The University of Texas in Brownsville offers an alternative teacher certification program as a cooperative endeavor with area public schools to help relieve teacher shortages. One component of the program involves a 1-year teaching internship under the supervision of a university supervisor and a master mentor teacher from the school district of employment. A survey on job stress was administered to 96 Alternative Certification Program (ACP) interns at the end of their 1-year internship and to 60 traditionally trained student teachers at the end of their 15 weeks of practice teaching. Although neither group appeared to experience a high degree of stress, the ACP interns experienced higher stress than student teachers. When the dependent variable (stress) was regressed with the independent variables (conflict and uncertainty, time, children/no children, gender, age, concurrent course load), results indicated that "conflict and uncertainty" was a statistically significant source of stress for both groups. Having children/no children was a statistically significant source of stress for student teachers. (Contains 16 references.) (JDD)
Teacher Education in Transition: Alternate Certification, Texas-Style

by

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ABSTRACT

The purpose of this study was to determine if ACP Interns and Student Teachers experienced stress at different levels, and to determine the source of the stress. A survey of job stress was administered to ACP Interns and student teachers at the end of their intern and student teaching experience. Although neither group appeared to experience a high degree of stress, the results of the t-tests indicated a significant difference in the amount of stress between the two groups. When the dependent variable (stress) was regressed with the independent variables (conflict and uncertainty, time, children/no children, gender, age, concurrent course load) results indicated that Conflict and Uncertainty was a statistically significant source of stress for both groups. In addition, having children/no children was a statistically significant source of stress for Student Teachers.
One of the most controversial issues to appear in teacher education in the last few decades is that of alternative certification for teachers. Alternative certification appeared in the literature as early as 1970, when Copperud (1970) discussed and defined alternate and alternative certification. He described alternate as meaning alternately, one after the other. When applied to teacher education, an alternate route to certification would be when an individual with a bachelor's degree enters a non-traditional teacher education program if certified personnel are unavailable. On the other hand, alternative has the connotation of choice. When applied to teacher education, this would indicate that the school district has the choice of hiring a certified teacher or hiring an individual who had not been trained in teacher education. Presently the two terms, alternate and alternative, seem to be used interchangeably. Individuals are hired both with and without teacher certification. These same individuals receive varying amounts of training both prior to and while engaged in actual classroom teaching.

The first state to enact a law creating an "alternate" route to obtaining teacher certification was New Jersey, followed by California and Texas. These initial programs bypassed the traditional higher education-based teacher training programs. According to Galluzzo and Ritter (1989), the programs evolved in response to three specific problems perceived to be extant within traditional teacher education programs. One of these problems was the perception that teacher education courses are ineffectual and do not really prepare a preservice teacher for the "real world". A second problem posited was the lack of quality among students entering the teacher education program. The third problem cited was the fact that there were not enough preservice teachers being prepared to meet the growing need for teachers across the nation. The Educational Testing Service estimated that by 1988, alternative...
teacher certification programs would exist in twenty-nine states (Culver, Eicher, and Sacks, 1986). Presumably this number has increased since that time.

The lack of a sufficient number of certified teachers to meet the growing school population was a deciding factor when the Houston Independent School District petitioned the legislature of the state of Texas for permission to initiate its own teacher training program in 1986. This was the first alternative teacher certification program in the state. HISD recruited individuals with baccalaureate degrees, and gave them an intensive training program in the summer prior to placing them in classrooms in the fall. Intensive training by the district was continued throughout the next year. Mentor teachers and specialists worked with these Interns during the school day, and classes were held in the afternoons and evenings. At the end of one school year, these alternate certification teachers were expected to take and pass the ExCET, the screening test for the certification of teachers in Texas. This program has been modified and improved through the years. Presently it exists as a cooperative program with the University of Houston. The program has been successful in supplying more classrooms in HISD with teachers.

Alternative certification programs are offered in the state of Texas at twelve of the Region Service Centers (Corpus Christi, Victoria, Houston, Huntsville, Richardson, Fort Worth, Waco, Austin, Abilene, San Angelo, Midland, and San Antonio); at nine universities (Lamar, Prairie View A&M, Schreiner, Tarleton State, TAMU Laredo, UT Brownsville, UT Pan American, UT El Paso, and West Texas A&M); and in four independent school districts (Dallas ISD, Fort Worth ISD, Houston ISD, and Pasadena ISD). All of these programs must meet the same guidelines for accepting students into the program. However, implementation of the programs may vary depending on the body delivering the training.

Alternative certification for teachers began at the University of Texas in Brownsville in 1987. It is a cooperative endeavor with area public schools designed to help relieve current teacher shortages. The continuation of this program is contingent upon the annual approval of
the Texas State Board of Education and the Texas Education Agency. There have been several modifications of the program since its inception, in order to meet the needs of both the alternative certification teachers and the student population. The program continues to grow, as the needs of the school districts across the Rio Grande Valley grow.

Presently the alternative certification program accepts students who have completed a baccalaureate degree at an accredited institution, have an overall 2.5 GPA based on a 4.0 system, and who have completed certain courses in their undergraduate program. (Secondary: 24 semester hours in the field of certification; Elementary, Bilingual, or Special Education: 24 semester hours of English, mathematics, science, and social science; ESL: 18 semester hours of English.) A 2.5 GPA is necessary for courses used in meeting this requirement. A passing score on the TASP is also required.

Prior to entry into the program, prospective Interns must complete certain courses in education, reading, special education, bilingual education, and/or ESL, depending on the certification sought. When they meet all of these requirements, the prospective Interns receive a Letter of Eligibility for Employment. They must secure employment in a public school district in the area of certification by an August deadline. They must also attend an orientation workshop plus meetings and seminars throughout the year as required.

Within one calendar year, the intern must complete other requirements. These include completion and documentation of 30 clock hours of field experiences through the Office of Field Experience; completion of a 45 clock hour workshop arranged by the university and delivered by the school district to be held in early August; one year of teaching Internship under the supervision of a university supervisor and a master (Level 2) mentor teacher from the school district of employment; successful completion of certain additional courses; passing scores on the required ExCET and TOPL examinations; completion of all required district and ACP office paperwork and settlement of all financial obligations. Upon completion of all
requirements, the ACP office will process and forward appropriate application and forms to the Texas Education Agency for certification.

Several studies have been conducted recently comparing traditionally trained teachers with alternatively trained teachers in various areas of performance. One of these studies was done by Guyton, Fox, and Sisk (1991) comparing teaching attitudes, teacher efficacy, and teacher performance of first year teachers prepared by alternative and traditional teacher education programs. This study concluded that on almost all measures, these teachers were similar. The alternatively trained teachers were more positive about the value of their teacher education program after the first month of teaching. The traditionally trained teachers were more positive about teaching at the end of the year and about staying in the profession. Five of the twenty-three alternatively trained teachers participating in the study had dropped out during the year, and an additional one did not plan to return to teaching. Teaching performance at the beginning and the end of the year as judged by evaluators did not differ significantly for the two groups, nor did the perception the teachers had of their own teaching performance differ significantly. The researchers concluded that the preparation of these alternatively trained teachers was successful, but they did note that the program was very expensive. Twenty-three teachers were trained at a cost of $250,000. Further research was suggested.

Sandlin, Young, and Karge (1992-1993) compared the program effectiveness of traditional credential programs to that of alternative certification programs. Data was collected through classroom observation, follow-up telephone interview, and a teacher concern survey. Alternatively certified teachers in this program had completed two years of field experience in the public schools prior to being certified. The traditionally trained teachers had completed their college training, including student teaching. At the beginning of the year, the traditionally trained teachers scored lower on 5 of 16 items than the Interns. At mid-year, they scored lower on only 2 of the 16 items. By the end of the year the two groups showed no
significant differences. Regarding the interviews, both groups were overwhelmingly positive about their students' learning through the year, and both felt that their training had been adequate. *On the teacher concern survey*, traditionally trained teachers ranked all 45 of the items as being of greater concern to them. The authors' comment was that research has shown the most effective teachers will demonstrate a high level of concern with student impact items. The authors concluded that it is imperative that all beginning teachers have adequate knowledge and experiential base before taking on full responsibility for student learning.

Knight, Owens, and Waxman (1990-91) compared the classroom learning environments of traditionally and alternatively certified teachers, using an adaption of a learning environment survey instrument administered to the students of the two groups of teachers. Significant differences were found for five of the eleven individual classroom environment scales. Students in classes of traditionally trained teachers perceived that their teachers moved them through classwork at a significantly more appropriate pace than students in classes of teachers certified in alternative programs. Students of the former group also perceived significantly more group cohesiveness and cooperation among students, while students of the latter group reported significantly more friction. Additionally, students in classes of alternatively certified teachers reported less emphasis and time spent on higher-thought processes. The authors suggest that more research is needed to investigate the effects of alternative certification programs on student outcomes.

Several studies have looked at stress sources in student teachers (Abernathey, Manera, and Wright, 1985; Gold and Bachelor, 1988; and Hourcade, Paretite, and McCormack, 1988). There have also been numerous studies focused on stress in teachers (Eskridge and Coker, 1985; Farber, 1984; Firman, 1982; Gold, 1984; Manera and Wright, 1982; and Raschke, Dedrick, Strather, and Hawkes, 1985).

The purpose of this study was to determine if ACP Interns and Student Teachers experienced stress at different levels, and to determine the source of the stress.
METHODS

Subjects

The original subjects in this study were 60 Student Teachers and 96 Alternative Certification Program (ACP) Interns. All were enrolled at the local university for the spring semester, 1994 and taught at various independent school districts in the Texas Rio Grande Valley. Of the surveys that were returned 31 were males and 60 were females in the Alternative Certificate Program. In the Student Teacher group, 11 were males and 49 were females (Table 1).

<table>
<thead>
<tr>
<th>Group</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACP Interns</td>
<td>31</td>
<td>60</td>
</tr>
<tr>
<td>Student Teachers</td>
<td>11</td>
<td>49</td>
</tr>
</tbody>
</table>

Of those reporting their age in the ACP group, only 2 were 22 years of age or younger, 36 were between the ages of 23 to 30, 33 between the ages of 31 to 40, and 19 were 41 years or older. These figures indicate that approximately 57% were over the age of 30, while 43% were under. In contrast, the Student Teachers reported that 13 were 22 years of age or younger, 24 were ages 23 to 30, 14 were ages 31 to 40, and 9 were age 41 or older. These figures indicate that approximately 38% were over the age of 30 while 62% were younger (Table 2).

<table>
<thead>
<tr>
<th>Group</th>
<th>22 or below</th>
<th>23-30</th>
<th>31-40</th>
<th>41 or above</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACP Interns</td>
<td>2</td>
<td>36</td>
<td>33</td>
<td>19</td>
</tr>
<tr>
<td>Student Teachers</td>
<td>13</td>
<td>24</td>
<td>14</td>
<td>9</td>
</tr>
</tbody>
</table>
Out of 91 ACP Interns responding, 30 were assigned to grades K to 3, 11 were assigned to grades 4 to 5, 27 were assigned to grades 6 to 8, and 22 were assigned to grades 9 to 12. Of the 53 Student Teachers reporting, 21 were assigned to grades K to 3, 5 were assigned to grades 4 to 5, 8 were assigned to grades 6 to 8, and 19 were assigned to grades 9 to 12. Both groups were evenly distributed between elementary and secondary teaching assignments. (Table 3).

Table 3: Number in Teaching Assignment

<table>
<thead>
<tr>
<th>Group</th>
<th>K-3</th>
<th>4-5</th>
<th>6-8</th>
<th>9-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACP Interns</td>
<td>30</td>
<td>11</td>
<td>27</td>
<td>22</td>
</tr>
<tr>
<td>Student Teachers</td>
<td>21</td>
<td>5</td>
<td>8</td>
<td>19</td>
</tr>
</tbody>
</table>

The final demographic data collected related to the number of concurrent college hours each group was attempting at the time of the data collection. A majority of ACP Interns were attempting 6 or 9 hours at the same time they were interning, while the majority of Student Teachers were attempting 0 to 3 hours at the same time they were student teaching (Table 4).

Table 4: Number Taking Concurrent College Hours

<table>
<thead>
<tr>
<th>Group</th>
<th>0 hrs</th>
<th>3 hrs.</th>
<th>6 hrs.</th>
<th>9 hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACP Interns</td>
<td>1</td>
<td>17</td>
<td>32</td>
<td>40</td>
</tr>
<tr>
<td>Student Teachers</td>
<td>22</td>
<td>17</td>
<td>20</td>
<td>1</td>
</tr>
</tbody>
</table>

Instrument

The instrument used in the study was an adaptation of the Work Stress Scale (McLean, 1976). The Work Stress Scale consists of a 33-item rating scale designed to assess individual perceptions of the quality of the work environment and to derive specific sources of stress.
within that environment. The adoption of this instrument (Hourcade, Parreé, and McCormack, 1988) consists of 22 items to be rated on a 5-point scale (1 = most positive, 5 = most negative). The items were grouped into four categories: Job Context (questions 1 - 10); Conflict and Uncertainty (questions 11-13, 15, 16); Job Pressure (questions 17, 19); and Job Scope (questions 14, 18, 20-22).

Procedures

The survey instrument was administered to each group at the end of the spring semester, 1994. Student teachers had been in the classroom for the fifteen weeks prior to this time under the supervision of the classroom cooperating teacher and a university supervisor. The ACP Interns had been in the classroom during the previous school year as interns under the guidance of a mentor teacher in the public school and a university supervisor.

Factor analysis was performed on the items of the survey. The findings of this factor analysis resulted in a slightly different grouping of the items from that reported in the literature: Job Context Stress (items 1-10), Time as stressor (items 17, 18, 19), and Conflict as stressor (items 11, 13, 16, 20, 22) which were named as variables in the data analysis. The Stress variable consisting of items 1-10 dealt with degree of job satisfaction in the work environment. The three items in the Time variable all had time as a common factor.

Likewise, the five items in the Conflict variable related to Conflict and Uncertainty as to job expectations and demands. Statements 12, 15 and 21 did not fall into any of the groups.

T-tests were performed to determine if there was a significant difference between Job Context Stress experienced by ACP Interns and Student Teachers, and also to determine what specific stressors contributed to the stress. Regression analysis was used to determine which stressors were attributed to the work stress environment. Data were then examined using regression analysis to determine which specific stressors were significant for ACP Interns and which were significant for Student Teachers.
Results

Although neither the ACP Interns nor Student Teachers appeared to experience a high degree of stress, the results of the t-tests indicated a significant difference between the two groups ($p < .007$) measured by items 1-10 on the survey instrument. The possible scores ranged from 10 to 50, with 10 being the lowest. Based on the results, ACP Interns ($M=20.47$) experienced higher stress than Student Teachers ($M=17.05$) (Table 5).

<table>
<thead>
<tr>
<th>Groups</th>
<th>$N$</th>
<th>$M$</th>
<th>$SD$</th>
<th>$t$</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACP Interns</td>
<td>96</td>
<td>20.47</td>
<td>8.189</td>
<td>.007*</td>
</tr>
<tr>
<td>Student Teachers</td>
<td>61</td>
<td>17.05</td>
<td>6.825</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

The independent variables, which included the stressor variables (time and conflict/uncertainty) and demographic variables (children/no children, gender, age, and concurrent course load) were regressed with the dependent variable (Stress) for ACP Interns and Student Teachers combined to determine what impact they had on Stress. Results indicated that the independent variables accounted for 57% of the variance in Stress, which is highly significant at the $p < .000$ level (Table 6). Of all of the independent variables, Conflict and Uncertainty appeared to be highly significant as a stressor ($p < .000$).
Table 6: Stress for ACP Interns and Student Teachers Combined

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>Sig T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children/No Children</td>
<td>.041</td>
<td>.948</td>
<td>.966</td>
</tr>
<tr>
<td>Conflict/Uncertainty</td>
<td>1.540</td>
<td>.357</td>
<td>.001*</td>
</tr>
<tr>
<td>Time</td>
<td>.075</td>
<td>.173</td>
<td>.664</td>
</tr>
<tr>
<td>Gender</td>
<td>-1.334</td>
<td>.958</td>
<td>.166</td>
</tr>
<tr>
<td>Age</td>
<td>-.334</td>
<td>.537</td>
<td>.534</td>
</tr>
<tr>
<td>Concurrent Course Load</td>
<td>.727</td>
<td>.409</td>
<td>.077</td>
</tr>
</tbody>
</table>

* p < .05

Adjusted R Square .57

F = 34.02 Signif F = .000

The dependent variable was then regressed with the same set of independent variables for ACP Interns and for Student Teachers separately. The independent variables accounted for 54% of the variance in Stress for ACP Interns, while accounting for 63% of the variance for Student Teachers. Conflict and Uncertainty was highly significant for both ACP Interns and Student Teachers, both at the p < .000 level of significance. For Student Teachers, having children or no children was also significant at p < .017 (Table 7).
Table 7: Source of Stress for ACP Interns and Student Teachers

<table>
<thead>
<tr>
<th>Stressors</th>
<th>ACP Interns</th>
<th></th>
<th>Student Teachers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>BE</td>
<td>Sig T</td>
<td>B</td>
</tr>
<tr>
<td>Children/No Children</td>
<td>-1.515</td>
<td>1.312</td>
<td>.252</td>
<td>3.213</td>
</tr>
<tr>
<td>Conflict/Uncertainty</td>
<td>1.636</td>
<td>.211</td>
<td>.000*</td>
<td>1.368</td>
</tr>
<tr>
<td>Gender</td>
<td>-1.418</td>
<td>1.288</td>
<td>.274</td>
<td>-.013</td>
</tr>
<tr>
<td>Age</td>
<td>.174</td>
<td>.799</td>
<td>.828</td>
<td>1.347</td>
</tr>
<tr>
<td>Time</td>
<td>.122</td>
<td>.254</td>
<td>.633</td>
<td>.019</td>
</tr>
<tr>
<td>Concurrent Course Load</td>
<td>.800</td>
<td>.764</td>
<td>.299</td>
<td>.594</td>
</tr>
</tbody>
</table>

$\text{p} < .05$

| Adjusted R Square       | .543 |          | Adjusted R Square | .632 |

$F = 21.88$  Signif $F = .000^*$  $F = 20.88$  Signif $F = .000^*$

Discussion

As the need for classroom teachers increases each year, public schools and universities must search for alternate means to supply these teachers. The Alternative Certificate Program discussed in this paper is attempting to meet the teacher shortage. The results of this study suggest that the preparation of these teachers may not be adequate if stress is to be considered a factor. One might expect Student Teachers to be more vulnerable to the context or environment in which they find themselves after only 15 weeks of practice teaching, while at the same time one might expect ACP Interns to be more well-adjusted after an entire year of teaching. On the contrary, this study found that ACP Interns showed a significantly higher degree of stress than their counterparts. It should be noted that neither group showed an extremely high degree of stress as indicated by the items on the survey instrument. The source of stress was similar in both groups. Again, one would expect Student Teachers to be stressed because they were uncertain of their surroundings and were threatened by the expectations and conflict of their duties. However, ACP Interns were also stressed by these same factors even
after a year in the classroom. A possible explanation for the higher degree of stress found in the ACP Interns may be the fact that a large percentage were enrolled in 6 to 9 hours of college courses while at the same time working full-time as a classroom teacher. In conclusion, the results of this study may suggest that to avoid stress, the Alternative Certificate Program should review its policies concerning preservice training prior to placing Interns in the classroom. In addition, consideration may need to be given to limiting the number of college hours ACP Interns are allowed to take while teaching full-time.

Further inquiry is needed to support the findings of this study. One such activity might be to interview Interns at intervals throughout the year to note any significant changes in the way they adapt to the classroom environment and to the stressors found to be significant in this study. These same interviews should be conducted with first year teachers who received teacher training at universities and who completed student teaching.
References


Culver, V., K. Eicher, & A. Sacks. (1986). Confronting the teacher shortage: Are alternative certification programs the answer? Action in Teacher Education. 8:(2)19-23.


