The Influence of Distance and Full-Time Training Programs on the Professional and Attitudinal Development of Teacher Trainees in Lesotho

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ABSTRACT

This paper investigates the professional and academic achievements of students in the distance and full-time training modes of teacher education at the Lesotho College of Education. The background to this investigation is that, although the distant training program has become essential due to the tremendous need for retraining and in-service training of teachers, its comparative impact has never been evaluated.

The investigation involved 434 respondents, representing a sample of 58 percent (250) teacher trainees studying by distance mode, and a 42 percent (184) studying full-time. Interviews were done by means of semi-structured questionnaires conducted in group interviews.

The findings confirm significant differences between the programs as far as impact is concerned, but do not necessarily imply that the distance program is inferior. This may be the case as far as grades of students are concerned, but distance students showed better professional development, and although they did not have the same degree of attitudinal development, their initial attitudes were significantly better.
1. INTRODUCTION: THE PROBLEM

Since its establishment in 1975 the National Teacher Training College (N.T.T.C) has been using two modes of teacher training, namely the distance- and full-time programs to train teachers for the primary sector. The main motive behind the introduction of the distance mode was to increase the access and to maximize the total training impact.

Although the college has responded to and experienced various national policy and curriculum changes, nothing has been done to compare the professional and academic achievements of students studying by these modes.

2. RESEARCH METHODOLOGY

The intention was to cover the whole population of second year students, namely 250 full time students and 500 on the distance-training program, although it was also realized that a complete coverage would, for various reasons, not be possible. In the case of the distance training group, the day that had been agreed upon for the group interview, coincided with the date students had to collect their modules and consequently only 250 (50 percent) showed up for the interview. The full-time students were interviewed in five different groups (divided according to subject combinations) at times when their lecture timetable allowed it. One group could not attend because they were involved in the investigations about the strike that had occurred at the college a month earlier. 184 (73.6 percent) showed up for the interview.

Data were collected by means of a semi-structured, pre-tested and validated questionnaire consisting of closed and open-ended questions. The interviews were conducted in group sessions, in which respondents were required to complete the questionnaire themselves. This was done systematically in that the enumerator first explained a question using an overhead projector before allowing the participants to fill in their response. Care was taken that interaction was only allowed to the degree that it contributed to the understanding of the question, but disallowing respondents influencing each other. Further endeavors to increase the reliability of the data consisted of clearly outlining the purpose of the survey to the respondents at the beginning of the interview and allowing them to keep their responses anonymous.

After controlling, capturing and cleansing, the data was statistically checked for outliers and to ensure non-violation of the assumptions of normality, homoscedasticity before applying appropriate tools to make the necessary analysis and inferences.

3. RESULTS

3.1 Demographic differences

For purposes of a better understanding of the differences between the outcomes of the two different modes of training it is appropriate to first analyze the demographic profile. Characteristics in terms of which significant differences occur between the two groups of students are shown in Fig.1.
The findings in Figure 1 indicate significant differences between the students in the full-time and distance-training modes. Students registered in the distance-training program are significantly older, and a much higher percentage of them are married (60 percent as opposed to 26 percent of the full-time students). They have more responsible household positions, in the sense that 85.2 percent are parents, while the percentage for full-time students is only 34.8. The majority of them (68 percent) earn an income of more than M500, while the full-time students earn no income at all.

Another noteworthy difference is that distance students enrolled with a minimum of two years teaching experience, while full-time students had no teaching experience and in most cases were admitted into the program after completion of the C.O.S.C. (Cambridge Overseas School Certificate). This explains their younger age and, largely associated with it, the differences in marital status, household position and lack of income. No noteworthy difference occurs regarding gender, as the percentage females in the full-time and distance training mode are 70.6 and 70 percent respectively.

**FIGURE 1. THE PERCENTAGE DISTRIBUTION OF STUDENTS IN THE FULL-TIME AND DISTANCE-TRAINING MODES IN TERMS OF DIFFERENT DEMOGRAPHIC CHARACTERISTICS**
3.2 Professional Development

In the absence of objective criteria, the judgment by the students of their overall professional development during their enrolment in the training programs is probably the most useful indicator of the impact of the two training programs. These findings are summarized in Figure 2.

![Graph showing professional development](image)

**FIGURE 2** THE DISTRIBUTION OF TEACHER TRAINEES IN DISTANCE AND FULL-TIME TRAINING PROGRAMS ACCORDING TO THEIR ASSESSMENT OF THEIR LEVEL OF PROFESSIONAL DEVELOPMENT 3-5 YEARS AGO AND CURRENTLY

The findings show that the general level of professional development was very low. In the case of fulltime trainees the mean assessment was only 1.48 on a 10-point scale compared to the 4.29 of the distance trainees, who had had at least two years previous experience in teaching. In both cases the training programs significantly increased the professional development. With the fulltime program, the mean development increased from 1.48 to 5.79 and with the distance program from 4.29 to 7.19.

Perhaps as important, if not more important than the scope of professional development, is the level to which it has been improved. The level attained through the distance-training program is significantly higher, namely 15.5 percent higher than through the full-time program. 74.8 percent of the distance trainees attained a level of 7 or more out of a possible 10, while only 23.4 percent of the full-time trainees reached a level of seven. This seems to indicate that the distance-training mode has been more
effective, but whether this difference can in effect be attributed to the program or method of instruction as such, is doubtful. The reason could lie in a bigger maturity and motivation of distance students, who, as has been pointed out earlier, tend to be older, hold more responsible positions in their households and in their career as employed teachers.

In the following sections the professional development will be analyzed in more detail.

3.3 Lesson Planning Skills

The selection of skills that were evaluated, were based on the linear model of Calderhead (1987:89-90) and the further contributions of Nathan (1995). In terms of every skill, respondents were requested to assess (a) their skill before the program started, (b) their current level and (c) the level to which they thought they would develop later, given more experience after the training program. The findings are summarized in Figure 3.
The overall impression gained from the findings in Figure 3 is that both programs had a very significant impact on the development of lesson planning skills, but that the distance-mode seems to have been more effective. For example, out of the 22 aspects of lesson planning skills, full-time training students assess only eight higher. On closer examination it does appear that distance students initially had a higher level of lesson planning skills – which is understandable in the light of their two years of teaching experience – and that these were developed to a higher level in the distance-teaching program. On the other hand it is also justified to conclude that, in terms of movement on the scale of proficiency, fulltime students benefited more than students in the distant-training. The mean difference between the initial and current level of skills development, namely 3.76 in the case of full-time and 2.9 in the case of distance students supports this.
3.4 Values and Attitudes

The values and attitudes, which encompass the set of principle standards or beliefs that guide people in the way they should conduct themselves, are generally regarded to be of ultimate importance. The values that Pring (1984:184) associates with the teaching profession and which he regards to be important for initial teacher preparation, relate to the quality of teaching and caring for all pupils, irrespective of background and ability. In Nathan’s view (1995), the professional attitudes that are relevant in the teaching profession involve regularity and punctuality, honesty and trustfulness, responsibility, self-evaluation and improvement, dedication to work, modesty and decency.

Trainees were asked to assess the degree to which they have acquired these professional values and attitudes during the course of training, using a 10-point assessment scale. Figure 4 summarizes these assessments. Based on the assessments, the effect of both training programs is undeniable, but the impact of the fulltime program is significantly bigger. The mean assessment of values and attitudes increased, when expressed as a percentage scale point, by about 30.3 in the case of full-time students, while the improvement in the case of distance students is a mere 12.7 percent. However, this must be seen in the context that the initial mean level before training was 45 percent in case of distance students, compared to the 27.6 percent of full-time students. But the ultimate mean value achieved regarding the improvement of values and attitudes is more or less the same, namely 58.2 percent and 58.5 percent for fulltime and distance students respectively.

The initial difference between the distance and full-time students is particularly conspicuous in the case of regularity and punctuality, dedication to work, and honesty and trustfulness. It is also in these regards that the training of distance students had very little improvement effects, and in the case of dedication to work, the effect has even been negative.

These results imply that trainees differ in values and attitudes and that training will not necessarily have a positive impact on all of them. This implies that the ultimate value system of an individual is a function of the individual’s exposure both before and during the training. This gives credence to Trowbridge et al, (2000:5) who point out that a teaching approach should consider the fact that learners do not enter the classroom with empty minds to be filled up, but they come with plenty of information that may be haphazardly disorganized and needs instructors to organize it. It is noteworthy and encouraging that the effect of the teacher training is expected to extend well beyond the training as such, which is expressed by the higher assessments by all groups with regard to all values investigated.
3.5 Academic Performance

One of the purposes of teacher training is to provide a thorough grounding in the aspects of what teacher trainees will be teaching in the schools (Calderhead & Shorrock, 1997:163). Shulman (1986) and Wilson, et al., (1987) suggest that this requires relearning of the subject matter, which will enable the prospective teacher to establish the repertoire of the pedagogical content that will eventually facilitate the learning of the subject matter in the classroom. Academic performance or performance in the subjects was also used as a criterion to compare the relative impact of the two teacher training programs and is summarized in Table 1.

The difference in performance is very significant. In all subjects the fulltime students performed significantly better than the distance students, the mean difference in performance being 9 percent. These findings contradict those of Moore & Thompson (1990), Verduim & Clark (1991), Merisotis & Phipps (1999) and Russel (1999) who
found that the learning outcomes, such as grades, of the trainees studying by distant and fulltime training are not different. These differences can be attributed to the fact that distant trainees cannot, because of their multiple teaching duties, devote as much time to their studies.

4. CONCLUSIONS

Teacher training has, based on assessments made by students (teacher trainees), a very positive impact on their professional development as teachers. This applies to the professional development in general, as well as to the development of various professional skills in lesson planning and to attitudinal development. Reservations and questions often expressed regarding distance-training appear to be unjustified, in view of the impact of distance-training, which is different from fulltime training, but nevertheless significant.

The levels attained in terms of general professional development and the development of the majority of lesson planning skills even surpass those attained by students through fulltime training. It is true that fulltime students benefited more if the scope of improvement in professional development is taken as indicator. However, this has to be evaluated against the background that fulltime students initially had a significantly higher level of professional development and professional skill, that is, before the training started, thus limiting the potential scope of improvement.

As far as the development of attitudes and values is concerned, the distance-training mode appears to have a much lesser impact. Participants in distant training programs tend to be older, have a more responsible household position, have some

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### TABLE 1 MEAN GRADES OBTAINED BY STUDENTS IN THE FULLTIME AND DISTANCE TEACHER TRAINING MODES

<table>
<thead>
<tr>
<th>SUBJECTS</th>
<th>Distance Training</th>
<th>Fulltime Training</th>
<th>Chi-square</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean score (%)</td>
<td>Mean score (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>63</td>
<td>66</td>
<td>132.1</td>
<td>.000</td>
</tr>
<tr>
<td>Sesotho</td>
<td>64</td>
<td>67</td>
<td>133.2</td>
<td>.000</td>
</tr>
<tr>
<td>Physical Sc.</td>
<td>64</td>
<td>68</td>
<td>17.00</td>
<td>.002</td>
</tr>
<tr>
<td>Mathematics</td>
<td>61</td>
<td>72</td>
<td>9.78</td>
<td>.004</td>
</tr>
<tr>
<td>Education</td>
<td>63</td>
<td>74</td>
<td>114.2</td>
<td>.000</td>
</tr>
<tr>
<td>Social studies</td>
<td>62</td>
<td>70</td>
<td>82.38</td>
<td>.000</td>
</tr>
<tr>
<td>Ag. education</td>
<td>61</td>
<td>71</td>
<td>54.89</td>
<td>.000</td>
</tr>
<tr>
<td>Home economics</td>
<td>65</td>
<td>71</td>
<td>67.90</td>
<td>.000</td>
</tr>
<tr>
<td>Health educ.</td>
<td>60</td>
<td>73</td>
<td>61.93</td>
<td>.000</td>
</tr>
<tr>
<td>Art and craft</td>
<td>62</td>
<td>72</td>
<td>71.30</td>
<td>.000</td>
</tr>
<tr>
<td>Music</td>
<td>61</td>
<td>71</td>
<td>42.13</td>
<td>.000</td>
</tr>
<tr>
<td>Commercial stud.</td>
<td>61</td>
<td>72</td>
<td>38.25</td>
<td>.000</td>
</tr>
<tr>
<td>Religious educ.</td>
<td>62</td>
<td>75</td>
<td>90.50</td>
<td>.000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>62</td>
<td>71</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
teaching experience, and are already employed and this largely explains their better attitudes and values prior to the training. However these, unlike those of fulltime students, hardly improved during the course of the training, which seems to be indicative of the limitations of distance-training in this regard. The grades of distance students are also significant poorer (about 9 percent). There are obvious reasons for this, but it does not necessarily imply that they will be less effective teachers.

Educational implications of these findings are that distant teacher training is, in view of its impact on the professional development of teacher trainees, justified and there is no reason why this training should not become more important in many countries. More aspects need to be researched to acquire an even better understanding of its impact. This will also provide a basis for further improving its delivery, but already the indications are that, perhaps more than in fulltime training, cognizance needs to be taken of the experience background and the held values and attitudes that distance learners bring into the classroom, in order to render the training more need and situation focused and thus more effective.

REFERENCES