HOME/PARENTAL-RELATED PROBLEMS ASSOCIATED WITH HOME-BASED VOCATIONAL AGRICULTURE PROJECTS: THE CASE OF SWAZILAND

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Abstract

The study identified home/parental-related problems and possible solutions of home-based enterprises established and managed by vocational agriculture students. High school students in grades eleven and twelve were surveyed to determine their perceptions of the problems and possible solutions based on their personal experience with their respective home-based projects. Findings revealed that as many as 12 of the 19 problems were encountered. Unavailability of structures at home for projects was a major problem. All possible solutions suggested were generally agreed upon by respondents, including parental and the community assistance in the establishment and management of projects. Male and female students held similar views on problems and most solutions. It was concluded that limited resources impeded effective operation of projects. Parental and community expectations in the establishment and management of projects also needed to be clarified.

Introduction

Recognizing that an effective and relevant high school education in practical studies to meet the needs of citizens and support economic development is a critical component of national development, the Ministry of Education in Swaziland introduced vocational education in agriculture in 1989. At the same time, assistance to vocationalize the high school agricultural curriculum came from a European Union grant to six pilot schools. Some of the issues and pressures that contributed to this move included (a) a discrepancy between employment and the number of school leavers/completers because of limited job opportunities and access, (b) high repeat and dropout rates resulting from internal inefficiencies of the school system, and (c) the fact that most secondary school level students cannot attend postsecondary education.

A major component of the secondary vocational agriculture curriculum is home-based enterprise projects. A home-based enterprise project is a supervised occupational experience in agriculture in which parents, agriculture teachers, and school administrators are partners in assisting the vocational agriculture student learn from experience. It is a demanding assignment that offers students a challenging initiation to operating a small farm business. AIt builds confidence and self-reliance while simultaneously sobering immature expectations. Students gain a vicarious insight into the reasons for the high mortality rate of small businesses in the real world; the enterprise project is a simulated microcosm of harsh economic reality@ (Macfarlane & Tomlinson, 1993, p.36).

Sociological research indicates that parent-child relationships, a family=s social status, and the cultural environment affect not only an individual=s socialization but also his/her educational achievement, and subsequent life work choice. Parents have a considerable influence on the subsequent behavior of their children (Tien & Lin, 1994).

Benefits of home-based enterprise projects were reported by Stewart and Birkenholz (1991). They found that the benefits perceived by parents related to work attitudes, occupational development, and human relations. Some of highest perceived benefits were keeping records, a sense of responsibility and pride in ownership, and increased production of animal and crop

products.

Support from teachers, administrators, and parents is critical for the success of an occupational experience program. In managing a vocational agriculture home-based enterprise project, students practice in real situations, model appropriate behaviors and receive appropriate feedback and reinforcement. In the process new problems and situations arise that may cause students to secure additional information and new ways of applying knowledge gained in the classroom.

Purpose and Objectives

The purpose of the study was to determine the perceptions of high school vocational agriculture students regarding home/parental-related problems they experience in managing home-based enterprise projects and possible solutions. The specific objectives were:

1. Identify major problems, and possible solutions, with respect to parental support of home-based enterprise projects.
2. Determine differences between male and female students= perceptions of problems encountered, and possible solutions.

Methodology

A two-stage survey design guided the study. In the Delphi phase (Dlamini, 1997) twelve Grade 11 and Grade 12 vocational agriculture students who had operated home-based projects in the six pilot schools were randomly selected to respond to open-ended questions. The Delphi instrument was validated for content by eight agriculture teacher educators. The students were asked to (a) identify problems they had encountered in establishing and managing their home-based enterprise projects, and (b) suggest solutions to the problems.

Responses to the Delphi questions were used to develop a survey instrument comprising 19 problem statements and 6 possible solutions statements. A 6-point Likert-type scale from strong agreement (6) to strong disagreement (1) was provided to respond to the statements. The instrument was validated for content by a panel of six agriculture supervisors/inspectors. A total of 94 students in the six pilot schools who had home-based enterprise projects were administered the questionnaire. Reliability coefficients for the problems and solutions domains were .99 and .78, respectively.

Means and standard deviations were used to summarize scalar responses. For purposes of interpretation, the measurement scale used to collect data was converted into an interpretive scale. Mean values of 3.49 and below meant that respondents disagreed with the statement as either a problem or a possible solution. Mean values of 3.5 and above meant that respondents agreed with the statement (Mndebele, 1994). This interpretive scale was used for objective one. For objective two, one-way analysis of variance was used to determine statistically significant differences between male and female respondents with regard to problems encountered, and suggested possible solutions.

Findings

Table 1 shows the rankings of home/parental-related problems perceived by vocational agriculture students. Students agreed that as many as 12 of the 19 stated problems were encountered in establishing and managing home-based projects (means $\geq$ 3.50). The highest ranked problem was: AUnavailability of house structures for the project at home@ (mean = 4.62). The lowest ranked problem was: AComplaints from parents about bad smell from the animal droppings [if raising chickens]@ (mean = 2.91). From these findings it was determined that both the home situation and parental support were problematic for students.

Table 1

Students= Perceptions of Home/Parental-Related Problems in Home-Based Vocational Agriculture Enterprises[a].

Rank	Problem	Mean[b]	SD
1	Unavailability of house structures for the project at home.	4.62	1.46
2	Getting material which can be used as equipment.	4.40	1.43
3	Transport for moving inputs from the supplier to home.	4.40	1.53
4	Getting home during school hours to take care of the project.	4.39	1.72
5	Unavailability of space at home for the project.	4.39	1.72
6	Unavailability of nearby shops where inputs for the project can be purchased.	4.09	1.63
7	Water far from home causing project animals to go without water at	4.09	1.83
times.		4.03	1.74
8	Living in a home next to the school which is not the students' parental home.	3.99	1.68
9	Jealous neighbors destroying the project.	3.91	1.62
10	Enterprise too small to satisfy all customers.	3.87	1.75
11	Parents demanding use of the project money on home needs.	3.86	1.61
12	Student=s produce stolen from home while students at school.	3.48	1.50
13	Getting customers for students= produce around the home area.	3.47	1.74
14	Unavailability of land for growing vegetables.	3.39	1.91
15	Difficulty in transporting inputs home because there is no road leading home.	3.31	1.61
16	Difficulty in transporting produce to the market because there is no road leading home.		
17	Parents lack of interest in farming thus discouraging students from starting home-based projects.	3.23	1.64
18	Discouragement by parents from keeping chickens for fear of mites.	3.21	.65
19	Complaints from parents about bad smell from the animal droppings (if raising chickens).	2.91	.65

[a] N = 89-94

[b] Rating Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Slightly Disagree; 4 = Slightly Agree; 5 = Agree; 6 = Strongly Agree

Table 2 presents ranking of possible solutions perceived by students to home/parental-related problems encountered in establishing and managing home-based projects. Students agreed that all six solutions could possibly alleviate these problems. The highest ranked solution was: ACommunities should provide land for students to establish their projects@ (mean = 4.41). The lowest ranked solution was: AStudents should be encouraged to use materials locally available for equipment such as feeders@ (mean = 3.83). The findings showed that students expect parents and the communities in which they live to assist in the establishment and management of projects.

Table 2

Students= Perceptions of Possible Solutions to Home/Parental-Related Problems with Home-Based Vocational Agriculture Enterprises[a].

Rank	Solution	Mean[b]	SD
1	Communities should provide land for students to establish projects.	4.41	1.61
2	Students not living in their parental homes must be allowed to have their home projects at school.	4.14	1.76
3	Parents must provide the structures needed by the students for home projects.	4.11	1.60
4	Parents must be educated about home projects by instructors.	4.09	1.74
5	Parents must provide the students with capital for home projects.	3.89	1.72
6	Students should be encouraged to use material locally available for equipment such as feeders.	3.83	1.61

[a] N = 89-93

[b] Rating Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Slightly Disagree; 4 = Slightly Agree; 5 = Agree; 6 = Strongly Agree

Table 3 compares male and female students= mean ratings regarding home/parental-related problems. AUnavailability of house structures for the project at home@ was ranked the most important problems by both male (mean = 4.58) and female (mean = 4.66) students. The problem rated lowest by both male and female students was: AComplaints from parents about bad animal smell from the animal droppings [if raising chickens]@ (male : 2.86; female: 3.08). There were no statistically significant differences between male and female students pertaining to problems encountered in establishing and managing home-based projects. It could therefore be concluded that boys and girls held similar views on problems encountered.

Table 4 compares male and female students= mean ratings of possible solutions to home/parental-related problems. Ratings of only one possible solution, ACommunities should provide land for students to establish their projects@, were statistically significantly different (male = 4.70; female = 3.95). This reflects perhaps the position of women in Swazi society in respect to land ownership. In Swazi culture, women cannot have individualownership of community land in rural areas under their name.

Table 3

Comparison of Male and Female Students= Perceptions Regarding Home/Parental-Related Problems.

Rank	Problem	Mean[a] Male[b] Female[c]	SD Male Female	F-Value
1	Unavailability of house structures for the project at home.	4.58 4.66	1.45 1.49	.06
2	Getting material which can be used as equipment.	4.42 4.40	1.59 1.19	.00
3	Transport for moving inputs from the supplier to home.	4.52 4.21	1.41 1.71	.89
4	Getting home during school hours to take care of the project.	4.40 4.44	1.74 1.68	.02
5	Unavailability of space at home for the project.	3.75 4.11	1.85 1.74	.89
6	Unavailability of nearby shops where inputs for the project can be purchased.	3.98 4.26	1.69 1.64	.66
7	Water far from home causing project animals to go without water at times.	4.24 3.90	1.78 1.91	.79
8	Living in a home next to the school which is not the students= parental home.	3.93 4.16	1.75 1.75	.39
9	Jealous neighbors destroying the project.	3.61 4.61	1.64 1.52	.71
10	Enterprise too small to satisfy all customers.	3.93 3.89	1.65 1.63	.01
11	Parents demanding use of the project money on home needs.	3.67 4.24	1.72 1.73	2.45
12	Students= produce stolen from home while students at school.	3.87 3.90	1.61 1.61	.01
13	Getting customers for students= produce around the home area.	3.40 3.62	1.56 1.44	.48
14	Unavailability of land for growing vegetables.	3.46 3.47	1.85 1.62	.00
15	Difficulty in transporting inputs home because there is no road leading home.	3.22 3.71	1.98 1.77	1.52
16	Difficulty in transporting produce to the market because there is no road leading home.	3.30 3.40	1.64 1.55	.08
17	Parents= lack of interest in farming thus discouraging students from starting home-based projects.	3.09 3.45	1.69 1.57	1.02
18	Discouragement by parents from keeping chickens for fear of mites.	3.13 3.36	1.67 1.64	.42
19	Complaints from parents about bad smell from the animal droppings (if raising chickens).	2.86 3.08	1.58 1.76	.41

[a] Scale: 1=Strongly Disagree; 2=Disagree; 3=Slightly Disagree; 4=Slightly Agree; 5=Agree; 6=Strongly Agree
[b] N = 63-56, [c] N = 36-38

Table 4

Comparision of Male and Female Students' Perceptions Regarding Home/Parental-Related Problems.

Rank	Problem	Mean[a] Male[b] Female[c]	SD Male Female	F-Value
1	Communities should provide land for students to establish their projects.	4.70 3.95	1.42 1.76	5.10*
2	Students not living in their parental homes must be allowed to have their home projects at school.	3.91 4.47	1.75 1.77	2.32
3	Parents must provide the structures needed by the students for home projects.	3.94 4.32	1.63 1.56	1.20
4	Parents must be educated about home projects by instructors.	4.06 4.14	1.86 1.58	.04
5	Parents must provide the students with capital for home projects.	3.92 3.81	1.67 1.83	.10
6	Students should be encouraged to use material locally available for equipment such as feeders.	3.68 4.00	1.61 1.56	.90

*p < .05

[a] Rating Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Slightly Disagree; 4 = Slightly Agree; 5 = Agree; 6 = Strongly Agree

[b] N = 52-55

[c] N = 37-38

Discussion

Home-based projects are meant to be conducted at the homes of students. The expectation is that parents will support their children=s vocational agriculture business enterprises by providing the resources needed to establish and manage projects (Dlamini, 1997). The findings of this study showed that parental support was somewhat difficult to secure, and access to land was problematic. Brewin (1993) also noted that living away from the parental home posed problems for students in establishing and managing home-based projects. Audile (1980) stated that students often faced limited home and community resources such as land, and subsequently found it difficult to establish and operate their home-based agricultural enterprises.

It was noted in the study that problems and proposed solutions rated as most important by male and female students tended to be associated with capital outlay production factors such as land and farm structures.

The solution preferred by female students that schools provide land for students not living in their parental homes could be in support of the norm of Swazi (and African) culture that girls are more useful in carrying out home chores than boys. Girls are occupied with home chores in the homes of relatives with whom they stay, and thus find it difficult to spare time for the home project. To cut down on the walking distance between parental home and school, it is a common practice for students to seek accommodation with relatives whose homes are nearer to school. While living with relatives, students are expected to be engaged in family chores. Girls tend to be more helpful than boys in such chores.

Male and female students differed statistically on the possible solution of providing land for students to establish their enterprises. This difference could be explained by the cultural practice that women in Swazi society cannot

hold land under their name. Communal rural land is under the jurisdiction of the Chief who reserves the right to apportion land for Afree@ to his/her subjects. Women cannot hold land located in the rural area, nor can communally owned land be sold. However, women can buy and hold title to urban land. Land, particularly arable land, is limited in urban areas. Therefore, most schools offering vocational agriculture are in rural areas.

Conclusions and Recommendations

The following conclusions regarding problems associated with the home and community environment were drawn from the study:

1. Resources needed to establish and manage a home-based project are limited or not available for project use.
2. Transport for movement of materials, input and produce, pose a barrier to the operation and management of the projects. Furthermore, use of suitable local materials is limited.
3. Lack of adequate release time during school hours to work on the project is problematic. Girls need relatively more release time to attend to their projects than boys because much of their time is taken up by home chores.
4. Home-based projects are an essential integral component of vocational education in agriculture.
5. The role of parents and the community as partners must be redefined because vocational students expect parents and the community to assist.
6. There are no strategies and guidelines for parents to follow in helping vocational students with their projects.

The following conclusions were drawn with regard to possible solutions:

1. Land should be made available to students to establish and operate home-based projects.
2. Parents need to be taught the importance and relevance of home-based projects to vocational instruction in school.

Based on the findings and conclusions, the following recommendations are proposed:

1. The inspectorate, teacher educators, and vocational instructors should develop information that could be used to teach local community members about the importance and scope of home-based enterprises.
2. Special efforts should be made to encourage vocational agriculture teachers to offer vocational agricultural education short courses/workshops to young and adult farmers partly as a strategy to link the vocational agriculture department and the community. In this way, support for farm-based experiential learning in the community may be gained.
3. Further research is needed to assess the capability of the home or community to provide the resources and services to sustain home-based projects.

References

Audile, J. (1980). A community based junior high school agriculture program. The Agricultural Education Magazine, 53(8), 22.

Brewin, D. R. (1993). A report on the evaluation of vocational [pre-vocational] agriculture pilot project. Ministry of Education: Mbabane, Swaziland.

Dlamini, Z. (1997). Problems encountered by vocational [pre-vocational] agriculture students in establishing and managing home-based projects. Unpublished dissertation project, University of Swaziland.

Macfarlane, B., & Tomlinson, K. (1993). Managing and assessing student enterprise projects. Education + Training, 35(3), 33-36.

Mndebele, C. B. S. (1994). Professional vocational education competencies for Swaziland teachers of agriculture, commerce, home economics and technical studies. Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg.

Stewart, B. R., & Birkenholz, R. J. (1991). Outcomes of changing supervised agricultural experience programs. Journal of Agricultural Education, 32(3), 35-41.

Tien, C. J., & Lin, Y. D. A study of parental attitudes toward vocational education in Taiwan. International Journal of Vocational Education and Training, 2(2), 37-50.