

Students Knowledge and Attitudes towards Agricultural Shows and Fairs in Botswana

Idowu O. Oladele¹
University of Botswana
Gaborone, Botswana
Southern Africa



Abstract

This paper examined knowledge and attitudes towards agricultural shows and fairs among secondary school students in Botswana. A simple random sampling technique was used to select three schools and 60 students from the selected schools. The results show that many students are females (53.3%) enrolled in secondary schools, between 14 to 16 years of age (73.3%), aware and had visited agricultural shows and fairs (51% and 78.3%) respectively. There is a significant relationship between knowledge and attitude ($r = 0.34$, $p < 0.05$, df_{58}). It is important therefore that the education objectives of agricultural shows and fairs be made more prominent and realistic.

Keywords: knowledge, perception, agricultural shows and fairs, youth, career

Introduction

Botswana is an arid country in which less than 5% of the land area is cultivable and irrigated crop farming has proved difficult to promote. Cattle ranching have been the most prominent enterprise and have skewed agricultural income distribution in favor of large commercial farmer. Livestock remains the focus of traditional and modern agricultural sector, with four-fifths or more of the population dependent on these activities (Ministry of Agriculture (MoA) 2007). Beef processing accounts for around 80% of agricultural output, and more than 95% of beef output is exported. Food-crop production covers less than one-third of consumption, even in drought free years (MoA, 2009). Kanaimba (2009) noted that great priority should be placed on agricultural sector due to its strong backward and forward linkages with the rest of the economy. Purushothaman et al. (2003) concluded that the success of agricultural development in developing countries largely depend on nature and extent at which mass media mobilization has been adopted. Radio and television have been acclaimed to be effective media for mobilization of people and dissemination of agricultural information. The revolution of Information Communication Technology (ICTs) has introduced many other media especially in urban centers.

Presently in Botswana, most families reside in urban, suburban cities and communities which have made most children removed from farms and agriculture in general. Most youth lack knowledge on agriculture and have a narrow perception of associated career opportunities. Among many reasons, agricultural shows and fairs was introduced to promote agriculture among future generation. These are learning events which are mostly experiential and consist of exhibitions mounted by volunteers from various fields of agricultural production. The event features many educational stations displaying and demonstrating animals, equipment, plants products and how they were manipulated to bring high productivity. The national agricultural show is an initiative that gives the ministry, farmers and stakeholders the opportunity to showcase their products, latest technologies and models of good practices for possible replication (MOA, 2009). In Botswana, agricultural fairs and shows take place annually, starting at district levels before they are held nationally in Gaborone.

Fairs bring children out of classroom; allow the community opportunity to educate them about agriculture and are designed to teach youth its linkage to social, economic, and environmental factors. Blackburn et al. (1995) and Blackburn (1999) documented that youth participating in agricultural fairs gained knowledge. Boleman and Burrell Jr. (2003) stated that Dallas County has a long history of developing, coordinating, and implementing agricultural awareness activities for young people through agricultural fairs referred to as farm day. Students were brought from metropolis, exposed to agricultural practices and illustrating how it influences and touches young people's daily lives. Agricultural educators built their entire educational programs on the philosophical foundation of experiential learning and commonly describe their instruction as practical, applied, and hands-on (Neil, 2003). Experiential learning through events such as agricultural fairs has various dimensions such as real experience, concrete experience, reflective thinking, observational learning, abstract conceptualization, active experimentation and teacher-as-facilitator (Herbert, 1995).

According to Boud and Miller (1996) the distinguishing feature of experience-based learning is that it comprises earlier events in the life of the learner,

¹Senior Lecturer, College of Agriculture, Department of Agricultural Economics, Education and Extension, Gaborone, Botswana; E-mail: oladele20002001@yahoo.com

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current life events, or those arising from the learner's participation in activities implemented by teachers and facilitators. Cheek et al. (1994) described experiential learning as practicing in a real situation, modeling appropriate behaviors and procedures, receiving appropriate feedback and reinforcement, and providing opportunities to apply knowledge in new situations. Experiential learning increases critical thinking and empowers students with greater responsibility after being engaged in activities or events that left them being equipped with experience due to prior knowledge.

Oladele (2010) reported that in Botswana, there has been less emphasis on agricultural education in primary and secondary curricula. This makes it difficult for student to take agricultural based careers hence development of negative attitudes towards agriculture due to lack of knowledge. Attitude has been reported to be central in assessing perceptions, as it consists of affective- an individual's feelings about the attitude object; cognitive - an individual's belief or knowledge about the attitude object; and behavioral- an individual's predisposition to act towards the object in a particular way (Steele, 1997).

Agricultural shows and fairs have been on for several years and it is getting a lot more expanded with the consignment demand on resources such as time, space, human, and money. The question is: Do agricultural shows and fairs fulfill their educational role? The objective of the study was to determine students' knowledge and attitudes toward agricultural shows and fairs. The specific objectives were to identify students' demographic characteristics, assess students' knowledge towards agricultural shows and fairs and determine student attitudes about agricultural shows and fairs

Materials and Methods

The study was conducted among secondary school students in Gaborone, the capital of Botswana, where national agricultural shows are held every year. The target population was all students of agricultural science in Junior Secondary Schools

(JSS) and Senior Secondary Schools (SSS). From 17 JSS and four SSS available, simple random sampling was used to select two JSS and one SSS. From each school, 20 students were selected randomly out of available 100 students to give a total sample size of 60 respondents.

A structured questionnaire designed based on review of literature and objectives of the study was used to collect data on personal characteristics, knowledge and attitude towards agricultural shows and fairs. Knowledge was operationalized on a 2 point scale of True or False for 19 items. Students' attitudes towards agricultural shows and fairs consist of 19

Table 1. Gender, Age, Awareness, and Visitation to Agricultural Shows by Students

Variables	Frequency	Percentages
Gender		
Male	28	46.7
Female	32	53.3
Age		
14 -16	44	73.3
17- 20	16	26.7
Visited agricultural shows and fairs		
No	13	21.7
Yes	47	78.3
Awareness of agricultural shows and fairs		
Yes	31	51.7
No	29	48.3

Table 2. Knowledge about agricultural shows and fairs*

Knowledge about agricultural shows and fairs	TRUE	FALSE
	F (%)	F (%)
Agricultural shows and fairs are beneficial to students.	60(100)	
Agricultural training videos (VCD and DVD) were given out during fairs.	52(86.7)	8(13.3)
Agricultural shows and fairs meet educational needs of students	59(98.3)	1(1.7)
Agricultural shows describes linkages between farming, social, economic, health and environment	48(80)	12(20.0)
Agricultural shows and fairs enhance students understanding in agriculture.	56(93.3)	4(6.7)
Agricultural shows and fairs supplement curriculum through real life experience.	56(93.3)	4(6.7)
Organic agriculture was displayed during agricultural shows and fairs	59(98.3)	2(3.4)
Computerized equipment were displayed during agricultural shows	57(95)	3(4.7)
Career prospects and opportunities were displayed during agricultural shows	49(89.7)	10(16.7)
Agricultural shows and fairs include young farmers competition	58(96.7)	2(3.3)
Agricultural shows encourage farmers to engage on agricultural business.	53(86.7)	8(13.3)
Agricultural shows and fairs demonstrate agro-tourism.	56(93.3)	4(6.6)
Awards and prizes were given to farmers during agricultural shows and fairs	51(85)	9(15.0)
Indigenous practices were displayed in agricultural shows and fairs.	42(70)	18(30.0)
Agricultural shows and fairs include educational exhibitions.	57(95)	3(5.0)
Agricultural shows and fairs support local agriculture through direct sales	57(95)	3(5.0)
Agricultural shows and fairs create opportunity for networking.	58(96.7)	2(3.4)
Processing techniques were displayed during agricultural shows and fairs	56(93.3)	4(6.7)
Agricultural shows and fairs educate on current policy programs and projects	56(93.3)	4(6.7)

*Figures in parenthesis are percentages

Table 3. Attitude towards Agricultural Shows and Fairs

Attitudinal statements	Mean	SD
Learning more about agricultural shows and fairs helps me understand future changes in agricultural production	4.16	1.15
Politics has a major effect on agricultural shows and fairs.	2.68	1.26
Agricultural shows and fairs help to know more about agricultural industry.	4.30	0.99
It is important to know how agriculture is practiced and affects local community.	4.41	0.92
Agricultural shows and fairs are a waste of time	1.33	0.85
Agricultural shows helps student on hands-on experience	4.01	1.37
Agricultural shows and fairs are of less importance especially for people who live in the city.	1.95	1.34
Agricultural shows and fairs are relevant student learning process	3.76	1.39
Agricultural shows and fairs leave you as a student with an agricultural awareness and appreciation especially in the world of work.	4.20	1.17
Farmers should be aided with the government so as to excel well in shows and fairs, so as to bring quality products and material.	4.40	0.96
High breed of cattle and vegetable products should be displayed in shows and fairs	4.11	1.36
Agricultural shows and fairs are the main activities that bring about production and should be given a better priority.	4.13	1.15
Young people should participate in agricultural shows and fairs in large numbers.	4.53	0.91
Fairs and shows educate people on the operations of agricultural development programs	4.56	0.89
Students should be obliged to attend Agricultural shows and fairs to enhance their agricultural awareness.	3.98	1.18
Agricultural teachers should be included in the planning agricultural shows and fairs so as to pass the knowledge to students.	4.55	0.94
Agriculture touches my life everyday therefore there is need for agricultural activities such as shows and fairs to exist annually.	4.23	1.09

items; anchored on 5-point Likert scale of Strongly agree (5), Agree (4), Undecided (3), Disagree (2), and Strongly disagree (1), which were reversed for negative statements. The questionnaire was face validated by Lecturers from the Department of Agricultural Economics, Education and Extension in Botswana College of Agriculture and has a reliability coefficient of 0.92. Data were analyzed with Statistical Package for Social Sciences (SPSS) version 16 using frequency counts, percentages and correlation analysis.

Results and Discussion

Table 1 shows frequency counts and percentages on gender, age, awareness and visitation to agricultural shows by students. About 53% of the students interviewed for the study are females. This agrees with the findings of Hulela (2009) who reported that there was more female enrollment at primary and secondary schools in Botswana. In terms of age, 73.3% of the students are between 14-16 years old. Thobega (2010) reported that the model age category of students in secondary school was 14-17 years.

About 52% of the students are aware of agricultural shows and fairs. This may be attributed to the intensity of publicity given to agricultural shows over

the media by Ministry of Agriculture. Similarly, majority of the students (78.3%) visited agricultural shows and fairs. This may be due to the educational importance attached to agricultural shows and fairs and the curiosity of students to be acquainted with agricultural issues in the country. It may also be as a result that some agriculture science teachers often plan excursions to agricultural shows as one of their activities to engage their students and supplement their learning experiences.

From the list of 19 items on knowledge of agricultural shows and fairs in Table 2, students were more knowledgeable on items such as agricultural shows and fairs are beneficial to students (100%), agricultural shows and fairs meet educational need of students (98.3%), organic agriculture was displayed during agricultural shows and fairs (98.3%), agricultural shows and fairs creates opportunity for

networking (96.7%) and agricultural shows and fairs include young farmers competition (96.7%). Blackburn (1999) noted that students who participated in agricultural shows and fairs became more knowledgeable about agriculture.

Table 3, shows a list of 15 statements about students attitudes towards agricultural shows and fairs. The respondents were asked to rate the statements using 5- point Likert scale as follows; 1 (Strongly disagree), 2(Disagree), 3(Undecided), 4(Agree), and 5(Strongly agree). The actual mean is 3 due to the rating scale, and mean greater than 3 denoted that students were favorably disposed and mean of less than 3 denoted unfavorable dispositions by students. The results in Table 3 revealed that students are favorably disposed to fairs and shows educate people on the operations of agricultural development programs (4.56); agricultural teachers should be included in planning of agricultural shows and fairs so as to pass the knowledge to students (4.55); youth should participate in agricultural shows and fairs in large numbers (4.53) and it is important to know how agriculture is practiced and affects local community (4.41). However students are not favorably disposed to politics has a major effect on agricultural shows and fairs (2.68); agricultural shows and

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fairs are a waste of time (1.33) and agricultural shows and fairs are of less importance especially for people who live in the city (1.95).

A test for relationship between knowledge and attitude towards agricultural shows and fairs was conducted using the Pearson Product Moment Correlation. The results shows that a significant relationship exists between knowledge and attitude towards agricultural shows and fairs ($r = 0.34$, $p < 0.05$, df_{58}). This implies that knowledge is a correlate of attitude towards agricultural shows and fairs; and thus, the higher the knowledge the more favorable the attitude.

Summary

The paper has clearly shown that there are more females in agriculture science class in secondary schools. Also, students' age range between 14 and 16 years, are aware and visited agricultural shows and fairs. The study also reveals that knowledge of agricultural shows and fairs influence attitude toward the event. Students are more knowledgeable on items such as agricultural shows and fairs are beneficial to students; agricultural shows and fairs meet educational need of students; organic agriculture was displayed during agricultural shows and fairs; agricultural shows and fairs creates opportunity for networking and agricultural shows and fairs include young farmers competition.

Students are favorably disposed to fairs and shows educate people on the operations of agricultural development programs, agricultural teachers should be included in the planning agricultural shows and fairs in order to pass the knowledge to students; youth should participate in agricultural shows and fairs in large numbers and it is important to know how agriculture is practiced and affects local community. The study recommends that emphasis should be placed on the educational objectives of agricultural shows and fairs so that as many students would participate will be able to gain knowledge about agriculture in all its ramifications.

Literature cited

- Blackburn, D.A. 1999. Ag science fairs: The next wave in agricultural literacy. *Journal of Extension* [On-line] 37(4). Accessed August 13, 2009.
- Blackburn, D.A., B.R. Skaggs, and T.A. Vestal. 1995. Where agriculture comes alive. Brochure Publication, Texas Agricultural Extension Service. College Station, TX.
- Boleman C.T. and F. Burrell, Jr. 2003. Agricultural science fairs: Are students truly learning from this activity? *Journal of Extension* 41(3): 3RIB4.
- Steele, R. 1997. Analysis of the continuing decline in use of supervised agricultural experience. *Journal of Agricultural Education* 38(2): 49-58.
- Boud, D. and N. Miller. 1996. Working with experience: Animating learning. London, England. <http://74.125.155.132/scholar?q=cache:99ImzvJoUMUJ:scholar.google.com/&hl=en>. Accessed September 28, 2009.
- Cheek, J.G., L.R. Arrington, S. Carter, and R.S. Randell. 1994. Relationship of supervised agricultural experience program participation and student achievement in agriculture. *Journal of Agricultural Education* 35(2): 1-5.
- Hulela, K. 2009. Role of women in livestock production in sub-Saharan Africa. In: Proceedings of the Animal Agriculture Conference. Botswana College of Agriculture. Gaborone, Botswana. October.
- Kanaimba, E. 2009. Prioritize agriculture. www.mmegibw.com. Mmegi. Accessed July 16, 2008.
- Ministry of Agriculture. 2007. Agricultural statistics. Government Printer, Gaborone, Botswana.
- Ministry of Agriculture (MoA). 2009. Economy of Botswana. <http://www.iss.co.za/AF/profiles/Botswana/Economy.html>. Accessed October 13, 2009.
- Neil, K. 2003. Agricultural experience program quality. *Journal of Agricultural Education* 37(4): 25-37.
- Oladele, O.I. 2010. Challenges and opportunities in teaching agriculture at primary and secondary schools in Botswana: Perception of in-service students. *Botswana Journal of Agriculture and Applied Sciences* 6(3): 260-267.
- Purushothaman C., M. Kavaskar, Y.A. Reddy, and K. Kanagasabapathi 2003. Role of mass media in agriculture. In: Proceedings of the International Conference on Communication for Development in the Information Age: Extending the Benefits of Technology for All, Varanasi, India, 7-9 January. 2003 Eds. Basavaprabhu Jirli Editor in Chief, Diapk De, K. Ghadei and Kendadmath, G.C., Department of Extension Education, Institute of Agricultural Sciences, Banaras Hindu University, p11.
- Thobega M. 2010. Effects of school geographical location on performance of candidates in the Junior Certificate Agriculture Practical Examinations in Botswana. *Botswana Journal of Agriculture and Applied Sciences* 6(1): 26-34.