New Teacher Induction: Support, Self-efficacy, and Satisfaction

Warren Hunter

The Problem of Teacher Attrition

The problem of teacher attrition plays out in schools all over the world every year. While high student achievement is the end goal of every school in the country, teacher attrition can make this goal hard to achieve. Data from the National Center for Education Statistics in 2010 using The Teacher Follow-up Survey (TFS) of teachers who completed the Schools and Staffing Survey (SASS) the year before showed that over 15% of public school teachers left education or moved schools following their first year of teaching. Private school teachers left or moved schools at an even higher rate of just over 20% following their first year (Keigher, 2010). Teachers play an integral role in helping students achieve. Research conducted by Stronge (2010) states that "among the factors within our control as educators, teachers offer the greatest opportunity for improving the quality of life of our students" (p. 3). Teacher turnover creates a number of problems for schools and for students. It takes time and money to properly recruit, train, and evaluate new teachers in the field and every departure costs schools more. In 2007 the National Commission on Teaching and America's Future estimated the cost of teacher attrition in America's public schools at 7.3 billion dollars a year (NCTAF, 2007). Every time a teacher leaves a position schools are set back.

In addition to the financial burden that this high rate of attrition places on schools, teachers are not reaching their most effective teaching years when they leave within the first five years, especially if they leave after one year. Research shows that the majority of gains due to experience occur in the early years of teaching, leveling out around year five, and that focusing on retention can be very beneficial financially versus having to hire new teachers to fill spots that have been vacated (Harris & Sass, 2007). When a teacher leaves, all of that experience walks out the door as well, putting next year's students at risk. Teacher attrition affects students, schools, and communities. Why does it happen and what can be done to prevent it?

Alleviating the Problem

While teacher attrition is a problem that exists in schools, it is important to try to figure out what the causes of the attrition are and what some potential supports are for alleviating this problem. One element that this study will look at in detail is teacher induction programming. The New Teacher Center (NTC) is one of the leading institutions in the country working on researching and improving new teacher induction models. NTC defines induction simply as, "comprehensive systems of support and training for beginning teachers" (Johnson et al., 2010, p. 1). There are many outcomes that are purported and intended from an induction program for new teachers.

The claim that this study will attempt to validate using research is that quality teacher induction programming will lead to increased levels of teacher self-efficacy, teacher feelings of support, and teacher satisfaction. Furthermore, the study will examine whether teachers who are efficacious, supported, and satisfied are more likely to remain in their jobs, lowering attrition, and thus positively affect student learning. Also, the study will attempt to tease out what elements of teacher induction are most effective at increasing teacher self-efficacy, support, and satisfaction.

Current State of New Teacher Induction

Teacher induction models come in all shapes and sizes. Some programs are a very important part of a school community and others are only executed because they are required by law. Still some schools have no programs in place at all.

According to Ingersoll and Smith (2004) schools using induction models for new teachers have been on the rise since the 1990-1991 school year when research showed that only 40% of new teachers participated in an induction program. That

number had grown to almost 80% by the 1999-2000 school year (Ingersoll & Smith, 2004). By 2008 91% of teachers took part in an induction program (Ingersoll, 2012). From a policy standpoint, in 2012, twenty-seven states mandated induction programming for their new teachers (Goldrick et al., 2012). States with mandated induction programs vary in length as well. Of the 27 states that require induction three states have no required time period. Thirteen states require one year of induction, while 11 states require either two or three years of induction (Goldrick et al., 2012).

Types of Induction

There are a number of different styles of induction methods that school systems use that help to acclimate new teachers to their new settings and roles. The methods tend to include mentoring, new teacher workshops, professional networks, peer collaboration, content focused groupings, meetings with principal, administrative observation, reduced workload, common planning times, and extra resources (Barlett & Johnson, 2010, Wechsler et al., 2010, Ingersoll & Smith, 2004, Wang et al., 2008). While not all of these elements are in place in all induction programs, some combination of these elements typically make up a new teacher induction program.

The elements of teacher induction that are in place in quality induction programs include programs that are comprehensive, flexible, and emphasize collaboration. They also include teacher participation and make teachers feel supported by administrators. Finally, the research shows that quality induction programs provide support for reflective practice, include standards, are not built for compliance, and collect data for evaluation (Wojcikiewicz, 2010). While it might not be possible to include all of these elements in an induction program due to time or monetary constraints, it is important for policy makers to consider effective elements, review what elements are in place, and decide what characteristics could be added. Another important consideration is if it is possible to gather data that show which elements of induction are more effective than others. Also, which elements are more cost effective to implement.

Impact of Induction

A quality teacher induction program should increase teacher retention in a school. In order to prove this claim a study looked at the effectiveness of induction programs using a series of advanced statistical analyses to examine the effects of induction on attrition. The authors looked at 15 empirical studies that looked at the effectiveness of induction programs. The research supported the fact that teachers who went through an induction program were less likely to leave their school (Ingersoll, 2012). Also, the attrition rate was negatively correlated to the number of induction services and supports that were provided in a given context. Certain elements of induction programming had a higher connection to teacher retention. A mentor teacher from the same subject and common planning time with same subject teachers ranked the highest (Ingersoll, 2012).

The research went on to look at induction "packages" offered to new teachers. When a teacher received two components of an induction program they were more like to stay on the job, but not significantly higher than a teacher that had no services offered. The big shift occurred when a teacher received more than four services (examples include: participation in seminar for new teachers, reduced teacher load, teacher aide in classroom, common planning time) the retention rate was nearly double that of a teacher who received no induction (Ingersoll, 2012). The results indicate that the more parts of an induction program that a teacher participates in, the more likely they are to stay at the school. This is important for policy writers and designers of induction programs to consider. While it may seem like having one or two items in place for induction is satisfactory, research shows that doing more in this case is better. The author noted the limits to this research only looking at retention as a judgment of effectiveness while there are many other elements that must be considered when examining induction programs for effectiveness.

Research done in the Chicago Public Schools, which uses an induction model from NTC with strong mentoring included, shows that beginning teachers who take part in the induction

are two times as likely to remain at their job when compared to non-participants. Furthermore, by judging which schools focused more on various elements of induction, the research found that when the strong mentoring is done in addition to induction including support from administration and teachers, new teachers are three to four times as likely to remain at their schools compared with teachers who did not have any induction programming (Kapadia & Coca, 2007). This shows that the more that is done for new teachers the more likely it is that it will be helpful for the teachers. Strong mentoring is a great start to induct new teachers and should help lead to higher retention. However, strong mentoring plus support from administration and teachers leads to even higher retention.

In order to get an understanding for what other elements increase teacher retention it is important to look at research about retention that is not necessarily tied to induction. The purpose of looking at this research is to see what elements that lead to retention can be supported by induction programs. One study related to teacher retention comes from research conducted at Harvard. The study involved interviewing fifty beginning teachers in their first three years of teaching. The findings show that new teachers are more likely to stay in a job if they have high self-efficacy, feel supported, and feel satisfied (Johnson & Birkeland, 2003). We can infer that if induction programs can lead to these three results, higher feelings of support, self-efficacy, and satisfaction for teachers then they will be more likely to stay in their jobs.

A closer look at these three elements of teacher induction programs can help to determine what factors of induction are most likely to lead to teacher retention and increased teacher effectiveness. The three elements that will be examined in detail are teacher support, teacher satisfaction, and teacher self-efficacy.

Support

Support can be defined as a combination of elements put in place to help teachers succeed. For new teachers these elements may include: high-quality mentoring, ongoing professional development, an external network of teachers and administrators, and a standards-based evaluation (Wiebke & Bardin, 2009). Support has a direct connection to teacher retention. Research done by Wiebke and Bardin show that, "teachers cite lack of support and poor working conditions as primary factors for attrition" (p. 34). While working conditions are typically not something that induction can directly impact, new teacher support is a key element of an induction program. Induction can give teachers a feeling of support that can make them stay at their job. One element that is important to consider is what constitutes support. Administrators and policy designers matching induction services that lead to teachers feeling more supported is key, and it is not always easy to do. Research by Schaefer et al. (2012) noted that, "discrepancies may be apparent between what beginning teachers perceive as support and what administrators perceive as support" (p. 111). This is good to remember when looking at various aspects of induction, one party is the inductor and the other is the inductee. Induction that is intended to lead to feelings of support that misses the mark is not having the intended effect that implementers desire. Doing program evaluation work and surveying new teachers after the induction program is completed to see if the goals are being achieved will help to ensure the discrepancies between administrators and new teachers are limited.

While many elements of support are present in induction programs the prevalence of mentoring as an induction method directly related to support will make it the focal point of support in this section. Administrative support is also a key element of induction that will be examined.

Mentoring. Ingersoll (2004) defines mentoring as**,** "the personal guidance provided, usually by seasoned veterans, to beginning teachers in schools" (p. 683). With the increase in the prevalence of induction programs over the past twenty years in schools mentoring has become one of the main focal points of these programs (Fideler & Haselkorn, 1999). Nearly 80% of induction programs have some element of mentoring as part of the policy (Ingersoll, 2012). Mentoring however is sometimes misunderstood or misinterpreted when studying or implementing induction. Research by

Wong in 2004 helps to clear up some of the confusion.

> "There is much confusion and misuse of the words mentoring and induction. The two terms are not synonymous, yet they are often used incorrectly. Induction is a process- a comprehensive, coherent, and sustained professional development process- that is organized by a school district to train, support, and retain new teachers and seamlessly progresses them into a lifelong learning program. Mentoring is an action. It is what mentors do. A mentor is a single person, whose basic function is to help a new teacher… Mentoring is not induction. A mentor is a component of the induction process" (p. 42).

This is helpful for policy writers and researchers to be aware of when studying this topic. In relation to the research that Ingersoll did showing the importance of bundling services it is clear that a school that only does mentoring and counts it as induction will not be as successful as a school that did mentoring as part of induction services. The more supports that are in place in an induction program will lead to teachers feeling more supported.

In 31 states there is a requirement that a mentor must go through some training process and 15 of those states require ongoing professional development for the mentors that are selected (Goldrick et al., 2012). The important outcome that needs to be considered is if there is a connection between mentoring and new teachers feeling supported. If there is a connection, does that feeling of support lead to teacher retention and increased student achievement?

Research looking at the effectiveness of mentors is becoming more prevalent as more induction programs are instituted across the country. One study conducted by Evertson and Smithey (2000) looked at 46 mentor/mentee pairings in two school divisions. The study compared half of the pairings whose mentor received a three day training workshop with a control group who received no training. The researchers then gathered data from a number of different methods about the two groups. The study revealed that the new teachers that were paired with mentors who had gone through the training fared much better on a number of components of communication, classroom management, and conferencing than did the control group. The results showed that just having a mentor is not as important as having a mentor that has been through some formal training in assisting new teacher transitions.

From this research it is important to consider several elements related to mentoring support. First, mentoring must be a piece of induction in order to most effectively help new teachers, not a stand-alone item. Second, mentors must go through some training before being assigned a mentee if schools want to best support new teachers.

Administrative Support. Another important element of support that is involved in induction programs is the support provided by administration or principals. This can come in a variety of forms. Some principals help by running meetings with the new teachers. Other administrators are involved in the observation process of new teachers as part of induction. Overall, the commitment from administrators to support the induction program as a whole, in addition to participating in it can make a program much more effective. The director of NTC Ellen Moir (2009) writes, "When principals understand the goals of the induction program, they're more likely to support teacher/mentor and collaborative grade-level meetings and less likely to schedule conflicting activities" (p. 17). This support from the top allows the program to prosper. Moir goes on to say, "By working together, principals and mentors can create environments where teacher learning is supported and students benefit" (p.17). A disconnection between the mentors and administrators, or a feeling that the administrators don't value the mentoring piece of induction can undermine the program and hurt new teacher's feelings of support.

This feeling of support for new teachers is very important when looking at retention as well. Administrator support leads to higher retention. Research shows a strong connection between administrative support and induction program

effectiveness. Liu (2007) looked at data from the National Center for Education Statistics' Schools and Staffing Survey 1999 – 2000 and Teacher Follow-up Survey 2000 – 2001. She looked at how new teacher's influence over school policy affected retention through a weighted hierarchical generalized linear model. The results showed that administrative support could lead to up to a 19% increase in teacher retention. In addition, a study that used 782 teacher surveys in Arkansas conducted by Hughes (2012) also noted myriad research findings that point to the fact that, "administrator's actions have enormous impacts on teacher retention…Teachers want to work in schools where they have greater levels of autonomy, higher levels of administrative support" (p. 247). This support can come in a variety of ways, but the important fact is that teachers feel this support and value it.

This is significant in addressing the problem of retention and should lead policy makers to focus on how they can best involve administrators in induction programming. More importantly, building administrators must buy in to the importance of induction programming and supporting new teachers if they want to retain them, recognizing that teacher attrition is a problem that is costly financially and in terms of student achievement.

Self-Efficacy

Teacher self-efficacy can be defined as a teacher's confidence in their ability to perform their job with a focus on student achievement as a goal (Skaalvik & Skaalvik, 2007). It is of particular interest here because teacher self-efficacy has been found to have a positive correlation with student achievement (Tschannen-Moran et al., 1998). It is also an important element because positive teacher self-efficacy has been shown to increase teacher retention. One study that connected teacher self-efficacy to retention was conducted in Florida using a mixed method design to review a survey of 194 teachers during their first three years of teaching. The teachers' responses to the Florida Educator Accomplished Practices (FEAP) survey that looks at twelve competencies related to teaching were used. Paired with prior research on teacher attrition in the state of Florida, Elliott et al. (2010) speculated that, "early career teachers who do not have a sense of self-efficacy for teaching, due to lack of prior experience, preparation, or other factors, may be more likely to leave the profession within the first few years" (p. 134). Much research has been done to determine what helps to develop self-efficacy in teachers.

Wechsler et al. (2010) examined the effects of induction programs in 39 different schools in Illinois using a mixed methods approach. Through surveys of 1,940 teachers and over 1,300 mentors they were able to collect data about the influence of induction programs in a number of categories. One area in particular that the study looked at was teacher self-efficacy. The study looked at only teachers who had been through induction programs, but compared teachers based on the quality of the induction they received. The results pointed to the importance of quality induction as it relates to increasing teacher self-efficacy. It will be important to determine what elements of induction have an effect on teacher self-efficacy.

Three elements of induction stand out when looking at the relationship between new teacher induction and increased teacher self-efficacy; collaboration, relationship building, and instructional focus. Research showed that these three elements stood out as ones that were most likely to increase teacher self-efficacy.

Collaboration. Giving new teachers a chance to work together and not be isolated may lead to increased teacher self-efficacy. Research done by Tschannen-Moran and Hoy (2007) looking at elements of school context that led to self-efficacy found that collaboration amongst teachers, especially new teachers, had a positive effect on self-efficacy. New teacher induction models that allow for, or even require collaboration can impact teacher self-efficacy. Similarly, work done by Schaefer et al. (2012) looked at collaboration and found that lack of collaboration was actually a reason for high attrition amongst teachers. Several ways that induction programs can increase collaboration are by allowing teachers to team teach classes or allow for shared planning time with teachers who teach the same classes.

Relationship Building. While not completely separate from collaboration, building relationships leads new teachers to feeling more confident. Induction that purposefully helps to connect new teachers with a variety of different people can increase the likelihood of new teachers building relationships with colleagues. Research conducted by Haigh and Anthony (2012) surveyed twenty new science teachers in New Zealand three times at six month intervals in their first eighteen months of a new teacher induction program. The questions focused on the effects that the induction had on their self-efficacy. Teachers who felt well connected and had formed multiple strong professional relationships within their school were more confident. The results also showed that the relationships with non-formal, non-assigned colleagues usually were more effective in increasing self-efficacy (Haigh & Anthony, 2012).

This final point is very important to highlight. Assuming that putting a new teacher in a collaborative teaching situation, or pairing them with a mentor, will automatically lead to meaningful relationships does not always work. While some of the effects of building relationships are based on the personality of the new teacher, induction programs can increase the amount of opportunities the new teachers have to interact in non-formal settings. For example, setting up meals or outings for teachers with similar interests can help to facilitate a new teacher building relationships with colleagues.

Instructional Focus. Another important element of induction to include in order to increase teacher self-efficacy is a focus on instruction. Getting back to the main goal of a school, improving student performance, new teachers are in need of instructional support. Teacher preparation programs before a teacher is hired are excellent, but continued on the job instructional assistance is important as well. Without instructional support in place for new teachers they can lack confidence in their ability, especially early on when paired with other difficulties new teachers face. Research from Wechsler et al., (2010) showed that teacher's mean scores for self-efficacy were higher when there was a focus on instruction during induction. This focus on instruction can be delivered in a number of ways. One major area that a number of induction programs use to help with instruction is the mentor program. However, Wechsler et al. (2012) also noted that "mentors and mentees infrequently engaged in activities with high potential for improving instructional practice" (p. i). So, in order to increase the effectiveness of instructional focus through mentoring there must be mentor training done in this area.

Another way to increase instructional focus through induction is to require that new teachers observe other classes. Administrators have the ability to hand pick the best veteran teachers for new teachers to observe and learn from. This also can be a way to show confidence in a veteran teacher. Research from Haigh and Anthony (2012) showed increased self-efficacy from new teachers watching veteran teachers teach. While new teachers in the study admitted to being nervous about imposing on veteran teachers, many of them noted that this practice led to higher levels of self-efficacy (Haigh & Anthony, 2012). Induction programs can require teachers to observe classes inside and outside of their own discipline and grade level as well. This could lead to more interactions with more people increasing chances for relationship building as well. Furthermore, this opportunity could feel overwhelming to a new teacher if time is not allotted to allow these observations to occur. Building in release time or paying for coverage might be ways that these problems could be alleviated.

Satisfaction

The final element of teacher induction that can lead to teacher retention is teacher satisfaction. Teacher satisfaction helps with retention, but more importantly satisfaction helps with teacher performance and student achievement. Research by Ouyang and Paprock (2006) reviewed a number of sources that not only connected retention and job satisfaction, but also teacher performance with satisfaction. They concluded that understanding the causes of job satisfaction will help with the retention problem.

There are a number of different elements that can lead to job satisfaction, some related to

induction and other that are not as closely connected. Kim (1994) researched over 2,000 teachers and ran a multiple regression based on predictors of job satisfaction. The research produced seven significant predictors for teacher job satisfaction. The list was a combination of intrinsic and extrinsic rewards. The seven items were, salary, opportunities for advancement, professional challenge, professional autonomy, working conditions, interactions with colleagues, and interaction with students. Looking at these items and connecting them with induction produced several connections. However, the one that appeared the most in the research dealing with induction was interactions with colleagues. Collaboration and the opportunity to interact with other teachers is an aspect in many induction programs.

Collaboration. The addition of collaboration to an induction program allows for teachers to connect with other teachers in a meaningful way if it is designed well. Looking at research from various induction programs with collaboration as a key helps to understand this topic.

Research from Johnson and Birkeland (2003) looking at 50 first and second year teachers from diverse backgrounds found that teachers that were in professional environments that valued collaboration were more satisfied. The results were striking when looking at retention of teachers that worked in collaborative environments. Teachers in these collaborative environments were almost 25% more likely to still be teaching in their school after their first year of teaching when compared to teachers with less collaborative opportunities in their schools. This shows the effect that an induction program that puts an emphasis on collaboration can have.

This connection between collaboration and retention showed up often in the research. Haun and Martin (2004) compared two groups of teachers, one that was made up of teachers who had left in their first five years teaching and the other current teachers. The research found that teachers who were in school environments that allowed for teacher collaboration were more likely to remain at their jobs. While it was not clear if this was part of the induction program at the schools directly, the fact that it connects collaboration and retention is key. It shows policy makers that some element of collaboration would be very beneficial to include in an induction program.

One final project that looked at satisfaction and retention related to collaboration came from Schaefer et al. (2012). Their research connects prior findings that all point to the importance and rewarding nature that is provided in schools that value collaboration from the start. They pointed to a number of teachers who considered themselves "solo practitioners" in their early years teaching (p. 112). These teachers had a higher attrition rate.

For policy makers, administrators, and induction directors focusing on new teacher satisfaction is very important. It is tied directly to teacher retention and student performance. As the research shows, including some form of collaboration in the induction programming is very helpful to increasing teacher satisfaction. Collaboration was also a key element of increasing teacher self-efficacy which shows it is a key element of induction that must be purposefully involved.

Conclusion

This look at induction programs and the effects that they have on retention and teacher effectiveness helps educators and researchers understand what elements will lead to success in those two incredibly important areas. The importance of induction, and quality induction programs, is highlighted by the understanding that if the induction programs are able to deliver in the areas of support, self-efficacy, and satisfaction then teachers will be more effective and more likely to stay at their jobs. This is critical in order to improve student performance and to limit the financial burden of teacher departure.

Furthermore, the areas of induction programming that are shown to improve retention include: collaboration, relationship building, administrative support, mentoring, and instructional focus. Several of these items are interconnected. Mentoring, building relationships, and collaboration can all be achieved with similar activities in an

induction program. Creative and intentional program evaluators and designers can use this list of key elements of induction programming to ensure that teachers are likely to remain at a school and most effectively teach the students in the building.

References

Bartlett, L., & Johnson, L. S. (2010). The evolution of new teacher induction policy: Support, specificity, and autonomy.*Educational Policy, 24*(6), 847-871. Retrieved from http://search.proquest.com/docview/851226991?accountid=15053

Beginning teacher induction: The essential bridge. educational issues policy brief. (2001). (No. AFT-13). Retrieved from http://search.proquest.com/docview/62192437?accountid=15053

Carver, C. L., & Katz, D. S. (2004). Teaching at the boundary of acceptable practice: What is a new teacher mentor to do?*Journal of Teacher Education, 55*(5), 449-462. Retrieved from http://search.proquest.com/docview/62065154?accountid=15053

Elliott, E. M., Isaacs, M. L., & Chugani, C. D. (2010). Promoting self-efficacy in early career teachers: A principal's guide for differentiated mentoring and supervision. *Florida Journal of Educational Administration & Policy, 4*(1), 131-146. Retrieved from http://search.proquest.com/docview/854554697?accountid=15053

Evertson, C. M., & Smithey, M. W. (2000). Mentoring effects on protégées' classroom practice: An experimental field study. Journal of Educational Research, 93(5), 294-304.

Fideler, E. F., & Haselkorn, D. (1999). *Learning the ropes: Urban teacher induction programs and practices in the united states and] executive summary* Recruiting New Teachers, 385 Concord Avenue, Belmont, MA 02478 Retrieved from http://search.proquest.com/docview/62389639?accountid=15053

Goldrick, L., Osta, D., Barlin, D., & Burn, J. (2012). Review of state policies on teacher induction. New Teacher Center. Santa Cruz, CA.

Graeber, A. O., Newton, K. J., & Chambliss, M. J. (2012). Crossing the borders again: Challenges in comparing quality instruction in mathematics and reading. *Teachers College Record, 114*(4), 30. Retrieved from http://search.proquest.com/docview/1361839524?accountid=15053

Haigh, M. A. & Anthony, G. J. (2012). Induction and efficacy: A case study of New Zealand newly qualified secondary science teachers. *Journal of Science Teacher Education, 23*(6), 651-671. doi:http://dx.doi.org/10.1007/s10972-012-9285-0

Hallam, P. R., Chou, P. N., Hite, J. M., & Hite, S. J. (2012). Two contrasting models for mentoring as they affect retention of beginning teachers. *NASSP Bulletin, 96*(3), 243-278. Retrieved from http://search.proquest.com/docview/1140137433?accountid=15053

Harris, D. N. & Sass, T. R. (2007). *Teacher training, teacher quality, and student achievement. working paper 3.* ().National Center for Analysis of Longitudinal Data in Education Research. The Urban Institute, 2100 M Street NW, Washington, DC 20037. Retrieved from http://search.proquest.com/docview/742883820?accountid=15053

Haun, D. D. & Martin, B. N. (2004). Attrition of beginning teachers and the factors of collaboration and school setting. *RMLE Online: Research in Middle Level Education, 27*(2), 1-7. Retrieved from http://search.proquest.com/docview/61914204?accountid=15053

Hughes, G. D. (2012). Teacher retention: Teacher characteristics, school characteristics, organizational characteristics, and teacher efficacy. *Journal of Educational Research, 105*(4), 245-255. Retrieved from http://search.proquest.com/docview/1023531586?accountid=15053

Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal, 38*(3), 499-534. doi:http://dx.doi.org/10.3102/00028312038003499

Ingersoll, R. M. & Smith, T. M. (2004). Do teacher induction and mentoring matter? *NASSP Bulletin, 88*(638), 28-40. Retrieved from http://search.proquest.com/docview/62079233?accountid=15053

Ingersoll, R. M. (2012). Beginning teacher induction: What the data tell us. *Phi Delta Kappan, 93*(8), 47-51. Retrieved from http://search.proquest.com/docview/1347459378?accountid=15053

Johnson, L. S., Goldrick, L., & Lasagna, M. (2010). New teacher excellence: The impact of state policy on induction program implementation (Policy brief 11-23). Retrieved from http://www.newteachercenter.org/products-and-resources/new-teacher-excellence-impact-state-policy-induction-program-implementation

Johnson, S. M. & Birkeland, S. E. (2003). Pursuing a "sense of success": New teachers explain their career decisions. *American Educational Research Journal, 40*(3), 581-617. Retrieved from http://search.proquest.com/docview/61932172?accountid=15053

Kapadia, K. & Coca, V. (2007). *Keeping new teachers: A first look at the influences of induction in the chicago public schools. research report* Consortium on Chicago School Research. 1313 East 60th Street, Chicago, IL 60637. Retrieved from http://search.proquest.com/docview/62053754?accountid=15053

Keigher, A. (2010). *Teacher attrition and mobility: Results from the 2008-09 teacher follow-up survey. first look. NCES 2010-353* National Center for Education Statistics. , P.O. Box 1398, Jessup, MD 20794-1398. Retrieved from http://search.proquest.com/docview/754906075?accountid=15053

Kim, I, & Loadman, W. E. (1994). *Predicting teacher job satisfaction.* (). Retrieved from http://search.proquest.com/docview/62715150?accountid=15053

Liu, X. S. (2007). The effect of teacher influence at school on first-year teacher attrition: A multilevel analysis of the schools and staffing survey for 1999-2000. *Educational Research and Evaluation, 13*(1), 1-16. Retrieved from http://search.proquest.com/docview/62043650?accountid=15053

Locke, E. A. (1976). The nature and causes of job satisfaction. M.D. Dunnette (Ed.), Handbook of industrial and organizational psychology, Rand McNally, Chicago, IL,1297–1349.

Moir, E. (2009). Accelerating teacher effectiveness: Lessons learned from two decades of new teacher induction. *Phi Delta Kappan, 91*(2), 14-21. Retrieved from http://search.proquest.com/docview/61843928?accountid=15053

National Commision on Teaching and America's Future (NCTAF). (2003). *No dream denied: A pledge to America's children*. Washington, DC: Author.

Ouyang, M. & Paprock, K. (2006). *Teacher job satisfaction and retention: A comparison study between the U.S. and china*Retrieved from http://search.proquest.com/docview/62095986?accountid=15053

Schaefer, L., Long, J. S., & Clandinin, J. D. (2012). Questioning the research on early career teacher attrition and retention. *Alberta*

Journal of Educational Research, 58(1), 106-121. Retrieved from http://search.proquest.com/docview/1037907842?accountid=15053

Skaalvik, E. M. & Skaalvik, S. (2007). Dimensions of teacher self-efficacy and relations with strain factors, perceived collective teacher efficacy, and teacher burnout. *Journal of Educational Psychology, 99*(3), 611-625. Retrieved from http://search.proquest.com/docview/62058580?accountid=15053

Smith, T. M. & Ingersoll, R. M. (2004). What are the effects of induction and mentoring on beginning teacher turnover?*American Educational Research Journal, 41*(3), 681-714. doi:http://dx.doi.org/10.3102/00028312041003681

Stronge, J. H. (2010). *Effective teachers = student achievement: What the research says* Eye on Education. 6 Depot Way West Suite 106, Larchmont, NY 10538. Retrieved from http://search.proquest.com/docview/815958496?accountid=15053

The high cost of teacher turnover. policy brief (2007). National Commission on Teaching and America's Future. 2100 M Street NW Suite 660, Washington, DC 20047. Retrieved from http://search.proquest.com/docview/62046106?accountid=15053

Tschannen-Moran, M., Hoy, A. W., & Hoy, W. K. (1998). *Teacher efficacy: Its meaning and measure* Retrieved from http://search.proquest.com/docview/62477483?accountid=15053

Unraveling the "teacher shortage" problem: Teacher retention is the key. (2002). Retrieved from http://search.proquest.com/docview/62199126?accountid=15053

Veldman, I., van Tartwijk, J., Brekelmans, M., & Wubbels, T. (2013). Job satisfaction and teacher-student relationships across the teaching career: Four case studies. *Teaching and Teacher Education: An International Journal of Research and Studies, 32*, 55-65. Retrieved from http://search.proquest.com/docview/1373092746?accountid=15053

Van der Ploeg, J. D. & Scholte, E. M. (2003). Handleiding voor leerkrachten in het basis- en voorgezet onderwijs. BohnStafleu Van Loghum, Houten/Antwerpen.

Wang, J., Odell, S. J., & Schwille, S. A. (2008). *Effects of teacher induction on beginning teachers' teaching : A critical review of the literature* SAGE Publications. 2455 Teller Road, Thousand Oaks, CA 91320. Retrieved from http://search.proquest.com/docview/61968422?accountid=15053

Wechsler, M. E., Caspary, K., Humphrey, D. C., & Matsko, K. K. (2012). Examining the effects of new teacher induction.*Yearbook of the National Society for the Study of Education, 111*(2), 387-416. Retrieved from http://search.proquest.com/docview/1312425724?accountid=15053

Wiebke, K. & Bardin, J. (2009). New teacher support: A comprehensive induction program can increase teacher retention and improve performance. *Journal of Staff Development, 30*(1), 34-36. Retrieved from http://search.proquest.com/docview/61901188?accountid=1505

Wojcikiewicz, S. E. (2010) Summary of information on U.S. and international teacher education program. Retrieved from http://www.ode.state.or.us/opportunities/grants/nclb/title_ii/a_teacherquality/summary-of-induction-programs.pdf

Wong, H. K. (2004). Induction programs that keep new teachers teaching and improving. *NASSP Bulletin, 88*(638), 41-58. Retrieved from http://search.proquest.com/docview/62003793?accountid=15053