Teacher Center, 2009).

In the review for the U. S. Department of Education (2010), researchers found no statistically relevant results when comparing student achievement results of teachers in comprehensive formal induction programs and those in traditional programs. The study,

mentioned earlier in this chapter since it also studied retention, included 5,000 students in 200 elementary schools in the portion of the study that addressed student achievement. Standardized tests results in the areas of language arts and math from students in classrooms in each induction model were compared. The study found no difference in scores, and also determined there was no difference in retention or teacher practice when comparing formal comprehensive induction to basic induction (Glazerman et al., 2008).

Rockoff (2008) conducted research on teacher induction and mentoring in New York City and after analyzing the outcomes for over 5000 beginning teachers, found a correlation between the number of hours spent mentoring a new teacher and student achievement in math and reading. School districts participating in this study followed the recommended practices of The New Teacher Center and were provided weekly sessions by mentors who were extensively trained. Although mentor caseloads were slightly higher and the mentoring component was provided for only one year versus the two recommended within the New Teacher Center model; teacher results reported “that [the] hours of mentoring [they] received had a positive and statistically significant effect on student achievement” (Rockoff, 2008, p. 32). The researchers found that 10 hours of mentoring would typically provide an increase of student achievement of 0.05 standard deviations in math and 0.04 in reading (Rockoff, 2008). The researcher concluded that the quantity of mentoring hours impacts student achievement.

The New York City study had some unexpected findings not related to student achievement. The study did not find a statistically significant impact of mentoring on retention or teacher absence rate. The study also compared mentors with building experience to mentors with same subject experience. It concluded that mentors with

building experience were more effective in the areas of new teacher perception and retention than mentors who had experience in the same subject. This is contrary to what is considered current best practice in assigning mentors and to the Ingersoll and Smith (2004) study discussed earlier. Other research found same-subject mentors are more effective, and that matching mentors by subject area is imperative; eight states have mandated this type of matching (National Council on Teacher Quality, 2008).

In another study, Rockoff (2008) also confirmed that other types of new teachers' supports such as common planning time and professional development are effective at increasing retention. Ingersoll and Strong (2004) critically reviewed 15 studies in an effort to evaluate induction, including a mentoring component, on several outcomes, one of which was student achievement. They reported that, although there were some exceptions, "[T]he studies showed that students of beginning teachers who participated in some kind of induction had higher scores, or gains, on academic achievement tests" (p. 1).

California's Beginning Teacher Support and Assessment Program and an unnamed large urban east coast district were studied. In both programs, researchers concluded that mentoring specifically had a positive effect on student achievement (Ingersoll & Strong, 2004). One study determined mentoring had a larger impact on student achievement if provided for a second year (Ingersoll & Strong, 2004). The authors pointed out that making a connection between student achievement and induction is extremely difficult, and all four studies had a number of limitations (Ingersoll & Strong, 2004).

Fletcher and Barrett (2004) studied 70 new teachers in a suburban district in California to determine the effects of mentor-based induction on Student Achievement Test version 9 scores. Teachers in the study reported mentors support them to solve instructional problems, analyze student work, understand curriculum, develop lessons, and differentiate instruction. The study found new teacher classes were more likely to have at-risk students, and that SAT9 scores of students in these classrooms were slightly lower than students in classrooms of teachers veteran teachers overall, but were comparable if growth in scores was considered (Fletcher & Barrett, 2004). The same study did make note that when a comparison was made of new teachers, mid-career, and veteran teachers, the mid-career teachers had the highest student achievement scores (Fletcher & Barrett, 2004). The authors hypothesized this was due to this group of teachers having both induction experiences, unavailable to veteran teachers, and years of experience. "Differences in gain scores across the groups may indicate that teacher induction and experience [are] more valuable to student achievement than either factor alone" (Fletcher & Barrett, 2004, p. 328). Perception data revealed, new teachers with mentors felt less isolated and better able to work collaboratively while also feeling better able to understand and work within the school culture (Fletcher & Barrett, 2004).

Strong (2006) compared student outcomes in reading to the induction supports in three different districts after two years of mentoring. This researcher reported that teachers with comprehensive induction including two years of support from a fully-released mentor had larger gains in reading than the two districts that had less support. The district with the greatest reading outcomes provided fully released mentors for two years with a second year teacher ratio of 1:15 (Strong, 2006). Of the other two

districts involved in the study, one had a 1:35 teacher ratio and one provided 1:1 mentoring but no release time for mentors (Strong, 2006). The researcher concluded as in some other studies, that the second year of mentoring was vital (Strong, 2006).

In another study, Wechsler et al. (2010) examined the effects of new teacher induction on student achievement and found no significant differences in the average scores of teachers who reported participating in induction and students of teachers who reported no induction. The researchers pointed out there were many challenges with the data; a small sample size due to tracking of scores by teacher, limited number of teachers with standardized scores, differences in fidelity of induction programs, and limited number of teachers that reported no participation in any induction component. In the end, the researchers were able to do a limited comparison. The researchers concluded,

[T]he researcher also makes clear that efforts to dramatically raise student achievement gains among the students of beginning teachers will have to rely less on the efforts of individual mentors and more whole school efforts that fully engage the entire school. (Wechsler et al., 2010, p. 42)

The Effects of Induction on Teacher Effectiveness

Another outcome of induction is increasing the quality of instruction in the classroom of the new teacher (Fletcher & Barrett, 2004). Fletcher and Barrett (2004) found that mentor-based induction supported new teachers in learning about school culture and working effectively with other teachers. Overall, communication with other teachers and administrators was improved when this type of induction was implemented (Fletcher & Barrett, 2004).

The National Center for Education Evaluation and Regional Assistance within the U.S. Department of Education's Institute of Education Sciences contracted with Mathematical Policy Research, Inc., to evaluate the effectiveness of induction programs. This study analyzed the impact of new teacher induction programs in 17 school districts in 13 states that focused on 1,000 teachers. Results indicated no statistically significant change in teacher practice when comparing a comprehensive induction program versus a traditional induction program. A teacher observation tool was used to compare teacher practice on state identified teacher indicators focused on lesson content, in the area of literacy, implementation and classroom culture. Effect size results were minimal, between a $-.08$ and $.05$. (Glazerman et al., 2008).

In one small study, researchers found that new teachers with comprehensive induction are more likely to use instructional strategies for differentiated instruction. Researchers hypothesized that this also led to the increase in student engagement that was significant in the study. While one can assume these indicators would lead to an increase in student achievement, the correlation was not studied (New Teacher Center, 2009).

Lopez et al. (2004) reviewed 10 studies. Many more studies were excluded due to not meeting the criteria established by the researchers. Of the 10, three reported a statistically significant positive effect on induction and teachers quality one reported mixed results and six reported no impact of induction on teacher quality. In this research analysis, teacher quality was defined differently in each study. Some studies were based on very specific teacher observations while others considered new teacher self-assessments (Lopez et al., 2004).

In a 2009 study, Stanulis and Floden examined the classroom practice of two sets of teachers; one with traditional mentoring and one with comprehensive induction. The groups of teachers were very small, with only 12 each of the control and experimental groups. The district provided teachers in both groups with traditional induction components including orientation, professional development sessions and web resources. Those in the comprehensive induction group were given weekly mentoring meetings with partially released mentors who were intensively trained, co-planning sessions and monthly after school seminars. The partially released mentors observed teachers in the comprehensive induction group 29 to 31 times and provided feedback. Those in the comprehensive group were volunteers so they were not randomly selected which may have affected the outcome; however the school contexts were similar. The study collected baseline data using an extensive observation instrument in the fall and final data in the spring. In addition, the study also included student surveys.

The study concluded that students in the comprehensive program felt they were provided with more opportunities to learn, and were provided with more feedback. The quantitative portion of the study found a statistically significant difference in the observation scores of the two groups. The experimental (comprehensive induction) group began the year with lower scores, but by the end of the school year and subsequent observation, scored higher. It was determined, “intensive mentoring focused on balanced instruction and improved teaching practice, as measured by an observation tool aligned with the specific program goals” (Stanulis & Floden, 2009, p. 120).

Mentoring

Mentoring is one component of induction that has been described as a veteran teacher providing information, advice, and support to a less-senior person in a relationship lasting over a substantial period of time (Barrera, A., Braley, R., & Slate, J., 2010). The Alliance for Excellent Education(2004) stated,

While mentoring is the most widely practiced component of induction, mentoring by itself is not enough to retain and develop teachers. Mentoring programs vary widely, and many do little more than ask mentors to check in with new teachers a few times per semester to chat. (pp. 11-12)

Wong (2004) offers the following comparison of mentoring and comprehensive induction:

Table 2

Wong's Comparison of Mentoring and Comprehensive Induction

Mentoring	Comprehensive Induction
<ul style="list-style-type: none"> • Focuses on survival and support • Relies on a single mentor (who may be shared with other new teachers) • Typically treated as an isolated phase • Requires limited outlay of resources • Mentor reacts to problems as they arise 	<ul style="list-style-type: none"> • Promotes career learning and professional development • Provides multiple support—teachers, administrators, district and state assistance • Treated as part of a lifelong professional development design • Resources invested in an extensive, comprehensive, and sustained program • Acculturates vision and aligns content to academic standards

Note. Adapted from “Difference between Mentoring and Induction” by H. K. Wong, 2004. “Induction Programs that Keep New Teachers Teaching and Improving.” *NASSP Bulletin*, 88(638), p. 45.

After reviewing research on induction and mentoring, Barrera et al. (2010) reported it “constitutes the primary method of induction” (p. 61). These researchers reviewed survey data to identify the vital components of a mentor training from the mentor’s perspective in Texas. Mentors reported working within a program with well-defined goals was most essential. They also believed a climate that encourages teachers to seek assistance and having a mentor who can coach and provide instructional strategies

were also imperative. In regards to staff development, mentors reported the most important topics were instructional strategies and working with special populations.

Several researchers and organizations have identified best practices in mentoring programs (Flynn & Nolan, 2008; Athanases et al., 2008; Waterman & He, 2011). Flynn and Nolan (2008) reported quality mentoring programs match mentors and mentees by area of certification, provide time for collaborative observations and planning, reduce workload of new teachers, and provide orientation sessions for both new teachers and mentors.

A national study that focused on mentoring as a critical induction component found that 65% of beginning teachers reported working closely with a mentor. Smith and Ingersoll (2004) reported that mentoring was the most frequently reported induction activity, and group activities (seminars, networking, collaborative planning, etc.) were a close second; 62% reported participation in that component. Both mentoring and group components were more common in public school settings than in either charter schools or private schools and the vast majority of teachers in the study reported participating in multiple induction components (Smith & Ingersoll, 2004).

Researchers in California used an action research model to identify curriculum for mentors. The researchers found many programs had no formal approach to mentor development, and the study was designed to identify effective structures for mentors. The study highlighted the need for mentor development programs to provide scaffolding of supports for mentors, to use action actions and inquiry, and to focus on student outcomes. Researchers recommended mentor development programs be carefully

designed and monitored in order to produce the most positive results (Athanases et al., 2008).

Mentoring itself has proven to increase retention (Waterman & He, 2011)

Waterman and He (2011) analyzed various mentoring programs to determine the effect on new teacher retention. Of the 14 programs and studies reviewed, the researchers found 36% affirmed a connection, 22% inferred a connection, 22% found no connection and 22% had mixed findings. The researchers noted the most rigorous statistical studies were two of three that reported no connection. The study also reported that while it was simple to define certain aspects of mentoring, such as the amount of time mentors and mentees spent together, other aspects were more difficult, such as the quality of time spent together. It is difficult to quantify the quality of different mentoring programs. After reviewing the studies, researchers recommend districts consider the context of their school and district. The researchers also pointed out survey and interview measures may have been inflated since new teachers may be hesitant to provide their true perspectives in self-reports due to fear of consequences (Waterman & He, 2011).

Another U.S. Department of Education study (Kaiser, 2011) found mentoring affected retention as outlined in Table 3 below:

Table 3

Effect of Mentoring on Retention Rates

First-Year Teachers in 2007-2008	Percent Retained in 2008-2009	Percent Retained in 2009-2010
With Mentors	92%	90%
Without Mentors	84%	77%

Note. Adapted from “Beginning teacher attrition and mobility: Results from the first through third waves of the 2007–08 beginning teacher longitudinal study” by A. Kaiser, 2011. ” *U.S. Department of Education. Washington, D.C.: National Center for Education Statistics* p. 3

The report shows two years of data that demonstrates an 8% to 13% increase in retention when induction programs include a mentoring component.

Serpell and Bozeman (1999) completed a similar study of the Montana Beginning Teacher Program and found the following:

Table 4

Effect of Mentoring on Retention Rates in Montana

First-Year Teachers	Percent Retained 1 year	Percent Retained 2 years
With Mentors	97%	91.5%
Without Mentors	71%	73%

Both studies demonstrate an observable difference in early retention rates with those working with mentors being retained at higher rates than new teachers without mentors.

The Public Education Network, in a 2003 study, found teachers reported mentoring was more effective in addressing their needs than overall induction. In areas such as planning instruction, preparing a collaborative classroom, teaching students to high standards and others, new teachers reported this one element of induction helped them more than the general induction program.

Fully-Released Mentors/Formal Mentoring Versus Site-Based Mentors/Informal Mentoring

There are few studies that compare the effectiveness of full released mentors (instructional mentors) versus site-based mentors on retention, quality of instruction, student achievement, or job satisfaction. Fully released mentors do not have classroom responsibilities and can respond to new teacher needs throughout the instructional day (Johnson, 2009). Building mentors have traditional teacher and classrooms responsibilities in addition to mentoring new teachers during planning, lunch time, or before or after school. In the Public Education Network study (2003), 9% of mentors were fully released, having no other teaching responsibilities and 1% of mentors were consultants. Over half of mentors were experienced teachers on-site with traditional teaching responsibilities.

One study determined that fully released mentors improved teacher practice. This study compared teachers with each type of mentor in Los Angeles (site-based mentors) and Albuquerque (fully-released mentors). This study found that teachers assigned to fully-released mentors were encouraged more frequently to seek their own solutions

instead of being provided with solutions. When compared to site-based mentees, fully-released mentors were able to spend more time with their mentees which appeared to allow mentors more of an opportunity to coach mentees versus provide immediate solutions. Site-based mentors more quickly provided advice and were less focused on supporting mentees with instructional guidance. The researchers believe this element led to more effective teacher practice (Feiman-Nemser & Parker, 1992).

In the assessment of new teacher induction in the Midwest, Johnson found the two districts that had fully released mentors were rated mid-range and high-quality compared to other districts without fully released mentors. The researcher pointed out that these fully-released mentors were given smaller caseloads, more time to work with new teachers, intensive professional development, and carefully matched mentees. While this sampling is small, it did stand out as a noteworthy finding worth researching further (Johnson, 2009).

Hanson (2010) has also reviewed the effects of mentoring on fully-released mentors themselves. She found that fully-released mentors gained a new awareness from observing their mentees. She found there were other advantages to those who mentored including, “professional renewal, enhanced self-esteem, more reflective practices, and leadership skills” (p. 79). Teachers in this study who had fully-released mentors had more soft skills such as seeing issues from multiple perspectives and the ability to build relationship, that could affect the quality of instruction.

One study specifically reviewed the effect of induction including a fully-released mentor on student achievement as measured on state standardized assessments. The study examined data from 300 teachers in Alaska in math, reading, writing, and science.

The study compared the scores of 150 new teachers (first- and second-year teachers) who participated in the induction program to 150 veteran teachers with 12.2 years of average experience. The induction components were similar to those in this study and included mentoring, observations, professional development, and data collection. In the areas of reading, writing, and science, the students of new teachers' standardized test scores were statistically significantly lower than their veteran counterparts. In the area of math, there was no statistically significant difference. While this appears to demonstrate that formal induction is ineffective, the researchers concluded that induction "shows promise for losing the achievement gap commonly experienced by students of beginning teachers" (Adams, 2010, p. 14). The researcher points out that while the new teachers' scores were lower, the difference was small. When compared with other research on the difference between student achievement of veteran versus new teachers, the new teachers in this study performed better than reported in other studies. The Alaska study did not compare new teachers in induction programs with those not in induction programs nor did it do a statistical analysis to compare new teachers not in induction programs with veteran teachers (Adams, 2010).

Leimann, Murdock, and Waller, in a 2008 study of an induction program that included fully released mentors, found teachers were retained 84% of the time for a second year, with single year retention rates ranging from 93% to 75%. The authors of the study also examined two groups' three- year retention rate, and found it to be 80% compared to three-year national retention rate of 78%. In addition to fully-released mentors, new teachers were provided with professional development, and mentors collected data twice annually to tailor their support of the new teachers. The results were

similar to those of Ingersoll and Smith (2004) who found teachers with comprehensive induction were retained at 82% compared to 60% of those with no induction

Other studies compared formal mentoring to fully released mentors (Klug & Salzman, 1991; Black, Neel, Benson, & National Commission on Teaching and America's, Future, 2008). In formal mentoring programs, standards are set and typically include the amount of time spent with mentees, required professional development for both the mentee and mentor, and mandated observations. Fully released mentor programs incorporate these standards, but are implemented by a mentor with no other job responsibilities. This study focuses on fully-released mentors as a component of comprehensive induction. Klug and Salzman (1991) determined formal mentors who provided mentees extensive time were more effective.

The study compared novice (first- and second-year teachers) in three different Idaho districts. Novice teachers were provided with either a team-based formal induction program including 72 hours each of mentoring or a less formal mentoring approach (buddy system) that consisted of no predetermined number of hours (met on an “as needed” basis). In the buddy system model, the first-year teachers were provided with an average of 22 hours of mentor support, while the second year teachers were provided with 12 hours. This study found that teachers involved in the more extensive mentoring program were more personally satisfied, less stressed, demonstrated faster growth in classroom management, overall teacher performance, and professional skills than those involved with the buddy system. The rapport with principals as well as principal satisfaction was also better in the structured mentoring program.

Another study reviewed data from a formal induction program in the state of Atlanta. This study compared data from 12 schools where teachers were involved in formal induction, including formal mentoring, and 12 comparable schools where the new teachers were not involved. The induction components were different than in other studies reviewed and included access to online resources, individual learning plans developed in collaboration with a team, a new teacher professional learning community that included administrators and veteran teachers, as well as formal protocols for dialogue at the professional learning community meetings. One aspect of this study specifically analyzed state testing results and pass rate. The researchers concluded that the data from the schools with induction programs was statistically significantly better in elementary and middle schools when compared with those without induction. At the high school level, there was better achievement overall, but it was not statistically significant.

In their 2009 study Fletcher and Strong (2009) looked specifically at fully released mentors and the achievement of students taught by their mentees. The study found that “students associated with fully-released mentors had better achievement gains than students associated with site-based mentors” (p. 339). This study compared groups of students assigned to new teachers within the same district. Some new teachers were assigned to mentors who were fully-released and worked directly with 12–15 new teachers, while the other students were assigned to new teachers whose mentors who worked a traditional teaching position in addition to mentoring. Both sets of mentors were provided with the same professional development. Researchers in this study report that if factors, such as student demographics, district resources, and prior achievement, were taken into consideration, it would be hypothesized that the students in the site-based

mentoring group would have outperformed the fully-released mentor group regardless of grade level or content area.

Job Satisfaction and Retention

This study sought to determine if there is a correlation between teacher job satisfaction and induction. It seems logical that job satisfaction and retention would be linked. Hewitt (2009) pointed out,

Many new teachers leave based on a very high level of job frustration. They had a vision of an extremely high level of success in their first year, and when things don't go as well as they expected they become frustrated and leave. (p. 1)

A study in 2010 investigated a survey tool that could predict retention and retention intention based on teacher satisfaction. The study examined first- through third-year teacher perceptions in 12 North Carolina school districts and how they perceived their job satisfaction in regards to retention. The researchers determined, "that higher teacher satisfaction significantly increased the likelihood of retention in their school district one year after completing the PSI-BT (Perceptions of Success Inventory for Beginning Teachers)" (Corbell, Osborne, & Reiman, 2010). The researchers suggested by reviewing teacher perception of job satisfaction indicators, induction programs could be tailored to address specific district areas and in turn could increase retention.

The Public Education Network (PEN, 2003) developed a study of over 200 teachers in Tennessee, Washington D.C., New York, Washington, and West Virginia using surveys, interviews, and structured focus groups. PEN reported 64% of new teachers would choose education as a career again, and 90% were confident they were making a difference in their students' lives. Twenty percent of teachers in the study reported they

were considering leaving the profession and cited a lack of resources and the extreme difficulty of the work as reasons for dissatisfaction. Teachers reported high degrees of job satisfaction when they had informal support from peers as well as quality mentoring, adequate resources and materials, autonomy in curriculum and instruction, and a solid foundation from their pre-service programs. The report stated, “School culture makes a dramatic difference to new teachers” (PEN, 2003, p. 22).

Teachers in the study reported building level leadership was a critical aspect of school culture. Teachers preferred to work in schools where principals were visible, would spend individual time with new teachers, and who were willing to answer questions and provide information. New teachers report increase satisfaction when their principals publicly supported their discipline decisions and when principals provided feedback. While these attributes were considered desirable, teachers rarely reported they were characteristic of their principals (PEN, 2003).

In a 2010 study, Anderson connected mentoring, induction, and job satisfaction. This study of 5,802 teachers determined a connection between mentoring as well as induction and job satisfaction and a positive relationship between retention and mentoring, but no statistically significant relationship between induction and retention. The study used surveys to determine satisfaction and retention as measured by teacher intent to return. The study used surveys to determine satisfaction and retention as measured by teacher intent to return. Participants were 55.2% more likely to indicate job satisfaction if they participated in mentoring and 38.7% more likely to report satisfaction if they participated in induction. While less, there was still a connection in mentoring

and retention; participants were 35.8% more likely to report they would return if they had a mentor. They found no connection between participation in induction and retention.

Anderson (2010) also analyzed results based on demographics. This researcher determined mentoring and induction were more successful with males and with teachers who taught at middle or high school. When provided a mentor, males were 81.7% as likely as their female counterparts to indicate they were satisfied with their job, and 79.6% were as likely as females to indicate satisfaction if they participated in an induction program. Secondary teachers were 65.3% as likely as their elementary peers to indicate job satisfaction if provided a mentor and 65.5% were as likely if they were participant in induction (Anderson, 2010).

Camilli (2004) found the majority of studies showed no significant relation between years of experience and job satisfaction. The researcher reviewed 10 studies and the following were determined: seven showed no connection between years of experience and job satisfaction. While the studies varied in the number of subjects, context and instruments, none of the studies found a statistically significant relationship between either years of experience or age. One study found the more years of experience, the more the teacher reported job satisfaction, and two studies found the more years of experience, the less satisfaction the teacher reported. Camilli (2004) also completed a study that researched the relationship between the years of experience of the classroom teacher and job satisfaction, but the results were found to be insignificant. After a review of Camilli's work, the researcher concluded that no compelling case could be made for new teachers being more or less satisfied in their jobs than other more experienced teachers. While several studies do point out that the reasons for job satisfaction do differ

based on years of experience (Camilli, 2004), this study hopes to fill this gap in the research (Anderson, 2010) by determining if induction and mentoring are contributing factors to first year teachers' job satisfaction.

The MetLife Survey of the American Teacher; Teachers, Parents, and The Economy (2011) reports that job satisfaction in the teaching field is dropping. In 2009, 59% of teachers reported they were very satisfied with their jobs, compared to 44% in 2011. In 2011, 29% of teachers say they are likely to leave the teaching profession compared to 17% in 2009. The 2011 MetLife survey reports this number is the highest since the initiation of the survey in 1984. The survey identified a link between job satisfaction and retention; it reported that "three times as many teachers with low job satisfaction say they are likely to leave the teaching profession in the next five years compared to very satisfied teachers (41% vs. 13%)" (MetLife, 2011, p. 15).

The study also found there was little difference in the demographics of teachers who reported they were satisfied compared to those who were not satisfied in their jobs; teachers in both groups were similar in their gender, race, years of experience, and grade level. The districts in which they work were also similar in both income and English language learner populations. There were more unsatisfied teachers, however, in urban schools with larger minority populations. The same demographic pattern held true for retention; teachers were more likely to report they would leave the profession if there taught in an urban school with a large minority population, but there was no difference when compared with teachers who were similar in race, gender, years of experience or grade level.

Another important statistic noted in the MetLife (2011) survey is that there was a “significant decline in feelings of job security since 2006” (p. 17). In 2006, 8% of teachers reported they did not feel that their job was secure compared to 34% in 2011. This appears likely due to the declining economy forcing districts to cut teaching positions. The survey reported teachers are likely to feel less satisfied in their jobs if the schools in which they work have experienced recent job reductions (Metlife, 2011).

Job satisfaction and retention are attributed in the research to a variety of elements. Researchers studying induction found school context and climate were related to retention (Wechsler et al., 2010). The study rated school context and compared the rating to teacher retention rates. The researchers found retention could be predicted based on school context; retention odds were almost three times higher if school context was consider strong compared to average school context and almost seven times higher compared to weak school context. School context was considered high if the school had supportive administration, good collegial relationships, adequate resources, a reasonable workload, and time allocated for planning and collaboration.

Borman and Dowling (2008) in a review of literature on attrition, noted that higher salaries, opportunities for collaborative networking, and administrative support are related to both job satisfaction and retention. The researchers suggested less formal and “bureaucratic organization” of systems of supports for new teachers would be beneficial, specifically in the areas of networking and administrative support. The researchers also noted that salary was a factor in satisfaction and retention for males, but not females. Their research determined teachers were less satisfied and more likely to leave education in schools serving low- achieving, poor and minority students.

In a study in Missouri, researchers used survey data from over 200 randomly selected teachers to analyze what variables influence teachers to remain in the profession and to what extent. The researchers found the top three reasons teachers reported they were satisfied with the profession were: “(a) working with students, (b) personal teaching efficacy, and (c) job satisfaction” (Perrachione, Petersen, & Rosser, 2008, p. 7). The study found the top three reasons teachers liked their current job in the current school year were similar; good students, a good school culture, and small class size. Sixty percent of the teachers in the study reported they were likely to remain in the profession versus finding another occupation, and cited job satisfaction, investment in retirement, time off, ability to work with students, and work schedule as reasons for the desire to remain.

Examining the converse responses, the researchers found teachers who reported they were likely to leave the profession identified low salaries and workload as primary reasons. The researchers concluded the major source of job satisfaction came from internal sources, but some satisfaction could also be attributed to two external sources: workload and salary. The researchers found there was a direct correlation between the level of job satisfaction and desire to remain in the profession. The researchers reported their findings were consistent with the literature that was reviewed (Perrachione et al., 2008)

Kaiser (2011) found only a 3% difference in one year retention rates when comparing salaries of teachers. In their study, teachers earning less than \$40,000 were retained for their second year of teacher at 96%, while those that did not were retained at 93%.

Another study of job satisfaction concurred that workload affected job satisfaction (Klassen & Chiu, 2010). The researchers also found a correlation between job stress and job satisfaction, noting that stress was found to be related to not only workload, but classroom management and instructional strategy knowledge. In addition, the researchers also found a direct link between class size and classroom management; the more students in a class, the more difficult the classroom management, the more stress. Conversely, the researchers found better class sizes and class management decreased job stress and increased job satisfaction. The researchers challenged practitioners to consider teachers career stages not only to design professional development targeted at teachers specific needs for knowledge and skills but also to increase confidence and self-efficacy (Klassen & Chiu, 2010).

In another study, researchers sought to determine if perceived teacher autonomy would decrease stress and increase job satisfaction, perceptions of empowerment, and professionalism. Researchers used the Teaching Autonomy Scale to measure these factors and found teachers who believed they had autonomy in curriculum implementation had less job stress; however, there was no correlation between curriculum autonomy and job satisfaction. The strongest association was between empowerment and professionalism; the more teachers felt empowered, the more they reported they perceived themselves as professionals. The study determined the findings generalized across teaching levels (Pearson & Moomaw, 2005).

School culture is a factor in job satisfaction (Flores, 2004). Kardos (2002) defined school culture as including “the formal and informal structures for professional practice; norms of behavior and interaction among teachers; and institutional and

individual values” (p. 3). Flores (2004) examined how culture affected new teacher learning by conducting structured interviews with fourteen first and second year teachers. Flores found teachers often felt isolated and were unaware of school goals, curriculum guidelines, and school policies. The combination of these factors made new teachers feel less satisfied in their jobs. New teachers’ relationships with veteran teachers affected new teachers’ perception of school culture. In the study new teachers were highly focused on learning the written and unwritten rules of the school, and reported different degrees of support for this task. Flores (2004) found teachers became less enthusiastic and positive over time as they learned more about school norms and processes.

New teachers also reported leadership had a significant influence on culture and their sense of community. Again, teachers reported different types of support from their administrators, which the researchers categorized as normative (strict and rule driven), effective (knowledgeable, goal-oriented, but supportive), or laissez-faire (unorganized with a lack of focus and goals). New teachers had more positive perceptions of school communities categorized as having effective leaders; however, Flores (2004) found overall school leaders were not responsive to new teachers’ needs. The study concluded by recommending that professional development for new teachers focus on practical application, socialization, and information about their specific school setting. The researcher recommended induction programs become more formal and all new teachers participate in order to support the new teachers in their learning (Flores, 2004).

Johnson and Kardos (2002) studied the importance of school culture for new teachers and classified cultures as veteran-oriented, novice-oriented, or integrated. The researchers identified veteran-oriented cultures as those that “modes and norms of

professional practice are determined by and aimed to serve veteran faculty members” (p. 14). New teachers in these cultures reported their relationship with veteran teachers in these settings were sometimes cordial, but also sometimes cold. New teachers in these settings had little access to the expertise of veterans, and felt practices were isolated, with a limited amount of collaboration.

In novice-oriented cultures, primarily found at charter and urban schools, new teachers made up a significant portion of the staff. Researchers found high levels of energy and commitment at these schools, but little guidance was provided for new teachers. Integrated professional cultures encouraged collaboration between experienced teachers and new teachers. This type of culture produced the highest rates of retention when compared to the other cultures; teachers in this culture were retained 89% of the time in education and 83% of the time remained in the same school compared to 83% and 67% in novice-oriented cultures and 75% and 55% in veteran oriented cultures. New teachers in these settings felt most prepared to serve students. Researchers found that veteran teachers also benefitted from such a culture since new teachers contributed knowledge in areas such as technology and data analysis (Johnson & Kardos, 2002).

Johnson and Kardos (2002) recommended organized support of new teachers including collaboration focused on lesson plans and student work. The researchers also recommended providing new teachers with professional development at their schools when they need it: such as when lessons do not go as planned, when students exhibit inappropriate behaviors, or for impromptu parent meetings. The study also demonstrated the need for effective principal who observe, provide feedback, are visible, and provide opportunities for observations and conferences.

Hewitt (2009) also found culture and collegiality to have an effect on new teachers, reporting, “New teachers are less likely to leave a school where they have developed friendships and feel accepted and supported” (p. 14). Hewitt reported districts often make a major error in structuring their induction programs; focusing too much on instruction and not enough on the affective needs of new teacher. He stated emphasis should first be on relationships and clinical skills should be secondary. Hewitt believed meeting the emotional needs of new teachers should be the responsibility of administrators as well as mentors.

Feiman-Nemser (2003) also noted the importance of school culture for new teachers: “Even the best induction programs cannot compensate for an unhealthy school climate, a competitive teacher culture, or an inappropriate teaching assignment” (p. 28). The author pointed out that new teachers often receive material and curricula supports, but they want more than social supports. New teachers need to learn about classroom management, student engagement, using data, and interacting with parents all within the context of their school environment (Feiman-Nemser, 2003).

Conclusion

In reviewing the literature, the researcher can make several observations: nationally, induction programs vary greatly from state to state in funding, mandates, evaluation, and effectiveness. The number of induction programs is on the rise, but very few states evaluate the effectiveness of the programs or provide funding. Several researchers have outlined what they consider to be best practices in induction and most included professional development, strategic matching of mentors, mentor training, and the ability to observe and be observed by a mentor.

The most defining characteristic of comprehensive induction is formal mentoring which typically includes a fully-released mentor. Best practices in mentoring have been identified by several researchers, and mentoring of any type appears to increase retention. When comparing fully-released mentors to traditional mentors with typical workloads, fully released mentors identified in the majority of studies are more effective at increasing student achievement, some components of quality instruction and satisfaction, although not all studies concur.

The state of Missouri has outlined parameters for new teacher induction, however, no funding is provided. The parameters are considered suggestions, and are not mandates. When evaluated against criteria, best practices are only minimally being implemented, and Missouri is considered to have weak overall induction.

The literature does not make a clear connection between induction and retention. The studies are mixed in regards to retention outcomes. While not statistically significant, it does appear there is a positive effect of induction on retention in most studies.

There is a connection between student achievement and new teacher induction. Teachers with formal mentoring paired with other induction components such as professional development had better student achievement results in the majority of studies. The connection between induction and quality instruction was less clear in the research, but more of the studies determined teachers with comprehensive induction implemented best practices more often in the classroom than those teachers that did not participate in comprehensive induction.

There is little research on job satisfaction and induction. The study indicated there is a connection between job satisfaction and induction, but the link between job satisfaction and retention was unclear. Job satisfaction has been attributed to some demographic characteristics; teachers in high minority, high poverty areas are less satisfied.

This study will seek to clarify the relationship between induction and retention that seems unclear in the literature by comparing retention rates and induction components. The study will also seek to determine if comprehensive induction increases job satisfaction and in turn retention by analyzing themes for interviews of six new teachers and reviewing secondary data in the form of existing surveys. The results of the study can be used by school districts to allocate resources for new teacher supports in the most effective way.

Chapter Three: Research Methodology

Overview. This chapter will outline the research methodology used in this study and will provide details regarding the purpose, research design, rationale, question, data collection methods, secondary data, participants, district demographics, confidentiality, and the background of the researcher.

Purpose. The purpose of this mixed-methods study was to evaluate the effects of a new teacher induction program on retention rates and job satisfaction in one school district. The three components of the program—professional development, orientation, and formal mentoring, which includes both cultural acclimation (building mentor) and instructional mentoring—were implemented in specific years of the study and will be compared to those years with fewer induction components. A previous study indicated a direct correlation between the number of induction components and new teacher retention (Ingersoll & Smith, 2004), but overall there is minimal research in this area.

Retention rates will be determined based on the percentage of teachers that returned to the same district after one year of teaching. Perception of job satisfaction was determined based on interviews with six retained teachers who participated in the induction program. Table 5 provides a visual representation of the year of implementation of each element of the new teacher induction program in the Midwestern suburban district.

Table 5

Induction Components by Year

Year	Building Mentor	Professional Development	Orientation	Instructional Mentor
2005-2006	X		X	
2006-2007	X	X	X	
2007-2008	X	X	X	
2008-2009	X	X	X	X
2009-2010	X	X	X	X

Research Design and Rationale

School districts must determine and implement those factors that lead to the retention of teachers since these districts invest precious resources in their new teachers. Unfortunately, even though school districts invest in the retention of new teachers, research reveals that half of the new teachers leave the profession in their first five years (Ingersoll, 2003). This exodus is detrimental for new teachers, school districts, and most importantly, students (Ingersoll & Strong, 2004). Quality induction has the potential to not only contribute to the retention of new teachers, but to increase teacher effectiveness and job satisfaction (Ingersoll & Strong, 2004). The goal of this study was to determine the specific program components that influence the outcomes of teacher induction.

While there is ample research on the effectiveness of induction, there is a minimal amount of information on the effectiveness of individual induction components.

In a research review experts Ingersoll and Kralik (2004) report:

While current research does not yet provide definitive evidence of the value of mentoring programs in keeping new teachers from leaving the profession, it does reveal that there is enough promise to warrant significant further investigation. At the very least, the findings of this paper indicate that policymakers and education leaders should consider investing more time and resources into developing carefully controlled studies to better identify the links between mentoring and teacher retention. (p. 15)

For the current study, this researcher used one-year retention rates, since there is comparable data for one-year retention rates available from national research. In addition, the methodology is similar to the Smith and Ingersoll (2004) study that also analyzed the effect of induction components on retention. The qualitative portion of this study assisted the researcher in further clarifying if job satisfaction and retention are related to induction components.

Participants

Participants in Quantitative Study. Teachers with no prior teaching experience who taught in the district during the 2005–2006 through the 2008–2009 school year were included; this data was provided by the researched school district and previously developed spreadsheets. The original spreadsheets, provided by the human resources department in the Midwest suburban school district, included all teachers hired in the identified school years; the researcher then deleted those with previous teaching

experience. The spreadsheet included a column with each teachers' step and lane (years of experience and level of education); consideration was given only to teachers on Step 1 (indicating they were in their first year of teaching)—those teachers remained in the data set. The researcher excluded early childhood teachers, part-time teachers, and counselors from the data set, since these specific jobs were not included in comparable research. During the years of study, the school district hired between 31 and 50 first-year teachers per year. The number of elementary and secondary hires was generally even, which is consistent when comparing overall elementary and secondary positions within the district. Table 6 outlines the number of first-year teachers by year and level.

Table 6

Number of Participants in Study by Year

Level	First-year	Number
Elementary	2005-2006	13
Secondary	2005-2006	18
Total	2005-2006	31
Elementary	2006-2007	25
Secondary	2006-2007	25
Total	2006-2007	50
Elementary	2007-2008	15
Secondary	2007-2008	22
Total	2007-2008	37
Elementary	2008-2009	23
Secondary	2008-2009	23
Total	2008-2009	46
Elementary	2009-2010	18
Secondary	2009-2010	19
Total	2009-2010	37
Total Study Participants		201

Of the 201 participants, 77% (154) were female and 23% (47) were male. This is representative of the nation, where 76% are female and 24% are male (U.S. Department of Education, National Center for Education Statistics, 2010). Table 7 shows the participants by subject area.

Table 7

Participants by Subject Area

Subject	% of Participants
High School/Middle School Math	4%
High School/Middle School English	9%
High School/Middle School Science	8%
High School/Middle School Social Studies	7%
High School/Middle School Other (Foreign Language, Business, etc.)	11%
Elementary Classroom Teachers	33%
Special Area (i.e. Art, Music, Physical Education – all grade levels)	11%
Special Education	17%

Participants in Qualitative Study. Initially, the researcher identified first-year teachers who were retained teachers and included as participants in the qualitative data set. Since the data set included teachers who were retained and those who were not, this narrowed the above pool of 201 to 154. Focusing on retained teachers allowed the

researcher to analyze the effect of induction on retention and job satisfaction. After the generation of that list, the researcher assigned each retained teacher a number. Using this number, the researcher then randomly selected 50 teachers, from the total research population of 154, to receive the request to participate. The researcher used an online randomizer (<http://www.randomizer.org/form.htm>) to make this selection. An email group list was developed, and emails were sent via district email, inviting participants to be interviewed via telephone.

Three participants responded to the survey. The researcher attributes this minimal response to teacher workload/lack of time, scheduling issues, and lack of familiarity with the third party who sent the request. Due to the small number of respondents, the third party later sent a request to all retained teachers included in the study. After multiple requests, six participants responded, provided consent, and were interviewed. Table 8 provides the specific characteristic of each of the participants:

Table 8

Quantitative Participants by Year, Induction Component, and Area of Instruction

Participant Number	Year	Induction Component	Area of Instruction
1	2007-2008	Building Mentor, Professional Development, Orientation	Elementary Classroom Teacher
2	2008-2009	Building Mentor, Professional Development, Orientation, Instructional Mentor	High School Language Arts
3	2008-2009	Building Mentor, Professional Development, Orientation, Instructional Mentor	High School Foreign Language
4	2006-2007	Building Mentor, Professional Development, Orientation	High School Vocal Music
5	2008-2009	Building Mentor, Professional Development, Orientation, Instructional Mentor	Elementary Special Education
6	2007-2008	Building Mentor, Professional Development, Orientation	Elementary Classroom Teacher

Research Questions. The researcher designed the mixed methods study to answer the following research questions:

RQ1 – “How does the addition of each new element of the new teacher induction program influence the retention rate in a Midwest suburban school district?”

RQ2 – “How do participants perceive each element of the induction program contributing to their retention, job satisfaction, and teaching effectiveness?”

Quantitative Data Collection Methods. The director of assessment (per school district practice), in consultation with the superintendent, granted permission to gain access to new teacher data and to conduct interviews; consultation was necessary, since the researcher directly supervised the director of assessment. The director provided permission in writing after the University’s Institutional Research Board approved the research proposal per school district policy. A list of first-year teachers was then compiled for school years 2005–2006, 2006–2007, 2007–2008, 2008–2009, and 2009–2010, in an Excel spreadsheet. This list was then compared to the directory of current (2011–2012) employees. Using the comparison, the researcher noted the retention status of each teacher. The researcher then provided this list of teachers and retention status to an associate in human resources who used the district employee database to double-check each teacher’s retention status and make changes to any inaccurate data. Inaccuracies occurred due to an incomplete current employee database, name changes, and spelling errors. Using the updated list, the human resource associate identified the school year each non-retained teacher left the district and noted any reasons provided.

Using this data, the researcher calculated retention rates for each cohort by dividing the total number of teachers that returned for a second year by the total number

of first-year teachers the year prior. The researcher analyzed the data to determine the connection between the retention of teachers who had experienced more induction components, using both a *z*-test for difference in proportions and chi-square test for independence. Retention rates incorporated one year to determine validity of the hypothesis; however, two-year retention rates were also included and reviewed in the data set where that was possible (2008–2009 first-year teachers). The null hypothesis, there will be no difference in proportions in first year teacher retention rates when different induction components are provided to teachers compared to years when fewer induction components are provided, was tested. The researcher then ran a *z* test to provide comparisons of proportions retained between induction years, and a chi-square test for independence was applied to test the dependence of retention rates upon the number of induction components each year from a statistical standpoint.

The researcher selected the *z* test due to the retention rates being reported in averages, the number of participants was greater than 30, and the test allowed the researcher to determine if there was a statistically different rate of retention based on the induction components implemented in the given years. According to Fraenkel and Warren (2010), “The chi-square test is used to analyze data that is reported in categories” (p. 233). The chi-square test for independence allowed the researcher to determine if the retention rate was related to the number of induction components, since this test makes it possible to use data from two different sets of variables are to see if they are related.

Qualitative Data Collection Methods. Using Excel, retained teachers were assigned a number, and the researcher used a computer program to randomly select 50 teachers, who were sent an email from a third party to request their participation in an

interview. Random selection was completed using an online randomizer (<http://www.randomizer.org/form.htm>). After the initial request was sent, only three participants agreed to be interviewed. In order to increase the pool of interviewees, the third party issued the same request to all retained teachers included in the data set. Four additional interested participants replied to the email, and the third party provided consent forms via email. Participants then signed the consent forms and returned the signed forms via the intra-district mail system to an administrative assistant. The administrative assistant then contacted the third party, who contacted the participants and scheduled a phone interview. Of the four newly interested participants, the third party was able to set up interviews with three, for a total of six interviews. Interviews took between 10 and 20 minutes, and the third party scripted the interviews. The third party also provided the researcher with a list of respondents and interview responses. The third party did not provide interview responses with the participants' names included, but the year of induction was noted so that the researcher could identify the induction components. The researcher then coded the responses and noted themes.

Secondary Data

The school district collected survey data from first-year teachers during the 2008–2009, 2009–2010, and 2010–2011 school years. While the 2010–2011 school year was not included in the quantitative study, the researcher chose to include and discuss these responses, since it provided information related to the topic. While the researcher did not develop this survey or collect the data as part of this study, some information included was helpful in answering the research questions. The supervisor of the induction program developed the survey to evaluate the effectiveness of the program.

The survey included questions that focused on different induction components, including building mentors, instructional mentors, professional development, and overall satisfaction with the school district as well as first-year challenges (see Appendix A). Some questions were asked in all three surveys, and some are only included in one or two years. Table 9 shows the number of survey participants by year:

Table 9

Number of Teachers in District Survey by Year

Year	Number of Respondents	Percentage of First-Year Teachers
2008-2009	29	63%
2009-2010	55	66% (First- and Second-year teachers)
2010-2011	31	53%
Total Surveys	115	

Surveys were sent electronically via email from a district administrative assistant, with the body of the email requesting help in gathering input on their first-year experience. Wording in the request varied slightly from year to year. The district distributed all surveys in the month of May and used electronic tools (SurveyMonkey and K–12 Insight) to develop, distribute, and collect survey data.

District Demographics and Induction History. The researched suburban school district is located outside of St. Louis, Missouri, and serves 17,191 students in 20 schools

with an additional 2,790 early childhood students served at three sites. There are 1,228 certified staff and 70 administrators. The student population includes 2.3% who are Hispanic, 6.8% who are Black, and less than 2% who are Asian. The majority of students (87.4%) are White. The student population also includes 17.2% who qualify for free and reduced lunch status. Both student attendance (95.7%) and the graduation rate (94.3%) are above the state average. As noted in Table 10 below, students scored above the state on the ACT and the Missouri State Assessment Program tests in 2011. In 2011 there were 281 incidents that caused students to be suspended for ten consecutive days or more. The district spends \$10,240 per student per year compared to the state average of \$9,619.

Table 10

District Student Achievement Data Compared to State

Assessment	District 2011	State
Missouri Assessment Program: Communication Arts Proficient and Advanced	67.2%	54.6%
Missouri Assessment Program: Math Proficient and Advanced	67.8%	54.2%
ACT	22.6	21.6

The student-to-classroom teacher ratio is slightly above the state average (19:1 versus 18:1), while the students-to-administrator ratio is above the state average (249:1 versus 195:1). More than 99% of the teaching staff hold a regular teaching certificate,

and the average teacher has 13.8 years of experience; slightly above the state average of 12.5 years. The teaching salary is above the state average: \$56,349, versus \$45,310 in the state of Missouri (MODESE School District Profile, 2011).

District Induction History. In recent years, new teachers in the district had a variety of induction experiences. In the 2005-2006 school year, new teachers participated in a week of orientation activities and were assigned building mentors. These mentors were briefly trained and were typically veteran teachers in the same building and content or grade level. Administrators and representatives of the District Professional Development Committee selected mentors from within the school of the new teacher. Mentors completed typical mentoring tasks including a half day of observation of each new teacher. The new teacher was also provided with a half day to observe their mentor. Induction activities prior to 2005 were similar in structure, but at times included a “triad principal” who was an administrator in the building that did not supervise the new teacher. In 2006 new teacher induction continued with the same structure but with the addition of two professional development days. On these days teachers were trained on a variety of topics including classroom management, instructional strategies, and technology.

The most recent induction program, and the focus of this study, included the use of instructional mentors. In addition to the other supports noted, this program provided intensive mentor services provided primarily in a one-on-one setting. These mentors provide scheduled visits to the classrooms of the new teachers. The staff assigned to these positions had no other school district responsibilities. The instructional mentors were retired veteran teachers with some administrative experience. During their visits to

the new teacher classrooms, the mentors provided observations, coaching, lesson modeling, feedback, and moral support. In addition to instructional mentors, new teachers also had building mentors who focused their work on providing the mentee with activities centered around building acclimation.

Confidentiality. The researcher took several measures to ensure participant confidentiality and eliminate bias on the part of both the researcher and participants. For the quantitative portion of the study, the researcher generated a list of new teachers and collected retention data; afterward, teacher names were deleted and numbers were assigned. For the qualitative portion of the study, a third party was used to request and complete the interviews; this was especially important since the researcher worked as a central office administrator in the district during this study. Names were not included in interview responses, but the third party interviewer did provide a list of names of those interviewed, to allow the researcher to compile demographic information. The third party also included a statement of confidentiality prior to completing the interviews.

Background of the Researcher

The researcher is the chief academic officer in the suburban Midwest district researched in this study; her primary role was to oversee improvement efforts at both the building and district levels. Prior to this position she was the director of adult learning and was responsible for district professional development, including new teacher induction in the years studied. Due to her involvement in the induction program, as well as her current position, a third party was used to conduct the interviews.

Summary

This study used a mixed methodology to determine if there is a relationship between the number of new teacher induction components and teacher retention as well as job satisfaction. The following questions were addressed:

RQ1 – “How does the addition of each new element of the new teacher induction program influence the retention rate in a Midwest suburban school district?”

RQ2 – “How do participants perceive each element of the induction program contributing to their retention, job satisfaction, and teaching effectiveness?”

The study provided the researched district information to better support new teachers and maximize decreasing financial resources. The study occurred in a Midwest suburban district that performs above both state and county averages in most areas and is comprised of over 17,000 students and 1,200 teaching staff. The researcher collected retention data based on those teachers that returned to the district for a second year of employment. In all, 201 teachers were included in the quantitative study and were representative of the district in regards to gender and job placement. The researcher completed the analysis using both a z test and a chi-square test. Six retained teachers took part in interviews, where questions focused on the relationship of induction and job satisfaction. The researcher then coded and analyzed the responses. During this study the researcher served in the role of chief academic officer and was in charge of the induction programs as part of her previous responsibilities. Chapter 4 will provide the results and analysis of both the quantitative and qualitative data.

Chapter Four: Results

Purpose of the Study

The purpose of this study was to determine the significance of an intensive new teacher induction program on the new teacher retention rate and job satisfaction. The study included analysis of quantitative data in the form of retention rates and qualitative data from interviews with retained teachers. In this chapter, the researcher will review the results of the study, focusing on an analysis of both quantitative and qualitative data.

Results and Analysis of Quantitative Data

The quantitative portion of this study investigated the relationship between new teacher retention rates and the number of induction components experienced. Since additional components were added or changed by year, the researcher compared one year retention rates by year with each number of components of induction.

Data Collection and Participants. All first year teachers without prior teacher experience hired between the 2005-2006 and 2008-2009 school years were included in the quantitative study. A list of teacher names was provided by the district's human resource department, and those teachers classified as "Bachelors plus One" or "Masters plus One" were identified for the study. The researcher excluded counselors and part-time teachers. Once the list of teachers was compiled, the researcher determined which teachers were retained for a second year in the same district. A retention rate was then determined by dividing the number of first year teachers retained in any school year by the total of first year teachers hired. In all, 154 participants were included in this study.

Quantitative Study Results and Analysis. Table 11 illustrates the annual retention rate throughout the timeline of this study:

Table 11

Annual Retention Rate

First Year	Percent of First-Year Teachers Retained for a Second Year
2005-2006	94
2006-2007	92
2007-2008	92
2008-2009	85
2009-2010	89

Note: $n = 154$.

In the years studied, the average retention rate was 90% with a median and mode of 92%. The average retention rate for the years studied is above the national average of 86% retained for a second year (Ingersoll, 2003). In 2008-2009 the rate fell one percentage point below the national average while the remaining four years were between three and eight percent above the national average. While Missouri has not documented the retention rate for teachers retained after their first year, a report to the Missouri General Assembly in 2010 reported 28.2% of teachers left (71.8% retained) by their third year (MODESE, 2010). Nationally, new teachers are retained at a rate of 70% at three years (Ingersoll, 2003). While the researcher did not collect three years of retention data for all of the years studied, the following data in Table 12 was collected as a comparison to the state report (MODESE, 2010) and national benchmark (Ingersoll, 2003):

Table 12

Comparison of Retention Data between State Report and National Benchmark

Year	% retained at 3 years
2005-2006	84%
2006-2007	82%
2007-2008	89%
2008-2009	80%

The three-year retention rate showed the district rate, regardless of induction components of the first year, to be higher than the state rate; however, there is no observable difference in three-year retention rates when comparing years within the study. There is also not an observable difference in retention rates after the first year of teaching in any given year when compared to national and other state rates (Ingersoll, 2003) regardless of induction component.

When comparing years within this study, those with the largest number of induction components are observed to be slightly lower than other years. Table 13 illustrates the retention rate when compared to induction components:

Table 13

Retention Rate Compared to Induction Components

Year	Retention Rate	Building Mentor	Professional Development	Additional Professional Development	Orientation	Instructional Mentor
2005-2006	94	X	X		X	
2006-2007	92	X	X		X	
2007-2008	92	X	X	X	X	
2008-2009	85	X	X	X	X	X
2009-2010	89	X	X	X	X	X

With regards to the statistical analysis of the data, the first research question, “How does the addition of each new element of the new teacher induction program influence the retention rate in the Francis Howell School District?” was supported by using a *z* test for difference in proportions and a chi-square test for independence. The following hypotheses were addressed in the study:

H⁰1: There will be no difference in proportions in first-year teacher retention rates when different induction components are provided to teachers compared to years when fewer induction components are provided.

To determine whether or not to reject null hypothesis one, the researcher applied a two-tailed *z*-test for difference in proportions and the null hypothesis was not rejected; there was no statistical difference in retention between years of new teachers regardless of the number of induction components. The largest difference in proportions was determined to be between years 2005 and 2008. In comparison of the 2005-2006 academic year to 2008-2009, the *z*-test value of 1.25 compared to a critical value of 1.96

resulted in non-rejection of the null hypothesis. In comparison of the 2007-2008 academic year to 2008-2009, the z-test value of 1.166 compared to a critical value of 1.96 resulted in non-rejection of the null hypothesis. Results are reported in Table 14.

Table 14

Difference in Proportions in First-Year Teacher Retention Rates

Years Compared	z-test value
2005-2006 to 2008-2009	1.25
2007-2008 to 2008-2009	1.166

Note: Critical Value = ± 1.96 . Confidence Interval = 95%.

In addition, a chi-square test for independence was applied to test the following hypothesis:

H⁰2: The rate of retention of new teachers returning for a second year is independent of the number of components experienced in the teacher induction program.

.There was not a statistical difference when comparing the number of induction components and retention rate. The null hypothesis is not rejected since the test value (0.27) did not fall beyond the critical value of + 21.06. The retention rate for new teachers is independent of the number of induction components experienced; the retention rate was similar regardless of the type of quantity of induction components.

Table 15a below outlines the analysis:

Table 15a

Analysis of Comparison of Number of Induction Component and Retention

Year	Retention Rate	Number of Components	Sum
Observed Values with Sums			
2005-2006	0.94	2	2.94
2006-2007	0.92	3	3.92
2007-2008	0.92	3	3.92
2008-2009	0.85	4	4.85
2009-2010	0.89	4	4.89
Sum	4.52	16	20.52
Expected Values			
2005-2006	0.647	2.29	
2006-2007	0.863	3.05	
2007-2008	0.863	3.05	
2008-2009	1.068	3.78	
2009-2010	1.077	3.81	
Chi-Square Calculations			
2005-2006	0.13	0.14	0.17
2006-2007	0.00	0.00	0.00
2007-2008	0.00	0.00	0.00
2008-2009	0.04	0.01	0.06
2009-2010	0.03	0.01	0.04
Chi-Square Test Value			0.27

Note: Critical Value is 21.06

In addition, a chi-square test for independence was applied to test the following hypothesis:

H03: The rate of retention of new teachers returning for a second year is independent of the type of components experienced in the teacher induction program.

Retention rates were gathered from 2005-2006 and 2007-2008 for years providing the two components of Professional Development and Orientation as components of new teacher induction. Rates were also gathered from 2009-2010 and 2010-2011 for years in which Building and/or Instructional Mentorship were provided. There was not a statistical difference when comparing the type of induction component and retention. The null hypothesis is not rejected since the test value (0.974) did not fall beyond the critical value of + 5.07. Retention rate for new teachers is independent of the type of induction components experienced. Table 15b outlines the analysis:

Table 15b

Analysis of Comparison of Type of Induction Component and Retention

Observed Values with Sums			
With or Without Building / Instructional Mentorship?	With Both Professional Development and Orientation	With Both Professional Development and Orientation	Sum
Observed Values with Sums			
With	0.94	0.92	1.86
Without	0.85	0.89	1.74
Sum	1.79	1.81	3.6
Expected Values			
With	0.924	0.935	
Without	0.865	0.874	
Chi-Square Test Value			0.974

Note: Critical Value is 5.07

Qualitative Study Results and Analysis. The second question, “How do participants perceive each element of the induction program contributing to their retention, job satisfaction, and teaching effectiveness?” was addressed by analyzing interview responses from six teachers who were first year teachers between 2005 and 2009 and were retained for minimally a second year. The researcher designed the questions (see Appendix B) to increase in specificity throughout the interviews; the first question asked was broad, “Tell me about your first year of teaching,” and the final question was specific to the research questions, “Did mentoring have an impact on your decision to remain? Did other induction activities?”

The researcher coded the interviews for themes and identified school/district connectedness/culture and self-fulfillment, as being prominent in all interviews. All six new teachers discussed these components as part of their interviews, with several discussing the two themes several times throughout the interview.

Participants viewed the connection to their building and the school district as an important factor. Table 16 provides examples of each teacher’s comments as they related to connectedness and school culture:

Table 16

Teachers' Comments Related to Connectedness and School Culture

Interview Number	Related Comment
1	My school is really great; I love working here...The building is really great; we have formed good friendships, and it has made it enjoyable to go to work.
2	I am very satisfied with the (Suburban Midwest) District. My kids went here. The teachers and administrators are great. I'm very pleased to get a job in my own district; it was what I wanted...I work with the most wonderful teachers...
3	I am very satisfied with my choice in district. I subbed in other districts so I am able to compare...I'm willing to do new things and the district helps you do those things. They will support you...I enjoy the people I work with.
4	I have a fantastic department. We all share everything we make. The girls in my department are great. I teach at the school I graduated from. So, it felt like I had never left. Some of the teachers were the same and the place was the same. I didn't get a lot of sleep, but I really did love it.
5	I love it here. It is really fun. I knew my grade level so I fell into it really easily.
6	I'm a born and bred (Midwest Suburban District) person. I went to elementary, middle, and high school here. I go my first job at Vacation Station here...I love the team I work with.

Participants provided few specifics about why they felt this connection or appreciated the school culture, however, all participants reported a similar sentiment; district and school culture contributed to retention.

The other universal theme identified by the researcher is an overall sense of self-fulfillment from their career choice. All those interviewed included similar statements. All six teachers reported there was a sense of self-fulfillment from their work that increased job satisfaction. Table 17 provides examples of the comments related to sense of self-fulfillment:

Table 17

Comments Related to Self-Fulfillment

Interview Number	Related Comment
1	I have always wanted to be a teacher. I'm very happy I am an elementary teacher. I love it—I'm able to get into topics deeper than with little kids... This school serves students who have lower socio-economic issues. It's nice to be around students who really, really need me; I may be the only adult kids see throughout the day. I am often the constant adult figure in their lives.
2	I love being a teacher. I'm very passionate about teaching. I love working with students. In my class, I work with students at the top who have straight A's to the students at the bottom of the grading scale.
3	It was a career choice that I was glad I made. I really like what I do. . . . It's becoming more and more rewarding when I see students graduate.
4	I'm doing exactly what I should be doing. Its' stimulating and fun; I feel good about what I'm doing.
5	I feel like I'm at home when I teach. I love my school. It's diverse and this has made me a better teacher... My own feelings about teaching is what helped me.
6	I love my job. I love getting to work with kids every day... I can't imagine a more gratifying job.

There were also non-prominent themes that related directly to the research questions. Those interviewed reported professional development was effective in increasing job satisfaction and supported their continued employment. New teachers discussed specific professional development topics including sessions on running parent-teacher conferences, using the electronic grade book, and implementing student discipline. Those interviewed found these professional development topics to be of assistance in their daily work in their first year. In addition to the professional development itself, several commented that networking with other new teachers during this time was also beneficial. As one teacher put it:

I got lots of good information there... The meetings I remember most with the full district; that's where we got the really good tips. It was helpful to make connections though, with other new teachers in my school and be able to look around and see who else was new.

Another teacher said, "(about the professional development activities) . . . there were other people who didn't know how to do report cards. You could ask those folks without feeling stupid."

Those interviewed also cited mentoring, another induction component, several times throughout the interviews. The researcher formulated specific interview questions to determine if this exact component had any effect on job satisfaction or retention. Teachers directly addressed the questions, often discussing the role of mentoring, but few mentioned this component when asked the broader, more open-ended questions at the beginning of the interview. Mentoring did not appear as an immediate response when asked about first year experiences or supports. When new teachers did mention

mentoring in a response, they provided little detail about how the component assisted them. It would appear the mentoring component, while positively received, was not the initial or primary response of a new teacher in regards to job satisfaction or retention, who instead commented on their connections to the school or internal motivation to teach. Some typical comments related to mentoring included: “(Mentors) . . . increased my satisfaction . . . they made me feel welcomed and not belittled.” “The mentor program really provided the support you needed.” “The mentor program did help me in the first year.” Three teachers provided specifics on how the supports of the [instructional] mentors helped, as outlined below:

Interview No. 2: The [instructional] mentors helped me focus on what was important and prioritize.

Interview No. 3: The coaching from the [instructional] mentor was helpful.

Interview No. 4: [The instructional mentor] . . . helped me do things faster or better.

Secondary data. The school district collected survey data from first year teachers during the 2008–2009, 2009–2010, and 2010–2011 school years. While the 2010–2011 school year was not included in the study since longitudinal retention rates were not available, results from the survey will be discussed. The researcher did not develop this survey or collect the data as part of this study, but did analyze information to aid in answering the research questions as they relate to the effect of induction components on retention and job satisfaction. The graph in Figure 2 illustrates the survey responses:

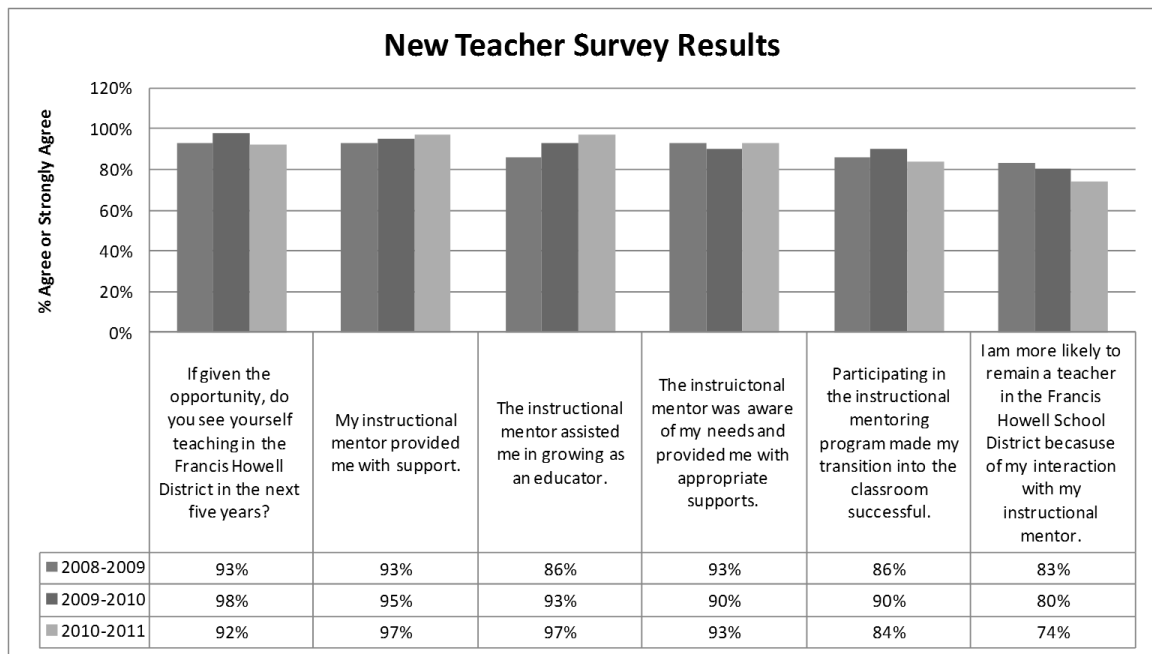


Figure 2. New Teacher Survey Results. Adapted from Francis Howell School District New Teacher Survey data.

The survey data is specific to the instructional mentoring component of induction—the component that is most unique from year to year of the study. Figure 2 demonstrates little observable difference throughout the years of the survey. The lowest percentage of teachers agreed/strongly agreed that, “I am more likely to remain a teacher in the Francis Howell School District because of my interaction with my instructional mentor.” This is a much smaller percentage than the positive responses in to the other questions, but no less than 74% (non-study year, 2010-2011) in any year responded positively to this question. Overall, a vast majority of teachers answered positively to all questions.

While the surveyed years are not all the same as the years of study, the results of the survey contribute to determining if retention rate is affected by mentoring. On average, 94.3% of participants reported they intend to be retained for the next five years,

while a high, but yet smaller average percentage of 79%, reported the mentoring component contributed to their desire to be retained (non-study year, 2010-2011, included in average).

Conclusion

The researcher completed two statistical analyses, analyzed themes from the qualitative data provided in six interviews, and reviewed secondary data provided from teacher surveys given by the district in order to determine if comprehensive induction affects retention and job satisfaction. One year retention rates were observably lower in the years with comprehensive induction that included instructional mentoring, but there were no observable difference in three year rates were collected. The two statistical analyses result in consistent findings. The null hypothesis, there will be no difference in proportions in first year teacher retention rates when different induction components are provided to teachers compared to years when fewer induction components are provided, was not rejected when the z test for difference in proportions was applied. In addition, the null hypothesis, the retention rate is independent of number/type of induction component provided, was not rejected when the chi test was performed. When analyzing qualitative measures, the interviews would indicate induction and mentoring were not the primary reasons for retention. Teachers only attributed retention to these indicators when directly asked very specific questions, and participants did not provide detailed information about how these components supported retention. Induction and mentoring were not the teachers' initial response when questioned about reasons for retention. The secondary data would also indicate teachers do not primarily attribute their desire to be retained to induction and mentoring. The two major themes, school

connectedness/culture and self-fulfillment were unrelated to induction. While the vast majority of teachers did indicate that mentoring did contribute to their retention, the question was leading and had the lowest percentage of participants that reported they agree or strongly agree.

While there is some indication that mentoring and comprehensive induction increase job satisfaction and retention, the researcher found no definitive data that would indicate that comprehensive induction or any specific component increases retention or job satisfaction. The researcher cautiously drew this conclusion and believes further research is indicated, which will be discussed in the following chapter.

Chapter Five: Discussion and Implications for Further Research

Overview

The purpose of this study was to research the effectiveness of comprehensive new teacher induction on increasing retention rates and job satisfaction. In the previous chapter, the researcher reported the results of the data collection and in this chapter will discuss the results and make recommendations for future research related to teacher induction within a public school setting.

Discussion

Methodology. This study incorporated both qualitative and quantitative data to answer the research questions. The researcher calculated retention rates for each group of first year teachers throughout the study. The researcher used this data to run a z -test for difference in proportions to provide comparisons between induction years and a chi-square test for independence to statistically compare the relationship of the retention rate to the number of components offered each year. Interviews were held with six retained teachers to determine if induction components contributed to retention or job satisfaction. The researcher coded, identified themes, and further analyzed responses from the interviews.

The methodology was designed to provide multiple measures to aid the researcher in determining if comprehensive induction, including an instructional mentoring component, increased retention. In the end, the study was able to provide sufficient information; however, additional years of study, a larger number of interviews, and more detailed information from teachers who were not retained would have been valuable. Both the state and most national statistics are calculated based on a five year retention

rate. The researcher collected five years of data, which allowed for only one five-year retention rate to be calculated. A limited number of national studies provided less than a five-year rate for comparison.'

While all first year teachers who were retained received multiple requests to be interviewed, only six responded, completed the necessary consent forms, and participated in the interview component of this study. Some teachers spoke at length, while others provided very limited responses. When the researcher informally inquired about why some did not respond, non-participating teachers cited time, a lack of familiarity with the third party who sent the e-mail, and a lack of interest as reasons for non-participation. Of these reasons, time appeared to be the most prominent reason for non-participation. Non-participants stated to the researcher that signing consents and having to send to the appropriate party was a "hassle." The use of incentives may have increased the response rate. While the third party was necessary due to the researcher's position within the district, the researcher predicts that the response rate would have been increased had the request come from her since there was a previous professional relationship between the researcher and the new teachers.

Although the respondent pool was limited to six, definitive and consistent themes emerged. The researcher would predict that with a larger quantity of interviews, the major themes would remain consistent.

Additional information regarding those teachers who were non-retained would have added significantly to the data collection. The school district was unable to provide specific reasons these teachers cited for leaving. It was, therefore, impossible to provide data on the number of teachers who moved, did not return due to illness or pregnancy,

remained in education but within other districts, were not renewed due to performance, or left due to concerns associated with the district or the field of education. This information would have assisted in clarifying the role of induction on job satisfaction and retention. It cannot be concluded that all teachers non-retained, if given the most effective induction, would have resulted in future employment within the district; likely, some left for reasons not directly attributed to job satisfaction.

Results. The statistical tests resulted in consistent results; the two-tailed z test for difference in proportions indicated there was no difference in retention rate when comparing years with fewer induction components to years with more induction components, while the chi-square test for independence indicated retention rates were independent of both the number of induction component(s) and the type. The consistent conclusions indicate that induction methods may have had a minimal effect on retention rates of new teachers in the study school district. There was no specific component found to be more effective than others. Orientation, professional development, mentoring, and instructional mentoring all had similar effects on retention. The results of this study were supported by current literature. As noted in Chapter 2, some studies (Smith & Ingersoll, 2004; Strong, 2006) found a direct connection between comprehensive induction and retention. Other studies found no connection (Isenberg & Glazerman, 2009; Lopez et al., 2004) and still others were inconclusive (Wechsler et al., 2010; Glazerman et al., 2008). The results of this study could be attributed to a wide variety of factors, the researcher believes further research is necessary between the connection between induction and retention. In a 2005 review of the research on teacher recruitment and retention, the Education Commission of the States report concluded:

The research reviewed for this report provides limited evidence that induction and mentoring can increase teacher retention. The diversity among the induction and mentoring programs discussed in the literature, however, and the difficulty of distinguishing between the specific effects of induction and mentoring and those that might be attributed to other factors meant the literature is inconclusive as to what precisely make such programs successful. Thus, those who are considering implementing such programs will have to rely on the consensus of expert opinion. . . . Clearly, a good deal of additional research is needed to provide more definitive guidance for educators and policymakers. (Education Commission, 2005, p. x-xi)

While this study set out to add to the existing body of knowledge related to teacher retention, it was not able to support previous research noting the positive effects of induction on retention through hypothesis testing.

When reviewing the retention data, the years with the greatest number of induction components (those with instructional mentoring included) had the lowest observable retention rates. While not statistically significant, the researcher would conclude that the increase in components to include additional professional development and instructional mentoring, did not have an overall positive effect on retention. The additional components utilized valuable district resources and were found not to increase retention. The researcher would conclude as budgets are planned in the future, adjustments to induction should be made; including a focus on only those teachers who desire additional support or are identified by their administrators as struggling. This type of adjustment to the current program would allow those at-risk of not being retained

additional time and support. The researcher found the overall retention rates of all years in the study were above the national average, regardless of the specific induction component. High retention rates in the district of study could be attributed to the district demographics. As mentioned in the current literature, districts with “low performing, non-white and low income students” (McLaurin, Smith, & Smillie, 2009, p. 6) are likely to have lower retention. The district of study is primarily white, middle class, and high performing.

In addition to the statistical analysis, the researcher also reviewed secondary data in the form of existing district surveys of new teachers. Although the researcher did not formally collect the survey data as part of this study, it was reviewed in relationship to the research questions. The researcher found the relationship between the responses to two questions especially compelling; one question directly asked if teachers intended to be retained in the district, while other question asked if they were more likely to be retained due to the instructional mentor. More teachers reported they intended to be employed in the district within the next five years and reported their retention was due to their interaction with their mentor. While the majority of respondents reported positively to both questions, the difference in these numbers provided additional information; the average difference between those that reported they planned on working in the district in the next five years and those that reported it was due to instructional mentoring was 15%. After further reflection the researcher noted the questions appeared to be closed and were somewhat leading. It appeared that the lack of strong design made it easy for a new teacher to determine the district preferred response. Additionally, in most years, the

survey request was sent by someone in authority within the district. The researcher would surmise the number would actually be greater than 15%.

Overall, those that responded to the survey answered positively about instructional mentoring with the vast majority agreeing or strongly agreeing to questions about mentor supports, understanding needs, and assistance in their professional growth as an educator. The remaining questions, those that more specifically addressed results (making transition into the classroom easier and increasing likelihood of remaining a teacher in the district), had a smaller percentage in agreement; however, both questions still had the majority reporting in a positive manner.

In addition to retention data and secondary survey data, the researcher also considered interviews. As mentioned earlier, six retained teachers responded to seven interview questions aimed at determining if a varied number of induction components increased job satisfaction or was an element that supported retention. All six participants noted school/district connectedness/culture and self-fulfillment as important factors in job satisfaction and retention. In contrast, teachers did not initially relate induction or induction components to retention or satisfaction, but these topics did come up when specific questions about these components were asked.

All teachers attributed at least part of their job satisfaction and reason for retention to school or district culture. Teachers reported they had connections with people or a history with the district. Those interviewed often cited their relationship with their colleagues as having a positive effect on their remaining at the researched school district. It does appear that the relationship among new teachers and experienced teachers were a factor in job satisfaction and retention. In a study in 2007, Kardos and

Johnson surveyed 496 teachers in four different states and concluded that teachers were more likely to report they were satisfied in their work and likely to be retained if schools “promoted frequent and reciprocal interactions among faculty members across experience levels, recognize[ed] new teachers’ needs as beginners, and develop[ed] shared responsibility among teachers for the school” (Kardos & Johnson, 2007, p. 2083). The researchers concluded, “The ongoing interaction between new and experienced teachers is, after all, a key feature of the kind of culture most supportive of new teachers” (p. 2102). This study is supported by other research (Angelle, 2006; Guarino, Santibanez, & Daley, 2006). While this study focused on type and number of induction components as a factor in retention, the qualitative study indicated the relationship of new teachers with their colleagues is a significant factor in job satisfaction and retention.

In addition to the relationship with their colleagues, interviewees discussed other connections with the district, such as having attended school in the district themselves, having students in the district/school, or living in the community. Having been a part of the school community at a level other than as an employee seemed to provide the new teachers with a deeper sense of commitment to the school/district and an increased understanding of the culture. These two benefits appeared to support new teachers in their job satisfaction and desire to continue to be employed in the district.

The researcher also identified self-fulfillment as a theme in the interviews. New teachers discussed educating students as fulfilling their internal desire to help children. Teachers found that the daily tasks required as part of their professional responsibilities was rewarding in and of itself. It appeared those interviewed were motivated by teaching and learning; their desire to serve was well suited to education and increased both job

satisfaction and retention. As one of those interviewed stated, “I love being a teacher. I’m very passionate about teaching. I love working with students...” This captured the essence of all those interviewed. Giacometti (2005), in her review of reasons teachers are retained, reported:

Motivational factors help people make the decision to enter the field. Some people believe that by providing their service they will be contributing to humanity. Their position as a teacher is a challenge, and helping young people learn and succeed brings them joy....They believe they can make a difference, and that makes them motivated to stay in the profession. (p. 41)

This internal desire to teach was evident in the interviews.

Other less prominent themes also emerged from the interviews; the most frequent being professional development. This was a component of teacher induction throughout all the years studied, making it difficult to isolate, as a factor, in retention or job satisfaction. Professional development is a basic element of many induction programs (The National Council on Teacher Quality, 2008). Teachers interviewed found this support to be helpful and discussed it as a helpful support in their first year. Based on this result, the researcher would recommend this component be included in the design of future induction programs. New teachers appeared to be predominately interested in both topics dealing with logistics such as email, technology, time management, and discipline referrals as well as professional growth and collaboration with their peers.

The two predominant themes that emerged from the transcribed interviews were consistent with a few studies noted throughout the literature on new teacher retention (Anderson, 2010; Hewitt, 2009; Corbell et al., 2010). Both connectedness/culture and

self-fulfillment were found by the researcher to be related to teacher retention; these findings were not anticipated, but appear logical. Professional development, a notable but less prominent theme throughout the responses, also appeared in the interviews to be an important factor in new teacher support, although in the statistical analysis it had little impact. One teacher stated, “The meetings that I remember more with the full district; that’s where we got the really good tips. It was helpful to make connections...” Professional development is only one element in teacher induction programs, but it appears to be vital.

Implications and Recommendations for Practitioners

The study leads the researcher to make several recommendations for practitioners; regular evaluation of induction programs including interview of retained teachers, detailed data collection on reasons for non-retention, professional development particularly in the area(s) of classroom management and working on teams, placement with collegial staff, and development of specific characteristics to be used in hiring. District personnel should regularly review the effectiveness of their induction programs. The researcher would suggest there is no one-size-fits-all induction program that will increase retention or job satisfaction for all districts. Districts should regularly review retention data and compare it to the national data. Administrators should identify which components of the district induction program are effective by interviewing teachers after their first year, surveying throughout the first year and reviewing annual performance for new teachers. Reviewing these data points regularly would provide districts insight into the overall effectiveness of induction programs. By performing annual reviews of this

program, district could use resources more efficiently while at the same time increasing its capacity to support new teachers.

The district in the study did not have detailed data on reasons for non-retention. Teachers exiting the district should provide not only reasons but suggestions to improve the new teacher experience. In addition to qualitative data, districts should collect demographic data on non-retained teachers and their assigned schools. This would assist induction planners in being able to better target supports such as mentoring or professional development. For example, there is some research to suggest the turnover of new teachers is higher in schools with a higher degree of poverty (McLaurin et al., 2009). If a district's data were to confirm that this was an issue, additional resources and supports could be provided to only the teachers in those schools. Based on the results found within this study, the researcher would make the recommendation to include professional development as part of a new teacher induction program.

Districts should collect data on specific needs which may include a new teacher needs assessment, survey data from previous new teachers, weaknesses identified in teacher evaluations, and student achievement data. Many teachers cite classroom management and working collaboratively as desired topics (Klassen & Chiu, 2010). Completing an annual program evaluation would assist districts in planning meaningful professional development and trainings. The researcher would also recommend the professional development be sustained over time; over several days throughout a school year. In a landmark study, the National Development Council reported that it takes between 49 and 100 hours of professional development to change practice and increase

student achievement (Darling-Hammond et al., 2009). Since collegial relationships were determined by the researcher to have a positive effect on retention, those planning professional development for new teachers should include networking interactive activities.

Another finding of this study revealed that strategically placed new teachers on teams with teachers who are collaborative and collegial would increase retention and job satisfaction. While the researcher did not originally consider this element in the study or literature review, it became evident through the interviews that positive relationships with others in the building positively affected retention and job satisfaction. All those interviewed attributed their retention and job satisfaction at least in part to the connections they had in their building. As a researcher and district administrator within the context of this study, I would recommend that in the future veteran staff assignments be placed with new teachers and collegial teams. This would be different than a formal mentoring relationship where the veteran teacher is considered the expert, passing knowledge to the novice. Assigning new teachers to work alongside, as an equal, with veteran teachers who not only have knowledge, but understand the benefits of collaboration and who have a desire to develop collegial relationships will support retention.

The researcher would also recommend changing hiring practices. In order to increase retention rates, district administrators should consider findings of this study. Administrators consider many factors when hiring new staff. The current hiring indicators should be expanded to screen for new teachers who feel a connection to the school district, have collaboration skills, and a desire to work collegially. School districts

could ask questions when hiring new teachers such as the following: Why do you want to work in our school district? Tell about some examples of times you have worked on a project with your peers and discuss your contributions. What strengths would you bring to a team of teachers? What is your experience in working on teams? By identifying a candidate's potential for district connectedness and ability to develop collegial relationships, districts could identify those teachers most likely to be retained, allowing districts to maximize resources used in developing new teachers. While the researcher originally considered only using a quantitative study, in the end the qualitative information was essential.

Recommendations for Further Research

The researcher would recommend further studies be completed to determine not only the effectiveness of comprehensive new teacher induction, but also under what conditions induction is most successful. In the literature review, there were studies that both supported and refuted new teacher induction as an effective strategy for increasing retention. Most studies simply reviewed the effectiveness of induction. Researchers should conduct studies that consider factors such as district demographics, per pupil expenditures, qualities of mentors, pre-service education, disposition of mentors and teams, as well as the overall culture of the school and district. The researcher did not find any studies that examined the overall health of the culture the new teacher worked in prior to employment. It would make sense that this would affect retention. In addition, a quantitative study comparing retention rates of new teachers who plan and problem-solve with their colleagues is necessary based on the qualitative research and findings in this study.

The researcher would also recommend further research be completed on the characteristics of teachers who remain in the field of education long term. Based on the initial results within this study, new teachers who have connections to education or the school district, value collegiality, and have an internal desire to serve students are likely to be retained. More research is called for on these characteristics as well as the disposition of a new teacher. New teachers' preconceived ideas about education and their careers as well as the degree to which the new teacher has a desire to serve.

In addition to researching the characteristics of new teachers more likely to be retained, risk factors for attrition should also be studied. Effects of a negative school culture, lack of high quality collegial relationships, lack of informal support for new teachers, low performing schools, and low salaries appear to be reasonable risk factors mentioned in the research, however, additional information and validation is necessary.

The researcher would recommend additional studies on the long term effects of induction beyond the fifth year. Further studies on the qualities of successful mentors, most beneficial professional development, and new teacher motivation are necessary. The researcher would recommend future research be both quantitative and qualitative since both sets of data were needed to support the conclusions drawn in this study.

Conclusion

This study sought to determine the effectiveness of comprehensive induction on retention and job satisfaction. The researcher compared teaching and induction components in different groups of new teacher cohorts between school years 2005-2006 and 2009-2010 and was unable to statistically conclude that comprehensive induction had a positive effect on retention. Additional data gathered from secondary sources as well as

qualitative data did not provide clear answers. The researcher would suggest districts evaluate and adjust their induction programs based on local data; there will not be a one-size-fits-all induction structure that will be successful in all districts. Districts must evaluate induction regularly to plan strategically to ensure inductions programs are effective.

The researcher was surprised to find the qualitative data, in the form of interviews, revealed that school culture/connectedness and self-satisfaction are key components of retention. While the interviews were limited in number, these themes were evident, even when questions specifically about induction were asked. Further research and professional discussion is necessary on these findings. As one researcher (Hewitt, 2009) noted, this is often an aspect of induction districts do not address.

The researcher believes supporting new teachers is one of the most important tasks of school districts. In difficult financial times, districts must focus their financial resource on strategies that will matter for students. Retaining teachers is important; retaining quality teachers can change a school district. This study did not determine conclusively that comprehensive induction will support this mission, but it did identify areas that are deserving of further exploration.

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Appendix A



**Francis Howell School District
New Teacher Orientation
Secondary
August 1-7, 8:00AM-4:00PM
Administration Building- BOE Room**

Wednesday 8/1- DAY ONE

8:00-8:30	Breakfast and Overview	Mary Hendricks- Harris, <i>Director of Adult Learning</i>
8:30-8:45	Welcome	Dr. Renee Schuster, Superintendent
8:45-9:00	District Initiatives	Pam Sloan, Chief Academic Officer
9:00-9:30	STAT/Inter./504/IDEA	Ann Borgmeyer, <i>Director of Alternative Learning</i>
		Steve Griggs <i>Director of Student Services/Operations</i>
9:30-9:45	Break	
9:45-10:45	Introduction to PLC	Dr. Chris Greiner
10:45-11:15	Classroom Management	Mary Hendricks-Harris
11:15-11:30	FHEA Presentation	Linda Hess, FHEA President
11:30-12:30	Lunch	Sponsored by FHEA
12:30-3:30	Technology	Gina Hartman
	Outlook/ Pinnacle/ Mastery Manager	

Thursday 8/2- DAY TWO

8:00-8:15	Breakfast and Overview	
8:15-9:00	Mentee Program	Mary Hendricks-Harris, Sandy Dietz
9:00-9:45	Understanding Data	Mary Hendricks-Harris
9:45-10:00	Break	
10:00-10:30	FHSD Procedures <i>Forms/ Intranet/ Purchases, etc.</i>	
10:30-11:00	Curriculum/ GLE's/ ECO's	Sharon Wall, Director of Student Learning
11:00-11:30	Closing	Jerry Thornton, <i>former Missouri Teacher of the Year</i>
11:30-12:30	Lunch on own	
12:30-3:30	Work in building	Check with Principal for schedule

Friday, Monday, Tuesday- 8/3,6,7 **Work in building**
Check with Principal for schedule

Appendix B

Interview Questions for Returning Teachers

1. Tell me about your first year of teaching.
2. How satisfied are you with your choice of careers? With your choice of districts?
With your current school and class assignment?
3. Did the induction program provided, including mentoring, increase, decrease or have no effect on your satisfaction with your job?
4. What supports were put in place to help you in your first year? How effective were they?
5. How long do you plan to remain in teaching?
6. What factors affected your decision to continue to teach in FHSD?
7. Did mentoring have an impact on your decision to remain? Did other induction activities?

Vitae

Mary Hendricks-Harris received her Bachelor of Science in Education from St. Louis University in 1988 and her Master of Education in Administration in 1998. She earned her Education Specialist in 2010 from Lindenwood University. Mary is anticipating a Doctorate in Education Administration from Lindenwood in December of 2012. She holds certifications in several areas including both elementary and secondary principal, special education administrator, and superintendent.

Mary spent 10 years teaching before beginning her administrative career as a special education administrator for Special Schools District of St. Louis County. She also served as a Director of Professional Development and Assessment before she became the Chief Academic Officer in the Francis Howell School District. In addition, she works as an associate for Solution Tree, providing professional development on a variety of topics across the nation.