Induction Needs of Beginning Agriculture Teachers in Community Junior Secondary Schools in Botswana

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Abstract
The purpose of this study was to identify the induction support needs of beginning agriculture teachers in community junior secondary schools in Botswana. Among the forms of induction support perceived by beginning teachers as important were a mentor teacher, opportunity to observe other teachers teaching, feedback from the school head/senior teacher, and provision of induction support throughout the first year of teaching. The findings of this study also revealed that the forms of induction assistance that were offered most frequently were those that the beginning teachers did not perceive as important. The forms of assistance that were perceived by teachers to be of major or critical importance did not occur at all or occurred infrequently. The most fundamental forms of support needs were not being met, such as provision of a mentor teacher, evaluation feedback, lesson observations, reduced workload, beginning teachers handbook, in-service training on time management and most importantly, provision of continued support throughout the first year of teaching.
Introduction

Entry into any profession can be both personally and intellectually challenging. For educational systems, treatment of entering teachers has risen in importance as a key element in ensuring a quality education for students of beginning teachers as well as in helping to retain new teachers. High rates of turnover among beginning teachers places an especially high cost on society and on school systems. This paper examines the experience of beginning teachers using the case of agriculture teachers in community junior secondary schools in Botswana.

Related Literature

The diversity of induction needs expressed by beginning teachers in studies conducted by Brock and Grady (1996, 1997), Ashburn (1987), and Waters (1985) reflected individuality of teachers and uniqueness of the specific school context. However, most teachers in these studies reported that in addition to pre-service orientations, teachers need a year-long assistance program to help them get started successfully in their new careers. One teacher wrote: *Don’t forget that at the end of the school year we’re still beginning teachers. We have never ended a year before.*

Howey and Bents (1979) agreed that beginning teachers are beginners all year and require on-going support throughout the first year of teaching, and possibly longer. Scott (1998) reported that beginning teachers in Canada asked for more and more continued emotional support throughout the induction period. In another study conducted by Ballantyne (1995) beginning teachers also reported to have gained personal and emotional support from their mentors.

Napper-Owen and Phillips (1995) investigated the impact of induction assistance on two beginning teachers. The results indicated that continued supervision and feedback positively affected the teachers, though in different ways. This study supports the statement made by Brandt (1996), that adults respond primarily to positive reinforcement, want to be involved and prefer to operate in a collegial environment.

No research studies have been conducted in the area of induction needs of beginning teachers in Botswana. Although not a research study, Motswiri (1997) addressed the role of induction in general and its implications for issues emerging from the Revised Botswana National Policy on Education of 1994 (Government of Botswana, 1994). Though the government of Botswana clearly underscores the importance of improved pre-service and in-service training of teachers as necessary to quality education, this policy document is silent on the role of induction.

It is the premise of this paper that all three stages of assistance (pre-service, induction and in-service) are necessary conditions for the production of a sufficiently motivated and competent teaching force. The induction phase bridges the other two phases. It marks the end of the pre-service training on one side and marks the beginning of teachers’ professional development through life-long in-service training on the other side.

Purpose of the Paper

The primary purpose of this study was to identify induction assistance needs of beginning agriculture teachers in community junior secondary schools in Botswana. The study was designed to address the following specific objectives:
1. identify the forms of induction assistance that beginning teachers receive during their first year of teaching;
2. determine the perceived level of impact of forms of induction support that beginning teachers need within their first year;
3. determine the influence of selected demographic characteristics on the perception of the respondents; and,
4. make recommendations for improved induction programs.

Methods and Data Sources

This census study was conducted using a descriptive survey design. The population consisted of all agriculture teachers in community junior secondary schools that started teaching in 1996 and 1997 (N=107). For the purpose of this study at least one year of teaching experience was considered necessary for the respondents to offer valid and reliable retrospective perceptions of their induction needs.

To realise the objectives of the study a questionnaire was developed by the researchers. The 17 induction assistance items were drawn from research findings and recommendations related to effective induction assistance. Part A of the instrument was designed to assess whether or not the beginning teachers received induction assistance during their first year of teaching (the descriptors were Yes or No). Part B sought to determine the potential impact of 17 forms of induction assistance. A 5 point Likert type scale was used to rate the perceived level of impact (1=None, 2=Minor, 3=Moderate, 4=Major, and 5=Critical).

Content and face validity of the questionnaire were established by a panel of experts composed of agricultural education professionals from Iowa State University, Botswana College of Agriculture and senior education officers from the Ministry Education in Botswana. To determine the reliability of the instrument a pilot-test was conducted on a convenience sample of agriculture teachers who were not included in the study. Cronbach’s alpha coefficient for the 17 items for part A was .89, while for part B it was .82. The overall reliability coefficient was .87.

Data were collected through mailing of a letter of introduction two weeks before mailing the questionnaire, and a questionnaire with a cover letter and self-addressed and stamped return envelope to 107 agriculture teachers in community junior secondary schools. A follow-up note was sent three weeks after the initial mailing to non-respondents. These mailings yielded an 87 percent response rate. Non-responder bias was not measured.

The data were analysed utilising SPSS for Windows. Descriptive statistics employed to summarise the data were means, percentages, frequencies and standard deviations. No inferential statistics were employed since this was a census study.

Results

Respondents were primarily male (almost three-quarters), based in rural schools (more than three-quarters), and all had completed a diploma in Agricultural Education/Secondary Education as their highest level of academic achievement. Most of the teachers (86%) had studied agriculture at the high school level. The average teaching load among respondents was 36 periods per week which is within the acceptable range established by the Botswana Ministry of Education.

The respondents were asked to indicate both the level of impact that each of the 17 induction assistance items would have made if it had been provided during their first year of
teaching and the frequency of occurrence during that first year. Table 1 summarises the means of perceived impact ratings and frequency of occurrence of the 17 induction assistance items.

Table 1. Impact ratings of selected forms of induction assistance/support and their frequency of occurrence

<table>
<thead>
<tr>
<th>Form of induction assistance/support</th>
<th>Mean Impact Rating</th>
<th>Occurrence Frequency (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A mentor teacher</td>
<td>4.67</td>
<td>0</td>
</tr>
<tr>
<td>An evaluation at least once by the head/senior teacher (lesson observation)</td>
<td>4.62</td>
<td>15</td>
</tr>
<tr>
<td>Opportunity to observe other teachers teaching</td>
<td>4.61</td>
<td>0</td>
</tr>
<tr>
<td>Evaluation feedback from the school head/senior teacher</td>
<td>4.59</td>
<td>2</td>
</tr>
<tr>
<td>Extra duties (study supervision etc.) reduced for beginning teachers</td>
<td>4.59</td>
<td>15</td>
</tr>
<tr>
<td>Induction support/assistance provided throughout the first year</td>
<td>4.56</td>
<td>0</td>
</tr>
<tr>
<td>Clear job expectations</td>
<td>4.46</td>
<td>14</td>
</tr>
<tr>
<td>An in-service on classroom management</td>
<td>4.39</td>
<td>0</td>
</tr>
<tr>
<td>A visit by an in-service education officer</td>
<td>4.34</td>
<td>21</td>
</tr>
<tr>
<td>Curriculum guides</td>
<td>4.24</td>
<td>78</td>
</tr>
<tr>
<td>A beginning teacher’s handbook</td>
<td>4.14</td>
<td>11</td>
</tr>
<tr>
<td>An in-service on time management</td>
<td>4.14</td>
<td>0</td>
</tr>
<tr>
<td>An orientation on school policies and regulations</td>
<td>4.01</td>
<td>20</td>
</tr>
<tr>
<td>Adequate materials/ books</td>
<td>3.98</td>
<td>44</td>
</tr>
<tr>
<td>An in-service on counselling students</td>
<td>3.97</td>
<td>0</td>
</tr>
<tr>
<td>An orientation tour of the school facilities</td>
<td>3.10</td>
<td>72</td>
</tr>
<tr>
<td>Clerical support for beginning teachers</td>
<td>3.01</td>
<td>66</td>
</tr>
</tbody>
</table>

1Impact rating scale: 1 = none; 2 = minor; 3 = moderate; 4 = major; 5 = critical

Of the 17 induction assistance items, 6 were rated as having a critical impact, 9 were rated as having major impact, and only 2 were rated as having moderate impact. The means ranged from 3.10 to 4.67. Those with the highest impact rating were: a mentor teacher (4.67), an evaluation at least once by the school head/senior teacher (lesson observation) (4.62), opportunity given to observe other teachers teaching (4.61), evaluation feedback from the school head/senior teacher (4.59), extra duties reduced for beginning teachers (4.59), induction support provided throughout the first year of teaching (4.56), and clear job expectations (4.46).
As indicated above, the instrument also asked the respondents to indicate by a Yes or No answer whether they received or did not receive any of the 17 induction support items during their first year of teaching. Table 1 also summarises the frequency of occurrence of each of the induction assistance items. The most frequently reported forms of assistance were provision of curriculum guides (78 percent), an orientation tour of the school facilities (72 percent) and clerical support (66 percent). These items, however, were among those receiving the lowest impact rating by the teachers, implying that they were not considered by the teachers to be important in helping a beginning teacher to settle.

On the other hand, some of the least frequently reported forms of assistance received the highest potential impact rating by the teachers. None of the teachers studied reported having had a mentor, been given an opportunity to observe other teachers teaching, received induction support throughout the year, or received in-service training on classroom management, time management, or counselling students, and only 2 percent reported having evaluation feedback from the school head/senior teacher.

Thus, many forms of assistance that were perceived as critical or of major importance by the respondents were among those that had the lowest frequency of occurrence. Brock and Grady (1996) quoted one teacher saying that:

*Ask us what we need to know. Then plan the meeting to provide information and assistance that responds to those needs.*

The beginning teachers in this study evidently share this point of view.

An analysis was done to determine if some demographic characteristics had any influence on the perceptions of the respondents. The results showed no statistical significant difference in the perceptions according to gender, number of years of teaching and training institution.

**Conclusion**

Beginning teachers found their induction assistance lacking. They received less of the forms of induction needs that they perceived to be important in helping them deal effectively with the problems they experience in their first year of teaching. The forms of support that occurred most frequently were provision of curriculum guides, orientation tour of the school facilities and clerical support. The most fundamental forms of induction assistance needs are not being met, such as provision of a mentor teacher and evaluation feedback. The forms of assistance that beginning agriculture teachers regard as important tend to be offered less frequently.

**Recommendations**

1) The government of Botswana could utilise the results of the study to modify their support system for agriculture teachers based on expressed needs. Establishment of structured induction assistance programs at both regional and national levels could help to reduce high rates of turnover among beginning agriculture teachers.

2) This study employed a quantitative research approach. In order to improve the depth of understanding of these findings a qualitative examination of induction assistance programs should be undertaken.
Educational Importance

As demands for reform and improvement in the provision of quality education continues, we need to identify productive and effective ways to assist beginning teachers to make a smooth transition into the teaching profession. The costs to society of educating a teacher rise when beginning teachers do not transition smoothly and decide to leave the profession. The government of Botswana could utilise the results of the study to modify their support system for agriculture (and possibly other) teachers based on expressed needs. Establishment of structured induction assistance programs at both regional and national levels could go a long way toward addressing some of these pertinent issues.

References


