The Asher and Dane School Districts' Mentoring Models: The Relationship Between Mentoring and Retention of Beginning Teachers

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The Asher and Dane School Districts’ Mentoring Models: The Relationship Between Mentoring and Retention of Beginning Teachers

Po Nien (Felipe) Chou

A dissertation to be submitted to the faculty of Brigham Young University in partial fulfillment of the requirements for the degree of Doctor of Philosophy

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December 2010

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Brigham Young University
ABSTRACT

The Asher and Dane School Districts’ Mentoring Models: The Relationship Between Mentoring and Retention of Beginning Teachers

Po Nien (Felipe) Chou

Department of Educational Leadership and Foundations

Doctor of Philosophy

Diverse mentoring models have been implemented by educational organizations to address teacher retention, but debate continues over which mentoring model is most beneficial. Two school districts in Utah, USA, hereafter referred to as the Asher and Dane (pseudonyms) School Districts, provide distinct approaches to mentoring. Both the Asher and Dane School District have used veteran teachers with full-time teaching loads to mentor beginning teachers. The Dane School District, however, has recently implemented a unique and distinct mentoring model in addition to in-school mentors. In this model, full-time released teacher “coaches” with specialized mentoring responsibilities are assigned by the district to mentor several beginning elementary teachers in one grade band (K-3 or 4-6) throughout the district. This longitudinal research studied the Asher and Dane School Districts’ mentoring models to develop a grounded theory to explain how these two distinct mentoring models were related to beginning teacher retention rates. A stratified, random sample was utilized, resulting in 23 participants selected for this study. Interview data were gathered from each participant during their first year of teaching, as well as follow-up survey and interview data in their third year. Beginning teacher attrition data were gathered from both the Asher and Dane School Districts. A constant comparative qualitative analysis method, using NVivo software, facilitated the development of the grounded theory.

Findings describe and explain the sources and types of support that beginning teachers in these two distinct mentoring models found most beneficial in their induction, development and retention during their first three years. Beginning teachers reported that key mentoring characteristics included a mentor that had experience and knowledge, particularly in their same grade level, as well as a personal relationship with someone who was open to listening to them and who empowered others. Overall, collaborative teams and in-school mentors were a great source of support for beginning teachers, and teacher retention occurred most often when beginning teachers felt supported by their principals. Beginning teachers also experienced a decrease in stress and increase in both autonomy and confidence with time or years of teaching, experience, and support. Findings suggested that district coaches in the Dane School District lacked proximity, personal relationship, and knowledge of the grade being taught by those they
mentored. As a result, they lacked the ability to help induct beginning teachers into their school culture and develop informal networks in the school and ensure retention.

*Keywords:* mentoring, mentoring relationship, mentoring model, mentor, teacher retention, teacher attrition, new teacher, beginning teacher
ACKNOWLEDGEMENTS

I wish to acknowledge and express gratitude for the many friends, neighbors, colleagues, teachers, administrators, professors, mentors, family, and others for all the support and assistance I received during the course of my doctoral studies. I am thankful for the help and support of other students in my cohort, as well as all the faculty and staff of the Educational Leadership and Foundations department. I am most grateful to Dr. Sterling Hilton, for his assistance and support prior to and during my doctoral studies, and his continued interest in my growth and development over the past few years.

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INTRODUCTION OF STRUCTURE AND CONTENT

This manuscript is presented in the format of the hybrid dissertation. The hybrid format focuses on producing a journal-ready manuscript, which is considered by the dissertation committee to be ready for submission. Therefore this dissertation has fewer chapters than the traditional format and the manuscript focuses on the presentation of scholarly material. This hybrid dissertation includes appended materials such as an extended review of literature, a methodological section with elaborated detail on the research method utilized in this dissertation, and other necessary supporting information that was not included in the manuscript’s main pages.
Article Abstract

Research indicates that mentoring programs help to increase the retention of beginning teachers. School administrators are presented with competing mentoring models, with various sources and types of support, aimed at improving beginning teacher retention. Grounded theory research was employed to study the Asher and Dane (pseudonyms) School Districts’ mentoring models and explain how the two distinct models were related to beginning teacher retention. While both districts used collaborative teams, in-school mentors and principals to assist the mentoring of beginning teachers, the use of district “coaches” was unique to the Asher School District. Findings from this research suggest that these “coaches” were not as effective as in-school mentors or collaborative teams in increasing retention due to the lack of proximity and personal relationship. Additional findings describe and explain how key mentoring characteristics, as well as different sources of support, benefited the mentoring experience and subsequent retention of beginning teachers.

Keywords: mentoring, mentors, teacher retention, new teacher, beginning teacher
MENTORING AND RETENTION OF BEGINNING TEACHERS

Background

Among the threats to the stability of educational organizations in the United States today, is the challenge of retaining beginning teachers. School administrators suffer from a “revolving door” problem with numerous new teachers entering and leaving the teaching profession (Ingersoll, 2003, 2004; 2007). Over a third of beginning teachers leave the profession within their first three years (Amos, 2005; Ingersoll, 2007), creating higher turnover rates than those in their mid-career or retirement years (Boe, Bobbitt, Cook, Barkanic, & Maislin, 1998; Conway, 2006; Ingersoll, 2001; Ingersoll & Kralik, 2004). High turnover rates, particularly with newer teachers, hinder the successful implementation of collaboration and professional development, which affects the quality of instruction and student learning (Guin, 2004). The lack of teacher retention can also result in negative consequences to the stability, coherence and morale of schools (Ingersoll & Smith, 2004).

Effective support and mentoring helps to increase the retention of beginning teachers (Holloday, 2001; Ingersoll & Kralik, 2004; Johnson & Birkeland, 2003; Strong & St. John, 2001). Different mentoring models provide various sources and types of support, and school administrators must decide which mentoring model will best support their beginning teachers. School administrators have a significant role in providing the supportive environment needed for the development of new members of the organization (Bandura, 1977; Kram, 1985), thus increasing the likelihood of retaining these individuals and improving the stability of the organization. To inform school administrators in their retention efforts, we examined two distinct mentoring models of the Asher and Dane School Districts (pseudonyms), regarding the mentoring characteristics, the sources and types of support that most benefit the development and consequent retention of beginning teachers.

MENTORING BEGINNING TEACHERS

implement effective induction and professional development programs, and maintain quality collaboration and instructional programs necessary to sustain student learning (Darling-Hammond & Bransford, 2005; Guin, 2004).

Adequate support results in increased job satisfaction and reduced turnover among beginning teachers. When beginning teachers experience satisfaction and success in their new profession they are less likely to transfer or leave teaching altogether (Johnson, 2004; Johnson & Birkeland, 2003). A prominent nation-wide study in the United States by Richard Ingersoll (2007) found that poor salary and inadequate support were the two most frequently cited reasons for job dissatisfaction and subsequent high turnover rates among teachers.

Several characteristics and benefits of good mentoring have been suggested in the literature. Good mentors provide guidance and facilitate the socialization of beginning teachers (Darling-Hammond & Bransford, 2005; Rowley, 1999). They provide instructional support and help establish informal networks for beginning teachers (Herman & Mandell, 2004; Levinson, Darrow, Klein, & Levinson, 1978; Tobin, 2004). These informal networks provide support and collaborative relationships that benefit beginning teachers (Bona, Rinehart, & Volbrecht, 1995; Lick, 1999; Ramsey, 2000). Wise mentors are models of continuous learners (Gardner, 1995; Tobin, 2004) and recognize the power of collaborative learning to support instruction (Herman & Mandell, 2004; Mullen & Lick, 1999). Effective mentors must remember the spiritual dimension and the sense of calling that first drew many into the teaching profession, in order to help develop the art of teaching in others (Mayes, 2002; Skinner, 1968). Good mentors communicate trust, maintain confidentiality, and empower those they mentor (Rowley, 1999).

The ability of mentors to support beginning teachers is strongly influenced by the relationship that develops between them over time. Proximity facilitates the development of
network relationships (Borgatti & Cross, 2003; Griffin, 2010). Mentors are most effective when they are also trusted friends (Jipson & Paley, 2000). Successful mentoring relationships begin with direct relationships that require mutual awareness, openness, and respect (Buber, 1958; Shim, 2008). When support and friendship is provided first, successful mentoring relationships are more likely to develop (Portner, 2001; Smith, 2005). The mentoring relationship is critical and influences the mentoring experience (Jipson & Paley, 2000; McIntyre & Hagger, 1996). In addition, the literature suggests the need to explore the changes in the mentoring relationship over time (Levinson et al., 1978; Missirian, 1982). Kram declared that “there is considerable agreement among those who have studied mentoring that in order to understand fully the nature and impact of this developmental relationship, it is necessary to examine how it changes over time” (Kram, 1983, p. 609). When a relationship of trust is embedded in school cultures, it serves to support collaboration and the development of professional learning communities (Bryk & Schneider, 2003).

Mentoring of beginning teachers is closely linked with their participation in professional learning communities (Birkeland & Feiman-Nemser, 2007; Fulton, Yoon, & Lee, 2005). Formal mentoring structures can be enhanced by collaborative teams and informal networks developed through professional learning communities (Johnson, 2004; Moir, 2003). Johnson and Birkeland (2003) suggest that teachers were more likely to stay in schools that fostered a collaborative professional culture. Professional learning communities provide opportunities for teachers to collaborate with each other and focus their efforts on learning rather than just teaching (Darling-Hammond, 1996; Dufor, 2004).

Mentoring enhances the development and subsequent retention of beginning teachers. Mentoring fosters growth and development through supportive relationships and collaborative
MENTORING AND RETENTION OF BEGINNING TEACHERS

learning (Barrett, 2000; Bryk & Schneider, 2003). The mentoring process helps to magnify both mentors and beginning teachers, while the synergism developed benefits both them and their schools (Schulz, 2002). Research supports the importance of mentoring to reduce teacher attrition and improve retention (Ingersoll & Kralik, 2004; Portner, 2001). In this study, we examined how differing mentoring models used by two districts related to beginning teacher retention. We also examined how the mentoring relationship changed over time in each mentoring model and its relation to beginning teacher retention, by interviewing participants during their first and third year of teaching.

Different Mentoring Models

Organizations are constantly seeking for better ways to integrate new personnel to strengthen their culture, stability and longevity (Johnson, 2004; Schein, 1984). Different mentoring models exist, which provide a variety of sources and types of support for beginning teachers (Smith & Ingersoll, 2004). Even mentoring models that provide basic induction may themselves differ in the training and experience of their mentors, as well as the duration and intensity of their supportive communication. Moreover, diverse models may provide varying degrees of collaboration and differential access links to additional networks or extra resources.

A nation-wide analysis in the USA revealed that when beginning teachers had mentors in the same subject field and participated in basic induction programs, along with regular collaboration, they were more likely to stay in the profession (Smith & Ingersoll, 2004). However, this study also noted the need for additional research pertaining to the type, duration and intensity of support, as well as depth and the specifics of the mentoring relationship (Ingersoll, 2007; Ingersoll & Smith, 2004). In this study, we responded to this call to further
understand the duration and intensity of support, while providing additional depth and specific details of the mentoring relationship as it pertains to two distinct mentoring models.

Research Problem and Questions

Like many other states, the teacher attrition in Utah is highest among beginning teachers, many of whom leave within the first three years (Escalante, Burnham, & Eastmond, 2005; Escandon, 2007). The Utah Foundation Report (2007) indicated that mentoring was the most favorable intervention to address teacher retention. Nevertheless, different teacher mentoring models exist amidst continued debate concerning how to best provide mentoring and support for beginning teachers. This study examined how the mentoring characteristics may moderate the relationship between mentoring models and the retention of beginning teachers, as depicted in Figure 1.

Figure 1. The Role of Mentoring on the Retention of Beginning Teachers

To inform school administrators regarding the potential merits of these two different mentoring models, we used grounded theory methodology to interpret and analyze the interviews and survey data, guided by three research questions:

1. What mentoring characteristics do beginning teachers think are necessary for an optimal mentoring relationship?
2. What sources of support and mentoring experiences do beginning teachers think are most beneficial to assist them during their first three years?

3. How do the distinct mentoring models, utilized in the Asher and Dane School Districts, relate to the retention of beginning teachers?

**Research Methods**

Using qualitative methods, this study developed a grounded theory to describe and explain the different models and the relationship between mentoring models and teacher retention in the Asher and Dane School Districts. The qualitative interview data provided rich understanding of how each of these two distinct mentoring models provided the support and retention of beginning teachers (Bazeley, 2007; Richards, 2005).

**Sampling and Limitations**

The target population was beginning elementary school teachers in the Asher and Dane School Districts. These two neighboring Utah school districts were purposefully chosen for this study because of their distinct mentoring programs. Similar to other school districts, both the Asher and Dane School Districts have provided time for collaborative teams to meet who are in close proximity or in the same school as the beginning teachers. Collaborative teams met on a weekly basis, allowing teachers in the same grade or grade bands (K-3 or 4-6) to coordinate and share ideas. Both school districts also provided in-school mentors in close proximity who received minimal financial reward for mentoring; however, in the Asher School District, in-school mentors were paid substantially more than those in Dane. In-school mentors were required to meet with those they mentor on a regular basis, providing curriculum guidance, instructional strategies, monthly planning meetings and so forth.
Unique to the Dane School District has been the introduction of district teacher “coaches.” In Dane, district “coaches” were specifically assigned to mentor and support beginning elementary school teachers (K-6) during their first year of teaching. These district “coaches” did not have a teaching load like in-school mentors, but instead went throughout the district mentoring approximately ten beginning teachers in the same grade band, either the K-3 or the 4-6 grade bands. Although these district “coaches” were familiar with the district’s policies and procedures, they were typically unfamiliar with each unique school culture and had only limited acquaintance with those they mentor. Nevertheless, these district “coaches” provided support for beginning teachers by visiting and observing classes regularly and conducting monthly in-service training. Table 1 provides a comparison of the elements of the mentoring models utilized by both districts.

Three elementary schools in each district were selected using a non-probability, purposeful, stratified, random, cluster sampling strategy. All the elementary schools (K-6) in both districts were stratified into high, medium and low stratum groups based on the number of students on the free or reduced lunch program, to control for or minimize any effect from any one group. Each stratum group in Asher contained 9 elementary schools, while each stratum group in Dane had 15 schools. One school from each group was randomly selected to participate, resulting in three elementary schools per district for a total of six schools in the study. At each of the six schools or clusters, participants included all full-time beginning teachers who were completing their first year of teaching during the 2007-08 school year. The number of beginning teachers in the final sample was 23, with 11 from Asher and 12 from Dane.

Each teacher was interviewed twice, once in their first year of teaching and the other in their third year. A survey was also included in the third year. This longitudinal research
Table 1

*Elements of Mentoring Models for Asher and Dane School Districts*

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<tr>
<td></td>
<td>Year 1</td>
<td>Year 3</td>
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<tr>
<td>District Coach</td>
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<tr>
<td>- close proximity</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>- financial reward for</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>mentoring</td>
<td></td>
<td></td>
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<tr>
<td>In-School Mentor</td>
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<td>Yes</td>
</tr>
<tr>
<td>- close proximity</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>- financial reward for</td>
<td>$1,500</td>
<td>$1,500</td>
</tr>
<tr>
<td>mentoring**</td>
<td>annually</td>
<td>annually</td>
</tr>
<tr>
<td>Collaborative Team</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>- close proximity</td>
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<td>Yes</td>
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<tr>
<td>- financial reward for</td>
<td>No</td>
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<tr>
<td>mentoring</td>
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<tr>
<td>Had Major Responsibility for Beginning Teachers</td>
<td>In-School Mentor</td>
<td>In-School Mentor</td>
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*District coaches (n=9) were each paid an average annual salary of $53,000 to mentor about 10 teachers, with a range between $43,700 to $69,100, and a standard deviation of $7,650.

** In-School mentors from Asher are paid a larger stipend (about $1,500 annually) compared to those in Dane (about $150 annually). However, both are relatively low compared to the full salary cost of district coaches.
expanded the understanding of the Asher and Dane School Districts’ mentoring model, which may help the development of mentoring programs in other school districts. Even though this study was delimited to beginning elementary school teachers, the findings may provide information applicable to secondary education teachers or other groups. Furthermore, this study did not include data from mentors or school leaders.

Data Collection and Analysis

Each of the 23 teachers participated in a 30-45 minute, semi-structured, face-to-face interview during their first year of teaching (2007-2008). No one declined participation in the initial interview, which focused on examining the first year experience of beginning teachers and provided a basis for later comparison. Since the majority of beginning teachers in Utah who leave do so within their first three years (Escandon, 2007), a 30-45 minute follow-up survey and interview with the same participants was conducted during their third year of teaching (2009-2010). The follow-up survey and interviews explored any changes to the mentoring experience and retention of these beginning teachers between their first and third year of teaching. Face-to-face follow-up interviews were completed with participants who were still teaching, while telephone interviews were conducted with those who had left and were not readily accessible. Of the original 23 teachers, 21 participated in the follow-up survey and interview, two did not respond to repeated requests for participation. Interviews were recorded and transcribed.

The NVivo software program was used to manage and analyze the data, allowing the initial constructs to develop emically from concepts that emerged from the responses of beginning teachers (Bazeley, 2007; Richards, 2005). Key concepts and relationships were systematically identified during the grounded theory analysis (Strauss & Corbin, 1990). Themes were identified when coded responses included more than 50% of participants (Richards, 2005).
Higher thresholds were considered when appropriate. In addition, trends were considered when an increase or decrease of 15% or more emerged either between the two districts, or between the initial and follow-up interviews. The identification of themes and patterns was followed by testing the hypotheses that emerged, as well as possible alternative explanations (Erlandson, Harris, Skipper, & Allen, 1993; Marshall & Rossman, 1999). The analysis included a constant comparative method, including queries and comparisons of the data (Strauss & Corbin, 1998a; 1998b). Both within-case and cross-case analyses helped to identify relationships, providing comparisons over time as well as within and between districts (Strauss & Corbin, 1998b). The use of grounded theory methodology, and the constant comparative method, allowed key concepts to emerge from the “voices” of the beginning teachers (Strauss & Corbin, 1998b).

**Findings**

While the findings did address similarities that existed across both districts, the focus of the findings presented were mainly on what was unique to each district, and on explaining the difference between beginning teachers who stayed or left their districts. These findings provided the basis for the development of the theoretical explanations and the grounded theory. The findings were organized around the three research questions regarding the mentoring relationship, the sources and types of support over time, and the ways in which the two different mentoring models impacted beginning teacher retention.

**Analysis of Optimal Mentoring Relationship**

The first research question focused on the mentoring characteristics that beginning teachers thought were necessary for an optimal mentoring relationship. Findings suggested that certain key mentoring characteristics were similar in both districts, while others were unique to each district.
Similar mentoring characteristics across districts. In both districts, independent of the mentoring model, beginning teachers indicated several important mentoring characteristics. Over 80% of beginning teachers in both districts identified that an approachable personality and a trust/caring relationship were key mentoring characteristics; this finding remained high in frequency over time between Year 1 and 3 (see Table 2).

Table 2

Mentoring Characteristics in Both Districts for Year 1 and 3

<table>
<thead>
<tr>
<th>Mentoring Characteristics</th>
<th>Year 1</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remained high for both districts over time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- experience &amp; knowledge</td>
<td>74%</td>
<td>81%</td>
</tr>
<tr>
<td>- approachable personality</td>
<td>87%</td>
<td>81%</td>
</tr>
<tr>
<td>- time availability</td>
<td>91%</td>
<td>70%</td>
</tr>
<tr>
<td>- trust/caring</td>
<td>87%</td>
<td>95%</td>
</tr>
<tr>
<td>Changed for both districts over time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- communication decreased</td>
<td>9%</td>
<td>77%+</td>
</tr>
<tr>
<td>- collaboration</td>
<td>not asked</td>
<td>91%+</td>
</tr>
<tr>
<td>- informal better</td>
<td>not asked</td>
<td>57%+</td>
</tr>
<tr>
<td>- proximity: next door better</td>
<td>not asked</td>
<td>86%+</td>
</tr>
</tbody>
</table>

+ increased by 15% or more

The frequency of other mentoring characteristics changed over time for teachers in both districts (see Table 2). Communication decreased over time as represented by one teacher’s comment: “Well, she comes less frequently [now], I mean [in] the very first year it was every
week... And then the next year was monthly” (A1-21). In Year 3, more than 80% of teachers in both districts also reported a desire for increased collaboration and proximity or having their mentors’ classroom physically closer. They experienced “effective collaboration meetings” (D2-02) facilitated by having their mentors in close proximity or “right next door” (A1-23). One teacher in Asher explained how she went next door to her mentor, “sat down and brainstormed a lot of ideas together and figured it out together” (A1-14). These findings suggested that while beginning teachers focused more on their mentors’ time availability during Year 1, by Year 3 they appeared to be more interested in increased collaboration and proximity with their mentors.

**Unique mentoring characteristics in each district.** Isolating data based on the participants’ school district (Bazeley, 2007; Richards, 2005) facilitated the identification of findings unique to each district (see Table 3). Recognizing the context behind the data in Table 3 is critical to its relevance. While in-school mentors in Asher had major responsibility for mentoring for both Year 1 and 3, the individuals with major mentoring responsibility for teachers in Dane had changed from the district coaches during Year 1 to in-school mentors by Year 3. In addition, while most in-school mentors in both districts taught in the same grade, district coaches in Dane typically had taught in the same grade band (K-3 or 4-6), but not necessarily in the same grade level. The findings suggested that developing personal relationships and having a mentor in the same grade were more common between beginning teachers and in-school mentors, and less common with district coaches in Dane.

---

1 This number is the participant reference number. It is constructed the following way: the first digit indicates the district (D=Dane and A=Asher), the second digit indicates whether the teacher stayed in the profession or left (1=Stayer and 2 =Leaver), and the last two digits refer to participant number (01 through 23).
Table 3

*Unique Mentoring Characteristics for Asher and Dane School Districts*

<table>
<thead>
<tr>
<th>Mentoring Characteristics</th>
<th>Asher (n=10)</th>
<th>Dane (n=11)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year 1</td>
<td>Year 3</td>
</tr>
<tr>
<td>Personal Relationship</td>
<td>91%</td>
<td>90%</td>
</tr>
<tr>
<td>Same Grade</td>
<td>91%</td>
<td>80%</td>
</tr>
<tr>
<td>Open to Listen</td>
<td>64%</td>
<td>70%</td>
</tr>
<tr>
<td>Empowers</td>
<td>55%</td>
<td>70%+</td>
</tr>
</tbody>
</table>

+ increased by 15% or more

While teachers in both districts identified the importance of a personal relationship and having a mentor in the same grade, teachers in Asher reported the importance of these characteristics in both Year 1 and 3, compared to teachers in Dane who rated these mentoring characteristics lower in Year 1 and higher in Year 3. A teacher in Asher explained how having a personal relationship with her in-school mentor became richer over time: “Over the years it’s gotten to be more than just a friendship… [I] feel more comfortable around her and like I can go to her with anything” (A1-23). The development of a personal relationship over the years, may have contributed to the empowerment expressed by teachers in Asher. Furthermore, teachers in Asher reported that “it’s helpful if they’ve taught your grade before” (A1-15), especially when a mentor “was in the same grade that first year” (A1-19).

Whereas teachers in Asher developed personal relationships with mentors in the same grade from Year 1, teachers in Dane did not experience this type of relationship with their mentors until Year 3. Beginning teachers in Dane did not report having a personal relationship with their district coaches, who could only allot time for infrequent visits for each of the 10-12 teachers they mentored in various schools. The lack of proximity and contact with each other
may have contributed to the lack of a more personal relationship during Year 1. A teacher in Dane reported that her “coach was not in kindergarten and was not as helpful… She wasn’t in the school and I only saw her once a month” (D2-10). More teachers in Dane reported stronger personal relationships with their in-school mentors during Year 3 (91%), than with their district coaches in Year 1 (50%). While in-school mentors were in close proximity and more easily accessible, the opposite was true in regards to the district coaches. It was not until Year 3 that teachers in Dane began to report experiences similar to those teachers in Asher, noting that “since we were on the same team, we had a great friendship… having a mentor in the same grade level makes a huge difference” (D2-02) and the friendship was enhanced “because you are teaching the same curriculum” (D1-07).

Sources of Support and Mentoring Experiences

The second research question addressed the sources of support and mentoring experiences that beginning teachers thought to be most beneficial in assisting them during their first three years in the teaching profession. Some sources of support remained constant, while others changed over time. Table 4 highlights, among other things, the fact that beginning teachers in Dane were more negative about their district coaches, and also experienced more support from their in-school mentors in Year 3 compared to Year 1. Teachers reported their mentoring experience based on the type of support received from each source, as well as their emotional experience.

Comparison of source of support across districts and over time. A clear similarity was seen across districts and over time with beginning teachers regarding the importance of support from their principals and from collaborative teams or grade bands (see Table 4). One teacher in Asher reported that support was very important to her: “…the team I worked with was
Table 4

Sources of Support Over Time in Asher and Dane School Districts

<table>
<thead>
<tr>
<th>Sources of Support</th>
<th>Asher (n=11)</th>
<th>Dane (n=12)</th>
<th>Total (n=23)</th>
<th>Asher (n=10)</th>
<th>Dane (n=11)</th>
<th>Total (n=21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Coach</td>
<td>n/a</td>
<td>50%</td>
<td>n/a</td>
<td>n/a</td>
<td>9%−</td>
<td>n/a</td>
</tr>
<tr>
<td>District Coach, negative</td>
<td>n/a</td>
<td>0%</td>
<td>n/a</td>
<td>n/a</td>
<td>73%+</td>
<td>n/a</td>
</tr>
<tr>
<td>In-School Mentor</td>
<td>91%</td>
<td>50%</td>
<td>70%</td>
<td>100%</td>
<td>82%+</td>
<td>91%</td>
</tr>
<tr>
<td>Collaborative Team</td>
<td>100%</td>
<td>92%</td>
<td>96%</td>
<td>100%</td>
<td>91%</td>
<td>95%</td>
</tr>
<tr>
<td>Principal</td>
<td>91%</td>
<td>92%</td>
<td>92%</td>
<td>80%</td>
<td>64%−</td>
<td>71%−</td>
</tr>
<tr>
<td>Others</td>
<td>82%</td>
<td>42%</td>
<td>61%</td>
<td>30%−</td>
<td>0%−</td>
<td>14%−</td>
</tr>
<tr>
<td>Family or Friends</td>
<td>9%</td>
<td>25%</td>
<td>17%</td>
<td>10%</td>
<td>18%</td>
<td>14%</td>
</tr>
</tbody>
</table>

+ increased by 15% or more
- decreased by 15% or more

just awesome. I had some amazing teachers that I was able to teach with my first year, that kind of set things up for the rest of what’s happened with my career” (A1-22). Another teacher in Dane reported similar feelings: “As a team we do a lot of things to help and support each other” (D2-11). Note that while there was a drop in Year 3 for principal support in Dane, it still remained above the 50% threshold.

In both districts, beginning teachers also reported more initial reliance on support from others (secretaries, staff, specialists, and so forth), which decreased over time. During Year 1, teachers sought support from “the secretary… the librarian… literacy specialist” (A2-20) and “the other people” (D1-08) in the school. Support from others was necessary during Year 1 “to help explain procedures” (A1-19) like scheduling “field trips that came up” (D1-08) and to
understand “a whole new culture at [each] different school” (A1-15). It appeared that support from others was needed more during Year 1, when beginning teachers were still learning the procedures and the culture and norms of the school, than in Year 3.

In addition to support from others during Year 1, teachers in Asher also had in-school mentors in close proximity to help them get “used to a new school… [since] everybody does things a little bit differently” (A1-13). District coaches in Dane lacked proximity to allow them to share with beginning teachers each individual school’s norms and culture, like Asher’s in-school mentors. Due to a lack of proximity, district coaches were neither as familiar with certain procedures and operations of each individual school nor as accessible as in-school mentors. One teacher in Dane noted that the in-school mentor was “next door to my classroom and that was very helpful. Proximity makes a difference… my coach wasn’t there in the building and was not as available, so I didn’t go to her much” (D2-12).

While support from in-school mentors remained consistently high for Asher participants over time, a meaningful increase in seeing in-school mentors as supportive was evident in Dane (from 50% to 82%). This finding suggested that beginning teachers in Dane increased their reliance on in-school mentors after district coaches left at the end of the first year. While some teachers in Dane turned to district coaches for support during Year 1, by Year 3, about 73% of the teachers in Dane indicated that district coaches had not been necessary nor had been their main source of support for their first teaching year. These data suggested that the use of district coaches in Year 1 were “not very helpful” (D2-12) and stifled the support in-school mentors gave to teachers in Dane. This may be due to an incorrect assumption by in-school mentors in Dane that beginning teachers had adequate support from their district coaches.
**Mentoring experiences.** During Year 3, beginning teachers also reflected on the mentoring experiences that were most beneficial to them. Teachers reported their mentoring experience based on the type of support received from each source, as well as their emotional experiences.

**Type of support received from various sources.** In Year 3, beginning teachers completed a survey and reported on the types of support (development and communication) they received from various sources of support (district coaches, in-school mentors, collaborative teams, and principals) in their first three years. These data demonstrated that mentoring was valuable for two different types of support: development and communication. Teachers rated the various sources of support that were most helpful to their development, in addition to the duration (years) and intensity (days per month) of communication with each source of support. In both districts, beginning teachers rated their in-school mentors and collaborative teams high in both development and communication (see Table 5).

Table 5
Sources and Types of Support (Year 3)

<table>
<thead>
<tr>
<th>Sources of Support</th>
<th>Asher Communication</th>
<th>Asher Development</th>
<th>Dane Communication</th>
<th>Dane Development</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Duration (0-3 years)</td>
<td>Intensity (days per month)</td>
<td>Development rating (1-10, 10 highest)</td>
<td>Duration (0-3 years)</td>
</tr>
<tr>
<td>District coach</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>1</td>
</tr>
<tr>
<td>In-School mentor</td>
<td>2.4</td>
<td>10.7</td>
<td>8.1</td>
<td>2</td>
</tr>
<tr>
<td>Collaborative team</td>
<td>2.2</td>
<td>18.7**</td>
<td>8.4</td>
<td>2.2</td>
</tr>
<tr>
<td>Principal</td>
<td>2.8</td>
<td>5.6**</td>
<td>6.6</td>
<td>2.5</td>
</tr>
</tbody>
</table>

* District coaches were rated the lowest source of support for development by participants

** Teachers in Asher reported higher communication intensity with their collaborative teams and principals than teachers in Dane
In contrast, beginning teachers in Dane rated their district coaches lower than in-school mentors or collaborative teams in assisting with their development. One teacher in Dane captured the reason for these lower ratings: “Our kindergarten team is awesome and so I don’t really feel that I need a coach on top of the kindergarten team” (D2-10). As expected, the duration and intensity of communication with district coaches in Dane was much lower than the duration and intensity of communication with in-school mentors or collaborative teams. Again, district coaches mentored for only one year and lacked close proximity with those they mentored, thus reducing both the duration and intensity of communication. Since district coaches had several teachers to mentor, in multiple schools, it limited the amount of time they could spend with each beginning teacher.

*Emotional experiences and support.* This study examined the relationship between emotional experiences and support beginning teachers received in their mentoring experience. The emotional experiences reported related to how beginning teachers felt regarding their sense of autonomy (freedom to be independent thinkers), confidence, job satisfaction, and stress. Teachers in both districts reported that when they had positive support, their autonomy, confidence and job satisfaction increased, and their stress levels decreased.

Beginning teachers in both districts experienced autonomy and confidence when they were given opportunities to lead others. One beginning teacher in Asher indicated that her principal gave her a leadership role and “really trusts what we’re doing… and does not micro-manage” (A1-19). These teachers experienced increased autonomy as principals and mentors worked to “make sure we [beginning teachers] feel confident in what we’re doing” (A1-23). Increased support and confidence resulted in improved job satisfaction. One teacher also noted
the role of collaborative teams: “I had a great team my first year which helped me to have great satisfaction at my job” (A1-23).

Beginning teachers in both districts also reported that support from collaborative teams was especially important in reducing stress. Several teachers in both districts noted having “support all over the place” (A1-19) and that their “stress level was reduced each year because [they] had a great team of teachers to work with” (D1-07). In contrast, some teachers in Dane indicated that stress was high when district coaches came to observe because they were “just intimidated by [them]” (D2-01). Since district coaches lacked close proximity, their relationship was not as strong as the relationship in-school mentors had with those they mentored. This resulted in additional stress on beginning teachers when coaches came to observe and make suggestions for improvement. While support from in-school mentors and collaborative teams helped reduce stress, support from district coaches appeared to increase stress.

**Retention of Beginning Teachers**

The third research question addressed how the distinct mentoring models were related to the retention of beginning teachers. Each mentoring model provided differing sources of support and mentoring experiences (types of support and emotional experiences) for those mentored, which were also related to whether a beginning teacher stayed or left their school district, hereafter referred to as stayers or leavers respectively.

**Comparison of the type of support experienced.** Differing mentoring models translated into different mentoring experiences. Findings suggested that the types of support, development and communication (duration and intensity), provided by various sources of support were related to the retention of beginning teachers. Table 6 shows that typically, stayers
Table 6

Sources and Types of Support for Retention (Year 3)

<table>
<thead>
<tr>
<th>Source of Support</th>
<th>Type of Support</th>
<th>Stayers</th>
<th>Leavers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Asher</td>
<td>Dane</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(n=7)</td>
<td>(n=5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(n=12)</td>
<td></td>
</tr>
<tr>
<td>District Coach</td>
<td>Development rating (1-10, 10 highest)</td>
<td>n/a</td>
<td>7.3</td>
</tr>
<tr>
<td></td>
<td>Communication</td>
<td>n/a</td>
<td>7.3</td>
</tr>
<tr>
<td></td>
<td>- duration (0-3 yrs)</td>
<td>n/a</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>- intensity (days per month)</td>
<td>n/a</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.3*</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>In-School Mentor</td>
<td>Development rating</td>
<td>8.7</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td>Communication</td>
<td>8.5**</td>
<td>8.1</td>
</tr>
<tr>
<td></td>
<td>- duration</td>
<td>2.6</td>
<td>2.2</td>
</tr>
<tr>
<td></td>
<td>- intensity</td>
<td>11.1</td>
<td>13.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12.2**</td>
<td>7.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13.0</td>
<td>11.1</td>
</tr>
<tr>
<td>Collaborative Team</td>
<td>Development rating</td>
<td>8.8</td>
<td>8.1</td>
</tr>
<tr>
<td></td>
<td>Communication</td>
<td>8.5**</td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td>- duration</td>
<td>2.3</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>- intensity</td>
<td>19.8</td>
<td>16.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18.4**</td>
<td>10.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10.0</td>
<td>10.3</td>
</tr>
<tr>
<td>Principal</td>
<td>Development rating</td>
<td>6.9</td>
<td>7.2</td>
</tr>
<tr>
<td></td>
<td>Communication</td>
<td>7.0**</td>
<td>5.8</td>
</tr>
<tr>
<td></td>
<td>- duration</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>- intensity</td>
<td>6.4</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.9**</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.0</td>
<td>1.7</td>
</tr>
</tbody>
</table>

* Leavers reported lower support for their development from district coaches than stayers
** Stayers reported higher support for their development and higher communication intensity than leavers
reported more support for their development and higher communication intensity in contrast to leavers.

In Dane’s mentoring model, district coaches did not appear to help with beginning teacher development as much as in-school mentors and collaborative teams, particularly with the development of leavers. This may be due to their lack of proximity and subsequent lower communication intensity. Stayers reported more support for their development and higher communication intensity from in-school mentors, collaborative teams, and principals than leavers. Moreover, collaborative teams and principals in Asher’s mentoring model had significantly higher communication intensity than those in Dane. These data appeared to indicate that more support to help beginning teachers develop and increased communication intensity may help improve retention.

**Comparison of the emotional experiences.** This study identified the emotional experiences of the stayers and leavers in each model or, in other words, how they felt regarding their sense of autonomy (freedom to be independent thinkers), confidence, job satisfaction, and stress (see Table 7). Findings suggested that stayers experienced higher levels of autonomy, had more confidence, and experienced less stress with increased experience and support.

A key difference between stayers and leavers was their level of autonomy and confidence. Stayers (100%) reported a higher level of autonomy compared to leavers (22%), and more stayers (67%) noted more confidence in themselves than leavers (33%). One stayer said that “when I first started I felt like I needed a lot of extra support to figure out what I was doing and what I should do in certain situations, but now I can usually figure it out myself” (A1-15). Another stayer said that “…this year, even though I am new, I am the one in the group that has been in the team the longest, and I am now mentoring someone” (D1-06).
### Table 7

**Emotional Experiences and Retention**

<table>
<thead>
<tr>
<th>Emotional Experiences</th>
<th>Asher (n=7)</th>
<th>Stayers Dane (n=5)</th>
<th>Total (n=12)</th>
<th>Asher (n=4)</th>
<th>Leavers Dane (n=7)</th>
<th>Total (n=11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Autonomy level</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>0%</td>
<td>33%-</td>
<td>22%-</td>
</tr>
<tr>
<td>- Independence &amp; team leader</td>
<td>71%</td>
<td>100%</td>
<td>83%</td>
<td>33%-</td>
<td>50%-</td>
<td>44%-</td>
</tr>
<tr>
<td>Confidence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- from positive support</td>
<td>100%</td>
<td>60%</td>
<td>83%</td>
<td>100%</td>
<td>33%</td>
<td>56%</td>
</tr>
<tr>
<td>- from experience</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>67%-</td>
<td>83%</td>
<td>78%</td>
</tr>
<tr>
<td>- in self</td>
<td>71%</td>
<td>60%</td>
<td>67%</td>
<td>33%-</td>
<td>33%</td>
<td>33%</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- affected by support</td>
<td>86%</td>
<td>80%</td>
<td>83%</td>
<td>100%</td>
<td>83%</td>
<td>89%</td>
</tr>
<tr>
<td>- confidence, success &amp; kids</td>
<td>57%</td>
<td>100%</td>
<td>75%</td>
<td>67%</td>
<td>83%</td>
<td>78%</td>
</tr>
<tr>
<td>- affected by stress level</td>
<td>57%</td>
<td>60%</td>
<td>58%</td>
<td>0%</td>
<td>50%</td>
<td>33%</td>
</tr>
<tr>
<td>Stress high from</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- observations</td>
<td>21%</td>
<td>30%</td>
<td>25%</td>
<td>29%</td>
<td>54%</td>
<td>45%</td>
</tr>
<tr>
<td>- moving &amp; new assignment</td>
<td>71%</td>
<td>100%</td>
<td>83%</td>
<td>0%</td>
<td>67%-</td>
<td>44%-</td>
</tr>
<tr>
<td>- lack support</td>
<td>57%</td>
<td>20%</td>
<td>42%</td>
<td>33%</td>
<td>50%+</td>
<td>44%</td>
</tr>
<tr>
<td>- students &amp; class size</td>
<td>29%</td>
<td>60%</td>
<td>42%</td>
<td>0%</td>
<td>50%</td>
<td>33%</td>
</tr>
<tr>
<td>Stress lowers with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- time &amp; experience</td>
<td>71%</td>
<td>100%</td>
<td>83%</td>
<td>33%-</td>
<td>83%</td>
<td>67%</td>
</tr>
<tr>
<td>- support</td>
<td>86%</td>
<td>80%</td>
<td>83%</td>
<td>100%</td>
<td>50%-</td>
<td>67%</td>
</tr>
<tr>
<td>- stability</td>
<td>71%</td>
<td>40%</td>
<td>58%</td>
<td>67%</td>
<td>33%</td>
<td>44%</td>
</tr>
</tbody>
</table>

* + higher for leavers by 30% or more
* - lower for leavers by 30% or more
Moreover, stayers reported less stress than leavers. Stayers, particularly in Dane, experienced less stress from observations and more support than leavers. One stayer in Dane reported decrease in stress: “My first year, I was new and began quite stressful… but then as it went, it wasn’t as stressful because I had some help” (D1-04). In contrast, beginning teachers who left the Dane School District reported higher levels of stress from observations conducted by the district coach. One leaver in Dane said that “one time she [district coach] came in and took data on what I was doing… It was more stressful for me having her there sometimes” (D2-01). This may be due to the lack of personal relationship these beginning teachers in Dane had with the district coaches, and the stress that came from their observations the first year. On the other hand, by Year 3, beginning teachers did not have an assigned district coach, and those who stayed reported decreased stress from support, and less stress from observation.

Comparison of sources of support experienced. This study compared how the sources of support provided by Asher and Dane School Districts’ mentoring models related to the retention of beginning teachers. Table 8 differentiates stayers and leavers in both districts based on the sources of support experienced in the two mentoring models. The findings suggested that while both mentoring models provided high support from collaborative teams for both stayers and leavers, stayers experienced more support from their principal than leavers. In addition, both stayers and leavers indicated that their job satisfaction was affected by the support they experienced.

Over 90% of stayers and leavers were very positive about the support they had from their collaborative teams. Teachers in both districts indicated that they had “really supportive team[s]” (D1-06) and that they “all got along great and helped each other with everything and
Table 8

Sources of Support for Stayers and Leavers in Asher and Dane School Districts

<table>
<thead>
<tr>
<th>Sources of Support</th>
<th>Asher (n=14)</th>
<th>Stayers (n=10)</th>
<th>Total (n=24)</th>
<th>Asher (n=7)</th>
<th>Leavers (n=13)</th>
<th>Total (n=20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Coach</td>
<td>n/a</td>
<td>60%</td>
<td>n/a</td>
<td>n/a</td>
<td>69%</td>
<td>n/a</td>
</tr>
<tr>
<td>District Coach, negative</td>
<td>n/a</td>
<td>60%</td>
<td>n/a</td>
<td>n/a</td>
<td>100%+</td>
<td>n/a</td>
</tr>
<tr>
<td>In-School Mentor</td>
<td>100%</td>
<td>70%</td>
<td>88%</td>
<td>86%</td>
<td>62%</td>
<td>70%</td>
</tr>
<tr>
<td>Collaborative Team</td>
<td>100%</td>
<td>90%</td>
<td>96%</td>
<td>100%</td>
<td>92%</td>
<td>95%</td>
</tr>
<tr>
<td>Principal</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>57%-</td>
<td>62%-</td>
<td>62%-</td>
</tr>
</tbody>
</table>

* + higher for leavers by 30% or more
  - lower for leavers by 30% or more

anything… [being] very supportive of each other” (A2-20). Collaborative teams were clearly important in both mentoring models.

Principal support was over 30% higher overall for stayers than for leavers, suggesting that principal support may have played an important role in retaining beginning teachers. As one teacher indicated, “they [principal and mentor] helped me want to stay when they both say like, ‘you are really good at your job,’ just things like that make me want to stay” (A1-13). Another teacher noted how important the principal was for the success of the mentoring program: “I think the principal has to believe that it [the mentoring program] is important for it to be successful or else it is not given priority at the school, other things are given precedence unless the principal values it as well” (A2-14). Principals provided beginning teachers with “opportunities to grow… through leadership positions” (D2-02). Although collaborative teams and in-school mentors may
have spent more time with beginning teachers than principals, their principals made decisions related to the mentoring experience that may have facilitated the retention of beginning teachers.

Although both stayers and leavers in Dane were negative about their district coaches, leavers were somewhat more negative about them than stayers (60% of stayers and 100% of leavers). One teacher reported that “because of my team and their support, I didn’t use the district coach” (D1-07). Another teacher said, “I think the school did a great job supporting me as a teacher. But the district did not do as good of a job. The district coaches were not that helpful” (D2-10). One teacher summarized by saying that “There’s two other kindergarten teachers besides [the coach]… So I don’t see why I need her… It just seems like they’re [district] wasting their money” (D2-12). Findings suggested that district coaches might not be needed. In addition, although support from in-school mentors was high for both stayers and leavers in both mentoring models, it was higher for stayers in Asher (100%) than leavers in Dane (62%). As noted earlier (refer to Table 4), beginning teachers in Dane were assigned district coaches in their first year and reported less support initially from their in-school mentors compared to those in Asher.

Findings suggested that Asher’s mentoring model provided better support and a stronger relationship with in-school mentors than for those in Dane, which may have helped increase the likelihood of retention. After Year 1, Asher had retained 91% of beginning teachers who participated in this study, compared to only 58% in Dane (see Table 9). It appeared that the combination of in-school mentors and collaborative teams in Asher’s mentoring model, which provided closer proximity and higher communication intensity, may have helped to better retain beginning teachers during their first year. In contrast, the district coaches who had primary responsibility to mentor first year teachers in Dane’s mentoring model lacked proximity and
Table 9

Retention Rates of Beginning Teachers in Asher and Dane School Districts

<table>
<thead>
<tr>
<th>Retention Rates of Beginning Teachers</th>
<th>Asher</th>
<th>Dane</th>
<th>Difference</th>
<th>Asher</th>
<th>Dane</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>91%</td>
<td>58%</td>
<td>33%</td>
<td>9%</td>
<td>42%</td>
<td>-33%</td>
</tr>
<tr>
<td>Year 2</td>
<td>73%</td>
<td>50%</td>
<td>23%</td>
<td>27%</td>
<td>50%</td>
<td>-23%</td>
</tr>
<tr>
<td>Year 3</td>
<td>64%</td>
<td>42%</td>
<td>22%</td>
<td>36%</td>
<td>58%</td>
<td>-22%</td>
</tr>
</tbody>
</table>

Although leavers are expected each year for various reasons (better salary, job change, family, and so forth), there was a clear difference between the Asher and Dane School Districts’ retention rates that, in part, may be the result of different mentoring models utilized. Asher’s beginning teacher retention rates were 33% higher than Dane after Year 1, 23% higher after Year 2, and 22% higher after Year 3. The difference in retention between the two districts was greater in Year 1 than in Year 2 or 3, which is likely due to the role of the district coaches in Dane, which was a major difference in the two mentoring models during Year 1. Once in-school mentors in Dane began to fill a more active role like the in-school mentors in Asher, the retention difference appeared to hold constant, at 22% and 23% for Year 2 and 3 respectively. In addition, if the intensity of communication with collaborative teams and principals was increased in Dane, it might also reduce the retention difference in Year 2 and 3. By Year 3, Asher’s retention rate was similar to the national average, while Dane’s retention rate was lower. This finding suggested that Dane’s mentoring model may hinder rather than support teacher retention. Although the difference in the retention rates between Asher and Dane appeared to stabilize in
later years, Dane’s retention rates could not recover from the loss experienced in Year 1. The findings suggested that Asher’s mentoring model might be more beneficial than Dane’s mentoring model in helping with retention efforts.

Discussion

This study compared the different mentoring models used by the Asher and Dane School Districts. The findings suggested that there are distinct differences between the mentoring models and the resulting retention rates. Although support from principals, in-school mentors and collaborative teams were important, a major difference between the models was particularly pronounced in regards to the role of district coaches.

A key feature of the Asher mentoring model was that it provided a collaborative mentoring network team, in which beginning teachers received the combined support from in-school mentors, collaborative teams, principals and others (see Figure 2). The various sources of support on this team provided unique types of support and emotional experiences during the teachers’ first three years of teaching. Some in-school mentors also served as collaborative team leaders, and some beginning teachers were called upon by their principal to be team leaders in Year 2 or 3. This provided for a combination of regular collaboration, expanded networks within the school, and increased supportive communication that worked together to help retain beginning teachers (Fuller, 2003; Smith & Ingersoll, 2004). This research confirmed the importance of considering the combined support from various sources, while also describing the type, intensity and duration of these sources (Ingersoll, 2007; Ingersoll & Smith, 2004). Overall, it appeared that the mentoring experience provided by the various sources of support in Asher’s mentoring model helped to bolster and retain beginning teachers better than Dane’s mentoring model.
Figure 2. Asher’s Mentoring Model

+hh Positive support remained high Year 1 and Year 3.
+hl Positive support decreased from high to low between Year 1 and Year 3.
+ Characteristics reported by beginning teachers during Year 3, but not during Year 1.

The major difference between the two district mentoring models studied was that the Dane’s mentoring model initially had district coaches, which were only assigned for the first year. The use of district coaches in Year 1 appeared to inhibit the support of in-school mentors and delayed the formation of an effective collaborative mentoring network team to support beginning teachers (see Figure 3). District coaches typically did not belong to the school of those they mentored, resulting in a lack of coordinated effort with the principals, in-school mentors, or collaborative teams of those they mentored. The very fact that district coaches were assigned may have caused the in-school mentors, collaborative teams and even the principals to abdicate their mentoring responsibilities to the district coaches.
- Support from district coaches was limited to Year 1 only, but it was negative.
+mh Positive support increased from medium to high between Year 1 and Year 3.
+hh Positive support remained high Year 1 and Year 3.
+hm Positive support decreased from high to medium between Year 1 and Year 3.
+ Characteristics reported by beginning teachers during Year 3, but not during Year 1.

In addition, district coaches were not in a position to sponsor or help beginning teachers develop network ties within their school to enhance the mentoring experience in Year 1 (Gulati, Dialdin, & Wang, 2002; Tobin, 2004). The lack of coordination and communication limited the support beginning teachers in Dane received during Year 1. Since trust is embedded in the school culture and district coaches were unfamiliar with each of the school cultures of those they mentored, they lacked the ability that in-school mentors had to develop important relationships of trust with beginning teachers (Bryk & Schneider, 2003). Formal mentoring structures for beginning teachers are not as effective without supportive professional cultures in a school (Johnson, 2004; Moir, 2003). To better support beginning teachers, district coaches’ mentoring activities should not be independent of the collective efforts of professional learning.
communities in the schools (Birkeland & Feiman-Nemser, 2007; DuFour, 2004; Fulton, Yoon, & Lee, 2005). In other words, those who provide mentoring should recognize that by combining and integrating their efforts with those of other networks and resources, they may better support and retain beginning teachers (Ingersoll, 2007; Ingersoll & Smith, 2004). The Dane School District should work to eliminate the frustration that some teachers in Dane experienced by having to prepare a lesson to satisfy the district coach and another for their classes or being unable to reach their district coaches for help. One teacher said that “having my team here all the time when the little, small things came up, it was easy to just go and talk to one of them; whereas with your coach, you have to wait, write and email or call… it’s not immediate” (D1-07). This sentiment supports the idea that regular collaboration and informal social networks are necessary to help support and retain teachers (Smith & Ingersoll, 2004).

Previous research has pointed out that mentoring can help increase retention rates, particularly when beginning teachers are matched with mentors who teach in the same grade level or same subject area and in the same school (Cheng & Brown, 1992; Ingersoll, 2004; Smith & Ingersoll, 2004). Unfortunately, district coaches in Dane’s mentoring model did not always teach the same grade level as those they mentored, nor were they in the same school. Moreover, beginning teachers indicated that support was especially needed early on. One teacher said that “When I first started I felt like I needed a lot of extra support to figure out what I was doing” (A1-15).

District coaches also lacked the proximity and hence the communication intensity provided by in-school mentors and collaborative teams, hindering their ability to develop strong mentoring relationships with and support beginning teachers. Physical proximity is necessary for improved frequency of contact, information sharing, and mentoring (Borgatti & Cross, 2003;
Griffin, 2010). When beginning teachers have mentors and increased contact with them, especially early on, they are more likely to remain in the profession (Flesch, 2005; Humphrey et al., 2000). These findings are supported by this research.

The longitudinal data allowed for a comparison between Year 1 and 3, resulting in a better understanding of the changing role of in-school mentors and the difference between them and district coaches. As the findings suggested, beginning teachers in Asher experienced greater support during the first year than those in Dane. This support is most critical initially, because although the retention gap decreased with positive experiences in subsequent years, this retention gap is normally higher during the first year (Cheng & Brown, 1992). In addition, district coaches lacked the regular interaction that in-school mentors had with the school community and with beginning teachers. This is an important difference, because the quality of supportive communications and regular interactions with the mentor and school community is vital to help develop and maintain strong relationships to support beginning teachers (Bryk & Schneider, 2003; Smith, 2005).

Practical Implications

When considering mentoring models, school administrators should seek for mentors who are in close proximity to the mentee to develop a personal relationship and quickly establish a collaborative mentoring network team. In-school mentors were in a better position than district coaches to assist and help support and retain beginning teachers (refer to Table 6). In-school mentors were able to respond to the needs of beginning teachers faster because of their close proximity and personal relationship, while also understanding the norms and culture of the school. Although district coaches were often more experienced teachers than in-school mentors, these coaches were at a distinct disadvantage due to the lack of proximity and personal
relationship, and were therefore, not the best source of support to assist beginning teachers. In short, the findings suggested that Asher’s mentoring model (with immediate strong support from in-school mentors early on, e.g. in Year 1) was a more successful model than Dane’s mentoring model (with district coaches and delayed support from in-school mentors) in assisting and retaining beginning teachers (91% retention in Asher and 58% retention in Dane after Year 1, refer to Table 7). Although this study did not specifically include either a cost-benefit analysis for each district or a cost-effectiveness comparison for the two districts, the financial cost of having 9 full-time, experienced district coaches in Dane, without a teaching load, did not appear to improve mentoring nor retention of beginning teachers.

Moreover, this longitudinal study showed that in-school mentors were better able to induct beginning teachers into the school and provide them with a collaborative mentoring network team than are district coaches. The network of resources provided by collaborative teams was extremely important for teachers in both districts, and their influence should not be overlooked. Over 95% of teachers expressed the importance of the support they received from their collaborative teams (refer to Table 4). During Year 1, beginning teachers relied heavily on collaborative teams for support, and that reliance, combined with the support of in-school mentors, was important in helping to retain beginning teachers. Collaborative teams provided additional resources for beginning teachers, while also allowing them to mature and gain confidence as they participated in collaboration meetings. School administrators should ensure that beginning teachers receive additional support up front, and should then provide opportunities to beginning teachers to become contributing members of the organization over time.
In addition, principals should not overlook the significant role they have in promoting a supportive mentoring environment to help retain beginning teachers. Principals should seek to match mentors with beginning teachers by considering the mentoring characteristics (including knowledge in the same grade, proximity, collaboration, and by creating a trusting, caring, personal relationship), which will facilitate positive emotional experiences and types of support that will improve beginning teacher retention. How principals view and support the importance of mentoring and the degree of autonomy and responsibility they give beginning teachers may greatly influence whether beginning teachers remain in the profession or not.

Further Research

This study sought to understand the mentoring models utilized by the Asher and Dane School Districts. The findings of this study identified sources of support, mentoring characteristics, and mentoring experiences of distinct mentoring models that were related to the retention of beginning teachers. Although much has been learned, future research can address several relevant questions.

First, several beginning teachers noted that their in-school mentors were also their collaborative team leaders. What are the advantages or disadvantages of having a mentor who is also the team leader in a collaborative team? Is there an overlap in the time availability, support and resources provided by an individual who functions in multiple roles? Is there a difference between a regular and structured collaboration time and informal unstructured collaboration? Second, what would be the implication of allowing beginning teachers to participate in the selection and matching of mentors with those they mentor? How would that influence the mentoring relationship? Third, some beginning teachers are already mentoring others and also serving as team leaders in Year 2 or 3. How does that affect their autonomy and ability to
empower others, as well as strengthen their own teaching skills? Fourth, further research may be needed to better understand the role of principals, and how they influence teacher retention. Fifth, what is the cost-effectiveness comparison between the two mentoring models and beginning teacher retention? How did the difference in pay between district coaches and in-school mentors, or between in-school mentors in Asher and those in Dane, influence their availability and motivation to provide mentoring? Finally, how could the program of district coaches be changed to better support beginning teachers? Would it make a difference if district coaches only mentored 3-4 teachers in their own school and taught part-time? Addressing these questions will be of great value to the education community. As understanding increases it will benefit the beginning teachers, improve student learning, and the school community as a whole.

Conclusions

The findings in this study addressed three important research questions. By collecting longitudinal data, during Year 1 and 3, this research also facilitated a better understanding in regards to any changes between the mentoring models and beginning teacher retention over time. First, we found several important mentoring characteristics that participants acknowledged as necessary for an optimal mentoring relationship. We learned that mentors needed to have the necessary experience and knowledge to adequately support beginning teachers, such as experience and knowledge teaching in the same grade level. More importantly, beginning teachers indicated that mentors should have an approachable personality that engendered trust and care for one another. This is facilitated when mentors have a personal relationship and are in close proximity to those they mentor. Over time, beginning teachers also desire to be empowered through a collaborative relationship, resulting in increased confidence and autonomy.
These beginning teachers also reported that their collaborative teams and in-school mentors were important sources of support for their development and also provided the most support in terms of communication duration and intensity. The frequency of communication and proximity were important ways to bolster beginning teachers. This longitudinal study suggested that in-school mentors play an important role in facilitating a collaborative mentoring network team to support beginning teachers in Year 1, when it is most critical. Moreover, while district coaches were not very beneficial to teachers in the Dane School District in Year 1, support from others was critically important.

Finally, the distinct mentoring models (refer to Figures 2 and 3) utilized by these two districts did have a different impact on the retention of beginning teachers. In the Dane’s mentoring model, district coaches lacked proximity and personal relationship with beginning teachers, resulting in increased stress and lack of support, which was noted by many leavers. In contrast, teachers in Asher reported strong support from their in-school mentors throughout their first three years, which over time helped increase their confidence and autonomy. The experience of these teachers in Asher aligned closely with those of teachers who stayed. In short, the Asher mentoring model (see Figure 2) appears to be a stronger model in helping to provide the optimal mentoring relationship and support, which leads to the retention of beginning teachers.
References


APPENDIX A: REVIEW OF LITERATURE

This section will provide a review of the literature pertaining to this study. The review of the literature will first describe the origins of mentoring, and how various professions have adopted mentoring functions. Next, the review of literature will discuss mentoring in education, beginning teacher attrition, and the related tangible and intangible costs. This will be followed by an overview of various mentoring models, the importance of the mentoring relationship to socialize beginning teachers, and the role of networks or teams, and professional learning communities in their development and retention.

Origins of Mentoring

The word mentor has ancient origins, from Homer’s epic story, *The Odyssey* (Homer, 1969). Ulysses (Odysseus) embarked in an epic journey during the Trojan War. During Ulysses’ absence, he left behind his infant son Telemachus and his wife Penelope in the care of his trusted friend Mentor. As a wise, experienced and trusted counselor, Mentor was chiefly responsible for the infant’s education, shaping his character and engendering values. Several years later, as the young Telemachus took his own journey to search for his missing father, Mentor accompanied him to support and provide additional guidance along with wisdom for the youth’s decisions. Athena, the goddess of wisdom, would at times assume Mentor’s form to give practical advice when Telemachus had critical decisions to make. Towards the end of his journey, the son of Ulysses had matured in wisdom and stature, making decisions independently. Mentor taught and guided Telemachus as he transitioned from boyhood into manhood, and some suggest that this journey helped them both come to a better understanding of themselves (Gailbraith & Maslin-Ostrowski, 2000).
Mentoring in Various Professions

Many different professional fields have found mentoring to be an important component in supporting and socializing new members of their profession. Mentors have a critical role in shaping an individual and guiding their career development, and studies suggest the importance of these job assignments. As indicated by several researchers, “the job assignment is the single most important variable in career development… A change of job assignments is no panacea, but it can be pivotal in helping people develop in their careers” (Dalton, Thompson, & Price, 1977, p. 41). Additional research has suggested that mentoring relationships have strong positive effects on the career development in various professions, including law, business, medicine, and other fields (Cameron & Blackburn, 1981; Roche, 1979). The selection and subsequent assignment of a mentor to a new member of a profession or organization should be a purposeful and intentional decision by managers because it will have implications on their future career development (Dalton et al., 1977). Both the business world and the medical field have utilized mentors for many years with positive results.

Business organizations have constantly sought for ways to increase employees’ capacities, which can be augmented when mentors and new employees learn and help one another. Peter Senge (1990) suggested that business entities could function as learning organizations. His book, The Fifth Discipline, described businesses as learning organizations, practicing principles that could result in increased capacity and creativity. A new paradigm was created with this concept of learning organizations “where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together” (Senge, 1990, p. 3). This paradigm has great benefits to all members of the
organization, whether they provide or receive mentoring. Research on the benefits of mentoring in business grew and expanded (Allen et al., 2004; Underhill, 2006).

Mentoring relationships are common in the business world, where senior management selects, supports, and prepares promising individuals to perpetuate the goals and visions of the organization (Clutterbuck, 1991; Crow & Matthews, 1998; Zey, 1984). A nationally recognized research firm, Heidrick and Struggles, found that the majority of senior executives had mentors early on, and also had higher salaries and achieved a higher level of success in the corporate business world when they had mentors (Clutterbuck, 1991). Although mentoring is strong in the corporate world, it still has room for improvement in the world of education (Funk & Kochan, 1999). Apart from initial formalized mentoring programs in educational organizations, few veteran teachers closely mentor beginning teachers (Brouch & Funk, 1987; Funk & Kochan, 1999).

In medicine, mentoring has supported clinical elements as well as the scientific research (Barondess, 1997). A study at the Medical College of Wisconsin found positive influences of mentoring on many medical students during their clinical education. This study found that among medical students who received mentoring during their education, 88% reported that mentoring enhanced personal development, and 72% reported that it helped them deal with stress better (Kirsling & Kochar, 1990). It is common practice for medical students to be tutored and mentored during and after medical school, as they transition from school to internships to residency, and finally becoming independent practitioners. In addition, mentoring continues for those in the medical field who later participate in medical scientific research to improve the practice of medicine (Barondess, 1997).
Across various disciplines, mentoring has evolved from its humble origins into a multitude of complex definitions. Goodlad (1998) indicated that Andrew Bell and Joseph Lancaster pioneered the concept of student mentors in the late 18th century. They used older students to teach younger ones in India and England with favorable results (Goodlad, 1998). In the early 1900s, a Russian psychologist named Lev Vygotsky expanded upon Bell and Lancaster’s concepts in the social sciences field. He theorized that students’ educational performances were dependent more on the social context of learning than on natural ability, and that “every form of education… bears a social character” (Bodrova & Leong, 1996, p. 47). In other words, Vygotsky argued for the social context of learning and the need for assistance to improve a student’s education, thus necessitating the need of a mentor in one’s social development.

Throughout the 1900s, research on mentoring emerged based on Vygotsky’s theories (Bodrova& Leong, 1996). During the 1970s, human resource development and mentoring in professional organizations became popular research topics (Clawson, 1980). In the context of a workplace, Kram (1985) pioneered the concept that mentoring relationships must be viewed as part of the larger context of the organization. The organization’s culture and managerial influences will either encourage or discourage supportive relationships among its employees. Therefore, it is “essential to understand how an organization’s structures and processes influence behavior in order to maintain those features that encourage supportive relationships and to modify those that impede them” (Kram, 1985, p. 16). Workplaces that have a culture of mentoring will facilitate supportive relationships that lead to professional development and growth.
Several studies have focused on career development in the business world (Alleman, 1986; Phillips-Jones, 1982; Zey, 1984). However, each study has provided different views of mentoring in terms of its definitions and functions. A study by Jacobi (1991) emphasized the lack of clarity and consensus over the role of a mentor by citing 15 roles or functions of a mentor from the business, education and psychology fields. Among the most common functions of mentors were acceptance/support/encouragement, role model advice/guidance, sponsorship/advocacy, and training/instruction (see Table 10).

Jacobi (1991) sought to highlight the lack of clarity between and within disciplines in describing mentoring functions. Although there is some consensus, debate continues on the elements of mentoring, what characteristics or functions will provide the optimal relationship in matching a mentor and a new member of the organization, and what sources of support will lead to improved development and retention of beginning teachers.

As the debate continued over mentoring functions, another study discovered some commonalities of career development in many professions. The seminal study by Dalton, Thompson and Price (1977) found similarities in career development across multiple fields. This study looked at hundreds of employees in various fields including scientists, engineers, accountants and professors. These researchers discovered that many who were entering the workforce were frustrated due to the lack of support, indicating a need for changes and improvements to assist the new employees. They found the following:

Few had any clear understanding of what forging a career in an organization is like. Few came with any understanding of the constantly changing activities, relationships, and emotional adjustments they would have to learn to manage if they were to remain highly valued contributors throughout their careers (Dalton et al., p. 20).
### Table 10

*Mentoring Functions* (Jacobi, 1991)

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<tr>
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</thead>
<tbody>
<tr>
<td>Acceptance/support/encouragement</td>
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<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Advice/guidance</td>
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<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Clarify values/clarify goals</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Coaching</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Information</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Protection</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Role model</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Social status/reflected credit</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Socialization/“host and guide”</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sponsorship/advocacy</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Stimulate acquisition of knowledge</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>x</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Training/instruction</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Visibility/exposure</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Moreover, Dalton, Thompson and Price (1977) learned that new employees across various disciplines experienced limited help from supervisors and colleagues, who themselves felt uncertain on how to help and guide new individuals to be effective contributors in the organization. A new four-stage model was proposed by these researchers to successfully manage and move new employees through four successive career stages to increase performance and benefit the individuals and the organization. Each career stage involved different tasks, types of relationships, and psychological adjustment issues (see Table 11).

Table 11

**Career Stages in Multiple Disciplines (Dalton et al., 1977)**

<table>
<thead>
<tr>
<th>Career Stages</th>
<th>Tasks</th>
<th>Relationship</th>
<th>Psychological Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>Helping</td>
<td>Apprentice</td>
<td>Dependence</td>
</tr>
<tr>
<td></td>
<td>Learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Following directions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage II</td>
<td>Independent contributor</td>
<td>Colleague</td>
<td>Independence</td>
</tr>
<tr>
<td>Stage III</td>
<td>Training</td>
<td>Mentor</td>
<td>Assuming responsibility</td>
</tr>
<tr>
<td></td>
<td>Interfacing</td>
<td></td>
<td>for others</td>
</tr>
<tr>
<td>Stage IV</td>
<td>Shaping the direction of</td>
<td>Sponsor</td>
<td>Exercising power</td>
</tr>
<tr>
<td></td>
<td>the organization</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This career stage study (Dalton et al., 1977) looked at the relationship and psychological issues pertaining to the emotional adjustment an employee experiences in order to move from a stage of dependence to independence, followed by a stage of responsibility for others, and then to one of the exercise of power. In addition, the types of roles in the four career stages in their
model moved from apprentice, to colleague, to mentor to sponsor. This study indicated that some individuals did not have a mentor and learned “how the system works” from peers, although it was not as effective as working with a mentor who was “better equipped to help the new employee make the transition from academic setting into a professional career” (Dalton et al., 1977, p. 35). The major conclusion of this multi-discipline study was the importance of the role of the mentor in the support, training and transition of individuals into their new profession.

**Mentoring in Education**

Historically, the teaching profession has enjoyed limited public esteem and gratitude, being categorized as a semi-profession and lacking the status, resources and support given to other professions such as law or medicine. Traditionally, there has been an apparent neglect and lack of assistance for beginning teachers, who receive minimal or no support. In the 1950s, teaching was viewed as a short term employment for men on their way to a “real” job, or for women prior to marriage and children (Johnson & Birkeland, 2003). Teachers worked in isolation and in most instances were left to “sink-or-swim” on their own (Ingersoll & Kralik, 2004). The spiritual dimension or sense of calling that first drew many into the teaching profession does not materialize nor allow them to develop the art of teaching, unless support is provided (Mayes, 2002; Skinner, 1968). But as mentoring programs improve and retention is increased, the added stability to the teaching profession will help strengthen the status of teachers and acknowledge their important contribution to society.

The large cohort of teachers hired between 1965 and 1975 will be up for retirement in the near future. As indicated earlier, many of these teachers did not receive the needed support, particularly in low performing schools (Johnson & Birkeland, 2003). This lack of support resulted in a culture of isolation in which little or no assistance was given beginning teachers by
their colleagues and the organization, further contributing to the teacher attrition problems (Ingersoll & Smith, 2004). Unless a culture of support for beginning teachers is strengthened, teacher attrition problems will continue to perpetuate in this country.

The teaching profession experienced higher levels of attrition problems because it did not have the same type of structured induction as other professions had (Ingersoll & Smith, 2004). In the 1980s, a few schools began to offer limited induction and mentoring programs to help socialize beginning teachers and improve teacher retention (Feiman-Nemser, 2003; Ingersoll & Kralik, 2004). Although induction programs typically include more than mentoring, since the 1980s, induction and mentoring have often been used interchangeably because most mentoring programs have dominated induction programs in education (Ingersoll & Kralik, 2004). Therefore, this study will consider mentoring as the main aspect of induction programs. Even though limited support was provided in the past, beginning teachers today are gradually receiving the support and mentoring needed to help improve retention.

President Clinton’s Call to Action for American Education in the 21st Century, pointed out that one of the best strategies to assist districts and limit teacher attrition problems was to “make sure that beginning teachers get support and mentoring from experienced teachers” (Portner, 2001, p. 5). This led to the blossoming of mentoring programs, as federal and state offices increased funding and passed laws requiring mentoring for beginning teachers. In addition to regulations and guidelines, conferences, workshops, grants and other programs were instituted to support beginning teachers (Portner, 2001). Support from the federal government expanded mentoring programs across the nation.

Even professional associations and organizations got on board, like the Association for Supervision and Curriculum Development (ASCD), the National Association of Secondary
School Principals (NASSP), the National Association of Elementary School Principals (NAESP), the National Staff Development Council (NSDC), the National Education Association (NEA), and the American Federation of Teachers (AFT). These organizations focused on mentoring, induction and teacher preparation programs, with articles, policies, training materials, and conferences (Portner, 2001). While only 40% of beginning teachers participated in any induction or mentoring program in 1990, by 2000 participation had increased to 80% (Ingersoll & Smith, 2004). Although there was a dramatic increase in participation in induction or mentoring programs, additional studies continue to help identify the elements or characteristics of the optimum mentoring program to assist beginning teachers and improve retention.

As the field of education began to provide its own definitions and functions of mentoring in the 1980s, it was evident that a lack of uniformity existed in this matter (Jacobi, 1991). Although the debate over the definition and function of a mentor continues, mentoring became a focus in education. Mentoring programs allowed beginning teachers to receive needed support to increase effectiveness and remain in the profession. A cultural shift resulted in many educational organizations coming to an understanding of the importance of supporting beginning teachers, and a belief that this support should come from a trusted colleague or a mentor.

Like other professional organizations, mentoring has similar positive influences on new members of educational organizations. Mentors who guide young teachers come to better understand themselves as they work together in a relationship of trust, enhancing teacher development and effectiveness, as well as student learning. Schulz (2002) indicated that mentoring magnifies the mentors’ own individual development and growth, while multiplying the beginning teachers’ learning from the mentoring experience. Furthermore, the organizations gained from the synergism that resulted from the interaction of both the mentor and beginning
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teacher, while society at large benefited from the maximized human capacity which contributed to the workplace and community (Schulz, 2002). Modern day mentors are teachers and guides, but are most effective when they are also trusted friends to those they mentor (Jipson & Paley, 2000).

The traditional or classical idea of a mentor is typically an older individual who imparts all wisdom and knowledge. But the emerging concept of mentoring is quite different. The modern view of mentoring is one in which there is a co-mentoring relationship, with collaborative learning, as well as a mutual, reciprocal, supportive relationship. The emerging ideal mentor is sustained by humility and is willing to collaborate to find new questions, instead of looking for the answer (Barrett, 2000). Consequently, mentors must have the ability to develop a mutually beneficial mentoring partnership.

**Attrition of Beginning Teachers**

Most professional organizations invest time and resources in the process of interviewing, selecting and hiring new members to join their ranks. As part of the process, some degree of turnover is expected. Unfortunately, “as an occupation, teaching has higher turnover rates than a number of higher-status professions… But teaching is also a relatively large occupation” resulting in large staffing issues compared to other professions (Ingersoll, 2004, p. 11) The teaching profession has traditionally experienced high levels of attrition (Ingersoll & Kralik, 2004). Although attrition issues exist in many professions, Ingersoll (2009) found that the attrition rate among teachers were higher than those of police officers, architects, nurses, lawyers, engineers or pharmacists (see Table 12). The U.S. Department of Labor’s Bureau of Labor Statistics (Labor, 2008) estimated that there were 3.5 million individuals employed as
Table 12

*Attrition Rate in Different Professions* (Ingersoll, 2009; Labor, 2008)

<table>
<thead>
<tr>
<th>Total Employed in U.S.</th>
<th>Attrition Rate</th>
<th>Profession</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,300,000</td>
<td>79%</td>
<td>Secretary</td>
</tr>
<tr>
<td>1,300,000</td>
<td>49%</td>
<td>Child Care Worker</td>
</tr>
<tr>
<td>263,800</td>
<td>49%</td>
<td>Paralegal</td>
</tr>
<tr>
<td>454,300</td>
<td>45%</td>
<td>Correction Officer</td>
</tr>
<tr>
<td>3,500,000</td>
<td>30%</td>
<td>Teacher (K-12)</td>
</tr>
<tr>
<td>661,500</td>
<td>28%</td>
<td>Police</td>
</tr>
<tr>
<td>141,200</td>
<td>23%</td>
<td>Architect</td>
</tr>
<tr>
<td>2,600,000</td>
<td>19%</td>
<td>Nurse</td>
</tr>
<tr>
<td>759,200</td>
<td>19%</td>
<td>Lawyer</td>
</tr>
<tr>
<td>1,600,000</td>
<td>16%</td>
<td>Engineer</td>
</tr>
<tr>
<td>269,900</td>
<td>14%</td>
<td>Pharmacist</td>
</tr>
</tbody>
</table>
teachers in preschool, kindergarten, elementary, middle and secondary education. The sheer number of individuals employed by our nation’s educational system exacerbates this problem.

In addition, research has consistently shown that beginning teachers have very high turnover rates compared to those in mid-career or retirement years (Bobbitt, Leich, Whitener, & Lynch, 1994; Boe, Bobbitt, Cook, Barkanic, & Maislin, 1998; Conway, 2006; Grissmer & Kirby, 1987, 1997; Ingersoll, 2001; Ingersoll & Kralik, 2004). A review in 2004 of over 100 empirical studies published since 1980 on teacher attrition reveals several repeated conclusions (Guarino, Santibanez, Daley, & Brewer, 2004). This review found that female teachers in high-poverty and urban schools had higher attrition problems than male teachers in low-poverty and non-urban schools. In addition, the studies reviewed consistently found that besides those nearing retirement, the youngest and least experienced teachers were the most likely group to leave teaching.

This attrition problem, predominantly among beginning teachers, is one of the many challenges that school administrators face, especially when many teachers leave the profession within the first few years of teaching. To combat this high attrition problem among beginning teachers, a great deal of focus has been placed on addressing and reducing beginning teacher turnover. School administrators have a “revolving door” problem with numerous teachers in transition (Ingersoll, 2003, 2004; 2007) Ingersoll (2007) reports the following:

In my own research, I have shown that the main source of school staffing problems derives not from shortages – in the sense of too few new candidates being produced – but rather that too many teachers leave their jobs early… teaching has higher turnover rates than a number of higher-status professions… the data show that over the course of the 1999-2000 school year, well over 1 million teachers – almost a third of this large
workforce – moved into, between, or out of schools. The image that these data suggest is one of a “revolving door.” (p. 5)

There are a vast number of individuals entering the teaching profession; but an equally large number who leave teaching prematurely and long before retirement. Ingersoll (2003) described this scenario as a “revolving door” or “teachers in transition” problem (Figure 4). The data from this national study also suggested that the teacher supply problem is a result of teacher turnover and not retirement.

Figure 4. Teachers in Transition Between and After 1999-2000 School Year

According to Ingersoll (2007) suggestions have been made to explain the teacher shortage problem including: restrictive occupational entry barriers, teacher shortage, and under qualified or unprepared teachers. Moreover, some believe that the migration and turnover rates among beginning teachers are due to teacher shortage problems, as well as the pending retirement of over half of the teachers in the next few years (Johnson & Birkeland, 2003).

Nevertheless, subsequent research by Ingersoll (2001; 2007) showed that these suggestions are a terrible misdiagnosis of the problem and that the real issue is teacher retention rather than teacher shortage or retirement. His research found that turnover due to retirement is minimal in comparison to other causes. Ingersoll (2007) learned that:
The overall amount of turnover accounted for by retirement is relatively minor when compared with that resulting from other causes, such as job dissatisfaction and teachers seeking better jobs or other careers… low salaries, lack of support from school administration, student discipline problems, and lack of influence over school decision-making. (p. 5)

Reports on teacher attrition by the National Center for Education Statistics have provided information on the reasons teachers leave and their sources of dissatisfaction (Luekens, Lyter, & Fox, 2004; Provasnik & Dorfman, 2005). These reports indicated that among general elementary school teachers, who were predominantly female, the most important reasons for leaving the teaching profession were retirement, pregnancy/child bearing, and dissatisfaction. Additional research also indicates that effective mentoring can successfully increase the retention and satisfaction of beginning teachers (Holloday, 2001; Strong & St. John, 2001). Using this national data, Ingersoll (2007) found that the most significant reason for the high turnover rate among teachers was job dissatisfaction, not retirement (see Table 13). Moreover, poor salary and inadequate support were the two most cited reasons for job dissatisfaction, accounting for 92% and 68% respectively (Ingersoll, 2001; 2007).

Frederick Herzberg (1959) conducted extensive interviews with engineers and accountants, resulting in the development of his Two-Factor Theory of job satisfaction and dissatisfaction. He indicates that job satisfaction and dissatisfaction operate in continuums that range from none to high job satisfaction, and from none to high job dissatisfaction. Herzberg’s Two-Factor Theory of job satisfaction and dissatisfaction suggests that there are two different sets of needs: the extrinsic needs or what he calls the hygiene factors and the intrinsic needs or growth factors (Herzberg, Mausner, & Bloch Snyderman, 2005). The hygiene factors are related
Table 13

*Reasons for Leaving Teaching* (Ingersoll, 2007)

<table>
<thead>
<tr>
<th>Rate of Turnover</th>
<th>Reason for Leaving Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>Dissatisfaction</td>
</tr>
<tr>
<td>36%</td>
<td>Pursue Other Job</td>
</tr>
<tr>
<td>36%</td>
<td>Family or Personal</td>
</tr>
<tr>
<td>14%</td>
<td>Retirement</td>
</tr>
<tr>
<td>7%</td>
<td>Staff Action</td>
</tr>
</tbody>
</table>

to the conditions surrounding performing the job, such as company policy, working conditions, reward system, salary, and interpersonal relations (Herzberg, 1971). On the other hand, the growth factors are intrinsic motivating factors based on the content of the work, such as recognition of tasks completed or achieved, and opportunity for responsibility and advancement. The lack of hygiene factors can cause job dissatisfaction, while missing growth factors result in the absence of job satisfaction.

A review of other studies further supported the fact that teacher retention rates were higher with better salary, improved working conditions and increased personal satisfaction (Guarino et al., 2004). Although salary is an important issue that needs to be addressed, providing supportive working conditions and personal or job satisfaction appear to be the most feasible strategies to retain teachers, especially considering economic and budgetary constraints. Mayes (2002) indicates that many teachers who enter the profession typically care deeply for the emotional and spiritual well-being of students, and have a spiritual yearning to help and guide their students. Nevertheless, these teachers become dissatisfied and burn out when they face the realities and constraints of a corporate school environment focused on curricula and standardized
testing. While acknowledging the detrimental effects of poor salaries, this research will focus on studying the types and sources of support that contribute to increased job satisfaction for beginning teachers.

It is unlikely that a business organization would be able to successfully maintain its stability and high level of performance if it constantly had a third of its workforce change every year like the current teaching force. Normally, when a business entity invests time and resources to select and hire new members of its organization, it also attempts to avoid the “revolving door” problem. Unfortunately, the teaching profession experiences turnover rates that are extremely high. Ingersoll (2001) found that over a third of beginning teachers left the profession within their first three years, and nearly half left within their first five years of teaching. This staggering premature departure of so many beginning teachers results in a tremendous strain placed on educational organizations. To reduce the high teacher turnover rates, it is necessary to provide support, mentoring, and optimum working conditions for the development and retention of beginning teachers (Ingersoll & Kralik, 2004; Johnson & Birkeland, 2003). Properly addressing these issues will be necessary to provide the appropriate intervention to retain beginning teachers.

Like the rest of the nation, Utah is also experiencing an increase in teacher attrition problems. In the Utah Educator Supply and Demand Study 2004-2005 (Escalante, Burnham, & Eastmond, 2005), researchers found that of all the K-12 public school teachers in Utah during the 2004-05 school year, 1.7% moved to a new district and 6.3% completely left the teaching profession. This study also found that of the 8,973 who were granted teaching licenses in Utah from 2000 to 2004, only 3,316 or 49% were teaching in Utah during the 2004-05 school year, suggesting that Utah trains many teachers who do not remain as teachers in the state. In
comparison to surrounding states, Utah is losing a substantially larger number of beginning teachers.

The Utah Foundation Report (2007) indicated that compared to other Mountain States, Utah’s low salaries and high class sizes adds to the attrition problems they face, resulting in lower teacher quality, greater inequality to students and increased inefficiency in the use of public funds. The American Federation of Teachers’ 2005 Survey and Analysis of Teacher Salary Trends (2007) ranked Utah 45th in the nation in beginning teacher salaries. In addition, Utah has the highest student-teacher ratio in the nation. Further compounding this attrition problem is the current boom in student enrollment growth in Utah, estimated to increase by about 30% between 2005 and 2015, according to the American Federation of Teachers’ report (2007).

Utah’s annual teacher attrition rate has increased from 2% in 1994, to 4.5% in 2001, to 6.3% in 2004, and it is projected to reach 13.6% in 2014. Reflecting national trends, the attrition problem in Utah is also worst among beginning teachers early on in their profession, especially during their first three years (Escalante et al., 2005; Escandon, 2007). Escandon (2007) found the following:

As in the case nationally, in Utah, the largest portion of attrition occurs after one to three years of experience. From 2000-2004, a quarter of the approximately 6,500 public school ‘leavers’ had just one to three years of experience, while an additional six percent of the ‘leavers’ left without even finishing their first year. (p. 3)

Furthermore, the Utah State Office of Education (Escandon, 2007) indicated that between 2000 and 2002, 17.4% of all Utah teachers left the teaching profession in their first three years, with secondary science and elementary education teachers accounting for 28.1% and 25.4% respectively (see Figure 5). This suggests that next to secondary science teachers in Utah,
elementary school teachers experienced high turnover rates. Based on previous findings, the focus on this study will be on beginning elementary school teachers during their first three years of teaching.

Besides the teacher attrition problem, the Utah educational system has also experienced rising K-12 student enrollment, especially in Salt Lake City and Utah counties. Based on previous trends, researchers project that the student population will grow by 23% between 2004 and 2014 (Escalante et al., 2005). The projected increase in student population, coupled with rising teacher attrition problems, must be addressed to staff schools with quality teachers and reduce the potential negative impacts on student learning.

The Utah Foundation report (2007) recommended four policy alternatives for addressing teacher attrition problems in Utah including higher salaries, differentiated salaries, smaller class sizes and extending mentoring opportunities for beginning teachers. In addition, it rated
mentoring high in comparison to the other interventions for cost-effectiveness and likelihood of successful adoption in reducing teacher attrition problems (see Table 14). This report indicated that mentoring was the most favorable policy alternative to address teacher retention, with high ratings for efficiency and all equity measures, and a moderate rating for administrative feasibility. Furthermore, the administrative feasibility rating and ease of implementation of mentoring could be improved by increasing the pool of competent, willing and motivated teachers who could serve as mentors. Finally, this report recommended rigorous selection and on-going training for mentors, as well as additional support for mentors “in the form of stipends, larger salaries, and reduced workload” to ensure that “mentors have adequate time and energy to provide consistent and individualized support” for beginning teachers (Escandon, 2007, p. 17).

Table 14

*Policy Alternatives for Addressing Teacher Attrition Problems in Utah* (Escandon, 2007)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Impact Categories</th>
<th>Policy Alternatives</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Higher Salaries</td>
<td>Differentiated Salaries</td>
<td>Smaller Class Sizes</td>
<td>Mentoring</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Cost-effectiveness in reducing teacher attrition</td>
<td>Medium</td>
<td>Medium</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Increased equity in distribution of teachers across student populations</td>
<td>No change</td>
<td>More equitable</td>
<td>No change</td>
<td>Yes, if targeted</td>
</tr>
<tr>
<td></td>
<td>Treats teachers &quot;fairly&quot; according to the current system</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Equity</td>
<td>Compensates teachers differently according to working conditions and opportunity costs</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes, if targeted</td>
</tr>
<tr>
<td>Political Feasibility</td>
<td>Likelihood of successful adoption</td>
<td>Low-Medium</td>
<td>Medium</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Administrative Feasibility</td>
<td>Difficulty of implementation</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Notwithstanding the limited pool of mentors, mentoring was still the most favorable alternative according to this report (Escandon, 2007). As others have suggested, “the assignment
of a mentor teacher may be the most powerful and cost effective induction practice available to
program developers” (Huling-Austin & Murphy, 1987, p. 28). Without this important and
necessary intervention strategy, teacher attrition problems will persist and negative consequences
to both the students and the educational organization in Utah will be perpetuated. Further studies
are necessary to consider how to provide the optimal mentoring program to take full advantage
of this intervention to improve retention in Utah.

The Tangible and Intangible Costs

Employee turnover has many tangible and intangible costs to any organization. There are
benefits to some degree of turnover, which is normal in the workplace. But high turnover rates
are not typically desirable for an organization’s stability and longevity. The corporate sector in
this country has long acknowledged the negative impacts of high employee turnover on its
resources and productivity. High turnover rates can be very costly and divert limited resources
to periodically recruit and train new members of the organization (Horn & Griffeth, 1995; Price,
1977, 1989). High turnover rates hinder the successful implementation of collaboration and
professional development, which affects the quality of instruction and student learning (Guin,
2004).

Similarly, high turnover rates or increased attrition problems have multiple implications
upon educational organizations. One such consequence, like those experienced in the corporate
sector, includes financial resources diverted to address attrition problems. This in turn depletes
limited resources and shifts focus away from the real purpose of educational organizations,
which is to improve student learning. High attrition rates result in real cost and consequences
upon educational organizations and their stability (Escandon, 2007; Ingersoll & Smith, 2004).
As resources decrease and expectations for services to improve student learning increase,
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administrators will need to resolve this attrition problem in order to sustain the stability of schools and districts.

Mentoring reduces teacher attrition problems and can also reduce the cost of constantly hiring and training new individuals to replace those teachers who have left abruptly at the beginning of their careers. The Department of Labor conservatively estimated that attrition costs an employer 30 percent of the leaving employee’s salary. A conservative national estimate for the cost of replacing public school teachers was $4.9 billion a year, or $2.2 billion for those who left the teaching profession and $2.7 billion a year for those who transferred or moved to other schools (Alliance, 2005). Because the departure of beginning teachers is so high and the financial cost of replacing them is so expensive, school administrators and policy makers must effectively address and resolve this threat to the stability of the educational system and student learning. By reducing attrition problems, an educational organization will be able to reduce its financial cost and increase their resources to improve student learning. There are, however, other costs beyond these important fiscal considerations. Ingersoll and Smith (2004) suggested the following:

One type of cost that is less easily quantified includes the negative consequences of high turnover for organizational stability, coherence, and morale… High rates of teacher turnover can inhibit the development and maintenance of a learning community. In turn, a lack of community in a school may have a negative effect on teacher retention, thus creating a vicious cycle. (p. 32)

Ingersoll & Smith (2004) indicated that the intangible costs can be more detrimental than the tangible or financial costs. The strength of an organization’s culture, for example, comes from its stability and longevity built over years (Schein, 1984). The school culture and a sense
of community were necessary elements in improving job satisfaction among teachers. Educational sociologists have long viewed the importance of the school community as an important element for the success of schools (Durkheim, 1961; Parsons, 1959; Rosenholtz, 1989). The ultimate cost to schools and districts that continuously recruit and train beginning teachers but are unable to retain them is substantial and has many negative effects on the organization from which some may not fully recover for years to come.

**Various Mentoring Models**

Mentoring has received much attention, and as various mentoring models continue to emerge and are utilized in several parts of the country, it will be necessary to identify the specific elements of the ideal mentoring model which will benefit beginning teachers the most and improve retention. Various mentoring models have been introduced which have included different elements such as matching mentors with beginning teachers according to grade level, providing regular visits or meetings, utilizing retired teachers or inviting veteran teachers to volunteers as mentors, time intensity each week, continuous mentoring in subsequent years, and multiple sources of support. The assortment and mixture of types and sources of support have varying and combined effects on beginning teacher retention.

For example, the California Mentor Teacher Induction Project in the 1980s focused on matching mentors and beginning teachers according to grade level and curricular emphasis in an attempt to increase their retention rates (Brown & Wambach, 1987). They also encouraged regular class visits, but did not specify how often that should be. The questionnaire at the end of the year simply asked if they would continue teaching, and allowed for the following responses: (1) no, (2) unsure, (3) yes, probably and (4) yes, definitely. The study indicated a slight positive effect for mentoring and increased likelihood of beginning teachers remaining with a mean score
of 3.0 for those mentored compared to 2.3 for those not mentored. This study suggested positive benefits of mentoring, particularly when matching beginning teachers with mentors in the same grade level or curricular emphasis.

This is similar to the Toronto Teacher Peer Support Program, which also used mentors from similar grade levels and in the same school (Cheng & Brown, 1992). Unlike the study in California, this study specified a weekly meeting and also compared the mentoring experience between first and second year teachers. While beginning teachers reported meeting with their mentors at least weekly during the first semester, only half met weekly towards the end of the school year. This study found that 88% of those mentored rated their first year experience as positive, compared to only 53% of those that were not mentored. This gap decreased for those in their second year, where the rate of those reporting positive experience during their second year was 86% for those mentored and 76% for those not mentored. As far as retention of those in their first year, 76% of those mentored planned to stay compared to 60% of those not mentored. While retention for those in their second year was 97% and 91%, for those mentored and those not mentored respectively, suggesting increased confidence with time. This study suggested a greater need for mentoring during their first year of teaching, as well as further study and comparison of the support and retention of beginning teachers during subsequent teaching years.

The Montana Beginning Teacher Support Program was studied by Spuhler and Zetler (1993; 1994; 1995) in the early 1990s. This program chose veteran teachers who volunteered to mentor. However, it did not provide training or release time for either the mentor or the beginning teacher. Although no comparison group existed during the first year, in the second and third year of the program the study was able to compare those who received mentoring with those who did not. Retention in this study was defined as any who continued
teaching, including those who moved to another school or state. The study found that after the second year, the percentage of those mentored who were retained was 92% compared to 73% for those not mentored. Then after the third year, 100% of the mentored teachers compared to 70% of those not mentored stayed. Again, those mentored were more likely to remain.

In South Texas, another study looked at the impact of mentoring on beginning teacher attrition in subsequent years (Eberhard, Reinhardt-Mondragon, & Stottlemyer, 2000). These researchers discovered that mentoring had the most impact on new first-year teachers instead of those who had more years of experience. For first year teachers, 90% who had a mentor planned to stay compared to only 61% of those not mentored. For second year teachers, it was 78% and 63% for those mentored and those who were not, while third years were 72% and 73%. Additionally, those who spent more than one hour per week with their mentor were more likely to stay than those who spent less than one hour per week, 90% compared to 76%. Like the previous studies, mentoring appeared to be most critical early on. This study’s additional contribution related to the contact intensity or time spent with mentors and its relationship to retention of beginning teachers. Others have suggested that beginning teachers who had mentors early in their professional career were more effective teachers (Darling-Hammond, 1999; Humphrey et al., 2000).

In other studies, different mentor selection processes and programs were considered. A New York City program utilized retired teachers as mentors providing a total of 66 hours of contact between the mentor and beginning teacher (Gold & Pepin, 1987). This study defined retention as those who remained in the school district. This study, however, did not specify if those who left the district left the profession or moved to other school districts. Although these researchers concluded that those mentored had slightly higher retention rates than those not
mentored, unexpected city-wide salary increases for the entire district may have been a confounding variable that influenced improved teacher retention and reduced the gap between the two groups studied. Notwithstanding, the results from this study showed that beginning teachers who were mentored received more support and direction from their mentors than the assistance those not mentored received from their normal daily interaction with peers. This study suggested that support came from both the assigned mentor and colleagues, but mentors appeared to provide more support and direction.

A study of the Texas Beginning Educator Support System, a statewide comprehensive program, also found benefit of mentoring on beginning teacher retention. This joint study by the State Board for Educator Certification (Fuller, 2003) and the Charles A. Dana Center (2002) at the University of Texas at Austin was a comprehensive mentoring model, which provided the combined support of mentors and support teams composed of administrators, staff and others. This study defined teacher retention as an individual who continued employment in the Texas public school system, including those who moved from one school to another in the state, while turnovers referred to those who left the teaching profession and those who left the state of Texas to teach in another state. Retention rate findings showed 89.1% retention for beginning teachers participating in the program to 81.2% for those not participating in the first year, followed by 82.7% retention compared to 74.3% in the second year, and finally 75.7% to 67.6% in the third year. This study of a comprehensive mentoring model which provided a combined effect of a mentor and support team helped increase retention.

In Colorado, Kelley (2004) used mentors who were freed from their own teaching to devote their entire time to help mentor beginning teachers. This is different than most mentoring models, which did not release mentors from their regular teaching load. This model included
intense mentoring, cohort group networking and on-going inquiry into practice. The intense mentoring consisted of a minimum of one half day each week for the full teaching year to support beginning teachers. The cohort group networking consisted of seminars twice monthly and helped reduce isolation while fostering collaborative growth. Participants also received three off campus graduate courses during their first year as part of an on-going inquiry into their practice and study of professional cultures that sustained learning.

In the Colorado mentoring model, participants reported high levels of satisfaction with the quality of the mentoring relationship, professional growth, administrative support and relevance of graduate courses (Kelley, 2004). Among those mentored, 98% reported high levels of teacher growth highlighted by the research project from the inquiry based graduate program. Kelley’s findings showed a positive influence of this mentoring model and its combined effect on beginning teacher growth, development, and satisfaction.

Flesch (2005) added that intense mentoring programs benefited struggling teachers in London. The researcher in this study concluded that 70% of struggling teachers who received intense mentoring for two weeks showed marked improvement. Other studies suggested that induction programs, particularly their mentoring elements, could provide the needed support for beginning teachers and improve teacher retention. Nevertheless, a review of these studies also indicated that additional research is needed to define the type of support that constitutes effective mentoring (Ingersoll & Smith, 2004).

The nation-wide analysis of the 1999-2000 Schools and Staffing Survey (SASS) data by Smith and Ingersoll (2004) revealed that beginning teachers who had mentors from the same subject field and who participated in collective induction programs were less likely to move or leave after their first teaching year. These researchers found that “having a mentor in one’s field
reduced the risk of leaving at the end of the first year by about 30%” (Smith & Ingersoll, 2004, p. 702), compared to 18% for those who had a mentor outside their field.

In addition, this study investigated the combined effect of beginning teacher seminars or classes, regular collaboration or common planning time with others in same subject area, participation in networks, and other regular or supportive communication (Smith & Ingersoll, 2004). When beginning teachers had no induction or mentoring support, turnover was 41% (20% left teaching and 21% moved to another school). When these teachers received basic induction or two induction components (mentor in same field and supportive communication with administrator or staff), turnover rate showed minimal improvement or 39% (18% leavers and 21% movers). On the other hand, when collaboration was added to basic induction, turnover rates decreased to 27% (12% leavers and 15% movers). When networks and extra resources, such as reduced number of preparations and the help of a teacher aide, were added to the previous model, the rate of turnover was 18% (9% leavers and 9% movers). The combined effect of these elements reduced teacher turnover (see Figure 6). Details, however, on how these elements reduce teacher turnover are lacking. As Smith and Ingersoll (2004, p. 707) pointed out, the “SASS did not collect information on the details of induction program intensity, duration, and structure.” These researchers indicated that additional research is needed to shed light on these missing details.

These examples illustrate the diversity in the mentoring programs; and even though each study suggested that mentoring improved teacher retention, they highlighted different aspects or elements of the ideal mentoring model to assist beginning teachers. However, this doctoral research will adopt the theoretical model from Smith and Ingersoll (2004). Their study is the most extensive nation-wide study of the SASS data, and although they learned much about
mentoring models and teacher turnover rates, they acknowledged the need to further study the details of the intensity, duration and structure of the program. This doctoral research will therefore seek to study the sources and types of support based on the mentoring structure, intensity and duration. Additional studies suggest the important role that the mentoring relationship has upon the socialization of the beginning teachers, as well as the added support that comes from a network for team mentoring and the environment fostered by professional learning communities.

**Characteristics of Good Mentors**

Prior to the 1990s, few schools had formal mentoring programs for new members of the organization. As formal mentoring programs began to gain popularity, further discussion and research has sought to study, identify and train good mentors (Rowley, 1999). Mentors have become synonymous with a guide, counselor, coach, teacher and sponsor (Crow & Matthews, 1998; Zey, 1984). There are several characteristics and qualities of good mentors (Tobin, 2004). Good mentors are committed to the role of mentoring and facilitate the socialization of beginning teachers. Moreover, mentors must be accepting of beginning teachers and be effective in
developing a mentoring relationship, while being continuous learners and communicating hope and optimism. Finally, mentors provide instructional support by sponsoring beginning teachers in their entrance into networks and supporting professional learning communities.

**Committed to the Role of Mentoring**

Good mentors are highly committed to the role of mentoring. They will take advantage of opportunities provided by their educational organization for mentor training to help them learn their specific roles and responsibilities as mentors (Rowley, 1999). The additional training serves to further strengthen the commitment of mentors to their role in helping and supporting beginning teachers.

Many organizations provide training programs for mentors, including conferences and professional development activities in which both the mentors and beginning teachers may participate (Rowley, 1999). Organizations can further strengthen their mentoring programs by giving appropriate compensation in the form of stipends, release from extra duties, or give mentors additional opportunities for professional growth (Clawson, 2003; Rowley, 1999). As organizations provide training and compensation, they strengthen the commitment of their mentors to the beginning teachers as well as the organization.

**Accepting of the Beginning Teachers**

In addition, good mentors are non-judgmental, but they are instead accepting of the beginning teachers. At the beginning of their relationship, it is important that mentors recognize and accept the fact that beginning teachers are still developing as professional teachers and will make mistakes (Darling-Hammond & Bransford, 2005; Rowley, 1999). The ability to have empathy, defined as the ability to accept another person without passing judgment, is an important quality in any relationship (Rogers, 1958; Rowley, 1999). They understand that
among their most important role as mentors is to be a good listener and even withhold criticism at times (Herman & Mandell, 2004; Tobin, 2004).

It may be helpful for mentors to reflect on their own educational practices during their first year, and how that relates to their mentoring experience (Combs, Avilla, & Purkey, 1971; Rogers, 1958). This practice will help mentors remember and understand the concerns and struggles of beginning teachers (F. Fuller & Brown, 1975; Veenman, 1984). In this way, mentors are better able to provide empathy and support.

**Provide Instructional Support**

Being able to provide instructional support is another important quality of good mentors. Mentoring includes teaching, coaching and serving as role models for others (Levinson, Darrow, Klein, & Levinson, 1978; Tobin, 2004). Mentors help and coach beginning teachers who come from varying skill levels (Darling-Hammond & Bransford, 2005; Rowley, 1999). In addition, mentors can provide support through multiple methods of classroom observation, including conferencing before and after the observation (Rowley, 1999). Team teaching and team planning result in increased instructional support for beginning teachers (Rowley, 1999).

Experienced mentors seek to understand the background of those they mentor, so as to better help transform interest and curiosity of those mentored into life-long learning (Herman & Mandell, 2004). They engage learning by providing instructional support based on the recognition that "curiosity and thus learning thrive when connected to and/or emergent from contexts which are familiar and meaningful to the learner" (Herman & Mandell, 2004, p. 27). Mentors facilitate discovery based on what beginning teachers are curious and interested in learning.
As advisors and counselors, good mentors know that their role is not to solve all the problems. Good mentors recognize that it is best to give advice when it is requested (De Pree, 1992; Tobin, 2004). Their role is to help those they mentor to find their own solutions and grow by becoming self-reliant and gaining autonomy (Herman & Mandell, 2004; Tobin, 2004). Notwithstanding, effective mentors also influence the success of those that teach by providing clear goals, modeling, reflecting, and providing formative feedback and coaching (Darling-Hammond & Bransford, 2005). They understand that longer teaching experiences equate to stronger learning outcomes. They support beginning teachers in their zone of proximal development while providing multiple teaching opportunities (Darling-Hammond & Bransford, 2005). Mentoring practices include finding and pinpointing problems, while pushing beginning teachers to higher levels of thinking and problem solving. They provide learning in a community setting and assist with teaching portfolios (Darling-Hammond & Bransford, 2005). The teaching portfolio includes a collection of the teacher’s work, such as their curriculum materials, reflections, papers and other pertinent materials and artifacts that document their experience.

**Effective in Different Interpersonal Contexts**

Since “all beginning teachers are not created equal, nor are all mentor teachers,” mentors must be able to adapt to different interpersonal contexts (Rowley, 1999, p. 21). Just as teachers acknowledge diverse learners within a classroom of students (Darling-Hammond & Bransford, 2005), mentors must recognize the diversity in those they mentor. What might work in one situation, may not work in another situation (Daft, 2004; Hersey & Blanchard, 1974). Good mentors understand and recognize there are a variety of learners, and therefore, they seek to know how each individual learns and how to best help each based on their individual needs (Herman & Mandell, 2004).
Mentors recognize that some relationships may be difficult, and they must adjust and provide communication that meets the needs of the beginning teachers (Clawson, 2003; Glickman, 1985; Hersey & Blanchard, 1974). Nevertheless, good mentors understand that achieving the optimal mentoring relationship is critical, and that relationship varies from one relationship to another (Portner, 2001; Smith, 2005).

**Develop Strong Mentoring Relationships**

Good mentors develop strong mentoring relationships with those they mentor. This relationships is based on “I-Thou” direct relationships that requires mutual awareness, openness, and respect (Buber, 1958; Shim, 2008). According to Levinson, Darrow, Klein and Levinson (1978) the mentoring relationship is complex and critical in one’s development. Mentors take on many roles, including the roles of teacher, sponsor, guide and counselor. Mentors also provide moral support and are indispensable in the socialization of an individual into a profession. Although the relationship changes over time and separation can at times be challenging, many form intimate and lasting friendships. A healthy mentoring relationship can influence the success of new members of a profession.

Mentors must first create a supportive personal relationship with a beginning teacher before they can actively and effectively guide and help them with curriculum implementation (McIntyre & Hagger, 1996). According to Bryk and Schneider (2003) daily social interactions within a school community helped to develop and maintain “relational trust” or a relationship in which each individual maintains mutual understanding, expectations and obligations towards others in the group. "Relational trust is the connective tissue that binds individuals together to advance the education and welfare of students” (Bryk & Schneider, 2003, p. 44). Much can be done to establish and maintain trust in the mentoring relationship with beginning teachers by
fostering social exchanges based on personal respect, regard and integrity or honesty in the relationship. A trusting relationship is critical to an open and successful mentoring relationship.

Additional studies indicated the relationship between the mentor and beginning teacher is crucial (Smith, 2005) and the quality of that relationship can make or break the induction process (Portner, 2001; Smith, 2005). It is important that mentors and beginning teachers are able to share values, beliefs and concerns with each other, which occur when they are “friends first… grounded in caring for each other” (Jipson & Paley, 2000, p. 38). This level of friendship leads to a higher level of trust between mentors and beginning teachers.

Proper matching of mentor and beginning teacher can yield substantial benefits to the mentoring relationship (Crow & Matthews, 1998; Huling-Austin & Murphy, 1987). Johnson-Bailey and Cervero suggest that race, class, gender and culture may affect trust and mentoring relationships between mentors and those they mentor (Johnson-Bailey & Cervero, 2004). Whenever possible similar styles and shared ideals should be considered when matching mentors and beginning teachers. Additionally, whenever possible and practical, an organization should consider allowing the pair to participate in choosing each other to secure the most ideal mentoring relationship (Crow & Matthews, 1998). As mentors and beginning teachers have the opportunity to participate in choosing each other, the success of the mentoring relationship is optimized. A good mentoring relationship will facilitate the successful socialization of the beginning teacher.

**Socialize Beginning Teachers**

Where beginning teachers are placed and which mentor is assigned will have an impact on their experience in the mentoring program and how well they are successfully socialized into the school culture and philosophy of teaching (Daft, 2004; Schein, 1968). It takes time and
training to adequately communicate with and socialize beginning teachers, and mentors play an important role in helping beginning teachers in that process. Unless beginning teachers understand and accept the shared values of the organization, they may fail to be properly socialized into the school culture (Daft, 2004; Kouzes & Posner, 2002). It is therefore necessary that communication channels are effective within the organization (Daft, 2004). Without someone to communicate the norms and values of the school, beginning teachers will not be properly socialized to the new profession and new organization.

Another important element of the socialization of beginning teachers is the role that effective teams play in supporting and energizing the individuals and the organization as a whole (Katzenbach & Smith, 1993). At all levels within the organization, there must be coordination and communication, so that these teams will avoid acting like separate groups and instead work as effective teams in supporting and socializing new members of the organization (Daft, 2004). Formal mentoring structures for beginning teachers are not as effective without supportive professional cultures in a school (Johnson, 2004; Moir, 2003). In short, effective teams have a critical role to play but must communicate and work together.

**Sponsor Beginning Teachers Into a Network for Team Mentoring**

Good mentors also play a critical role as sponsors. In other words, they sponsor or help those they mentor become part of the network of the school community, which results in additional support and resources (Tobin, 2004). A widely held view among researchers is that mentoring relationships developed early on are essential to launch successful careers and to connect to the informal networks critical to supporting productivity (Blackburn, 1979). Mentors can do much to help beginning teachers establish informal networks early (Blackburn, 1979).
thus creating a network or team of mentors to support and influence their success in the classroom.

Within a network or team of mentors, co-mentoring or collaborative relationships are developed. These relationships are desirable because members of the group or network provide increased support and assistance to one another (Bona, Rinehart, & Volbrecht, 1995; Lick, 1999). Wise mentors recognize the power of collaborative learning, while also helping those they mentor take personal responsibility for their own learning (Herman & Mandell, 2004). Collaborative relationships are a fundamental part of the business world that has gained momentum in educational organizations. It is a relationship based on partnership, dignity and respect (Mullen & Lick, 1999). It is the idea that the human spirit is unlimited and that every person counts (Byrne, 1998). This cooperative team effort towards a common goal or vision results in synergy for the individual, the team, and the organization (Covey, 1990; Murphy & Lick, 1998).

There are cases in which the mentoring relationship between a mentor and a beginning teacher may not be ideal or sufficient. Therefore, there is a need for additional resources in which a network of mentors may provide much needed support. The mentoring relationship is magnified by support teams which further enhance the support given to beginning teachers (Kajs, 2002). Beginning teachers “achieve success and find satisfaction primarily at the school site; unless their experiences with students and colleagues are rewarding, they will likely transfer to another school or leave teaching altogether”(Johnson & Birkeland, 2003, p. 606). This suggests that mentoring relationships do not simply exist between the beginning teachers and mentors, but should also include other colleagues or groups of individuals.
Katzenbach and Smith (1993, p. 45) defined a team as “a small number of people with complementary skills who are committed to a common purpose, performance goals, and an approach for which they hold themselves mutually accountable.” Furthermore, they believe that teams strengthen the performance of individuals, while attaining positive results that benefit the individual, the team and the organization as a whole. A network or team of mentors would expand and enrich the support and ultimate success of beginning teachers.

Gulati, Dialdin and Wang (2002) indicated that a member of a network benefits the performance of the organization through resource sharing and expanding recognition and legitimacy. Beginning teachers need to have their efforts recognized and validated by their peers. It is important to note that “…action does not take place in a barren social context but is instead embedded in social network of relationships” (Gulati, Dialdin, & Wang, 2002, p. 281). Beginning teachers who have mentors can benefit from additional informal networks or support teams (Ramsey, 2000). This indicates that the mentoring relationship between a beginning teacher and a mentor does not exist in a vacuum, but it is further embedded with a network of relationships with other informal mentors. Indeed, it takes a network of mentors.

**Models of Continuous Learners**

In order to exemplify good mentoring, mentors must be models of continuous learners. Good mentors are constantly seeking for better and more effective solutions, by attending training, workshops, or classes, as well as reading articles and professional journals to enhance their mentoring capacity (Rowley, 1999). These mentors realize that their knowledge and expertise is provisional and incomplete at best, and are willing to work together with those they mentor to find the best answers and solutions that will benefit all (Herman & Mandell, 2004). They pass on values by showing the way, with deeds worthy of emulation that speak louder than
words (J. W. Gardner, 1995; Tobin, 2004). In other words, mentors who are willing to consider and try new practices, signal their commitment to become life-long learners.

**Communicate Hope and Optimism**

Another important quality of good mentors is that they communicate hope and optimism to beginning teachers. This is best accomplished when rich communication mediums are selected and utilized effectively (Daft, 2004). Such communications may be face-to-face, through the telephone, via email, or other appropriate means (Daft, 2004). Mentors communicate hope and optimism when they show genuine care for beginning teachers, empower them, and celebrate their accomplishments (Daft, 2004; Kouzes & Posner, 2002; Rowley, 1999). This communication should not be overlooked, as it has the potential to support and increase the confidence of beginning teachers.

Many beginning teachers struggle during their first year. Therefore, the ability to help others develop and look past present challenges and project to accomplishments in the future is a key characteristic of good mentors (Daft, 2004; Lasley, 1996). They are trusted confidants that point out weaknesses at times, but focus on complimenting and highlighting achievements (Levinson et al., 1978; Tobin, 2004). In short, good mentors communicate trust and maintain confidentiality, while recognizing the human potential of those they mentor (Clawson, 2003; Rowley, 1999).

**Professional Learning Communities**

The idea of using good mentors and effective teams to help socialize beginning teachers is associated with professional learning communities, which are composed of a community of learners, constantly seeking to improve through inquiry and learning. Current literature links induction and mentoring activities to professional learning communities, suggesting they are
connected rather than separate and independent from one another (Birkeland & Feiman-Nemser, 2007; Fulton, Yoon, & Lee, 2005).

Formal mentoring structures are not isolated, and can be useless without a culture of supportive professional learning communities (Johnson, 2004; Moir, 2003). Johnson and Birkeland (2003) suggested that teachers were more likely to stay in schools that fostered a collaborative professional culture. In professional learning communities, teachers collaborate with others and participate in the planning and decision process (Darling-Hammond, 1996). Moreover, giving teachers more autonomy is an important factor in retaining teachers (Ingersoll & Alsalam, 1997; Seyfarth & Bost, 1986). Ingersoll (2001, p. 506) explains that the opportunity to participate in decisions “and the degree of employee input into and influence over organization policies” has strong links to increased commitment to the organization and reduced turnover. Beginning teachers’ autonomy or their ability to participate in decisions are important elements of a professional learning community in increasing satisfaction and retention.

In addition to “shared decision making” and structured time to plan together, Darling-Hammond (1996) proposed that professional learning communities should facilitate the opportunity to observe others and share feedback. These practices help improve teaching quality and support for beginning teachers. As teachers have the opportunity to be part of a learning community, their sense of self-worth, knowledge, skills and professional commitment increases (Darling-Hammond & Bransford, 2005). Rosenholtz (1989) supports the idea of improving teaching quality, and equated that to the level of support teachers felt through teacher networks, cooperation with colleagues, and increased expansion of their professional roles. As beginning teachers experience higher levels of efficacy, their teaching improves and they remain in the profession.
As indicated previously, Senge (1990) suggested that business entities could function as learning organizations. His new paradigm for the business world was also implemented in schools. In the educational field, Hord (1997b) indicated that restructuring schools to allow teachers to function collectively would lead to a community of professionals or “professional learning communities.” Attributes of professional learning communities include supportive and shared leadership, collective creativity, shared values and vision, supportive conditions, and shared personal practice (Hord, 1997a). This shift from a culture of isolation, typical to the early one room schoolhouse, into learning communities results in higher job satisfaction and morale, and produce positive benefits for students, teachers, and the organization (Hord, 1997b). Instead of working independently and in isolation, beginning teachers now have the benefit of working and developing as part of a professional learning community.

DuFour (2004) reminded us that professional learning communities focus their efforts on learning rather than just teaching, by creating a culture of collaboration and judging effectiveness based on results. This collective effort to improve student achievement will also provide additional support for beginning teachers. In other words, schools that have implemented a professional learning community model are well poised to assist beginning teachers to succeed and remain in the profession.

Summary of Literature

Previous research indicates that educational organizations are faced with high attrition problems, especially the premature departure of teachers (Bobbitt, Leich, Whitener, & Lynch, 1994; Boe, Bobbitt, Cook, Barkanic, & Maislin, 1998; Conway, 2006; Grissmer & Kirby, 1987, 1997; Ingersoll, 2001; Ingersoll & Kralik, 2004; Ingersoll & Smith, 2004). National studies signal that this attrition problem is due to problems with the retention of beginning teachers.
rather than the retirement of veteran teachers (Ingersoll, 2001; 2007). This results in less efficient use of administrative time and resources, while also weakening the stability of the organization (Horn & Griffeth, 1995; Ingersoll & Smith, 2004; Price, 1977, 1989; Schein, 1984). Several studies found the benefit of mentoring in retaining beginning teachers and many elements have been proposed by various researchers to help provide the ideal mentoring program that will best support the development and retention of beginning teachers (see Table 14), thus illustrating the diversity in mentoring elements.

Table 15 suggests that the diverse mentoring programs vary in type, source, intensity, and duration of support given to beginning teachers. Furthermore, these mentoring programs also vary in selection and matching of mentors and beginning teachers, the use of teams, networks and multiple other factors and combination packages to improve teacher retention (Brown & Wambach, 1987; Cheng & Brown, 1992; Eberhard et al., 2000; Flesch, 2005; Fuller, 2003; Gold & Pepin, 1987; Ingersoll & Smith, 2004; Kelley, 2004; Smith & Ingersoll, 2004; Spuhler & Zetler, 1993, 1994, 1995).

Moreover, additional studies suggest the importance of the mentoring relationship, along with networks and professional learning communities, to the successful socialization of beginning teachers (Blackburn, 1979; Bodrova & Leong, 1996; Bryk & Schneider, 2003; Daft, 2004; Darling-Hammond, 1996; DuFour, 2004; Gulati et al., 2002; Hord, 1997a, 1997b; Jipson & Paley, 2000; Johnson & Birkeland, 2003; Kajs, 2002; Katzenbach & Smith, 1993; Kouzes & Posner, 2002; Levinson et al., 1978; McIntyre & Hagger, 1996; Portner, 2001; Ramsey, 2000; Rosenholtz, 1989; Schein, 1968; Smith, 2005). This research will further study and seek to better understand the sources and types of support that beginning teachers find most beneficial to
Table 15

Various Mentoring Elements by Author

<table>
<thead>
<tr>
<th>Mentoring Element</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>(Darling-Hammond, 1996; Ingersoll, 2001; Ingersoll &amp; Alsalam, 1997; Seyfarth &amp; Bost, 1986)</td>
</tr>
<tr>
<td>Confidence</td>
<td>(Cheng &amp; Brown, 1992)</td>
</tr>
<tr>
<td>Duration (multi-year)</td>
<td>(Cheng &amp; Brown, 1992; Eberhard et al., 2000; Fuller, 2003)</td>
</tr>
<tr>
<td>Contact intensity</td>
<td>(Brown &amp; Wambach, 1987; Eberhard et al., 2000; Flesch, 2005; Gold &amp; Pepin, 1987; Kelley, 2004)</td>
</tr>
<tr>
<td>Combined effect</td>
<td>(Fuller, 2003; Ingersoll &amp; Smith, 2004; Kelley, 2004)</td>
</tr>
<tr>
<td>“District coach”</td>
<td>(Kelley, 2004)</td>
</tr>
<tr>
<td>In-school mentor</td>
<td>(Fuller, 2003; Kelley, 2004)</td>
</tr>
<tr>
<td>Other networks or resources</td>
<td>(Blackburn, 1979; Ingersoll &amp; Smith, 2004; Kelley, 2004; Ramsey, 2000; Rosenholtz, 1989)</td>
</tr>
<tr>
<td>Relationship of trust</td>
<td>(Dalton et al., 1977; Jipson &amp; Paley, 2000; Kelley, 2004; Levinson et al., 1978; McIntyre &amp; Hagger, 1996; Portner, 2001; Smith, 2005)</td>
</tr>
<tr>
<td>Same subject or grade band</td>
<td>(Brown &amp; Wambach, 1987; Cheng &amp; Brown, 1992; Ingersoll &amp; Smith, 2004; Smith &amp; Ingersoll, 2004)</td>
</tr>
<tr>
<td>Social interaction &amp; communication</td>
<td>(Bodrova &amp; Leong, 1996; Bryk &amp; Schneider, 2003; Daft, 2004; Ingersoll &amp; Smith, 2004; Katzenbach &amp; Smith, 1993)</td>
</tr>
<tr>
<td>Stress</td>
<td>(Kirsling &amp; Kocher, 1990)</td>
</tr>
</tbody>
</table>
assist their development and retention in the teaching profession during their first three years. This research will also seek to help shed additional light on the details of the intensity, duration, and structure of mentoring programs, which was lacking in the nation-wide study of the SASS data conducted by Smith and Ingersoll (2004).

Like the rest of the nation, Utah has also implemented mentoring programs in an effort to improve teacher retention. Nevertheless, the continued increase of teachers that leave Utah’s school system, coupled with the current student enrollment boom, will require an increased effort to retain beginning teachers (Escalante et al., 2005; Escandon, 2007). Therefore, additional studies are necessary to consider how to improve its mentoring programs to support and retain beginning teachers and improve in the schools in Utah. This study will describe and explain the elements of the Asher and Dane School Districts’ mentoring models in search for a better, improved model. This research will study the various sources and types of support of the Asher and Dane School Districts’ mentoring program, and how their intensity, duration, and structure support and retain beginning teachers. In addition, this research will study the important components which school administrators must consider when matching mentors and beginning teachers.

**Anticipated Contributions of the Study**

Beginning teachers and school and district administrators will benefit from this study of the Asher and Dane School Districts’ mentoring programs, by understanding how to better structure mentoring programs to improve teacher retention. If multiple sources of support are found, including the district coaches, in-school mentors, collaborative teams, and other support networks or resources, these various sources of support could provide different types and levels of mentoring support for beginning teachers. Types of support may include both supportive
communication based on the duration and intensity of contact, as well as the support beginning teachers anticipate. The combined effect of various types of support beginning teachers receive may increase beginning teacher retention rates, as well as increase job satisfaction, sense of autonomy and professional growth and development. The sources and level of mentoring support they experience may influence their stress and confidence levels. This research also seeks to identify the role of specific mentor strategies, such as mentor-teacher matching, relationship of trust and having a mentor in the same subject area or grade band (see Figure 7).

If in-school mentors have more daily interactions with beginning teachers, they may experience a closer relationship with each other. But if district “coaches” do not have a teaching load, they may have more time to visit and train beginning teachers and be more accessible to support these teachers. Additionally, these coaches are typically grade-level experts, particularly in math and literature, which may be a positive factor contributing to the training and resources they could provide beginning teachers. Furthermore, grade bands or collaborative teams may also help facilitate the socialization and support for beginning teachers.

Moreover, if the combined effect of the district coach, the in-school mentor, the collaborative teams or other networks augments one or several types of support, it may enhance job satisfaction and improve teacher retention. Finally, if the mentoring relationship is a positive one, it may enhance the type of support provided, improve the mentoring experience, leading to increased job satisfaction and beginning teacher retention.
Figure 7. Conceptual Model

Sources of Support Structure
- Basic Mentoring/Induction
  - in school mentor
  - district coach
- Collaborative Teams
- Informal Networks

Mentoring Characteristics
- Relationship of Trust
- Same Subject or Grade Band

Types of Support
- Supportive Communication
  - duration of contact (multi-year)
  - intensity of contact (mode & frequency)
- Perceived Support
  - confidence
  - stress

Satisfaction
- Autonomy
- Professional Growth

Retention of Beginning Teacher
APPENDIX B: METHODS

This section provides a review of the methodology used for this study along with a discussion on grounded theory. The proposed methodology helps position the research, outline the delimitations and sampling strategy, describe the researcher’s responsibilities and data collection methods. In addition, this chapter discusses the data analysis methods used, including the process of organizing the data, generating categories and themes, identifying patterns, creating and testing explanations and emerging hypotheses, searching for alternative explanations and writing the report. A detailed data-analysis trustworthiness plan was followed, noting possible implications and the importance or value of this study.

Grounded Theory

This research studied the details of the intensity, duration and structure of the Asher and Dane School Districts’ mentoring model. The purpose of this study was to discover emerging ideas and to better understand the unique mentoring models utilized by the Asher and Dane School Districts, and as such, grounded theory methodology was ideal and has been employed for this study. Strauss and Corbin (1998a) suggested the importance of supplementing the current research literature through valid and grounded theory. Although there are different ways of conducting qualitative research, grounded theory was ideal “for developing theory that is grounded in data systematically gathered and analyzed” (Strauss & Corbin, 1998b, p. 158). The initially developed theory evolved throughout the research as a result of the continuous interplay between the data collection and analysis, or the result of “a general method of [constant] comparative analysis” (Glaser & Strauss, 1967, p. vii). This constant comparative analysis is the process of the initial existing theories being expanded, elaborated and modified throughout the data analysis process (Strauss & Corbin, 1998b).
Grounded theory was used to systematically utilize a group of events to expand on the phenomenon by identifying key concepts and categorizing relationships (Strauss & Corbin, 1990). Although the literature review revealed some key concepts related to mentoring of beginning teachers, the use of grounded theory qualitative analysis sought to allow the key concepts to emerge from the “voice” of the participants. Conceptualizing and interpreting the data is an important element of developing grounded theory, and interpretation was used to “include the perspectives and voices of the people” studied, as well as having the “researchers assume the further responsibility of interpreting what [was] observed, heard, or read” (Strauss & Corbin, 1998b, p. 160). This methodology helped describe and explain the thoughts and views of beginning teachers in this study.

**Positioning the Research**

Although there has been a general feeling that mentoring can reduce teacher attrition problems, numerous mentoring models exist and debate continues over the key elements needed to provide the best possible model. A qualitative approach was most suitable to describe and explain the Asher and Dane School Districts’ mentoring model, especially in light of the fact that the Dane School District has been employing a new mentoring model not commonly utilized (Bazeley, 2007; Richards, 2005). This approach has been employed to study this unique model because there is limited research on this model. This research considered the beginning teachers’ sources of support and what type of support was provided based on duration and intensity of communication (Smith & Ingersoll, 2004). As Eby, Lockwood, and Butts (2006) acknowledged in their study, what beginning members of an organization think of the mentoring experience may differ from those of the mentors. These researchers recommended the need to address the mentoring experience based on what those being mentored think because research based on their
thoughts of mentoring support in the workplace is lacking. According to Miles and Huberman (1994), finding what participants think, describing the environment, and then interpreting the meanings connected to the participants’ situations are the purposes of qualitative research.

While Ingersoll and Kralik (2004) recognized the variety of mentoring models, they also called for additional research to describe and explain further the content, delivery, duration and intensity of mentoring models. Ingersoll and Smith (2004) acknowledged that studies using nationally representative data indicated strong mentoring characteristics that reduce teacher turnover. However, they also noted that the problem with the data was the lack of breadth and specifics on intensity and duration of mentoring and the structure, such as the characteristics of the mentor, thus calling for additional research to address these issues. This response further supported the use of grounded theory because “increasingly, quantitative researchers seem dissatisfied with purely quantified results and are turning toward supplementary qualitative analyses (Strauss & Corbin, 1998b).

In addition, many studies suggested the need to explore the changes in the mentoring relationship over time (Levinson et al., 1978; Missirian, 1982). Kram declared that “there is considerable agreement among those who have studied mentoring that in order to understand fully the nature and impact of this developmental relationship, it is necessary to examine how it changes over time” (Kram, 1983, p. 609). In addition to studies that consider the various sources of support over time, further research is needed to address the details of their effect in assisting the development and retention of beginning teachers (Ingersoll & Smith, 2004). Based on prior literature, researchers consistently suggested additional research from the beginning teachers’ point of view to consider how the mentoring relationship changes over time, and the details of the effect of various sources of support to improve retention rates among beginning teachers.
The Asher and Dane School Districts present two distinct mentoring models. The Asher mentoring model utilizes the most predominant mentoring model used by other neighboring school districts, where veteran teachers with full-time teaching schedules mentor beginning teachers within the school. In contrast, the Dane School District has recently adopted a different mentoring model, which includes the use of district “coaches” or mentors specifically assigned to mentor beginning teachers. These coaches are able to mentor several beginning teachers around the district because they do not have a teaching load.

A qualitative methodology, intended to help with theory development, is ideal to help discover and explain who, what, when, where, why and how support is provided in these two distinct mentoring models and its relationship to beginning teacher retention (Bazeley, 2007; Richards, 2005). This qualitative methodology has been employed to understand, describe, and explain the Asher and Dane School Districts’ mentoring models, their intensity, duration and structure. Furthermore, it has sought for depth and richness in understanding these mentoring models, their relationship to beginning teacher retention, as well as providing a comparative analysis to help in theory development by considering three research questions:

1. What mentoring characteristics do beginning teachers think are necessary for an optimal mentoring relationship?
2. What sources of support and mentoring experiences do beginning teachers think are most beneficial to assist them during their first three years?
3. How do the distinct mentoring models, utilized in the Asher and Dane School Districts, relate to the retention of beginning teachers?

This study incorporated initial data gathered during the 2007-08 school year by Dr. Pamela Hallam and Dr. Paul Thompson, including their original sampling strategy and data
collection methods. In addition, this study gathered follow-up data from the same twenty three teachers during their 2009-2010 school year, which was used to compare and contrast the experience of beginning teachers during their first, second and third year to help address the proposed research questions. An Institutional Review Board (IRB) application was completed and approved before the initial data gathering during the subjects’ first year of teaching. An addendum to the original IRB identified the specific questions for the follow-up interviews.

Participation in the study was voluntary and no compensation was provided, and no detrimental effect of participation was noted. Attrition data was obtained from each district’s Human Resource Department as well as from local school principals. While each district gave a broad view of attrition data in their district, local school principals helped to provide further insights to attrition specific to their school. Every reasonable effort was employed to safeguard the confidentiality of the participants.

This study identified and compared the key elements and features of the Asher and Dane School Districts’ mentoring programs that beginning teachers thought were most beneficial to them. Specifically, it studied these programs to understand what beginning teachers identified as the mentoring characteristics necessary to achieve an optimal mentoring relationship in matching a mentor and a beginning teacher, and the best type and level of support to help them remain in the profession. Data analysis was performed using NVivo software, specifically designed to analyze qualitative data. Analysis of the data was completed to evaluate the mentoring models used by the Asher and Dane School Districts, and this data was compared to the beginning teacher retention data gathered from both districts. A summary of the findings and inferences was made from the qualitative analysis at the conclusion of this research and will be shared with each districts’ administrators. The summative and explanatory findings were reported in an
attempt to further understand the mentoring models used in the Asher and Dane School Districts and their relationship to beginning teacher retention rates. This chapter also describes the research methods, including the delimitations and sampling strategy, data collection and analysis methods, validity plan, projected results and possible implications.

**Delimitations & Sampling Strategy**

A non-probability, purposeful, stratified, random, cluster sampling strategy was used. First, this research purposefully delimited the sampling frame to beginning teachers in elementary schools in the Asher and Dane School Districts during the 2007-08 school years. For the purposes of this study, beginning elementary school teachers refer to those who were newly hired to teach full-time in the district and who were in the process of completing their first year of teaching in an elementary school during the 2007-08 school year. The intent of the research was to interview these teachers to learn about their experience with the Asher and Dane mentoring models during their first three years of teaching, as well as their thoughts of each model’s relationship to beginning teacher retention. These teachers were initially interviewed during their first year of teaching and received a follow-up interview during their third year of teaching, which is the 2009-10 school year.

Second, a list of all the elementary schools in the Asher and Dane School Districts, along with a list of these beginning elementary school teachers, was acquired from the respective school districts’ office, and the sampling frame was purposely delimited to only those schools with at least one beginning teacher. Elementary schools without beginning teachers were dropped from the sampling frame, as well as specialty elementary schools. Every effort was made to reduce coverage error by reviewing the list and ascertaining that those on the list were in
fact beginning teachers in the process of completing their first year of teaching during the 2007-08 school year.

Third, the sampling frame was delimited by using a stratified random sample based on free or reduced school lunches to control for any effect that might be due to various school populations, because prior studies have suggested there are higher teacher attrition problems in high-poverty schools (Guarino et al., 2004). For each district, the elementary schools were ranked based on percentage of students receiving free or reduced school lunches. One third of the elementary schools in each district were designated as high, one third as medium, and the last one third as low. There were 9 schools in each stratum group in Asher, and 15 for each one in Dane. For each district, one school from each of the three groups was randomly selected to participate in order to acquire a representative sample (Groves et al., 2004) and to ensure that adequate representation from each of the three groups was obtained in each school district. Schools were further differentiated based on the gender of the principals, so as to select schools represented with both male and female principals and control for any potential impact due to the gender of the principal. All beginning teachers in the schools selected were invited to participate in a semi-structured interview lasting between 30-45 minutes for the initial interview.

Finally, the sampling frame delimitations included only beginning teachers in each of the selected schools. Although much of the literature discussed mentoring from various view points, this research was delimited to the thoughts of the beginning teachers to provide a more focused study. In the end, their view of how the mentoring model met their needs was compared to whether they stayed, moved or left the profession. Each beginning teacher in the sample was invited to participate in the study, and all those invited agreed to participate in the initial interview.
The final sample included a total of six schools, or three in each district. All the beginning teachers in each school selected were invited to participate in the study. The total number of beginning teachers in the final sample was 23, or 11 in the Asher and 12 in the Dane School Districts. Each participant signed a consent form to participate in the study (see Appendix B1) and was initially interviewed in person using a semi-structured interview (see Appendix B2). The beginning teachers in this study were all first year elementary teachers between the ages of 20-35 (see Table 16) for the initial interview, and each was also invited to participate in a follow-up interview during their third year.

Each districts’ and schools’ information was collected (see Appendix B3), and a follow-up survey and interview (see Appendix B4) during their third year sought to understand each subject’s experience between their first and third year of teaching. Although subjects who had left or moved away were not easily accessible, every effort was made to contact and conduct the follow-up interview with each of the original participants. Each of the 23 teachers who participated in the initial interview were contacted and only two, one from each district, did not respond for the multiple requests to participate in the follow-up interview.

**Research Team**

The research team was composed of Po Nien (Felipe) Chou, Ph.D. candidate, Dr. Pamela Hallam and Dr. Paul Thompson. Although the initial interviews were conducted by Dr. Hallam and Dr. Thompson during the 2007-08 school year, in which initial data was gathered, Po Nien (Felipe) Chou was the principal researcher for the continuation of this project.

Po Nien (Felipe) Chou was responsible for the analysis of the initial data, including coding and data analysis through NVivo software. He was a research assistant for the initial study and was responsible for the analysis of the initial data as well as the analysis of the follow
Table 16

Sample of Elementary School Teachers

<table>
<thead>
<tr>
<th>Teacher #</th>
<th>Gender of Principal</th>
<th>Free/Reduced Lunch</th>
<th>School #</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher 1</td>
<td>Male</td>
<td>Low</td>
<td>1</td>
<td>Asher</td>
</tr>
<tr>
<td>Teacher 2</td>
<td>Male</td>
<td>Low</td>
<td>1</td>
<td>Asher</td>
</tr>
<tr>
<td>Teacher 3</td>
<td>Male</td>
<td>Low</td>
<td>1</td>
<td>Asher</td>
</tr>
<tr>
<td>Teacher 4</td>
<td>Male</td>
<td>Medium</td>
<td>2</td>
<td>Asher</td>
</tr>
<tr>
<td>Teacher 5</td>
<td>Male</td>
<td>Medium</td>
<td>2</td>
<td>Asher</td>
</tr>
<tr>
<td>Teacher 6</td>
<td>Male</td>
<td>Medium</td>
<td>2</td>
<td>Asher</td>
</tr>
<tr>
<td>Teacher 7</td>
<td>Male</td>
<td>Medium</td>
<td>2</td>
<td>Asher</td>
</tr>
<tr>
<td>Teacher 8</td>
<td>Female</td>
<td>High</td>
<td>3</td>
<td>Asher</td>
</tr>
<tr>
<td>Teacher 9</td>
<td>Female</td>
<td>High</td>
<td>3</td>
<td>Asher</td>
</tr>
<tr>
<td>Teacher 10</td>
<td>Female</td>
<td>High</td>
<td>3</td>
<td>Asher</td>
</tr>
<tr>
<td>Teacher 11</td>
<td>Female</td>
<td>High</td>
<td>3</td>
<td>Asher</td>
</tr>
<tr>
<td>Teacher 12</td>
<td>Male</td>
<td>Low</td>
<td>4</td>
<td>Dane</td>
</tr>
<tr>
<td>Teacher 13</td>
<td>Male</td>
<td>Low</td>
<td>4</td>
<td>Dane</td>
</tr>
<tr>
<td>Teacher 14</td>
<td>Male</td>
<td>Low</td>
<td>4</td>
<td>Dane</td>
</tr>
<tr>
<td>Teacher 15</td>
<td>Male</td>
<td>Low</td>
<td>4</td>
<td>Dane</td>
</tr>
<tr>
<td>Teacher 16</td>
<td>Female</td>
<td>Medium</td>
<td>5</td>
<td>Dane</td>
</tr>
<tr>
<td>Teacher 17</td>
<td>Female</td>
<td>Medium</td>
<td>5</td>
<td>Dane</td>
</tr>
<tr>
<td>Teacher 18</td>
<td>Female</td>
<td>Medium</td>
<td>5</td>
<td>Dane</td>
</tr>
<tr>
<td>Teacher 19</td>
<td>Female</td>
<td>Medium</td>
<td>5</td>
<td>Dane</td>
</tr>
<tr>
<td>Teacher 20</td>
<td>Female</td>
<td>Medium</td>
<td>5</td>
<td>Dane</td>
</tr>
<tr>
<td>Teacher 21</td>
<td>Female</td>
<td>Medium</td>
<td>5</td>
<td>Dane</td>
</tr>
<tr>
<td>Teacher 22</td>
<td>Male</td>
<td>High</td>
<td>6</td>
<td>Dane</td>
</tr>
<tr>
<td>Teacher 23</td>
<td>Male</td>
<td>High</td>
<td>6</td>
<td>Dane</td>
</tr>
</tbody>
</table>
up data. He developed a follow-up survey and semi-structured interview questions and conducted the follow-up interviews by gathering the additional data through face-to-face interviews with the teachers in the initial study. Telephone interviews were required for those subjects who left the area or who were not readily available. The subsequent coding and analysis of the initial and follow-up interviews, as well as comparison of the interviews and retention data gathered from the Asher and Dane School Districts, were done by the principal researcher.

**Data Collection Methods**

Once the initial sample was identified based on the delimitations previously discussed, approval was attained from the principals of those schools to interview all beginning teachers in their building. Potential participants in the schools selected were contacted at the school and given the opportunity to participate or decline participation in the study. A letter describing the purpose of this study was provided and those willing to participate in the study signed the informed consent form (see Appendix B1). None of the teachers declined participation in the initial interview. Each participant participated in a 30-45 minute face-to-face interview during his or her first year of teaching. Semi-structured interview questions (see Appendix B2) were used to gather data for the initial interview, and any relevant nonverbal and emotional elements were noted (Bazeley, 2007). The researchers attempted to provide rich qualitative data by gathering rich and thick descriptions (Richards, 2005). Digital recordings of the initial interview were made, followed by transcription of the text to facilitate subsequent coding and analysis of the data using NVivo software.

The follow-up survey and interview took place during the participants’ third year of teaching during the 2009-10 school year (see Appendix B4). Once again, principals were contacted to gain access to the teachers who participated in the initial interview. The same
procedures for gathering, recording, transcribing, coding and analysis of the data were employed for the follow-up interview. Each follow-up interview also lasted about 30-45 minutes. The initial interviews helped refine the follow-up interview questions to further describe and explain in greater depth the beginning teachers’ experience with the mentoring models provided by their districts. Applicable questions from the initial interview were repeated during the follow-up interview for comparison purposes, while other questions were reformatted to summarize the information. In addition, some questions were adapted or reworded for the purpose of refining, focusing and further clarifying information based on initial interview findings. This follow-up interview sought to understand any additional sources and types of support beginning teachers thought they received after the initial interview. Appendix B5 provides an overview and comparison of questions repeated, reformatted, dropped, added, adapted or reworded. However, the major focus of the follow-up interviews was to help study any changes to the mentoring relationship, development, and retention of beginning teachers between their first and third year of teaching, thus allowing for a comparison and comparative analysis of their experience. It provided valuable additional data to understand the type and intensity of mentoring received throughout their first three years.

The follow-up interviews were face-to-face interviews with those who were still teaching, while telephone interviews were used for those who left and were not readily accessible. Principals contacted helped facilitate scheduling of teachers in their school for the follow-up interview. In addition, assistance was sought from the principal to acquire contact information, such as telephone numbers or email addresses for those who had left their school. Those participants who left the Asher or Dane School Districts were interviewed by telephone because face-to-face interviews were not possible, such as in the case of those who had moved out of
state. Only two participants, who left teaching, did not respond for repeated requests by
telescope or email to participate in the follow-up survey and questionnaire to solicit response.

Because this study was descriptive and explanatory of the mentoring experience and it
did not seek to evaluate the participant, the potential risk to participants was minimal. The
potential minimal risk may have included emotional discomfort when participants discussed their
experience and relationship with others as they responded to questions posed by the researcher.
Nevertheless, participants were given the opportunity to take a break or withdraw from the study
immediately without any negative consequences to their employment or status in the school if
they felt upset recalling their experiences. No participants in the initial interview experienced
any such problems, and as indicated earlier, only two participants did not respond to the request
for a follow-up interview. As noted earlier, an IRB application and approval prior to the initial
data gathering was received in an effort to help verify the minimal level of potential risks to the
participants.

Teacher attrition data was collected from each school district’s Human Resource
Department, which included attrition data prior to the initial interview, as well as the three
subsequent years following, 2007-2008, 2008-2009, and 2009-2010 school year (see Appendix
B3). This provided general information in regards to beginning teacher attrition rates. In
addition, local school principals of each participant interviewed were contacted to further
understand and explain their specific attrition issues. The information from these principals
helped to add clarity and understanding of each participant’s reasons for staying, moving or
leaving their teaching assignment. Finally, the response of participants who had moved or left
was sought to help better understand the reason behind the numbers.
Confidentiality was maintained to the extent possible, and all reasonable effort was made by the researcher to safeguard the identity of each participant and their schools. No one except the research team and those directly involved with the research had access to the qualitative or demographic data, which was stored in a secure place. Pseudonyms were used to maintain the confidentiality of the participants and their schools during both analysis and reporting. Only summary data was reported. Upon the completion of the study, recorded interviews will be destroyed. These precautions reduced the potential risk to participants and their schools.

**Data Analysis Methods**

Even before the analysis began, the project was properly set up and arranged. Various sources of data were considered in the analysis of the data. The majority of the data came from the participants’ initial and follow-up interviews, as well as attrition data acquired from each of the school districts and local school principals. For this study, the qualitative analysis process employed included organizing the data, generating categories, themes and identifying patterns, creating and testing explanations and emergent hypotheses, searching for alternative explanations and writing the report (Erlandson, Harris, Skipper, & Allen, 1993; Marshall & Rossman, 1999). The qualitative software NVivo was used to manage and analyze the data, including the providing of functions for queries, graphical models, reports, and negative case testing (Bazeley, 2007; Richards, 2005).

**Organizing the Data**

The process of organizing the data began in the design phase, by considering the data needed and how to process and analyze it. During the data gathering process, both initial and follow-up interviews were recorded, organized and linked to each school folder. All initial and follow-up interviews were transcribed, to allow for qualitative analysis. This transcription
converted the digital recordings of the interviews and supplemental interview notes into a text or word document. Each interview was assigned a case number and separated into folders in the researcher’s computer files. Access to these files was limited to those directly involved with the study.

**Generating Categories, Themes and Identifying Patterns**

The qualitative interview data was organized into categories and themes generated using NVivo software. Data “reduction” and open coding procedures was used to organize and manage the data (Erlandson et al., 1993; Marshall & Rossman, 1999). Data “reduction” techniques or the process of disaggregating the data into smaller and more manageable units was employed early on, so as to facilitate the process of organizing and sorting the data systematically (Erlandson et al., 1993). This coding process for the initial interviews, during which data expanded very quickly (Richards, 2005), occurred concurrently with the data collection of the follow-up interviews.

During open coding or initial coding, a hierarchical tree of nodes was allowed to emerge emically from the data gathered from the beginning teachers’ interviews. Open coding also allowed for the initial consideration of conditions, consequences, strategies and interactions in the data (Bazeley, 2007; Richards, 2005). Initial constructs were developed emically from the concepts that emerged from the response of the beginning teachers. After the initial development of the major themes that emerged from the data, the researcher compared it to the literature review. Although the literature review suggested that some of the potential major themes may include the mentoring relationship, collaborative teams and networks, time duration and intensity, and so forth, the researcher considered any themes as they emerged from the data. A code book to help define tree nodes was created, and an audit trail was maintained from the
start. The audit trail included reflections, annotations, memos, and linking of the data (Richards, 2005).

Moreover, the researcher was not confined to those themes that emerged from the initial interviews, as other themes emically arose based on the data gathered from the follow-up interviews (Erlandson et al., 1993; Marshall & Rossman, 1999). The researcher limited potential bias by primarily allowing categories and themes to emerge based on the interview data gathered from the participants, rather than on themes suggested by the literature. In this way, throughout the coding process, categories and themes continuously expanded and evolved, leading to new understanding and emerging findings (Marshall & Rossman, 1999).

Open coding, supported by conceptual ordering, continued until new themes no longer emerged to ensure sufficient level of saturation, which will help ensure completeness and robustness (Richards, 2005). The thresholds, or the number of cases needed to identify a potential theme were initially set at a minimum of 50%. However, whenever possible, higher thresholds were sought to determine emerging themes (Richards, 2005). Axial coding followed open coding, in which the researcher began to describe and explain the relationships between the various themes in order to identify and discover patterns, using a similar threshold strategy or a minimum of 50% of cases demonstrating the pattern.

Both within-case and cross-case analysis strategies were used along with graphical or visual models, to help clarify or organize thinking, identify relationships, provide comparisons, and display developing theories. Within-case analysis allowed for each beginning teachers’ initial interview to be compared with their follow-up interview in an effort to contrast any changes between their initial and follow-up interviews. Beginning teachers in the same school or same district were also be grouped together for comparison. Furthermore, cross-case analyses or
the practice of looking across cases helped to compare beginning teachers in the Asher School District against those in Dane. Comparative analysis was also done to consider beginning teachers who left teaching against those who stayed. By categorizing all the cases and individual interviews using individual and school level attributes, comparisons were made across different groups of cases.

Analyses during axial coding also sought for alternative explanations for and negative cases of patterns. Patterns developed as relationships between themes and attributes were identified and catalogued. The emerging findings were constantly compared to the data to provide a feedback loop for the analysis through a constant comparative analysis method (Strauss & Corbin, 1998b). The researcher read and re-read, reflected and revisited the data until saturation of findings was reached (Richards, 2005).

Creating and Testing Explanations and Emerging Theoretical Propositions

As open and axial coding continued, conceptual ordering was expanded to create and test explanations and emerging ideas (Strauss & Corbin, 1998a). Coding queries were utilized to assist in comparing and contrasting the data between the initial and the follow-up interviews, allowing for further clarification or added insights pertaining to the sources of support and the mentoring relationship. Cross-time analyses were considered and identified any changes to the beginning teachers’ thoughts of the sources of support that were most beneficial and the mentoring characteristics they thought were necessary for an optimal mentoring relationship between their first and third year of teaching. In addition, matrix-coding queries were further tested for patterns between nodes and individual and school-level attributes to support emerging theoretical propositions.
The use of selective coding allowed for a more focused analysis of a few patterns identified during the axial coding. During this process of selective coding, purposive reading and recording was done. The audit trail was continued throughout selective coding. Dates and the evolution of interpretation and thinking were noted (Richards, 2005). During this process, theoretical propositions to explain the data were formed. As noted earlier, the theoretical model continued to be shaped or reshaped, modified and updated throughout this stage of analysis, which allows for the emergence and subsequent refinement of an explanatory model (Erlandson et al., 1993; Marshall & Rossman, 1999). As the explanatory model began to hold together, it ultimately led to the development of grounded theory based on the data set collected for this study.

**Searching for Alternative Explanations**

It was critical to search for and address alternative explanations to strengthen and validate the emerging explanatory model. Alternative explanations partly came from the queries and matrices used to aid in refining an explanatory model. Moreover, doctoral committee members were invited to provide peer reviews, allowing for alternative explanations to be considered. Marshall and Rossman (1999) acknowledged that “alternative explanations always exist; [and] the researcher must search for, identify, and describe them, and then demonstrate how the explanation offered is the most plausible of all” (p. 157).

Phillips and Burbules (2000) suggested that a researcher is often imperfect due to social and historical contexts, resulting in truth that needs to be self-corrective. To minimize bias, one must be willing to consider alternate and even opposing views. Therefore, negative cases and opposing views that suggest minority patterns were also investigated. Understanding and explaining these negative cases served to strengthen the findings, as well as acknowledge and
recognize other views (Strauss & Corbin, 1998a). A more detailed validity plan is discussed in the next section.

**Writing the Report**

The completed dissertation demonstrates how the explanations offered and summative findings described were the most plausible (Erlandson et al., 1993; Marshall & Rossman, 1999). It offers rich and thick descriptions and focuses on the thoughts of the participants, so as to “create the conditions that will allow the reader, through the writer, to converse with (and observe) those who have been studied” (Denzin, 1998, p. 324) as well as provide support for the trustworthiness of the research and findings.

**Trustworthiness Plan**

The following trustworthiness plan was used to facilitate the credibility, transferability, dependability, and confirmability of the research and findings (Richards, 2005). These strategies describe how trustworthiness was established for data design, analysis and write up.

**Credibility**

Credibility included defining nodes, member checks, peer reviews and triangulation strategies. By clearly defining the nodes, the study avoided potential bias and coding drift during the analysis. Member checks were done with participants, to evaluate and consider if the findings “ring true” or make sense (Richards, 2005). After the initial findings and the early conceptual model began to take shape, participants were invited to provide feedback for a member check. In addition, peer reviews were sought from the researcher’s doctoral committee throughout this process, which provided additional credibility to the study.

Triangulation strategies (Richards, 2005) compared the data against itself as well as against the literature, member checks and peer reviews (Flick, 2008; Strauss & Corbin, 1998a).
Miles and Huberman (1994) defined credibility as the truth-value. In other words, did the findings make sense and were they an authentic portrait of what the data was saying? Additionally, natural validity was considered to ensure that the events were not contrived or modified by the researcher (Miles & Huberman, 1994).

Transferability

Whereas credibility provided internal validity, transferability addressed external validity. Transferability focused on “whether the conclusions of a study have any larger import [and] ...if they are connected to theoretical networks beyond the immediate study” (Miles & Huberman, 1994, p. 279). A thick description of the data was sought during the interviews and was provided in the findings to help others who read this research determine how the findings may fit into other similar contexts.

A detailed research log, included in the audit trail, was used throughout the analysis to establish and maintain a record of the principal researcher’s thought processes and analysis to strengthen the possibility of transferability. This research log, and the audit trail, will allow others to follow the logic of the study and enhance the potential transferability of the findings (Strauss & Corbin, 1998a). This log noted thinking processes, developing ideas and questions, as well as emerging patterns and themes. Furthermore, it documented the journey of processes in the study through the open and axial coding, the more complex analysis of selective coding, and the final summary and justification of the findings.

Dependability

Dependability or reliability strategies were utilized to ensure that the study is consistent, stable, and reasonably controlled (Miles & Huberman, 1994). Again, an audit trail was important in providing dependability. In this case, the audit trail particularly noted any changes
in direction or variance, so that others may follow the line of reasoning used with sufficient details (Strauss & Corbin, 1998a). Enough detail was sought in order to provide consistency of the methods used, and to show rationale for any changes to the initial explanatory model. The audit trail built and supported the conclusions drawn as a result of the analysis, so that others might track, understand, and potentially replicate the process that led to the development of the grounded theory for this study.

**Confirmability**

Finally, every effort was employed to provide confirmability or objectivity, by ensuring that this study could “be framed as one of relative neutrality and reasonable freedom from unacknowledged researcher biases” (Miles & Huberman, 1994, p. 278). Confirmability is critical to trustworthiness in that other researchers may find the study to be relatively free from bias and be able to confirm the same findings through the outlined research process. The audit trail and node definitions helped limit bias to some extent. Furthermore, a peer review by other researchers was sought to strengthen confirmability and check personal biases. To further limit bias, the study also sought to explain the conditions pertaining to any variations, negative cases or opposing views found between the initial and follow-up interviews (Strauss & Corbin, 1998a).

**Possible Implications, Importance, or Value of this Project**

This study can potentially be of benefit to teachers and school and district administrators in describing the optimum sources and types of support from the mentoring program in helping beginning teachers remain in the profession. Specifically, this study sought to investigate what beginning teachers think is most beneficial in helping them succeed and remain in the profession. The findings support the improvement of mentoring programs providing needed support to
beginning teachers. Given the findings, this study may inform shifts in policy regarding mentoring strategies for beginning teachers.

Beginning teachers will ultimately decide if they will stay, move, or leave the profession. So this study, which considered what beginning teachers think, may be beneficial in providing additional insights for school and district administrators. By understanding what beginning teachers think will help them succeed and remain in the profession, school and district administrators will be better informed as they make decisions on how to improve mentoring programs. Additionally, improving beginning teacher retention through improved beginning teacher mentoring could further help stabilize the educational organization and retain investments made on these newly hired teachers.

Additionally, this study was valuable in explaining the advantages and disadvantages of two different mentoring programs for the beginning teachers. Most importantly, it further helped identify elements of an ideal mentoring program. The findings may also inform the use of the limited tax revenues to help beginning teachers and reduce teacher attrition.
Appendix B1

Consent Forms

Informed Consent Form

Confidentiality
All information provided will remain confidential and will only be reported as group data with no identifying information. All data, including questionnaires and tapes/transcriptions from the focus group, will be kept in a locked storage cabinet and only those directly involved with the research will have access to them. After the research is completed, the questionnaires and tapes will be destroyed.

Compensation
There is no compensation from participating in this research project.

Participation
Participation in this research study is voluntary. You have the right to withdraw at anytime or refuse to participate entirely without any penalties to your position in the district or standing with the university.

Questions about the Research
If you have questions regarding this study, you may contact Dr. Pam Hallam at (801) 422-3600, or by emailing pam-hallam@byu.edu or Dr. Paul Thompson at 422-4291, pthompson@weber.edu.

Questions about your Rights as Research Participants
If you have questions you do not feel comfortable asking the researcher, you may contact Dr. Renea Beckstrand, IRB Chair, 422-3873, 422 SWKT, renea_beckstrand@byu.edu.

I have read, understood, and received a copy of the above consent and desire of my own free will to participate in this study.

Signature: _____________________________ Date: _____________
Informed Consent Statement – script of the oral consent for the follow-up interview

This survey is being conducted by Dr. Pamela Hallam and Po Nien (Felipe) Chou from Brigham Young University’s Educational Leadership Department to determine the effects of mentoring/coaching programs on new teacher retention.

Participants were chosen through a stratified random sample of schools with new teachers from each school district.

The survey consists of 21 follow up questions and will take about 30-45 minutes to answer.

There are minimal risks for participation in this study. Potential risks may include discomfort when participants discuss their experience with the mentoring/coaching program. If you feel upset or uncomfortable continuing with this study, you can withdraw from the study altogether.

There are no personal benefits for participating in this study. However, participation in this study may help society by better understand the effects of mentoring/coaching programs on new teacher retention.

Involvement in this research project is voluntary. You may withdraw at any time without penalty or refuse to participate entirely. There will be no reference to your identification at any point in the research.

If you have questions regarding this study you may contact Dr. Pamela Hallam at (801) 422-3600 or Po Nien (Felipe) Chou at (801) 422-2330. If you have questions regarding your rights as a participant in research projects, you may contact:

IRB Administrator,
A-285 ASB Campus Drive, BrighamYoungUniversity
Provo, UT 84602

Phone: (801) 422-1461
Email: irb@byu.edu.
Appendix B2

Initial Teacher Interview Questions

1. Introduction: brief description of the study, confidential interview, signed permission form from participant.
2. Background: where did you attend college? How long have you been teaching? What grade(s) do you teach?
3. Tell me about your experiences in the coaching/mentoring program? What are the positive aspects of the program? In what ways could the experience been improved?
4. How often did you meet with (talk with) your mentor? How many minutes a week?
5. How often did you communicate with your mentor in group settings? Was the communication daily, weekly, monthly, or never?
6. How often did you communicate with your mentor one-on-one? Was the communication daily, weekly, monthly, or never?
7. What do you discuss with your mentor? Do you feel like you can discuss sensitive issues/concerns with your mentor?
8. Are there other people in or out of the school that provide mentoring/coaching for you? Describe how? Which relationship (formal mentor or informal mentor) do you perceive as being the most effective? Rate each mentor (formal or informal) on a scale of 1-10, with 10 being the most effective.
9. Do you believe that having a coach has/will make you a more effective teacher? If so, in what ways?
10. Describe any coaching/mentoring experience that has been focused on instructional techniques (classroom management, teaching strategies, communication or survival -- how to obtain supplies, preparing for parent-teacher conferences, etc.). Describe any coaching/mentoring experiences that have been focused on content improvement (understanding content, aligning lessons with the core curriculum, preparing good lesson plans, correlating lessons with assessments, differentiated instruction, etc.). What proportion of your coaching/mentoring is spent on each type (instructional or content) of mentoring?
11. Do you believe that having a coach has/will have any bearing on whether you stay in teaching or leave the profession? Please explain.
12. What resources are provided to you, your mentee or the mentor/coaching program? How effective are these resources?
13. Do you feel that your confidentiality is being honored by the coach?
14. How important is the principal and his or her support of the mentor/coach program? What about the district support?
15. Is the coach/mentoring program helping you with your Early Years Enhancement (EYE) portfolio? In what ways?
16. Which program (full time teacher assigned to mentor versus a full time released coach the most effective? Can you cite pros and cons to each?
17. What makes a good coach?
18. Rate your overall coaching experience on a scale from 1-10, with 10 being best.
19. Are there other things you would like to tell us about your coaching/mentoring experience?
## Appendix B3

### District and School Information

<table>
<thead>
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<th>School Size</th>
<th>Practicing PLC?</th>
<th>AYP</th>
<th>Beginning Teacher Attrition</th>
<th>Principal</th>
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## Follow-up Survey and Interview Questions

### Follow-up Survey

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<th>Type of Support</th>
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<td>First name</td>
<td>Gender</td>
<td>Subject or Grade</td>
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<td>Principal</td>
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<td>Informal Mentor</td>
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(Add more as needed)

**Teacher:**  
Age ____  Gender ____  Married or Single ____

a. Experience with mentoring prior to full-time teaching

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<th>First year</th>
<th>Second year</th>
<th>Third year</th>
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<td>Grade Assigned</td>
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<td>Stress Level (rate 0-10 with 10 being the most stressful)</td>
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<td>Confidence Level (rate 0-10 with 10 being the most confident)</td>
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<td>Job Satisfaction level (rate 0-10 with 10 being the most satisfied)</td>
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<tr>
<td>End of Year Status (Stayed, moved or left)</td>
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</table>
Follow-up Interview Questions

1. Introduction:
2. Background: describe your family and educational background.
3. If you have left teaching:
   a. Why did you leave teaching?
   b. Do you expect to return to the teaching profession in the future? Why or why not?
4. How has your stress level changed from your first, to your second, and to your third year of teaching? What has or could help reduce your stress level?
5. How has your confidence level changed from your first year, to your second, and to your third year of teaching? What has or could help increase your confidence level?
6. How has your job satisfaction level changed from your first, to your second, and to your third year of teaching? What has or could help increase your satisfaction level?
7. What sources of support have been most beneficial to you in your induction and development in the teaching profession and your school community? How have these sources helped you become a more effective teacher?
8. What sources of support have been most beneficial to you in helping you remain/continue in the teaching profession? How have these sources helped you?
9. What factors do you consider necessary to achieve the optimal mentoring relationship? Please explain.
10. What factors do you consider necessary in matching a mentor and a beginning teacher? Why?
11. a. How has your relationship with your district coach changed from your first, to your second, and to your third year of teaching?
    b. How has your relationship with your in-school mentor changed from your first, to your second, and to your third year of teaching?
    c. How has your relationship with your collaborative team changed from your first, to your second, and to your third year of teaching?
    d. How has your relationship with your other informal mentors changed from your first, to your second, and to your third year of teaching?
12. a. How has the duration and frequency of contact you have with your district coach changed from your first year, to your second, and to your third year of teaching? Please rate it as insufficient, sufficient, more than sufficient, or too much.
    b. How has the duration and frequency of contact you have with your in-school mentor changed from your first year, to your second, and to your third year of teaching? Please rate it as insufficient, sufficient, more than sufficient, or too much.
    c. How has the duration and frequency of contact you have with your collaborative team changed from your first year, to your second, and to your third year of teaching? Please rate it as insufficient, sufficient, more than sufficient, or too much.
    d. How has the duration and frequency of contact you have with other informal mentors changed from your first year, to your second, and to your third year of teaching? Please rate it as insufficient, sufficient, more than sufficient, or too much.
13. How has time/availability and proximity affected these relationships?
14. Do you feel that your confidentiality is/was honored by your coach/mentor?
MENTORING AND RETENTION OF BEGINNING TEACHERS

15. a. Describe any coaching/mentoring experience that has been focused on instructional techniques (classroom management, teaching strategies, communication or survival – how to obtain supplies, preparing for parent-teacher conferences, etc). Describe any coaching/mentoring experiences that have been focused on content improvement (understanding content, aligning lessons, differentiated instruction, etc).
   b. What proportion of your coaching/mentoring is spent on each type (instructional or content) mentoring?

16. a. Please describe the social interaction and supportive communication you experienced from your district coach.
   b. Please describe the social interaction and supportive communication you experienced from your in-school mentor.
   c. Please describe the social interaction and supportive communication you experienced from your collaborative team.
   d. Please describe the social interaction and supportive communication you experienced from other informal mentors.

17. Please compare/contrast the difference in the support you receive from your coach, in-school mentor, collaborative team, and other informal mentors.

18. Is the coach/mentoring program helping you with your Early Years Enhancement (EYE) portfolio? In what ways?

19. In what ways does the mentoring program utilized in your district support and assist the development and retention of beginning teachers? Does having a mentor in the same subject area or grade band make a difference? Are there other factors besides having a mentor in the same subject area or grade band that would make a difference?

20. In what ways could your workplace or school environment improve to support you as a teacher?

21. Are there other things you would like to tell us about your coaching/mentoring experience?
### Appendix B5

**Comparison of Initial and Follow-up Survey and Interview Questions**

<table>
<thead>
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<th>Initial Interview Question #</th>
<th>Follow-up Survey &amp; Interview Questions</th>
<th>Repeated</th>
<th>Reformatted into the Survey</th>
<th>Adapted or Reworded Question</th>
<th>Dropped</th>
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X indicates the question is repeated, reformatted, adapted or rewalled, dropped, added, or the follow-up interview question number.
Appendix B6

IRB Approval

Institutional Review Board  Brigham Young University
for Human Subjects  A-285 ASB Provo, Utah 84602
                                                                 (801) 422-3841 / Fax: (801) 422-0620

February 18, 2010

Pamela Hallam
306-B MCKB
Campus Mail

Re:  X 070245
The Effects of Mentoring/Coaching Programs on New Teacher Retention

Dear Pamela Hallam,

This is to inform you that Brigham Young University's Institutional Review Board has reviewed your Amendment dated 2-10-2010 for the above captioned study. The changes to the study have been approved.

Please find the revised Informed Consent document enclosed. You will note that the date of approval at the bottom right hand corner has been undated on 2-18-2010. No other consent form should be used. It must be signed by each subject prior to initiation of any protocol procedures. In addition, each subject must be given a copy of the signed consent form.

The approved period for the study ends on 8-27-2010. Any additional modifications in the research protocol, study site, personnel, or consent form during this time period must first be reviewed and approved by the IRB.

If you have any questions, please let us know. We wish you well with your research!

Sincerely,

[Signature]
Lane Fischer, PhD, Chair
Sandee M.P. Munoz, Administrator
Institutional Review Board for Human Subjects
APPENDIX C: JOURNAL SUBMISSION INFORMATION

Journal: School Leadership & Management (Formerly School Organisation)
Published by: Routledge
Review: Blind
Acceptance rate: 50%
No. Extended review: 2

Aims & Scope

School Leadership & Management is an international, refereed journal which publishes articles, reports, news and information on all aspects of the leadership and management of schools. The journal is fundamentally concerned with the improvement of leadership and management practice in schools.

School Leadership & Management Particularly Welcomes

- articles that explore alternative, critical and re-conceptualized views of school leadership and management
- articles that are written for academics but are aimed at both a practitioner and academic audience
- contributions from practitioners, provided that the relationship between theory and practice is made explicit.

Peer Review Policy

All research articles in this journal, including those that appear in special editions, have undergone rigorous peer review, based upon initial editors screening and subsequent anonymized refereeing by at least two referees for each paper. In the case of a difference of opinion between referees additional views are sought from a third referee. The refereeing process adheres to the international standards and ensures that all published work is of the highest quality.

Instructions for Authors

Papers will be accepted on the recommendation of two specialist referees.
Authors submitting their first article to the journal are invited to discuss their ideas with the Editor. Inexperienced authors may request assistance from a designated member of the Editorial Board under the Journal's author support and guidance service.
Manuscripts should be double spaced, with ample margins. Each article should be up to 6000 words in length and be accompanied by an abstract of 50-100 words. All pages should be numbered. Footnotes to the text should be avoided where possible. Articles submitted to School Leadership & Management should not be under consideration by any other journal.
DISSENTATION REFERENCES


Hord, S. M. (1997b). *Professional learning communities: Communities of continuous inquiry and improvement.* Austin, TX: Southwest Educational Development Laboratory.


Ingersoll, R. M. (2009). *Teacher Shortage: Case of Wrong Diagnosis and Wrong Prescription.*


