TEACHER PERCEPTIONS OF THE BENEFITS OF TEACHER COLLABORATION AND AN ANALYSIS OF INDICATORS OF POTENTIAL TEACHER ATTRITION

by

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Teacher collaboration is being implemented in many schools for a number of reasons with various claimed benefits. Collaboration is being heralded by many as a fix for many of the problems affecting teachers. This study shows that teachers believe that collaboration improves their ability to teach subject content, improves teaching methods, improves teacher’s ability to manage students, and provides benefits to teachers in general. The majority of participants in this survey, whether currently participating in collaboration or not, indicated that they agree that collaboration provides these benefits.

This study also examines four potential indicators of teacher attrition: administrative support, teacher salaries, excitement and enthusiasm toward teaching, and intent to stay in the teaching profession. The data showed that the effect of participation
in collaboration has a slight positive effect on the indicators of potential attrition but not a statistically significant influence. Low teacher salaries remain a major area of frustration for the majority of teachers and should be further examined as a contributor to teacher attrition.

Teacher attrition is a problem that must be addressed if a solution to the current and future teacher shortage is to be found. Further studies need to be conducted into this critical issue to determine the causes of this problem and find solutions.
ACKNOWLEDGEMENTS

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I also need to thank my children for the patience and sacrifice in letting me spend the last eight years of our lives in working toward this end. I pray they have learned the importance of education as a means and an end and that they too will strive to achieve all that they are capable of. I also hope they recognize the need to keep learning even when the gray matter gets old and hard.

My greatest appreciation goes to my wife Angela who has given up more for this goal than I should have asked. The many nights she slept alone, the honey-does that have taken second priority, and the many hours she took care of my responsibilities while I wrote and re-wrote just to name a few. She has also willingly giving up of many nice things she deserves to provide the finances for this project. Mostly she has loved me through it all and I hope her reward will be commensurate. I couldn’t have done it without her.
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Chapter 1

Introduction

Teacher Shortages

Current and projected teacher shortages are threatening the quality of education throughout the nation. The impact of this shortage is felt by students who are experiencing larger class sizes which increases competition for teacher attention; and by teachers who carry increasingly heavy workloads and responsibilities. Several factors influencing this shortage have been identified including: low teacher salaries, lack of professional recognition for teachers, low student motivation, difficult working conditions, lack of administrative support, a rise in student discipline and student management problems, teacher burnout, and high teacher attrition rates (Ingersoll, 2003). Many of these factors have been addressed by education administrators, with solutions being developed and implemented, with varying levels of success. Four of these factors: low teacher salaries, lack of administrative support, inability to manage students, and loss of enthusiasm and excitement for teaching (teacher burnout) have been identified as the main reasons teachers give for leaving the profession and can therefore be considered as indicators of potential teacher attrition. A rise in teacher attrition has been suggested as one of the major causes influencing teacher shortages (Ingersoll & Smith, 2003; NCTAF 2002).
Attrition rates among beginning teachers are alarmingly high compared to many other professions (NCTAF 2002). Over one third of teachers leave the profession within the first three years of teaching and approximately half leave within five years. According to The National Commission of Teaching and America’s Future (NCTAF), high attrition rates are resulting in a teacher resource dilemma in which the numbers of teachers retiring, in addition to the number of beginning teachers who leave the profession within their first few years of teaching, are outnumbering those who are entering the profession. The result is that even though there should be a sufficient supply of new teachers entering the profession each year, far too many beginning teachers are leaving long before the twenty five or thirty years most individuals dedicate to a profession (NCTAF 2002).

Various teacher induction programs have been developed to assist beginning teachers adjust to the rigors of teaching in an attempt to reduce teacher attrition. Mentoring programs have been used by many schools in which an experienced teacher is assigned to work with a beginning teacher sharing curriculum and ideas and offering direct classroom support (NCTAF 2003). According to Ingersoll and Smith, induction programs reduce teacher attrition rates by almost one third and mentoring programs have reduced attrition by almost half (Ingersoll & Smith, 2003). Even with the apparent success of induction and mentoring programs they have not been implemented without opposition mainly because of their high cost and the demand for additional mentor teachers which further compounds the teacher shortage problem.

One of the more popular programs, teacher collaboration, though unproven as a means for reducing teacher attrition, is gaining widespread popularity among educators.
Unfortunately there is little current research to show that teacher collaboration is an effective means for reducing teacher attrition. Instead of offering one-on-one support for beginning teachers such as in mentoring programs, teacher collaboration is designed to pool the resources and experience of many teachers within specific or related teaching disciplines. Instead of requiring the individual investment of one mentor teacher the beginning teacher is surrounded by, and can draw on, the experience and resources of many teachers at various levels of professional development. Beginning teachers bring to collaboration the most recent training in teaching methods and practices, while career teachers offer years of experience and support for the beginning teachers.

Teacher collaboration is somewhat innovative and revolutionary. Revolutionary changes must pass through several stages before they become fully accepted (Fetterman, 1988; Stake, 1978). Changes in people’s attitudes take time simply because of the difficulty in changing people’s belief systems and teacher collaboration, as with other teacher induction programs, is being implemented with some resistance (Johnson, 2003). Before teacher collaboration will be fully accepted by the general population of school teachers and administrators, a near universal change in teacher’s attitudes toward collaboration will need to take place (Stake, 1978).

Research Problem

Since the highest levels of attrition take place over the first five years of teaching, to quantify the effectiveness of teacher collaboration in reducing attrition would require a longitudinal study spanning a period of several years. At the time of
this writing no longitudinal studies of teacher collaboration could be found offering empirical evidence of the effectiveness of teacher collaboration in reducing teacher attrition or of the benefits of collaboration. However, teacher attitudes and opinions of the effectiveness of collaboration can be surveyed during the early years of the implementation of collaboration programs. The opinions and experiences of teachers participating in collaboration can be studied as an indicator of the potential effectiveness of these programs. Because of the time and resources being committed to collaboration, and because schools are beginning to implement teacher collaboration on a large scale, this research study is being conducted to assess teacher beliefs regarding the benefits of collaboration and to determine if there is evidence to show that teacher collaboration significantly affects the indicators of potential teacher attrition.

Research Questions

1. Do teachers participating in collaboration believe:
   a. Teacher collaboration helps improve teaching methods?
   b. Teacher collaboration helps improve their ability to teach subject content?
   c. Teacher collaboration helps improve their ability to manage students?
   d. Teacher collaboration is a benefit to teachers in general?

Is there an obvious difference in the beliefs of teachers participating in collaboration as compared with the beliefs of those who are not currently participating in collaboration?
2. Is there evidence to show that participation in teacher collaboration significantly influences teacher’s opinions as compared to the opinions of teachers who are not participating in collaboration in relation to the following indicators:

   a. Participants intent to make teaching their lifetime career.
   
   b. Belief that teacher’s salaries are appropriate for the profession.
   
   c. Participant’s perceptions that they feel supported by school administration.
   
   d. Participant’s perceptions that they feel excitement and enthusiasm toward a career in teaching.

Are there significant differences in the responses to these indicators for beginning teachers as compared to experienced teachers?

**Definition of Terms**

Teacher Collaboration: A group of teachers, of a common or related field of study, who meet and collaborate by sharing ideas and resources and offer support for the teachers within the group.

Beginning Teacher: A new teacher within the first 3 to 5 years of his/her teaching profession, sometimes referred to as novice teachers.

Experienced Teacher: A teacher with 6 or more years of experience in teaching.

Mentor: An experienced teacher assigned to work with a beginning teacher who offers support and resources to help the beginning teacher succeed in teaching.
Induction Program: A program of teacher development in which a beginning teacher participates usually within the first few years of teaching. An extension of formal teacher education and training which continues into the teaching practice.

Teacher Attrition: The gradual reduction in the size of the teacher workforce. Beginning teacher attrition has been identified as a major cause of the current teacher shortage crisis. (Ingersoll & Smith, 2003)

Delimitations
This study will not determine or test the cause(s) of teacher attrition.
This study will not be longitudinal.
Chapter 2

Review of Literature

Teacher Attrition

The teacher shortage has reached crisis proportions in many areas of the United States (Ingersoll, 2001; Ingersoll, 2003; Johnson et al, 2003). Studies pertaining to this crisis have been conducted and solutions suggested, studied, and implemented (Ingersoll, 2001; Ingersoll and Smith, 2003; Ingersoll, 2003; NCTAF, 2002). There are three main factors which contribute to the growth or reduction of the teaching workforce.

First, the number of students in the schools is increasing creating a need for a greater numbers of teachers. Second, there are teachers leaving the profession each year. And third, there are new teachers entering the profession (Ingersoll, 2001; 2003; NCTAF, 2002). These three factors must be kept in balance or either a teacher shortage or teacher surplus will result depending on the strength or weakness of each of these factors. Current predictions indicate that the teacher shortage crisis will continue to grow unless the cause of the problem can be identified and a solution implemented (Ingersoll and Smith, 2003).

The first issue, increasing numbers of students, is fairly constant and predictable (Ingersoll and Smith, 2003). Student-body demographics are tied to census information and population growth can be predicted with relatively precise accuracy. Future teacher
needs based on student-body growth alone can be planned for and historically this growth need has been met (Ingersoll and Smith, 2003). According to two recent studies, if increasing student numbers alone were the only issue facing schools, the current and projected teacher supply would not be a problem. These studies found that there are enough new teachers entering the profession each year to meet the demand for new teachers caused by the increasing numbers of students (Ingersoll and Smith, 2003; NCTAF, 2002). The rate of growth in student-body numbers is a fact that currently shows no signs of slowing down but instead is projected to increase. The increase however, is predictable and therefore can be planned for.

At the same time that student numbers are increasing, parents, students, and teachers are calling for smaller class sizes in which more individual attention and better opportunities for learning can be given to each student. Smaller class sizes and lower teacher to student ratios are linked to improved student achievement (Achinstein et al, 2004). However, the growing shortage of teachers is increasing the teacher to student ratio, not decreasing it. Charter schools and private schools promise smaller class sizes and do alleviate, at least temporarily, some of the problems of overcrowding in the public schools (Achinstein et al, 2004; Wayne et al, 2005); but these classes and schools are also increasing the demand for teachers. The fact remains that wherever there are students there must be teachers. More schools with more classrooms create a higher demand for new teachers. A larger student-body simply necessitates the need for more teachers to answer the demand for smaller classes to provide more effective learning environments.
Another factor affecting teacher attrition is the number of teachers leaving the profession in which exists a perplexing dichotomy. The makeup of teachers leaving the profession consists mostly of two groups: teachers who are retiring after spending many years in the career of teaching (Johnson and Birkeland, 2003), and beginning teachers who, for whatever reason, abandon the profession within the first few years of teaching (Archer, 1999; Ingersoll, 2001; 2003; NCTAF, 2002). The numbers of beginning teachers who abandon the profession within the first few years of teaching make up an alarmingly large segment of the teachers leaving the profession (Archer, 1999). Those who retire from the teaching profession have proven their ability to succeed as professional educators as demonstrated by their life career in teaching (Darling-Hammond and Youngs, 2002), as opposed to those who, for various reasons, choose another profession and leave the teaching profession early. Within the teacher workforce the combination of these two groups is the largest part of the negative component of the teacher shortage problem (Ingersoll, 2003).

A third factor, teachers entering the profession, has long been viewed by many as the only solution to the teacher shortage crisis (Ingersoll, 2001; Johnson and Birkeland, 2003; NCTAF, 2002). It would first appear that to meet the demand for a greater number of teachers, all that needs to be done is to increase the number of teachers recruited into the profession (Darling-Hammond and Youngs, 2002). The solution appears to be a simple issue of increasing the supply to meet the demand (Ingersoll, 2001; NCTAF, 2002). However, there are several challenges which have impeded this solution. In a favorable economy such as we have been experiencing for several years, accentuated by low unemployment, the result is a shortage of workers in
all fields which increases the demand for highly skilled professionals. Entry level salaries increase in relation to the demand for skilled workers and well educated college graduates entering the workforce have increased options to choose from. The long hours required in teaching, accentuated by the challenges of classroom management, and rewarded with low monetary compensation (Rosenholtz, 1989) is not as enticing as the professional perks and benefits offered by many large businesses and corporations. Enrollment in lower paying and higher commitment career paths, including teacher education programs, suffers during prosperous times and the numbers of new students entering teacher development programs drops (Johnson et al, 2003; NCTAF, 2002). Incentives to entice students into the profession are many. Legislative promises of higher teacher salaries, teacher signing bonuses, scholarships for teacher education, and student loan waivers for individuals willing to commit to a career in teaching are all attempts to attract more students into the teaching profession (Johnson et al, 2003). As mentioned previously the number of new teachers entering the profession should be able to keep up with normal teacher attrition, but the teacher shortage crisis continues (Ingersoll and Smith, 2003; Johnson and Birkeland, 2003; NCTAF, 2002). Thus more money is spent and a greater emphasis placed on increased efforts in recruiting (Portner, 2005).

Alternative Teacher Certification

Another attempt to attract more individuals into the teaching profession involves alternative and emergency certification programs (Baines, 2006; Steadman and Simmons, 2007). These are designed to entice professionals away from other careers
directly into teaching and have been implemented in some areas as a means to further expedite the number of new teachers coming into the profession (Bain, 2006; Darling-Hammond et. all, 2005; Kelley, 2004). These programs have resulted in additional numbers of teachers entering the profession, however teachers recruited by alternative and emergency programs have been shown to have much higher attrition rates than traditionally prepared teachers which ultimately compounds the problem (Darling-Hammond et. all, 2005). In spite of these attempts to increase the numbers of teachers entering the profession the teacher shortage crisis continues to grow (NCTAF, 2002).

Studies have shown that the numbers of new teachers recruited into the profession by the various means is adequate to meet the needs of the growing student-body (Ingersoll, 2003). Student-body numbers increase at a fairly predictable and constant rate and can be planned for. The number of teachers retiring is also fairly predictable and cannot be avoided. However, as these studies also point out, if teacher attrition, which is alarmingly high, can be reduced, the need for new teachers will drop in direct proportion to the reduction in teacher attrition (Ingersoll and Smith, 2003).

Teacher Development Models

Teacher career and development has been studied extensively by many researchers (Borko, 2004; Christensen and Fessler, 1991; Pajares, 1992). These studies show that most traditionally trained career teachers develop and acquire expertise in teaching practice through distinct stages of development (Alba and Sandburg, 2006; Borko, 2004; Christensen and Fessler, 1991). Several teacher development models have been proposed, differing in syntax and definition, but concurring on main themes
of development from novice to expert educator. As presented in these models, the study of content knowledge and the teacher training gained by student teachers only prepares them to enter the profession as a novice teacher (Borko, 2004). Most of the studies agree that it can take many years for a teacher to develop into a professional educator in practice (Alba and Sandburg, 2006; Borko, 2004; Christensen and Fessler, 1991; Neisz, 2007). Teacher education programs or professional career experience may qualify an individual to teach but they do not guarantee that a beginning teacher will develop into an expert professional educator (Borko, 2004). The first few years of teaching have been identified in the studies as the “survival” years (Russell et al, 2001), through which new teachers must somehow endure if they are to have a chance of developing into expert educators. It is within these first years that teacher attrition is so epidemic, with one third of beginning teachers leaving within the first three years and one half within the first five years. It is therefore within these survival years where teacher attrition must also be corrected (Bain, 2006; Borko, 2004).

**Teacher Induction Programs**

To address the issue of helping beginning teachers adjust to the rigors and demands of teaching, teacher induction programs have been developed. These programs include: beginning teacher mentoring, extended student teaching (Russell et al, 2001), continuing teacher education, teacher collaboration (Borko, 2004; Cochran-Smith and Lytle, 1999; Russell et al, 2001; Uhl and Perez-Selles 1995; Wayne, 2005), and other programs specifically designed to support beginning teachers. Some of these programs have proven effective in reducing teacher attrition however not all of the programs have
proven cost effective or long term viable (Darling-Hammond et. all, 2005; Smith and Ingersoll, 2004).

Mentoring programs have been developed, implemented, and proven successful (Little, 1990; Smith and Ingersoll, 2004). These programs however, have met with some resistance especially from assigned mentors who in many instances do not receive additional compensation for mentoring thereby increasing the mentor’s workload without compensation. Mentoring provides the needed support for new teachers but increases the workload on experienced teachers who many times feel overburdened. Programs in which the mentor teachers are compensated are among the most costly (Steadman and Simmons, 2007).

Extended opportunities for student teaching are being explored as possibility for acclimating new teachers to real world teaching (Russell et al, 2001). Some teaching programs begin exposing prospective teachers to actual classroom settings within the first year of teacher development (Howe, 2006), with successively increasing levels of involvement in actual teaching throughout the teacher development program (Russell et al, 2001). These programs provide students with the opportunity to experience real world teaching early in their teacher training programs (Howe, 2006) which also allows them to reflect on their career decision before they have invested four or more years into a teacher training program and career path that they later regret.

**Expert Teacher Development**

One of the claims of the teacher development models is that teacher professional development in classroom practice takes years (Killeavy, 2006). This development is
directly addressed in programs that expose students to classroom settings through early student teaching opportunities (Russell et al, 2001). It is suggested that teachers can only develop into professional educators through extensive practice and not merely by the acquisition of teaching theory (Cochran-Smith and Lytle, 1999).

Various teacher continuing education programs have also been tried with limited success (Darling-Hammond et. all, 2005). These programs are designed to keep beginning teachers in masters or other professional development programs to further their skills and provide additional support and training in theory while the beginning teacher gains experience in practice. These programs typically attract and recruit teachers who are more dedicated to teaching as a career and who are also superior students and may therefore be more naturally committed to teaching as a life long career (McGlamery and Edick, 2004). These programs are limited and therefore not a solution to the problem since a small number of beginning teachers have the opportunity to participate in them (Maciejewski, 2007).

**Teacher Collaboration**

The latest program, teacher collaboration, is an attempt to bring all the elements of success from the previously tried and proven programs into a cost effective solution to the teacher attrition problem (Johnson, 2003). Teacher collaboration is intended to bring teachers together to form a community of teachers sharing support and resources and working toward common goals. Beginning teachers become part of a larger teaching community and have the support of a number of teachers typically within their own teaching discipline who can provide support and resources during the survival
years (Niesz, 2007). Recently trained beginning teachers bring the latest in teaching theory and pedagogy including the implementation of modern technology while expert teachers provide experience in classroom management and curriculum development (Penuel and Riel, 2007). Teaching expertise and resources are pooled and a support and resource network is created (Pennell, 1996). It is also suggested that the pooling of resources through teacher collaboration and networking reduces teacher workload for all teachers. Participating teachers become part of a larger community of educators working toward the common good of the students. The proponents claim that teacher collaboration benefits both teachers and students and advances educational goals (Johnson, 2003; Pennell, 1996).

Summary

Teacher induction and mentoring programs have proven to be effective in reducing teacher attrition (Darling-Hammond et. all, 2005; Kelley, 2004); but because of high cost and lack of universal support, many schools and school districts are opting for teacher collaboration programs in an effort to meet beginning teacher induction needs (Penuel and Riel, 2007). Some school districts have placed so much value on teacher collaboration that they are allowing for shortened classes and schedules to provide time for teachers to meet collaboratively (Alpine School District policy, 2008). The reported success and administrative acceptance of these programs has lead to their widespread implementation as more schools and districts encourage and support teacher collaboration.
The projected growth in teacher shortages makes it critical to discover if and how teacher collaboration affects teacher attitudes related to teacher attrition. Teacher collaboration programs can affordably be created which would involve almost all teachers within most schools. If it can be shown that teacher collaboration benefits teachers by providing the resources and support necessary to help beginning teachers survive the beginning years of teaching to develop into experienced professional educators then collaboration programs should be implemented wherever possible. A research study of the benefits of teacher collaboration and the influence of collaboration on attrition indicators is needed (Stake, 1978).
Chapter 3
Research Methodology

Background

Beginning teacher attrition is a problem which spans a period of several years. Teacher attrition drops dramatically after the first five years of a beginning teacher’s career (NCTAF, 2002; Ingersoll, 2001; 2003). A longitudinal study to determine the effects of teacher collaboration on teacher attrition would take several years to accomplish (Fetterman, 1988). The time required to make a longitudinal study of the effects of teacher collaboration would postpone the feedback and evaluation to a time period several years distant. Because teacher collaboration is being adopted in an attempt to reduce teacher attrition a more immediate method of investigation has been implemented in this survey to assess the benefits of teacher collaboration and its effect on the indicators of potential teacher attrition.

A survey of teacher’s attitudes regarding collaboration would satisfy the needed requirements for quick assessment. This study is intended to assess current beliefs and attitudes to provide timely generalizable data (Fetterman, 1988; Stake, 1978). The population of teachers within a specific school is made up of teachers at many levels of teacher development. Some are beginning teachers within their first few years of teaching, some are more experienced having made it past the dangerous beginning years to the middle of their careers, and a few will be expert teachers approaching retirement.
(Alba and Sandberg, 2006). The data gathered from this survey will therefore be multi-dimensional providing information regarding the beliefs and attitudes of teachers at many levels of professional development.

The research questions as to whether or not participation in teacher collaboration benefits teachers and how collaboration influences the indicators of potential teacher attrition were explored by comparing the responses given by teachers participating in teacher collaboration regarding their attitudes and beliefs toward the teaching profession with responses of teachers not participating in collaboration (independent variables).

Context

The survey was conducted within two Utah school districts, one in which teacher collaboration has not been fully implemented (the intended research group), and one in which teachers have been participating for three or more years (the intended control group). By the time this survey was ready to be administered nearly all Utah school districts were in the process of implementing school-wide teacher collaboration programs. However, one district was found in which several of the high schools had not yet fully implemented a school wide collaboration program. Because teacher collaboration is now considered to be a best practice, and because some schools within the district had not yet fully implemented collaboration programs, the district agreed to participate on the condition that no specific reference by name be made to either the school district or participating schools. Therefore, the schools involved in this study will hereafter be referred to as District A, schools A1, A2 and A3; and the other schools will hereafter be referred to as District B, schools B1, B2 and B3. The survey proposal was
approved by the BYU IRB after which the two districts were contacted and approval to conduct the survey obtained. The schools were selected at random within each school district and were notified in order of random selection until three schools in each district agreed to participate. The first, third and fourth schools contacted in District A agreed to participate and the first three schools contacted in District B all agreed to participate. School A2 agreed to participate only if the survey would be conducted online which was also suggested by two other schools. One of the District B schools withdrew from participation less than a week before the execution of the survey because they felt another survey being administered within the district would place an undo hardship on their teachers. The fourth random school in District B was contacted and agreed to participate at the last minute. Multiple schools were selected because of the low general response to surveys of this type. Assessing multiple schools also made it possible to compare the demographics of respondents between the schools to be certain that the demographic distribution of the respondents was normal. If the distribution of respondents from one or more schools had been found to be skewed then the data set for that school or schools would have been removed from the model. However, it was found that the respondents for all schools were normally distributed (see chapter four) and therefore all the data was pooled and analysis was conducted on the pooled data rather than by school or district. Participation in the survey was voluntary and the respondents self-identified as collaborative or non-collaborative establishing the first level of independent variables.
The survey was conducted online and was administered through Qualtrics Corporation (www.qualtrics.com). The survey was divided into four sections: teacher demographics (independent variables), teacher collaboration structures, beliefs regarding benefits of teacher collaboration (1st dependent variable), and indicators of potential teacher attrition (2nd dependent variable).

The teacher demographic information section was to gather quantifiable information including participation in teacher collaboration, teacher years of service, teacher qualification and certification, and teacher experience. This demographic information became the independent variables for statistical analysis. The first level of analysis was conducted by comparing the responses from teachers participating in collaboration with those teachers who are not participating. Since teacher attrition takes place in the first few years of teaching a second level of assessment was made to determine if there were statistically significant differences in the responses of beginning and experienced teachers.

The teacher collaboration section included quantifiable data such as number of workgroup members, participation by group members, workgroup structure, and administrative participation. Reponses were gathered to determine teacher preferences regarding collaboration structure but no statistical analysis was performed on the data.

The third survey section consisted of Likert scale questions regarding the teacher’s attitudes and beliefs regarding their perceptions and experience of the benefits of teacher collaboration. Likert scales allow the participant to respond to a statement by varying levels of agreement or disagreement. In this study a five level point scale was
used ranging from strongly agree, agree, neither agree or disagree, disagree, to strongly disagree. The perceived benefits of collaboration section was studied as the 1st dependent variable for analysis.

The final section of the survey also accessed, through Likert scale questions, teacher attitudes toward teaching as a career and became the 2nd dependent variable for analysis. The statements in this section are based on the indicators of potential teacher attrition and provided the means to determine if participation in teacher collaboration affects participant’s attitudes toward teaching as a career as measured by the indicators.

Teachers were also given the opportunity to share any comments regarding concerns or suggestions through an open response section. All of the open comments are included in Appendix 3 of this report. No analysis was conducted on the open responses. A copy of the survey questions are included in Appendix 2.

Data Collection

Survey mailings and invitations, survey administration, and data gathering, were performed online through Qualtrics. The survey was open for a period of one month in the spring of 2009. The raw data was downloaded to SAS 9.1 (Statistical Analysis System version 9.1) for analysis.

Data Analysis

Two tests were conducted on the raw data. Cronbach’s Alpha was first used to determine if there was correlation between the multiple responses in each of the two Likert scale questions. Cronbach’s Alpha tests the correlation of several similar items to
determine if the responses can be combined to measure a single construct. In the case of our two Likert sections the first would construct a composite score for beliefs regarding the benefits of collaboration and the second a composite score of teacher satisfaction as it relates to the indicators of potential attrition.

The second test was the use of ANOVA (analysis of variance) to create an adjusted model by measuring for variances between the independent variables and the dependent variables and then creating an adjusted model for final analysis of collaboration/non-collaboration and beginning/experienced teacher.

A test of statistical significance or p-value was measured for each of the independent variables. A lower p-value (<0.05) indicates that the independent variable has a significant effect on the dependent variable either positive or negative. The p-value indicates the statistical significance or consistency of the effect but not the actual level of the effect.
Chapter 4
Research Findings

General Survey Findings

The survey invitation was emailed to 562 teachers in the two districts, 5 were returned as undeliverable. It was accidentally discovered through the survey that two teachers in two different schools in District B had the same email address. Of the 557 invitations 204 completed the survey for a 36.6% overall response rate. 139 of 309 or 44.8% of teachers from District A responded and 65 of 248 or 26.2% of teachers from District B responded. The lower response from District B may be attributed to the fact that District B teachers participated in a district sponsored survey a few weeks prior to being asked to participate in this survey. In District A the response rate by school ranged from 39.8% to 50.5% and in District B the response rate by school ranged from 24.3% to 27.5% (see table 3.1). The higher than expected response rates from District A proved to be especially beneficial for statistical purposes since all of the surveyed schools in District A had slightly less than half of the teachers participating in experimental collaboration programs the balance of who were not currently participating in collaboration.
Table 3.1  Survey Response Rates

<table>
<thead>
<tr>
<th>School</th>
<th>District A</th>
<th>District B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invitations</td>
<td>101 93 116 91 70 87</td>
<td>558</td>
</tr>
<tr>
<td>Responses</td>
<td>51 37 51 25 17 23</td>
<td>204</td>
</tr>
<tr>
<td>Response Rate</td>
<td>50.5% 39.8% 44.0% 27.5% 24.3% 26.4%</td>
<td>36.6%</td>
</tr>
</tbody>
</table>

The distribution of teachers based on years of full time teaching experience within the study group appeared to be normal with the exception of school A2 in which the majority of teachers participating in collaboration had significantly fewer years of experience. The following distribution table (table 3.2) shows how many teachers participated from each school, the number who are participating in collaboration, the mean and median years of full time teaching service, and the number of teachers in each 5 year block of years of service.

Table 3.2  Teacher Distribution: Collaborating (Yes) and Non-Collaborating (No)

<table>
<thead>
<tr>
<th>School</th>
<th>A1</th>
<th>A2</th>
<th>A3</th>
<th>B1</th>
<th>B2</th>
<th>B3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Average Years</td>
<td>14.5</td>
<td>15.8</td>
<td>9.4</td>
<td>16.1</td>
<td>10.2</td>
<td>13.3</td>
</tr>
<tr>
<td>Median Years</td>
<td>13.5</td>
<td>12.0</td>
<td>4.0</td>
<td>14.0</td>
<td>9.0</td>
<td>9.5</td>
</tr>
<tr>
<td>1-5 Years</td>
<td>4</td>
<td>9</td>
<td>11</td>
<td>4</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>6-10 Years</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>11-20 Years</td>
<td>8</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>21-30 Years</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>7</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>31+ Years</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Teacher Totals:</td>
<td>20</td>
<td>30</td>
<td>20</td>
<td>17</td>
<td>15</td>
<td>36</td>
</tr>
</tbody>
</table>
Population Analysis

The survey responses showed consistency between schools and within both school districts. None of the data from a specific school revealed any abnormal or questionable responses so further analysis was conducted on data pooled from all schools and no further statistical analysis was made by school or district. Statistical analysis was conducted by comparing the responses of teachers participating in collaboration (Yes) with responses of those not collaborating (No) and for responses from beginning teachers (one to five years of experience) with responses from experienced teachers (six or more years of experience).

Teacher Demographics

Of the respondents 49.5% declared that they have worked in another profession other than teaching which was much higher than expected. Over 93% of respondents surveyed were traditionally certified, and 14 respondents (less than 7%) had received alternative certification through various programs mostly in other states. Only one respondent had been alternately certified in Utah. None of the respondents declared that they were teaching without being certified. Of the respondents 54.4% had completed a master’s degree, only one respondent was teaching with an associate degree, and none of the respondents had earned either a doctorate degree or were non-college graduated. The respondents also indicated that 94% have a current teaching assignment that is directly related to their degree.
Teacher Collaboration Organization and Structure

The data showed that 57% of the respondents are currently participating in a teacher collaboration program. Meeting with teachers from common academic area accounted for 82.8% of the respondents, self-organized or volunteer to work collaboratively with other teachers with similar interests was only 7% of those surveyed and 7% work in a group by assignment. Singletons accounted for 3% of the respondents and most of them indicated that they collaborate with teachers from other schools. Of those respondents not currently in collaboration 59% believe that collaboration should take place by common academic area, 30% prefer self selection or volunteer, and 6% suggested cross curricular but related collaboration such as collaboration among math, physics, and science teachers.

A little over a third of collaboration is conducted in a round table organization with no formal leader. A senior teacher or department chair leads the groups 30% of the time and 14.5% are led by an elected individual. The remaining groups are led by a school administrator. Of those not participating in collaboration 35% or the respondents suggested a roundtable format, while 46.9% believe that collaboration should be led by an elected leader and only 13% indicated that a senior teacher/ department chair would be best.

Frequency of collaboration differed greatly from what the respondents want and what is taking place with 42% of the respondents suggesting meeting 2-3 times a month, 37.3% thought that monthly meetings would be best, and only 19% suggested meeting weekly. In practice 46% of the respondents meet weekly for collaboration, 35% meet 1-3 times a month, and 18% meet less than once a month.
Most collaboration programs meet weekly during either a late start morning or an early out day. This option is the most widely used as it does not require additional time commitment from the teachers. However, because of a shortened school schedule one day each week, late start or early out for collaboration cuts into student classroom time which was a frequent concern expressed by many of the teachers. Half of the teachers indicated a preference for the adjusted class time and 43% preferred before or after regular school hours with comp-time or incentive pay. Only 2% of teachers were willing to meet before or after school without comp-time or incentive pay. This should not be construed to mean that teachers are not willing to go the extra mile or make sacrifices in teaching, but what it may show is a correlation of the responses to the question in section 4 in which over 75% of respondents either disagreed or strongly disagreed that teacher salaries are appropriate for the profession. According to the responses in section four, three out of four teachers already feel under-compensated for the work they do.

Of the respondents not participating in collaboration, 74.7% indicated that they would support collaboration indicating a strong acceptance of collaboration while 20.5% were undecided and less than 5% said they would not support it. Of the participants not currently involved in collaboration 70% felt participation should be voluntary. Of those surveyed who are currently participating in collaboration 72.7% felt that it should be mandatory for all teachers while only 25% felt it should be voluntary and less than 2% indicated that it should be discontinued.

This data shows that there is strong support for collaboration among both those currently involved in collaboration and those who are not. The main area of concern
among collaborating and non-collaborating participants had to do with meetings being
conducted too frequently and the best time to meet. The most common meeting time is
weekly during an adjusted schedule which requires a loss of student classroom time. A
large majority of the respondents felt that before or after school with comp time or
incentive pay would be best.

Open Comments Regarding Teacher Collaboration

The majority of teachers who took the time to write an open response in the
survey expressed positive comments about teacher collaboration. Most of the concerns
had to do with finding the best time for collaboration. Only one teacher indicated that
collaboration was a “waste of time”. A complete list of open comments is included in
Appendix 3 of this report. No further analysis was made of the open comments.

Benefits of Teacher Collaboration

Likert Scale #1

I believe teacher collaboration helps to:

1) Improve my teaching methods.

2) Improve my ability to teach subject content.

3) Improve my ability to manage students.

4) Benefit me as a teacher.
Research Question #1

Teacher responses regarding the benefits of teacher collaboration were measured by the first Likert scale section of the survey. The survey measured teacher beliefs about the benefits of collaboration as it related to the following four specific areas:

1) Teacher collaboration helps to improve teaching methods.

2) Teacher collaboration helps to improve a teacher’s ability to teach subject content.

3) Teacher collaboration helps to improve a teacher’s ability to manage students.

4) Teacher collaboration helps to benefit teachers. (in general)

The teachers were asked to respond to these statements on a five point scale from “strongly agreeing” to “strongly disagreeing”. A statistical average response (mean average) was also calculated for each statement by converting the responses to numerical values: Strongly agree =1, agreeing =2, neither agreeing nor disagreeing =3, disagree =4, strongly disagree =5. A mean response close to 1 would indicate that all teachers strongly agree with the statement. A response of 3 would be neutral and a response close to 5 would indicate the majority of teachers strongly disagree with the statement. The responses of teachers participating in collaboration were compared to the responses of teachers who are not in collaboration. The following charts show the distribution rates of responses to the four statements.
Over 86% of responses, for both collaborative and non-collaborative teachers, either agree or strongly agree that collaboration improves teaching methods. Less than 4% of respondents disagree or strongly disagree with the statement. The observed responses for collaborative and non-collaborative teachers indicates that the belief regarding the benefits of collaboration related to improvement in teaching methods does not change with participation in collaboration. The mean response for collaborative respondents was 1.84 (agreeing) and the mean response for non-collaborative respondents was 1.88 (slightly less) further establishing validation of the benefits of collaboration to improvement in teaching methods (See table 3.3)
Figure 3.2 Benefits to Teaching Subject Content

Figure 3.2, benefits to improvement in ability to teach subject content, shows a striking similarity to the benefits to improvement in teaching methods. Analysis of the response means shows no difference between collaborative and non-collaborative responses with both means at 1.99. Over 80% of respondents either agree or strongly agree that collaboration improves teacher’s ability to teach subject content establishing the benefit from collaboration to teaching subject content.

The responses regarding the benefits of collaboration to the statement that collaboration helps improve teachers ability to manage students is the only statement to which an obvious difference could be observed. Of the collaborative teachers 9% fewer agreed with the statement and the neutral responses increased by over 13%. This could indicate that the anticipated benefit from collaboration is higher than what the collaborative respondents actually experienced. It should also be noted that the mean
response for both collaborative and non-collaborative teachers (see table 3.3 on page 34) is still on the agreement side of the scale indicated some benefit in improving teacher’s ability to manage students though figure 3.3 shows that in practice teachers participating in collaboration do not agree with the statement as strongly as they do in connection with the benefits to teaching methods or teaching subject content.

![Collaboration Helps Improve Teachers Ability to Manage Students](image)

Figure 3.3  Benefits to Teacher’s Ability to Manage Students

The ability to manage students is also one of the indicators of potential teacher attrition. Student and/or classroom management was not mentioned by any respondent as an area of collaborative focus; however, as an indicator of potential teacher attrition and therefore an area of teacher concern, provision should be made to implement training in student management as part of teacher collaboration.
The final benefit question relates to an opinion of the benefit of collaboration in general. The combined mean response is the highest positive response of all the questions (see table 3.3) at 1.76 indicating a strong belief among both collaborative and non-collaborative respondents that collaboration benefits teachers in general.

With the exception of figure 3.3 the charts show that the beliefs of collaborative teachers and non-collaborative teachers regarding the benefits of collaboration nearly mirror one another. This indicates that what teachers believe about the potential benefits of collaboration prior to participating in collaboration is very close to what teachers actually experience in collaboration. The difference observed in figure 3.3 shows that the majority of teachers were split between agreeing and disagreeing with the belief that collaboration would help teachers manage students better but teachers in collaboration were only more neutral in their opinions. In practice, the belief that collaboration helps
teachers better manage students was not as great as what was expressed by teachers who were not participating in collaboration.

An examination of the mean responses as shown in table 3.3 to these statements reveals a more striking similarity in the beliefs of collaborative teachers and non-collaborative teachers.

Table 3.3 Benefits of Collaboration: Comparisons of the Means

<table>
<thead>
<tr>
<th>Benefits to Teaching Methods</th>
<th>Benefits to Teaching Subject Content</th>
<th>Benefits to Teacher’s Ability to Manage Students</th>
<th>General Benefit to Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Collaborative Responses</td>
<td>1.84</td>
<td>1.99</td>
<td>2.36</td>
</tr>
<tr>
<td>Mean Non-Collaborative Responses</td>
<td>1.88</td>
<td>1.99</td>
<td>2.37</td>
</tr>
<tr>
<td>Combined Responses</td>
<td>1.86</td>
<td>1.99</td>
<td>2.365</td>
</tr>
</tbody>
</table>

Table 3.3 shows that teachers slightly more than agree with the three statements that collaboration helps to improve teaching methods, ability to teach subject content, and in general benefits teachers. It also shows that teachers do not agree as strongly that collaboration improves their ability to manage students as indicated by the mean response less than 2. The similarities in the responses between collaborating and non-collaborating teachers show that non-collaborating teachers have accurate preconceived beliefs of the benefits of collaboration. If these preconceived beliefs were only hype then a significant difference in the responses to all four statements would be expected. The lack of difference in the responses to all but one of the statements establishes the validity of the beneficial claims of collaboration.

A Cronbach’s Alpha measure was made of Likert scale #1 to assess the correlation of the four questions. An alpha value of 0.892 was measured indicating that
all the questions in the first Likert scale were strongly correlated. There was little variation in the responses for collaborative and non-collaborative respondents and therefore the four questions of Likert scale #1 could be combined into a single measure of the benefit of collaboration. The overall mean response for scale #1 was 2.005 indicating that overall respondents agree that collaboration benefits teachers.

Indicators of Potential Teacher Attrition

Likert Scale #2

1) I intend to make teaching my lifetime career.
2) I believe teacher salaries are appropriate for the profession.
3) As a teacher I feel strongly supported by my administrator.
4) I am excited and enthusiastic about my teaching career.

Research Question #2

Is there evidence to show that participation in teacher collaboration significantly influences teacher’s opinions as compared to the opinions of teachers who are not participating in collaboration in relation to the following indicators of potential attrition?

a. Participants intent to make teaching their lifetime career.
b. Belief that teacher’s salaries are appropriate for the profession.
c. Teacher’s feelings of support from school administration
d. Excitement and enthusiasm toward a career in teaching.

Are there statistically significant differences in the responses to these indicators for beginning teachers as compared to experienced teachers?
The data for the second Likert section was analyzed in SAS (Statistical Analysis System: www.sas.com) for correlation between the dependent variables (the Likert survey statements) and the independent variables (teacher demographics). An attempt was made using Cronbach’s Alpha to correlate the responses to the four questions of interest in the Likert scale into a composite indicator of teacher satisfaction. Though the four questions all correlated well to similar independent variables there was not enough correlation between all four statements to use them as a composite score to measure general teacher satisfaction. An alpha value of 0.2218 indicated that the four areas were affected in different ways by the independent variables. Therefore the independent variables were tested using ANOVA (analysis of variance) to each of the Likert statements (dependent variables).

A model was created in which the variance of each of the independent variables was measured and adjusted for. The independent variables included: Number of Years Teaching, School, Years at Current School, Other Profession, Type of Certification, Degree Earned, and Degree Related to Teaching Assignment.

P-values were calculated indicating the statistical significance of the effect of each of the independent variables and the dependent variables. P-values range from 0 to 1 with a lower p-value being considered more significant. A p-value of .05 would indicate that the effect seen between the dependent and independent variable would be repeated 95% of the time. The lower the p-value the higher the probability of repeating the outcome of the test and the lower the chance that the observed results occurred accidentally.
As expected the independent variable with the strongest significance was: “Number of Years Teaching” which had a p-value of less than .0001. This showed that the more years a teacher has been in the profession the greater the likelihood they will consistently agree with the statement of intent to stay in the profession. During the analysis one interesting correlation was found to be whether or not a teacher had worked in another profession. The p-value for the correlation between other career and teaching as a lifetime career was highly significant at .02 (meaning that the same response could be predicted 98% of the time). Examination of the responses showed that teachers who have been in another profession are slightly less committed to making teaching their lifetime career.

The most important indicator of potential teacher attrition is the Likert statement: I intend to make teaching my lifetime career; which could not be supported by a statistically significant measure. The p-value of .66 indicated a weak association between the dependent variable (I intend to make teaching my lifetime career.) and the independent variable (participation in teacher collaboration). It therefore cannot be concluded that participation in teacher collaboration significantly influences the indicator of potential attrition regarding a teacher’s intent to make teaching a lifetime career.

Looking at the mean response, as measured in the model, showed that teachers who have been teaching 5 years or less and participating in collaboration are only slightly less likely to make teaching their full time career.
Table 3.4 Teacher Career Trends

<table>
<thead>
<tr>
<th>I intend to make teaching my lifetime career.</th>
<th>Mean</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Years or Less AND Collaboration</td>
<td>1.75</td>
<td>1.72</td>
</tr>
<tr>
<td>5 Years or Less Non-Collaborating</td>
<td>1.70</td>
<td></td>
</tr>
<tr>
<td>More than 5 Years AND Collaboration</td>
<td>1.33</td>
<td>1.37</td>
</tr>
<tr>
<td>More than 5 Years Non-Collaborating</td>
<td>1.42</td>
<td></td>
</tr>
<tr>
<td>Composite Mean</td>
<td>1.48</td>
<td></td>
</tr>
</tbody>
</table>

This may be construed to show that collaboration actually influences beginning teachers to leave the profession, however in looking at the response distribution in Figure 3.5 the shift in the means may be attributed to a polarization of responses from those who are participating in collaboration. Collaboration may be responsible for more absolute or decisive decisions regarding teaching as a career as shown in the polarization of the responses away from agreeing with the statement wherein 10% less respondents were neutral and 12% more respondents disagree with the statement.
The trends indicate that there may be a tendency for beginning teachers who are participating in collaboration to be more certain of their career intentions either strongly agreeing or disagreeing. This polarization would also account for a low p-value which results from the fact that teachers who participate in collaboration may be more strongly committed to teaching as a career while others are not. None of the other dependent variables in the teacher career scale were significantly associated with participation in collaboration.

Table 3.5 summarizes the p-values and mean responses for the three statements:

1) I believe teacher salaries are appropriate for the profession.
2) As a teacher I feel strongly supported by my administration.
3) I am excited and enthusiastic about my teaching career.

<table>
<thead>
<tr>
<th>Mean Collaborative Responses</th>
<th>Mean Non-Collaborative Responses</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Salaries are Appropriate</td>
<td>3.91</td>
<td>3.95</td>
</tr>
<tr>
<td>Feel Strongly Supported by Administration</td>
<td>1.92</td>
<td>2.09</td>
</tr>
<tr>
<td>Excited and Enthusiastic about Teaching</td>
<td>1.57</td>
<td>1.72</td>
</tr>
</tbody>
</table>

Teacher salaries continue to be an issue of major concern among teachers. Over 75% of teachers disagree or strongly disagree that teacher salaries are appropriate for the profession. Low teacher salaries have been identified as one of the main indicators of potential teacher attrition (Ingersoll, 2003). As shown in Table 3.5 and Figure 3.6 there is minimal reduction in the number of individuals who disagree with the statement that teacher salaries are appropriate. The data shows that participation in teacher collaboration...
collaboration has no affect on the perception of teacher salaries however fewer collaborating teachers strongly disagreed that teacher salaries are appropriate while the number of teachers who disagree grew to over 50%.

![Figure 3.6 Teacher Salaries](image)

The data in Table 3.5 shows that teachers who participate in collaboration feel more positive toward their school administration. Figure 3.7 shows drops in negative responses to the statement and increases in agreement with the statement of administrative support. Though the strength of this statistic is somewhat low there is still a probability that over 80% of the findings are repeatable. One of the main purposes of collaboration as revealed in the study is administrative support for beginning teachers and the data shows that collaboration may be providing some of the needed support.
As a teacher I feel strongly supported by my administration.

Collaborative Teachers Non-Collaborative Teachers

Strongly Agree | 31.3% | 25.3%
Agree | 51.8% | 48.2%
Neutral | 10.7% | 20.5%
Disagree | 3.6% | 4.8%
Strongly Disagree | 2.7% | 1.2%

Figure 3.7 Administration Support

The last area of analysis has to do with a statement of excitement and enthusiasm toward teaching. Teacher burnout is a problem which can affect teachers at all levels of experience. Collaboration is intended to provide teachers the opportunity to socialize and benefit from each others energy. Collaboration in the professional world has long been viewed as a means of creating synergy (google search: workplace synergy and collaboration). The data in Figure 3.8 shows a 9% difference in those who strongly agree that they are excited and enthusiastic about their teaching career relative to participation in collaboration. This data shows that teachers who participate in collaboration reported feeling more excited and enthusiastic about their choice of teaching as a career.
Summary of Findings

The data showed that:

1) Respondents agree that collaboration benefits teachers.

2) The beliefs of non-collaborative and collaborative teachers with regards to the benefits of collaboration are relatively the same.

3) The effect of teacher collaboration on the potential indicators of teacher attrition is not statistically significant.

4) Therefore it cannot be concluded from this survey that teacher collaboration has a positive impact on the indicators of teacher attrition.
Benefits of Collaboration

It is apparent from the data that teacher opinions regarding the benefits of collaboration are consistently positive for the majority of teachers. Over 90% of teachers believe in the benefits of collaboration and 75% support participation. The main concern of teachers has to do with when to conduct teacher collaboration without taking time away from students. It is evident that teacher collaboration enables teachers to find the resources they need to improve their teaching methods and improve their ability to teach content. Collaboration may not help with student management but the data also revealed that it didn’t do it any harm. In general there is strong evidence to support the claim that teacher collaboration benefits teachers.

Collaboration currently does not focus on helping teachers manage students even though this is one of the indicators of potential teacher attrition. As indicated in the study the actual benefit to a teacher’s ability to manage students is less than what was anticipated.

Many of the respondents expressed concern about their students and a few indicated a willingness to sacrifice personal time without compensation for collaboration. Collaboration which is conducted too frequently may further complicate the time issue and may reduce collaborative benefits. Late start and early out schedules
ensure collaboration takes place and are easy to schedule but may also result in reduced teacher support if the benefits of collaboration are outweighed by the negative impact of taking time away from students.

Indicators of Potential Teacher Attrition

Collaboration has been implemented in many school districts and may soon be the norm in most of them. It is disappointing that a statistically stronger association between collaboration and the indicators of potential attrition could not be established. It was however evident that participation in collaboration positively influences teacher opinions regarding the indicators of potential teacher attrition. Teachers involved in collaboration felt more supported by administration and reported being more enthusiastic and excited about their teaching careers. They also more strongly disbelieve that teacher salaries are appropriate for the profession. There are many other factors that influence teacher attitudes. One identified in this study was the influence of previous professional experience or previous career experience outside of teaching on the intent to stay in the teaching profession. These factors warrant further investigation.

The most surprising of findings was the main area of focus of the study, the intent of teachers to remain in the profession. If teacher collaboration affects the indicators of potential teacher attrition, as some have claimed, then the data would have shown a decrease in the percentage of teachers who disagree with the statement that they plan on making teaching their lifetime career. The survey revealed however that the opposite is true. While the number of teachers who strongly agree that they intend on making teaching their lifetime career increased by about 3.5% the number of
teachers who disagree with the statement simultaneously increased 4%. When the measurement is applied only to beginning teachers the latter statistic jumps up 12%. All of the teachers represented by this statistic are in their first four years of teaching. Though this study revealed strong support among teachers and corroborated the benefits of collaboration, this study found no evidence to support the claim that participation in teacher collaboration significantly influences the indicators of potential teacher attrition.

**Recommendations**

The need to find a solution to the teacher attrition issue is crucial. Teaching is both demanding and rewarding. However if the demands outweigh the rewards individuals will continue to find other, more rewarding, careers. Three out of four teachers indicated they are dissatisfied with teacher salaries. It could be that teacher salaries alone are responsible for high teacher attrition rates. A study of the effect of teacher salaries on attrition is certainly warranted.

Based on the findings of this study it is recommended:

1) That teacher collaboration programs be implemented in all schools.

2) A cost/benefit analysis of collaboration frequency and scheduling should be conducted to determine the most beneficial time and frequency for collaboration.

3) Schools and districts should consider scheduling collaboration monthly or at most bi-weekly at a time that does not cut into student schedules.
4) Teachers should be offered comp-time or incentive pay for participation in collaboration. (One or two hours a month for collaboration may prove more cost effective than adjusted schedules by eliminating the need to take classroom time away from students.)

5) Teacher collaboration should provide a forum for training in student management.

6) A study needs to be conducted to determine which demographic factors influence teacher career determination and to what extent these factors affect teacher attrition.

7) A survey needs to be conducted to determine if low teacher salaries could be the main cause of teacher attrition. The respondents to this study indicated that the majority of them are unsatisfied with current teacher salaries. If it can be shown that low teacher salary is the main reason teachers are leaving the profession then legislation must be pursued which will address and correct this problem.

8) A forum or support group needs to be created within each school which would provide beginning teachers who are considering leaving the teaching profession and changing careers the opportunity to discuss their reasons and to determine if there are solutions to their concerns if that is their desire.

9) A longitudinal study needs to be conducted to provide empirical evidence of:
   a. The root causes of teacher attrition.
   b. The total economic impact of teacher attrition on society.
   c. Identify solutions to the teacher attrition problem.
BIBLIOGRAPHY


The national commission on teaching and Americas future and NCTAF state partners, (2002) *Unraveling the teacher shortage problem: Teacher retention is the key*, Washington D.C.
APPENDICES
APPENDIX 1

School Questionnaire

School Name: ___________________________ District: _______________________

School Principal: ________________________ Phone: ______________

Teacher Collaborative Workgroups current in the school: Y or N

Planned: Y or N

Type of Group Organization

Whole School (Cross Curriculum) ☐ Related Curriculum ☐ Department Specific ☐

Teacher Participation: Mandatory ☐ Non-mandatory ☐

Number of teachers/administrators in the school: _______ Number participating: _______

Workgroup Logistics: Please provide a brief description of the details of your group.

How often and where you meet, how the group is organized, Administration participation, etc.

_____________________________________________________________________________

_____________________________________________________________________________

_____________________________________________________________________________

Please list the specific goals or purpose of your group and how accomplishments are measured.

_____________________________________________________________________________

_____________________________________________________________________________

_____________________________________________________________________________
APPENDIX 2

Survey Questions:

Teacher Demographics

1. What school are you currently teaching at?
2. How many years have you taught school full time?
3. How many years have you been teaching at this school?
4. Have you worked in another profession?
5. What type of teaching certification do you have?
6. What is the highest college degree you have earned?
7. Is your degree directly related to your teaching career?
8. What subjects do you teach?
9. Are you currently participating in a teacher collaboration program?

Collaborative Structure (survey branching for non-collaborative teachers)

10. How many teacher participate in your collaborative group?
11. How are the group members selected?
12. Who leads the group?
13. How often does your group meet?
14. When does your group meet?
15. What are the main purposes or goals of your group?

16. Are Attendance and Participation in your group mandatory?

17. How strongly do you support collaboration?

Likert Scale Opinion of the Benefits of Teacher Collaboration

I believe teacher collaboration helps to:

18. Improve my teaching methods.

19. Improve my ability to teach subject content.

20. Improve my ability to manage students.


Likert Scale Indicators of Potential Attrition

22. I intend to make teaching my lifetime career.

23. I believe teacher salaries are appropriate for the profession.

24. As a teacher I feel strongly supported by my administration.

25. I am excited and enthusiastic about my teaching career.

26. Please list any other comments or opinions you have regarding teacher collaboration.
(The following is the responses that were made to the following survey question:)

Please list any other comments or opinions you have regarding teacher collaboration?

I was involved with collaboration at the middle school level and loved it. It was beneficial for identifying problems with students that were occurring with other teachers, not just me. When we recognized a common behavior problem or academic weakness in a given student, we could then make a plan to help this student that was consistent in all our classes. When we were all aware of the student's needs and came up with a common plan to overcome challenges for the student, we saw significant improvement. We weren't fighting the war alone and by working together, student behavior and/or academic performance changed dramatically. I also liked hearing about what other teachers were covering in other subjects so I could try to implement similar concepts in my class. We all focused on common vocabulary and learning skills which helped students see that subject matter learned in one class was not limited in use to that subject. The crossover in curriculum is huge and collaboration helped us all tie things together to help our students make connections across the curriculum.

For singletons, it is a bit more difficult to make it successful, and so the process of coming up with common assessments is slower. But in the end, I believe it to be very beneficial.

Trying to get other teachers to buy-in is difficult.

More collaboration time should be set aside for teachers.

Just another waste of time. Let me have the time to help students, plan lesson plans and grade papers. This is a better use of my time. Thanks

Many of the "old school" teachers fight collaboration tooth and nail. They think they can just shut the door and teach. You can't do that anymore and be as effective. I would love the opportunity to collaborate, but it's a time issue.

I have had good and bad experiences in my student teaching with collaboration and as long as it is well organized with a purpose I feel it would be beneficial for teachers to improve our craft.

It's a good thing when supported by the administration and participating teachers. I've benefitted a lot from our collaboration. Also, I've taught 36 years and your program won't allow for that. Do you have something against teachers who have a lot of experience?

The biggest challenge is finding time to collaborate. I think it would be great if there was some collaboration time built into our schedules rather than trying to find time for
it before or after school.
Singleton teachers should be able to meet with other singletons from other schools so that collaboration is more effective and useful.

Teacher Collaboration improves student learning, comprehension, and retention.
Collaboration allows me to identify where I need to change in order to meet the needs of my students. Scope & sequence assists me in pacing of my curriculum.

I see collaboration as a great tool for those teachers just starting their careers to be able to discuss with older teachers all the stuff that comes up those first years. I wish I would have had that option. I see it as a great tool for those in the middle of their careers to keep excitement and take the monotony out of the same old stuff. I see collaboration as a great tool for those teachers at the end of their careers to keep going and not coast to the end. As well as being able to pass on some of that great wealth of wisdom to those coming up.

It's a GREAT DAY to be a MINER.......

I have taught 36 years, 35 in this district and 1 in another district, but you only let me list 35. You should indicate a maximum, and why. Or do you know the respondent?

Great program
At Mt view we are currently working weekly in collaborative groups divided by department. It's been a great experience overall.

because I am the only one teaching the classes I teach, I have to collaborate on a district level rather than a school level. That presents challenges with scheduling. Much is done via the internet.

It's a waste of student time to take teachers out of the class room to collaborate. If it's done it must be on non-student time (with compensation)

too many kids in a class - time is a premium -
Currently, teacher collaboration is done on an individual, as-needed basis. It would be nice to have scheduled department collaboration and intradistrict collaboration. Alta is considering implementing a late start school day, which would be a great time to begin schedule collaboration.

it works to make teachers into better teachers.
I strongly oppose making collaboration manditory. Those teachers who do not want to participate still will not. This will make things difficult for those who do want to participate.

I think teacher collaboration is a very good idea, it just hasn't helped me because no one else in my school teaches interior design or fashion strategies. There are other FACS teachers, but subjects in this department vary so greatly that common assessments and other collaboration doesn't really work in our situation.

It would be nice to have more time to collaborate, but I'm grateful for the time set aside for collaboration every week at my district.

This is difficult for me to answer. I am a "singleton"--or the only one that teaches my subjects. When we collaborate as a department, we can complete a little but not many of
my curriculum goals. I answered the above questions as they relate to our in-school collaboration on Mondays. I have already been, and still do, collaborate with the other "singletons" in the district that teach the same subjects. I find that extremely helpful. The fact is, that we all find it so helpful that we meet outside of school on our own time and did so before the Monday collaboration day was organized into the schedule. That makes the collaboration on Mondays somewhat useful because we can cover some issues that don't actually relate to our curriculum (like student success, etc.) We actually tried to meet with our "singleton" group on Mondays but it never worked because the different schools mandate different collaboration activities on the Mondays. We were never able to get together on the same Monday. Therefore, we continue to meet together outside of school time because we appreciate the benefits of working together. If I was less than enthusiastic in the answers above--that is the reason.

Being trained on how to establish a collaborative group is a critical component to becoming a successful collaborative team.

It's an idea whose time has been long overdue. Very effective.

We do some collaboration on our own. I strongly believe if we could do more collaboration on a regular basis, our teachers and students would benefit because we would all be working towards the same goals, achievements, etc.

The collaboration we have at our school has to do with broad school goals. I believe collaboration should be by subject area with other schools to develop curriculum and skills that pertain to my subject area.

contract time should be provided for teacher collaboration

Collaboration is a means to be involved, to keep from re-inventing the wheel, to get and share new ideas, to know that we're all in this together. It also helps to solve problems when many heads think on the same problem.

Doing teacher collaboration for my masters, really not related with the school

I also meet with the fine art teachers and they have helped get several of my students in Springville Museum of Art. won best of show and went to meet Govenor Huntsman, he also won $500. Several Students have projects and bowls at the Scera in Orem. Discussing Essential Questions-such as 1. What do we expect students to learn? 2. How will we know what students have learned? 3. How will we respond to students who aren't learning? How can you go wrong!

Is this collaboration between disciplines or inradepartmental?

We are moving towards a schoolwide teacher collaboration program next year. My sophomore team is basically a pilot group to develop common assessments. Next year, we will expand our team's function to develop more curriculum and to use assessment to drive curriculum

I worked in a teacher collaboration program for two years in another district. It worked best when we worked with our own subject areas. It was the paperwork and documentation of the collaboration that frustrated teachers the most.

I believe it isn't done enough, especially with the new teachers. I once was a new teacher, and have only been at two of five schools where teachers did collaborate, and
what a difference it makes.

Much of our common curriculum has been developed by collaboration. On a daily basis we share new ideas, info, and problems.

I am sure that some teachers will waste the time. They are the same teachers who find the easiest way out of everything. A small group of teachers will carry the burden of the program. But there is the possibility that collaborative time could produce better teaching. It's worth the effort.

I think what I am doing is not what you are talking about.

Principal and his staff provide strong leadership and commitment to collaboration and expect the same from the teachers. Through their leadership, the faculty has done some amazing things. I feel that has become the leader of School District schools using the PLC model.

I think teacher collaboration is essential for student success. It can be more work and a little overwhelming at times, but it is better for students, and that is what matters.

Collaboration is effective. However, I do not think most teachers and administrators know what collaboration is, or how to make it an effective use of time.

I'm not sure if what I do is what you are really talking about. My self and another teacher in my FACS department both teach Child Development. We have worked together to improve the basic curriculum that we had in the school. We brainstorm on ideas for each unit - work together on creating handouts and activities - and try to have the classes we teach very similar in content.

It should be self-selected. I love my group this year, but I could see how some teachers wouldn't like it if they didn't connect with the other teachers in their group.

I would choose to participate in collaboration depending on who was in the group and what the goal was. I would be opposed to having to collaborate with teachers whom I didn't respect--mandatory, assigned collaboration.

There would need to be a lot of guidance because otherwise no one knows what to do, when to do it, or how to do it. Without a "plan" it will be a waste of time.

As a new teacher it is a strength and a life line for me!

In order for teacher collaboration to work, there would need to be some major changes in a school. Any attempts to make it work with the system as it currently exists are doomed to failure.

Face-to-face instruction time has been significantly reduced and it has been hard on AP teachers who have a deadline for covering the material.

I am concerned that it will be mandatory and that I will have to do it no matter if I have time or not. I have a lot on my plate and it is one more thing I will need to do for the sake of doing it. I want to do it, just not mandated at certain times and places.

I feel it is the tool we need to improve education but administration needs to let us have the time instead of using the time for other things, like class schedules. They also need to understand we are the experts in the field.

I feel that I'm helping others, but the need to align our curriculum, while improving
someone else's, tends to force me to lower my standard somewhat. This is frustrating for me.

As my first year at this school it has been very helpful to be able to ask questions to all the teachers in my area of what the particular goals and outlooks of this specific school are.

It only works if people are willing, and if collaboration is going to happen at all, it probably already is--it shouldn't be a forced thing. But if I had a set time to do it, I'd definitely take advantage of it.

Our collaboration has been from departmental curriculum to cross curricular with history, science. We try to have once or twice a year projects that work with other departments.

It is a good idea, tough to implement effectively and in a timely manner. I think it should be tracked on a computer (there has to be teacher collaboration software out there)

Needs to be done!

I believe collaboration is important and has the potential to be a very powerful tool. I believe it is helping significantly in our department, but I wouldn't say we have taken it to the level of "very powerful tool" yet.

Teachers who are the only teacher of their subject in the school are expected to meet with other "singleton" teachers and find common ground, creating common assessments and developing a common curriculum. There is little that we can do that is productive. The best collaboration for me happens when I meet with other teachers in my area from other schools, but this only happens about once a month. I would rather have the time to develop my own curriculum, create my own assessments, and strengthen the program I already have than to try to create something else that meets someone else's criteria for a collaborative experience. Even in our own area, we do not have a set curriculum to follow, therefore we don't have common assessments. Expecting singleton teachers to function like teachers who have 3, 4 or 5 teachers in the building teaching the same course is not a very productive use of our time.

Singletons need more time as district groups to meet.

Team teaching can be more effective when both teachers share a common planning period. Many of the younger teachers feel that when a Special Education teacher teaches with them they are not willing to share the curriculum development