A Comparison of Participants in Traditional and Alternative Teacher Preparation Programs.

Outcomes of three teacher preparation programs for individuals seeking certification in secondary teaching areas at the University of Tennessee, Knoxville, were compared. The first is the traditional four-year undergraduate program culminating in a BS/BA degree and teacher certification. A second group of students are postbaccalaureates who have degrees in their content areas and are enrolled in education coursework and clinical experiences to meet certification requirements. The third group are also postbaccalaureates who were selected to participate in a well-coordinated one-year program (Lyndhurst Fellowship Program) leading to teacher certification. The broad goal of the Lyndhurst Program is to recruit academically talented graduates of liberal arts colleges to teaching and to develop and test an accelerated and clinically based program. A description is given of the salient components of the Lyndhurst Program and of the methodology used in making a comparative study of the three programs. Reasons for the superior performance of participants in the Lyndhurst Program on the National Teacher Examination are discussed and analyzed. (JD)
A Comparison of Participants in Traditional and Alternative Teacher Preparation Programs

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Various alternative teacher-preparation programs are being implemented across the nation, but little research is yet available on their effectiveness. In the face of anticipated problems in meeting the demand for certified teachers (Hawley, 1986), the Holmes Group and the Carnegie report both recommend strengthening the teacher education program, even to the point of making it a graduate program in order to allow opportunity for expanded coursework in content areas and general education (Murray, 1986; Tucker & Mandel, 1986). Schlechty and Vance (1981) found that the more academically qualified teachers were most likely to desert the profession. More specific alternatives have also been proposed (Howey & Zimpher, 1986) to upgrade the profession. The public has not generally been in favor of relaxing certification standards to provide more teachers in specific demand areas (Gallup, 1986), but there is concern that increasing the length of the program will have a detrimental influence on the numbers of students willing to pursue careers in teaching (Gallegos, 1981). Nussel (1986) has questioned the effectiveness of teacher education programs which lack a series of field experiences prior to student teaching or internship.

Mehlinger (1986) expressed the concern that enrollment would decline in institutions that go to extended preparation programs if four-year programs still exist because students will elect four-year programs rather than those requiring five or six years. Fewer than half of the teacher education students surveyed by Cyphert and Ryan (1984) reported that they would still choose to become teachers if five years rather than four were required for certification, and 62% reported that they would choose a four-year preservice program rather than a five-year program if both programs met certification requirements. This concern appears to be unfounded, however. After changing to a five-year program, the University of Kansas found the number of graduates
remained about the same as under the previous four-year program (Scannell, 1984).

Measuring the success of a program or the quality of its graduates is difficult at best. Because of the increasing frequency of the use of performance on the National Teacher Examination (NTE) in awarding teacher certification, it cannot be overlooked as one indicator of program effectiveness. Researchers have also found a significant correlation between scores on the NTE and university supervisor ratings at the end of student teaching (Piper & O'Sullivan, 1981), although Perry (1981) found no difference between graduates who were hired to teach and those who sought teaching jobs but were not hired on grade-point average, student teaching evaluation, and professional recommendations.

In 1984 (Ishler) 42% of teacher-preparation institutions required a test (the NTE, a state or locally developed test) for certification. In 1986, (Goertz) 19 states reported requiring a minimum grade point average for certification, 29 required testing of basic skills, general knowledge, professional knowledge, and/or special areas, with varying qualifying scores. Twelve of them used the NTE core battery and 11 used the special area tests. Ten states used their own tests. The state of Tennessee reported requiring all the core battery and specialty area scores plus a minimum grade point average.

Howey and Zimpher (1986) pointed out that the more academically talented students might not be willing to commit themselves to the longer program, thus resulting in a group of participants who were less qualified academically. Preliminary data from the five-year program at the University of Kansas refute this, suggesting an increase in the quality of the students as indicated by grade point average and entry-level ACT scores (Scannell, 1984). The mean
undergraduate grade point average of graduating students in a five-year
teacher preparation program at the University of New Hampshire was higher than
that of graduates of the University as a whole ... as comparable with the
admissions grade point average for all graduate programs (Andrew, 1983). Over
90% of the program graduates obtained teaching positions in the year following
program completion, for which Andrews attributed credit to the strong subject
matter background and general education of the participants, extended
internship, outstanding academic credentials, and commitment to a career in
teaching. Similar high rates of individuals obtaining teaching positions were
also found in five-year programs at the University of Kansas (Scannell, 1984)
and Allegheny College (Dunbar, 1981). Scannell and Dunbar also cite the
participants' strong commitment to teaching, as shown by their electing to
enroll in the five-year program and to enter teaching upon program completion.

Program Alternatives at The University of Tennessee

At the University of Tennessee, Knoxville, (UTK) there are presently
three teacher-preparation programs for individuals seeking certification in
secondary teaching areas. The first is the traditional four-year undergraduate
program culminating in a BS/BA degree and teacher certification. A second
group of students are postbaccalaureates who have already earned BS/BA degrees
in their content areas (usually in the College of Liberal Arts) and who are
enrolled in education coursework and clinical experiences to meet
certification requirements. The third group are also postbaccalaureates who
have also completed BS/BA degrees (and sometimes advanced degrees) who were
selected to participate in a well coordinated one-year program (Lyndhurst
Fellowship Program) leading to teacher certification (Wiley, 1986).

The Lyndhurst Program was funded by the Lyndhurst Foundation of
Chattanooga for implementation June 1985 through June 1986 as the first year
of a proposed three-year program. A joint proposal for the UTK program and a similar one at Memphis State University was developed by the deans of the respective Colleges of Education, Richard Wisniewski and Robert Saunders. Coordination with Tennessee's Commissioner of Education, Robert McElrath, in development of the proposal resulted in a plan for an alternative approach to teacher certification whereby participants who successfully complete the one-year teaching internship included in the plan would be given credit for the "probationary year" of the Tennessee Career Ladder Plan in addition to completion of certification requirements. (This is similar to the Allegheny program (Dunbar, 1981), except that in the Lyndhurst Program teacher certification is not awarded until successful completion of the internship whereas at Allegheny it is awarded prior to the fifth (teaching) year.) The Lyndhurst program differs also in that participants have not had opportunities to take education courses or complete preliminary field experiences prior to the internship.

The broad goal of the Lyndhurst Program at UTK is to recruit academically talented graduates of liberal arts colleges to teaching and to develop and test an accelerated and clinically based program. The UTK program includes an intensive ten-week session of coursework generating 17 quarter hours of credit, followed by a year-long public school internship for which 12 hours of credit are awarded. During the internship each participant received supervision in his/her school from a public school mentor while teaching three classes per day during an entire school year. The public school mentors are Level II or Level III teachers on the state's Career Ladder program and are given credit for Career Ladder commitments beyond classroom instruction through their participation as mentors. Program coordinators and other University faculty monitor the internship phase of the program. Seminars and remaining coursework taken by the Fellows during the academic year generate
the final seven quarter hours of credit. Each Fellow earns a total of $10,000 during the year, paid through the joint resources of the Lyndhurst Foundation, the University of Tennessee, Knoxville, and the school districts in which the Fellows completed their internships. Nineteen Lyndhurst Fellows, who were among a group of 21 selected from a pool of approximately 150 applicants, completed the program in 1985-86 and were certified. Two participants withdrew from the program at the conclusion of the summer instructional program because of major health problems.

Method

Data were available for 30 students completing the undergraduate (BS/BA) program (graduates) and qualifying for teacher certification in secondary teaching areas in 1984-85 (fall quarter 1984 through summer quarter 1985), 30 postbaccalaureates completing certification requirements in secondary teaching areas in the same time span, and 19 Lyndhurst participants who completed the summer instructional program in 1985.

A stratified random sample of approximately half of the graduates of each teaching major (persons completing BS/BA requirements and receiving degrees in fall quarter through summer quarter) are surveyed annually each fall by the College of Education. All postbaccalaureates are surveyed because the number has been and continues to be relatively small. The 30 graduates in this study are those secondary education majors who responded to the fall follow-up survey and represent 75% of the group sent questionnaires. The 30 postbaccalaureates constitute 75% of all postbaccalaureate secondary education majors and were also those who responded to the follow-up survey. The 19 Lyndhurst participants are the entire group completing the program during the first year of implementation. All Lyndhurst participants were surveyed regarding employment following program completion.
Participant data collected included: current age; gender; undergraduate grade point average (GPA); percentile scores on the Communication, General Knowledge and Professional Knowledge tests of the NTE; and employment status in the fall following program completion. Program data regarding the Lyndhurst Program included impressions of the five superintendents, 14 of the principals, and 17 of the public school mentors comparing interns with participants in traditional programs.

Sources of data included student records, follow-up questionnaires and telephone calls. Data sources unique to the Lyndhurst program were participant evaluation questionnaires, superintendent interviews, principal and mentor program questionnaires, all of which were completed in April or May near the conclusion of the internship.

Because of the skewness of the distributions of the data, nonparametric Kruskal-Wallis tests were used to compare age, undergraduate GPA, and NTE percentile scores of the three groups (graduates, postbaccalaureates, and Lyndhurst participants). Follow-up pair-wise Mann-Whitney analyses were conducted to determine which groups were significantly different when the Kruskal-Wallis tests showed overall differences.

Numbers of males and females in each of the three groups and numbers teaching and not teaching in the fall following graduation were examined first as percentages, then through a chi-square comparison. Responses of superintendents, principals, and public school mentors are presented as frequencies and percentages. Statistical analyses were accomplished with the use of SPSSX on the UTK mainframe computer.

Results

Kruskal-Wallis tests showed the three groups differed significantly on age, General Knowledge, and Professional Knowledge (see Table 1). Groups were
Table 1

Results of Kruskal-Wallis Tests

<table>
<thead>
<tr>
<th>Dimension</th>
<th>$x^2$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>18.2913</td>
<td>.0004</td>
</tr>
<tr>
<td>GPA</td>
<td>3.4522</td>
<td>.1780</td>
</tr>
<tr>
<td>Communication</td>
<td>4.6834</td>
<td>.0962</td>
</tr>
<tr>
<td>General Knowledge</td>
<td>18.6111</td>
<td>.0001</td>
</tr>
<tr>
<td>Professional Knowledge</td>
<td>10.5913</td>
<td>.0050</td>
</tr>
</tbody>
</table>

not significantly different on undergraduate GPA or Communication. Pair-wise Mann-Whitney tests showed both postbaccalaureates and Lyndhurst participants were significantly older than graduates and scored significantly higher on the General Knowledge test (See Table 2).

On the Professional Knowledge test, scores of Lyndhurst participants were significantly different from those of graduates, but scores of postbaccalaureates differed only marginally from those of graduates. Medians on the NTE for the three groups showed the Lyndhurst group to be performing at higher levels than the postbaccalaureates, who scored above the graduates (see Table 3).

The distributions of males and females in the three groups were not significantly different ($x^2=1.9414$, df=2, p=.3788). At the conclusion of the Lyndhurst program, all 19 Fellows received their certification and were offered teaching positions, either in the school systems in which they completed their internships or in other systems. A follow-up survey of the Lyndhurst participants in fall of 1986 provided information that 16 of the 19 (84%) were known to be working under teaching contracts, compared with 18 of the 30 graduates (60%) and 19 of the 30 postbaccalaureates (63%). A chi-square analysis showed the differences between groups to be marginally
Table 2

Results of Mann-Whitney Paired Tests

<table>
<thead>
<tr>
<th>Groups</th>
<th>Dimension</th>
<th>z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduates vs. postbaccalaureates</td>
<td>Age</td>
<td>-3.4313</td>
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</tr>
<tr>
<td></td>
<td>GPA</td>
<td>-1.7413</td>
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<td></td>
<td>Communication</td>
<td>-1.2527</td>
<td>0.2103</td>
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<td></td>
<td>General Knowledge</td>
<td>-2.8281</td>
<td>0.0047</td>
</tr>
<tr>
<td></td>
<td>Professional Knowledge</td>
<td>-2.5290</td>
<td>0.0114</td>
</tr>
<tr>
<td>Graduates vs. Lyndhurst Fellows</td>
<td>Age</td>
<td>-3.7573</td>
<td>0.0002</td>
</tr>
<tr>
<td></td>
<td>GPA</td>
<td>-0.8198</td>
<td>0.4123</td>
</tr>
<tr>
<td></td>
<td>Communication</td>
<td>-2.1573</td>
<td>0.0310</td>
</tr>
<tr>
<td></td>
<td>General Knowledge</td>
<td>-3.9120</td>
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<tr>
<td></td>
<td>Professional Knowledge</td>
<td>-2.8484</td>
<td>0.0044</td>
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<tr>
<td>Postbaccalauretes vs. Lyndhurst Fellows</td>
<td>Age</td>
<td>-0.8900</td>
<td>0.3734</td>
</tr>
<tr>
<td></td>
<td>GPA</td>
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<tr>
<td></td>
<td>Communication</td>
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<tr>
<td></td>
<td>General Knowledge</td>
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<tr>
<td></td>
<td>Professional Knowledge</td>
<td>-0.7095</td>
<td>0.4836</td>
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</tbody>
</table>

Table 3

Percentile Medians on National Teacher Examination by Group

<table>
<thead>
<tr>
<th>Test</th>
<th>Group</th>
<th>Postbaccalaureate</th>
<th>Lyndhurst</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Graduates</td>
<td>72</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>Postbaccalaureate</td>
<td>71</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Lyndhurst</td>
<td>67</td>
<td>87</td>
</tr>
</tbody>
</table>
significant ($x^2 = 7.31$, $df=2$, $p<.05$). One former Lyndhurst participant was planning to seek a teaching position in December or January (after having married since the conclusion of the program). One individual could not be reached, but it was known that he had applied for a teaching position and was being actively sought by the school system in the area to which he moved. The remaining person was working in industry, after failing to be offered a suitable position in the geographic area to which she had limited her job search.

Responses from superintendents during interviews and from questionnaires completed by school principals and public school mentors at the conclusion of the first year of the Lyndhurst Program internship to the following question indicated that most thought the preparation received by the participants was comparable to, as good as, or better than that received by students in the traditional program.

**QUESTION:** How would you compare the preparation for teaching received by Lyndhurst interns and those students completing the traditional program and student teaching?

<table>
<thead>
<tr>
<th>Response</th>
<th>Superintendents</th>
<th>Principals</th>
<th>Mentors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intern is better prepared</td>
<td>25%</td>
<td>36%</td>
<td>41%</td>
</tr>
<tr>
<td>Traditional student is better prepared</td>
<td>0%</td>
<td>21%</td>
<td>6%</td>
</tr>
<tr>
<td>No difference</td>
<td>25%</td>
<td>14%</td>
<td>6%</td>
</tr>
<tr>
<td>Advantages of the two program are balanced</td>
<td>50%</td>
<td>29%</td>
<td>47%</td>
</tr>
</tbody>
</table>

In summary, although not differing on undergraduate grade point average, participants in the alternative (Lyndhurst) program performed at comparable or superior levels on the National Teacher Examination when compared with traditional teacher-preparation graduates and postbaccalaureates who were not in the special program. There is also some evidence of increased commitment.
to teaching in the larger percentage of alternative program participants who were offered teaching positions and who entered teaching upon program completion.

Discussion

Performance of Lyndhurst participants on the National Teacher Examination was superior to that of graduates, significantly so on two of the three areas. Postbaccalaureates also scored higher levels than graduates although not to the same degree as Lyndhurst participants. The differences cannot be based solely on entry-level knowledge, because the undergraduate GPAs of the three groups were not significantly different. Neither can all of the differences be explained on the basis of age, because postbaccalaureates as well as Lyndhurst participants were significantly older than graduates but did not perform significantly better than undergraduates on the Professional Knowledge test. Although Lyndhurst participants were selected from a pool of approximately 150 applicants, their mean undergraduate GPA was lower than that of the postbaccalaureates. The number of applicants indicates that the program was an attractive alternative for qualified postbaccalaureates wishing to become certified to teach.

The high percentage of participants committed to teaching, offered teaching positions, and actually teaching following program completion is consistent with findings from other five-year programs. Program participants were seen as being as well or better prepared by public school personnel under whom they completed their internships. Several principals and mentors commented specifically on the strong content area knowledge and general educational background of the participants, thus it would appear that the program was effective in providing a program which would result in certification for teachers with high strong qualifications. The Lyndhurst program
is, however, only one of many variations currently being considered or implemented as a five-year teacher-preparation program.

The Lyndhurst Program is dependent upon the participation of public school systems. At the current time, funding is also partially dependent upon public school systems. School systems gain a teacher for three classes for a year but are expected to grant the mentor a released period to work with the intern. They contributed $6,000 plus selected benefits for each intern during the 1985-86 year. Their contribution increased to $7,000 for 1986-87 and an additional $1,000 for the final year. Whether or not they continue to view the program as cost-effective for them may be critical to the future of the program. Once the funding from the Lyndhurst Foundation is no longer available, participants will be responsible for their own expenses during the summer instructional program and all tuition and fees. Considering that more than twice the number of Lyndhurst participants annually complete certification requirements in secondary teaching areas as postbaccalaureates at UT with no organized support program should be encouraging. The Lyndhurst program is a full-time commitment for a year, which may be a commitment that some of the postbaccalaureate students may not be willing to make.

Efforts are being made to gain information from current postbaccalaureates regarding their receptivity to such a program with various levels of financial support. It is possible that many of them may not be able to make a full-time commitment for a year, regardless of funding. It is apparent from the number of applicants for the program, however, that there are many individuals who are interested in such a program. Continued follow up of program participants is planned to determine whether their initial commitment to teaching persists over the years and if they do make a genuine contribution to the quality of the profession. As UTK moves toward implementation of a
five-year teacher-preparation plan, it is encouraging to note that postbacca laureates and those in the accelerated Lyndhurst program both perform at or above levels of graduates of the traditional four-year program.
References


