Relationship Between Select Variables and Teacher Retention

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Abstract  
The major purpose of this study was to determine the relationship between selected variables and teacher retention. 503 students who had passed the Professional Development (PD) Examination for Certification of Educators in Texas (ExCET) between September 1, 1996 and August 30, 2000 were identified. Five research questions were developed for the study. Research questions numbers one, two, three, and four addressed descriptive characteristics of different groups of participants. Research question number five addressed the relationship between the selected variables and teacher retention. A point-biserial correlation coefficient was used to determine the relationship between the following variables and teacher retention: PD ExCET scores, age, TASP reading scores, and GPA; and a phi coefficient was used to determine the relationship between the following variables and teacher retention: ethnicity, teacher education program completed and gender. The results of the study show that there is no relationship between the selected variables and teacher retention.

When a certified teacher makes the decision to leave the profession, it is rare that a single motivating factor can be identified. Research indicates that factors useful in the prediction of teacher attrition do exist. The current teacher attrition rate combined with the current teacher shortage, especially in high needs areas, and the national emphasis on education excellence creates a need for public school administrators and college and university teacher education program administrators to identify those aspects of a teacher’s job which predict the inclination to leave the profession in an effort to retain certified teachers.

Discussion  
The overall purpose of this investigation, conducted during the spring and summer of 2003, was to determine the relationship between teacher retention and the following variables: Professional Development Examination for the Certification of Educators in Texas (PD ExCET) scores, Texas Academic Skills Program (TASP) reading scores, age at time of passing the PD ExCET, ethnicity, completion of a field-based teacher education program or emergency permit teacher education program, gender, and undergraduate grade point average.

From the database at a single Texas senior-level university, 503 students who had passed the PD ExCET between September 1, 1996 and August 30, 2000 were identified. The master list was also forwarded electronically to SBEC where public school teaching
assignments for each identified participant for the years covered in the study. All identifying markers were removed from the list before being sent to the researcher.

Before final analyses were conducted, two groups of identified participants were removed from the database: 1) 29 because they did not teach in a Texas public school during the years covered by the study, and 2) 56 because they were hired to teach in a Texas public school in the year 2001 or 2002 so they did not have an opportunity to complete two consecutive years of teaching when this research was completed.

**Findings**

A number of results from previous studies have been confirmed in this study. The selected variables were not predictors of teacher retention. The following table (Table 1) shows a summary of the results.

<table>
<thead>
<tr>
<th>Variable</th>
<th>503 Total</th>
<th>388 Stayers</th>
<th>30 Leavers</th>
<th>29 Non-teach</th>
<th>56 2001-2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD ExCET</td>
<td>79</td>
<td>79</td>
<td>79</td>
<td>79</td>
<td>78</td>
</tr>
<tr>
<td>Age</td>
<td>29</td>
<td>30</td>
<td>29</td>
<td>31</td>
<td>28</td>
</tr>
<tr>
<td>TASP</td>
<td>270</td>
<td>270</td>
<td>271</td>
<td>266</td>
<td>269</td>
</tr>
<tr>
<td>GPA</td>
<td>3.30</td>
<td>3.31</td>
<td>3.15</td>
<td>3.31</td>
<td>3.33</td>
</tr>
<tr>
<td>Gender</td>
<td>M-257</td>
<td>M-193</td>
<td>M-18</td>
<td>M-14</td>
<td>M-31</td>
</tr>
<tr>
<td></td>
<td>F-246</td>
<td>F-195</td>
<td>F-12</td>
<td>F-15</td>
<td>F-25</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>NM-89%</td>
<td>NM-88%</td>
<td>NM-93%</td>
<td>NM-97%</td>
<td>NM-88%</td>
</tr>
<tr>
<td></td>
<td>M-11%</td>
<td>M-12%</td>
<td>M-7%</td>
<td>M-3%</td>
<td>M-12%</td>
</tr>
<tr>
<td>TE Program</td>
<td>FB-53%</td>
<td>FB-52%</td>
<td>FB-57%</td>
<td>FB-62%</td>
<td>FB-50%</td>
</tr>
</tbody>
</table>

A point-biserial correlation coefficient was conducted between the following variables to determine their relationship to teacher retention: PD ExCET scores, age at time of passing the PD ExCET, TASP reading scores and undergraduate grade point average. A phi coefficient was used to determine the relationship between the following variables and teacher retention: ethnicity, teacher education program completed and gender.

The SPSS 11.5 program was used to analyze the relationship between the variables. Table 2 shows the correlations between teacher retention and the selected variables. The results indicated that there is not a relationship between the selected variables and teacher retention.
Table 2

*Relationship Between Teacher Retention and Select Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Point bi-serial</th>
<th>Significance (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD ExCET score</td>
<td>-.022</td>
<td>.652</td>
</tr>
<tr>
<td>Age</td>
<td>.011</td>
<td>.830</td>
</tr>
<tr>
<td>TASP reading score</td>
<td>-.012</td>
<td>.799</td>
</tr>
<tr>
<td>Undergraduate GPA</td>
<td>.089</td>
<td>.068</td>
</tr>
</tbody>
</table>

Table 3 shows the crosstabulation results for the variables of ethnicity, gender, and type of teacher education program completed. The results indicated that there is not a relationship between the identified variables and teacher retention.

Table 3

*Phi Coefficient Results for Select Variables and Teacher Retention*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Point bi-serial</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>-.040</td>
<td>.410</td>
</tr>
<tr>
<td>TE program</td>
<td>-.018</td>
<td>.705</td>
</tr>
<tr>
<td>Gender</td>
<td>-.053</td>
<td>.279</td>
</tr>
</tbody>
</table>

**Conclusions**

The need for research in this area was based on a comprehensive review of the literature. Studies found links between teacher retention and state-mandated teacher certification scores, standardized test scores, age, teacher education preparation programs, ethnicity, and gender.

Research has shown that many of the variables used in this study can and do have an effect on standardized test scores, but there is no evidence or research to support that there is a relationship between the variables and teacher retention. Especially in the state of Texas, the Professional Development Examination for Teachers in Texas (PD ExCET) is a means to an end. Future teachers know they must pass the PD ExCET, as well as at least one content area test, in order to be certified to teach in a Texas public school. They will not be hired — and subsequently not paid — unless they have the proper credentials needed for Texas teachers. Whether they remain in the profession depends on many things, including views of teacher preparation and training, and confidence in preparedness (Justice, Anderson, & Greiner, 2003).

Further research into why teachers leave the profession shows that the decision by current teachers is influenced by several factors including administrative and teacher-to-teacher support, especially during the first two years of teaching; paying in-school
mentors; reducing in class-size, with a goal of 20-23 students per class; realistic monetary incentives based on achieving pre-determined academic standards; providing adequate teacher-training opportunities related to classroom management and teaching strategies; and essential student discipline and school security guidelines with standards established and implemented within the district (Justice, Anderson, & Greiner, 2003).

Significant factors leading to teacher retention include adequate teacher preparation, positive pre-service experiences, and initial school placement. Research has shown that many problems encountered by first year teachers are reduced in direct proportion to sufficient teacher preparation (Glassberg, 1980; Taylor & Dale, 1971).

**Implications for Practice**

According to research by Grissmer and Kirby (1993), accurate measures of teacher attrition are needed to serve several important planning and policy objectives. First, attrition rates determine how many teachers need to be hired each year. Statistics show that generally over 70% of new teachers are hired to replace leaving teachers while only 30% are required to meet the needs of expanding enrollments, smaller class sizes, and new programs which makes it crucial for school districts to measure and predict attrition accurately. Evidence from the 1990-1991 School and Staffing Survey conducted by the National Center for Education Statistics shows that high rates of teacher attrition disrupt program continuity and planning, hinder student learning, and increase school districts’ expenditures on recruiting and hiring (Shen, 1997).

The second important planning and policy objective listed by Grissmer and Kirby (1993) is that attrition rates, when accurately measured and interpreted, can provide good indicators of the relative adequacy of compensation levels and working conditions within the profession. Low salaries and poor working conditions are likely to lead to higher attrition and point to a need for corrective policies in these areas.

Third, differential patterns of attrition across subjects may point to the inadequacy of a uniform system of compensation. Without pay differentials to compensate those with highly marketable skills, school districts risk having high turnover among those teachers with perhaps a significant deterioration in the quality of teaching in certain areas (Grissmer & Kirby, 1993). The implications of Grissmer & Kirby’s (1993) recommendations of the importance of measuring and monitoring teacher attrition can assist school district administrators in recruiting, hiring, training, and retaining teachers.

Research by Colbert and Wolff (1992) concluded that beginning teacher support must become a higher priority for school districts. This can be accomplished by training administrators and experienced teachers in classroom observation and peer coaching strategies with a collaborative effort between school districts and university schools of education. Second, creative and flexible scheduling is necessary to provide release time to peer coaches and beginners to provide opportunities to build trusting relationships that can contribute to increased career satisfaction and retention of beginning teachers. Third, experienced teachers need to be encouraged to participate in the professional growth of new teachers with added compensation that could include release time, additional instructional materials, university tuition costs and time to attend professional conferences. Fourth, university schools of education must collaborate with local school districts and welcome
them as equal partners in the education business. University faculty in all disciplines should be highly visible in the public school classrooms so they are viewed as competent classroom teachers and not as ivory-tower professors out of contact with the real world of education. Fifth, collaboration between universities, school districts, state departments of education, and teacher credentialing commission must continue to develop, regardless of whether external funding exists to support it. Before policy decisions are made affecting new teacher support, all constituencies involved must be included in the formation of policy. Finally, beginning teachers need structured, intensive, and ongoing support and assistance during the induction years.

Further analysis of the data provides implications regarding the current emphasis on state-mandated teacher certification tests and teacher retention. In addition, there are implications for future practice that may be of use to public school administrators. The findings of the study provide public school administrators and college and university administrators and educators with an indication of the importance of effective teacher education programs, effective public school mentoring programs, and the need for open communication between the two entities.

1. Findings may be useful in designing programs to attract intermittent teachers into more continuous teaching in response to emerging teacher shortages (Chapman & Green, 1986).

2. Research indicates that teachers who stayed in the profession for several years before leaving tended not to have found either greater satisfaction or financial reward in the jobs into which they went. People who changed careers tended to fall behind both those who taught continuously and those who never entered teaching in their reward attainment. These findings have implications for the career advising of potential teacher education students (Chapman & Green, 1986).

3. Principals who emphasize identity, competency and efficacy as the three main goals of the induction period for new teachers are likely to develop teachers who believe in themselves and who are skilled at making a difference in the lives of young people. Principals who keep good teachers are those who provide an environment in which new teachers develop competence, gain a sense of efficacy, and take pride in being teachers (Jorissen, 2002).

4. Influence administrator formulation of policies regarding accountability issues, faculty instructional strategies and content selection in the courses, and student performance on teacher certification tests (Simonsson & Poelzer 2002).

5. Knowledge and information on how to select or prepare students effectively for teacher certification is central in both higher education and school districts (Simonsson & Poelzer, 2002)

**Recommendations for Further Study**
Several areas for further research are suggested by this study and are listed below:

1. Future research should include an in-depth study of the different teacher education
programs completed by identified participants. Changes in the field-based teacher education program and the emergency permit program over the years included in the study could have made a difference in the preparation of the participants to be successful in their public school assignment. Findings would provide practical information for instructional administrators.

2. Further investigation into the reason why some of the participants, who completed all requirements for state certification, chose not to enter the teaching field. Implementation of Chapman’s Multi-factor Model to explain teacher recruitment and attrition could be used with this group (Chapman, 1984).

3. Duplication of the study is recommended at other colleges or universities that offer teacher education programs to compare results with PD ExCET successful students.

4. Existing research literature suggests that attrition from teaching is influenced by a variety of factors that are probably best revealed by the study of longitudinal samples of teachers. A goal would be to test the general hypothesis that attrition from teacher preparation and the early teaching years does not necessarily reduce the quality of the remaining teaching pool (Pigge, 1996).
References


Hare, D. & Nathan, J. (1999). The need is now: Dealing with Minnesota’s teacher shortages. Minneapolis: Center for School Change, Humphrey Institute, University of Minnesota.


