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Attitudes and Stereotype Belief on Learning Home Economics at the Basic Education Level in Botswana

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Abstract

The major purpose of this study was to determine factors influencing learning Home Economics (HE) in Botswana. A total of 477 Form 3 students (F3Ss) and 424 standard 7 pupils (S7Ps) were randomly selected for the study. Questionnaire and focused group discussion were used for data collection. Data were analysed qualitatively and quantitatively using Pearson product moment correlation, Chi-square; percentages and frequencies. Major findings indicated that student's willingness to learn HE is higher among F3Ss. Irrespective of class level; students significantly have a positive attitude towards willingness to learn HE. Results also indicate that the lesser students stereotype beliefs, the more willing they are towards studying HE irrespective of class level. Skilled human and material resources are highly in need for empowering HE among others. Recommendations were made towards effective teacher preparation; provision of quality material resources and making HE a core subject.

Key words: Attitude, Basic Education, Home Economics, Stereotype, Beliefs.

Introduction

Home Economics Education(HEE) seems threatened and losing its visibility and position in the curriculum as reflected in enrolment and performance at the Junior Certificate Examination (JCE) level in Botswana and other countries (Matsela, 2007; Ogwu & Ogwu, 2010a; Werhan, 2007). Home Economics is taught as an elective subject under Creative and performing Arts at the primary school level without assessment in Botswana. At the Junior Secondary school level, it is examined and taught holistically as an elective subject. At the senior secondary school level, it is also examined and taught as an elective subject but separated into different segments (Food & Nutrition, Clothing & Textile, and Home Management). As a vocational oriented subject with entrepreneurial skills, HE could be used as a strategy to achieve sustainable future. According to United Nations (2005), education without basic skills and knowledge lack the tools essential for breaking the poverty cycle. Researchers have shown that HEE is an area endowed with valuable entrepreneurial skills and knowledge relevant to everyday living of individual, family and community irrespective of sex; with a wide variety of potential career paths such as: Food and nutrition, fashion and design, hospitality and management, to name but a few (Albert, 2005; McGregor, 2006; Street, 2006) which has implications

for self-reliance and self employment towards sustainable future among youths. In western world, this problem has been attributed to marginalization and stereotype (Albert, 2005; Werhan, 2007); teacher shortage in HE (Pendergast, 2007).

A good deal of researchers has identified factors such as: attitude, (Gable & Roberts, 2009); human material resources (Ogwu, & Ogwu 2009) as influencing teaching/learning of HE. In recent years, research has focused on HE curriculum at the higher level (Street, 2006); sustainability in HEE (McGregor, 2005, 2006; IFHE, 2003); gender inequalities in HE (Ogwu & Nenty, 2006; Tinklin, Croxford, Ducklin & Frame, 2005); stereotype belief practices in the classroom as perceived by post primary school teachers in Nigeria (Ifegbesan, 2010); female negative perception about studying advanced level science (Pinias & Matswetu, 2013) and female poor interest in physics (Buabeng, Ampiah & Quarco, 2012). However, from empirical knowledge gathered, these perceptions have been limited to teachers and higher schools only. The root cause of the problem from learners' perspectives has not been established in Botswana at the foundational level of education to refute or support these findings. The existence and achievement in a subject depends on learners' willingness to continue with it. It also depends on individuals mind set, interest or attitude towards that particular subject which invariably leads to stereotyping or gender gap (Jensen & Owen, 2013).

Attempt to strengthening HE education has been made by inclusion, upgrading and integrating technology into HE to attract and support learning without discrimination(Ifijeh, & Osayande, 2011; Mendoza & Ikezaki, 2006; Ogwu & Ogwu, 2010b); retraining existing teachers through special programs to keep abreast with changes and innovations in HE (IFHE, 2003; U.K Government, 2006); making the subject compulsory at the elementary level in order to stimulate and sensitize learners (Street, 2006); giving attention to indigenous knowledge, to help students explore their own environment (Pepall, 2007). Teacher education in HE was also reported as a priority in Finland (Street, 2006). These suggestions were mainly limited from teachers' perspectives neglecting learners whose voices were supposed to be heard especially at the lower educational levels.

As one of the country's Vision 2016 - pillars is tailored to self-reliant and developed nation, this study was conducted to examine students attitude and stereotype beliefs towards the learning of HE in order to determine the implication this would have on attaining the vision of self-reliance and sustainable development in Botswana. Home Economics if neglected, could lead to deterioration of family life with increase in divorce rate, poor environmental sanitary life, poor feeding habits, poor clothing habits, ill health among others that are endemic in the society today.

Findings from this study will bring empowerment and improvement to the system and add to the pool of literature as well as theory and practice in HEE. It would also inform and enhance decision makers such as: policy makers, professionals in HE related areas, curriculum developers, the government about the state of HE education in order to contribute in areas found lacking towards the actualization of Vision 2016 and beyond in Botswana.

Purpose of the Study: The purpose of the study was to determine the extent to which stereotype beliefs and attitudes of students influenced their willingness to learn HE at the Basic Educational Level (BEL) in the South Central Region (SCR) of Botswana. Specifically, the Study determined:

1. the extent to which attitude and stereotype beliefs significantly influenced students' willingness to learn HE irrespective of their class level at the BEL in Botswana.
2. ways of strengthening HEE towards sustainable future in Botswana.

Research Questions

1. What is the extent of agreement among students' on their willing to learn HE?
2. To What extent do students' attitudes agree towards their willingness to learn HE?
3. To what extent do students' stereotype beliefs agree towards their willingness to learn HE?
4. How can HEE be strengthened towards sustainable future in Botswana?

Research Hypotheses

The following null Hypotheses were tested at 0.05 level of significance.

Willingness to learn HE in future does not significantly depend on the following:

H_{01}. School level

H_{02}. Students' attitude to learning HE

H_{03} Students' stereotype belief

Methodology

***Area of Study*:** The area of study covers the whole of South Central Region (SCR) of Botswana which is largest out of four regions in Botswana. It is made up of four Districts: Gaborone, Kgatleng, Kweneng and Southeast. This area was chosen because of the size and the endemic recorded poor performance of students in HE in this particular region among others.

A lot of factors such as human and material resources, curriculum, among others could be attributed to students willingness to study Home Economics but this was delimited to only Attitudinal and stereotype beliefs factors influencing students willingness to study HE base on parents, instructors, peers and oneself attitude.

***Design of Study*:** An exploratory survey research was used to examine respondents perspectives on why and how about Home Economics Education at the BEL in SCR of Botswana. This design was used because of the large sample involved. It was also used because of the structured nature of the questionnaire.

***Population of the Study*:** The population of study consists of 12,657 Standard 7 pupils from 24 out of 163 Government Primary School, as well as 4,510 Form 3 students from 24 out of 57 Community Junior Secondary Schools in SCR of Botswana (Central Statistics Office, Botswana (CSOB), 2007). This population was chosen because they are the end products of the Basic Education Programme. It is believed that substantial information would be gotten from them regarding their willingness to study or continue with HE education.

***Sample for the Study*:** A sample of 432 Standard 7 pupils (S7Ps) and 480 Form 3 Students (F3Ss) were sampled from the stated population using a simple random technique by lottery method among selected schools with their class register. This gave every member an equal chance of being selected into the study from each stream. Eighteen S7Ps and twenty F3Ss from each school were chosen among the

three streams consisting of S7 Ps and F3Ss.This is because they had been in the system for the entire program duration; and as such would be able to respond to questions effectively. Furthermore, six members of the sampled students were subjected to another simple random sampling and used for the focus group interview. All together making 144 students from each class level used.

***Instrument for data Collection*:** A 4-point questionnaire on Students Willingness to Learn Home Economics (QSWLHE) was used. The Questionnaire was made up of two parts (A & B) comprising of A as demographic information of students based on school, gender, and location.

The questionnaire was face validated for internal consistency by three experts from Departments of Measurement and Evaluation as well as Home Economics, University of Botswana.

A focused group discussion guide was also developed and used for data collection.

***Data collection Method*:** Data was personally collected by hand to ensure effective returns. The help of the class teachers were solicited in order to monitor returns. Ethical issues were observed to ensure data collection. This was done during the beginning and end of the school term to avoid disruption of normal lesson. Data was collected based on appointment from each school head. Out of 432 of questionnaire distributed to S7Ps, 424 were collected given a percentage return of 98%; and out of 480 questionnaires distributed to F3Ss of HE, 477 were collected given a percentage return of 99%.

A focused group discussion was organised for the students for five minutes after retrieving the questionnaire with just an item question on how to strengthen HE education towards sustainable living. Their discussions were recorded for ease of analysis with a tape recorder.

Data Analysis Technique: Data were analysed using frequency counts and percentages to answer the questions. The hypotheses were analysed using Pearson product-moment correlation as well as Chi-Square. The focused grouped discussion data were organized and summarized.

Findings of the Study

The following findings were made based on the research questions and hypothesis:

Research Question 1: What is the extent of agreement among students' on their willingness to learn HE?

Table 1: Extent of students' agreement on willingness to learn HE

Willingness to learn HE	Standard 7 Pupils (n=424)				Form 3 Students (n=477)			
	A		D		A		D	
	n	%	n	%	n	%	n	%
Am willing to enroll into HE class.	284	67.0	140	33.0	362	75.9	115	24.1
I shall discontinue with HE after this level.	144	33.9	280	66.1	122	25.6	355	74.4
Am willing to enroll in any HE activities outside the school setting.	286	67.5	138	32.5	360	75.8	117	24.2
Am willing to enroll into HE subject at higher level.	284	66.9	140	33.1	360	75.8	117	24.2

Table 1 shows that more than 67% of standard 7 pupils and 75% of Form 3 students agreed to the willingness to enroll in HE class; enroll in any HE activities outside the school setting and enroll into HE subject at higher level. However, very few of standard 7 pupils (34%) and 26% of Form 3 students agree to discontinue with HE education after their present educational level.

This result indicates that students to a high extent agreed to their willingness to learn HE up to any level.

Research Question 2: To What extent do students' attitudes agree with their willingness to learn HE?

Table 2: Extent to which students' attitude agree with their willingness to learn HE

Items on students Attitude to learn HE	Standard 7 Pupils (n=424)				Form 3 Students (n=477)			
	A		D		A		D	
	n	%	n	%	n	%	n	%
Am interested in HE as a subject	331	78.1	93	21.9	466	97.7	11	2.3
HE is very useful to me.	329	77.6	95	22.4	470	98.6	7	1.4
I prefer other subjects to HE	208	49.1	216	50.9	184	38.6	293	61.4
I enjoy HE as a subject in my school.	267	63.0	157	37.0	416	77.3	61	12.7
My teacher makes me like HE.	115	27.1	309	72.9	295	61.9	182	38.1

Table 2 indicate that more than 70% of standard 7 pupils and more than 97% of Form 3 students are interested in HE because of its usefulness. A huge number (63%) of standard 7 pupils and 77% of Form 3 students also agreed to enjoy the subject in their schools. This signifies a positive attitude to learning HE. However, 73% of standard 7 pupils, and 38% of Form 3 students disagreed to liking HE due to their teachers.

This result indicates that student's positive attitude towards HE which might likely influence their willingness to learn the subjects.

Research Question 3: To what extent do students' stereotype beliefs agree with their willingness to learn HE?

Table 3: **Extent of students' stereotype beliefs agreement on their willingness to learn HE.**

Items on Stereotype beliefs of students	Standard 7 Pupils (n=424)				Form 3 Students (n=477)			
	A		D		A		D	
	n	%	n	%	n	%	n	%
HE is a subject for girls only.	106	25.0	381	75.0	74	15.5	403	84.5
Boys are not encouraged to enroll in HE.	108	25.4	316	74.6	75	15.7	402	84.3
Girls only should learn HE in schools.	107	25.3	317	74.7	83	17.4	394	82.6
Boys prefer other subjects to HE.	234	55.2	190	44.8	288	60.4	189	39.6
Girls generally possess HE skills	266	62.9	158	37.1	354	74.3	123	25.7

Table 3 shows that 75% of standard 7 pupils and more than 80% of Form 3 students disagreed to stereotype belief statements that HE is for girls only; boys are not encouraged to enroll in HE; girls only should learn HE in schools. Further results are shown in Table 3 above.

This result therefore indicates that students' do not agree with stereotype beliefs about HE education which might have no influence in their willingness to learn HE.

Research Question 4: How can HEE be strengthened towards sustainable future in Botswana?

This was answered qualitatively based on focused grouped discussion carried out by students.

Suggested Solutions to empowering HE Education towards sustainable Future based on the focused group discussion at both primary and Junior Secondary School level, indicates the followings:

- Recruitment of experienced, qualified and specialist teachers that could teach effectively without skipping vital topics in the syllabus.
- Provision of laboratories; equipment like computer, books, cookery utensils, machines and consumables at both educational levels.
- Make HE an examinable subject right from the PSL
- Creating extra time be added into the existing one for the workload since HE is taught under creative and performing Arts subjects at the primary educational level and this makes the workload heavy on both the teachers and learners.
- Teaching more of practical than theory in order to learn more productive skills.
- Make HE a core, subject right from the PSL.
- Encouraging males into learning HE in order to have more HE male teachers.
- The need for more scientific knowledge and art base in HE.
- Emphasis on sensitizing students right from home on the issue of HE education
- Encourage fund raising through HE entrepreneurship skills.

H_{01}. School level does not significantly determine the level of students' willingness to learn HE.

Table 4: Chi-Square Analysis of the relationship between School Level and Levels of Willingness to Learn HE among Students

School Level	Level of Students Willingness to Learn HE in Future			Total
	Low	Average	High	
Standard 7	138	243	38	419
	(118.3)a	(263.5)	(37.2)	
Form 3	113	316	41	470
	(132.7)	(295.5)	(41.8)	
Total	251	559	79	889

Expected frequencies are in parentheses; P<.05; $\chi 2$ (2, n=889) =9.24; critical $\chi 2$=5.99.

Table 4 shows Chi-Square results for HO1. This gave a $\chi 2$ value of 9.24 (see Table 4) which was found to be higher than the critical $\chi 2$ value of 5.99, given 2 degree of freedom at an alpha level of .05. Following from this observation, the null hypothesis that school level does not significantly determine the level of students' willingness to learn HE was rejected. Hence school level does significantly determine the level of students' willingness to learn HE at the BEL and beyond in Botswana.

This result indicates that students at the Junior Secondary School Level (JSSL) were significantly more willingness to learn Home Economics than Students at the PSL.

H_{02}. Students attitude does not significantly influence their willingness to learn HE

Table 5: Pearson Correlations of Students Attitudinal influence on their Willingness to learn HE at the BEL in Botswana

Factor	Sch. Level	Mean	SD	r	df	P
Attitude towards HE	Standard 7	2.72	.722	.449**	422	.000
	Form 3	3.17	.434	.298**	475	.000

*Correlation is significant at the 0.01 level (1-tailed). Critical r =.088; df =422/475

Table 5 shows that attitude and willingness to learn HE also significantly correlated r (422)/ (475) = .449*/.298, $p < .05$; irrespective of school level. Following from this observation, the null hypothesis of no significant relationship between the two variables was rejected. Hence there was a significant relationship between the two variables.

Result indicates that irrespective of students' level of education, their positive attitude towards HE significantly influenced their willingness to learn subject.

H_{03}. Students stereotype beliefs does not significantly influence their willingness to learn HE

Table 6: Pearson Correlations of Students' Stereotype Belief influence on their Willingness to learn HE at the BEL in Botswana

Factor	Sch. Level	Mean	SD	R	df	P
Stereotype Beliefs	Standard 7	1.92	.954	-.154**	422	.001
	Form 3	1.68	.834	-.204**	475	.000

*Correlation is significant at the 0.01 level (1-tailed). Critical r =.088; df =422/475

Results in Table 6 shows that the two variables (Willingness to learn HE & Stereotype beliefs) r (422)/ (475) = -.154*/-.204*, $p<.05$ were negatively correlated irrespective of academic level. Since the absolute r value was higher than the critical r value .088 given significant level of .05, we reject the null hypothesis that stereotype belief does not significantly influence students' willingness to learn HE. The negative correlation value indicated that the two values were inversely co-related.

This result indicates that the lesser students' stereotype beliefs towards HE is, the higher their willingness to learn HE at the BEL in Botswana.

Discussion

This discussion is made based on a combination of the purpose of the study.

Findings indicate that students at the Junior Secondary School Level (JSSL) were significantly more willingness to learn Home Economics than Students at the PSL. This result also indicates that many students at the JSSL are willing to enrol in HE even now and in future both in school and outside the school environment. This is an indication of interest and passion for a subject. This could be that the subject is taught and examined at JSSL while it is hidden and taught under Creative and Performing Arts (CAPA) curriculum at the Primary School Level (PSL). At the primary school level, students are not even examined in the subject. Hence, students do not know much about it. Since students were not given proper orientation about the subject from the beginning, it definitely could have influenced their level of willingness to learn the subject. This finding is an added body to literature since such aspect has been neglected in Botswana and other countries. If a problem exists in any sector, the root cause need to be looked into, which this study has established. Hence it is an exploratory study.

Findings indicate that the better attitude students have towards HE, the higher their willingness to learn the subject irrespective of school level. This converged with Gable and Roberts's (2009); Buabeng, Ampiah and Quarco, (2012) as well as Jensen & Owen, (2013) findings that subject choices students make in subjects like Economics, physics or Geography were attributed to interest or attitudinal change which invariably leads to stereotyping . Students at this level were actually interested and showed likeness for HE. They were actually aware of its usefulness hence their positive attitude towards the subject. This might have influenced their passion and willingness to enroll in HE presently and in future.

Findings also indicated that the lesser students stereotype belief towards HE, the higher their willingness to learn HE at the BEL in Botswana. This finding is contrary to Ogwu and Nenty's (2006) findings, that HE is endorsed as female only subject as well as Ifegbesan (2010) that gender stereotype practices still persists in Nigerian classrooms which influences subject choices made in schools by students. However, findings were contrary to Gudhlanga, Chinmuuta & Bhukuvhani, (2012) that gender sensitivity in the curriculum is still very much in existence in Zimbabwe. This finding indicates that students at the basic educational level in Botswana are beginning to be aware that subjects culturally regarded for females could also be for males. It also indicates that cultural determinants in respect to career selection are gradually dying out. Self-concept and awareness is improving as far as career selection is concerned. From all indications, students do not agree that HE is a subject for females only, or that boys are not encouraged to enroll in it. They believe it is a career for all irrespective of sex. However, they still feel that females perform better in this subject than males, and that males prefer other subjects to Home Economics. This could be at a smaller degree.

Findings from the focused grouped discussion on suggested ways HE

education can be empowered at both primary and junior secondary school level, converges with most researchers that human and material resources should be supplied to avoid skipping vital entrepreneurial topics and skills while teaching and learning (Matsela, 2007; Ogwu, 2010a; Street, 2006; Werhan, 2007). However, suggestions were mainly limited to teachers' perspectives neglecting learners whose voices were supposed to be heard especially at the lower educational levels. Further suggestions made were also directed to the government to supply laboratories; equipment like computer, books, cookery utensils, machines and consumables. Students also suggested that HE be made a compulsory and examinable subject right from the Primary School Level in convergence with Street (2006) ideas. Students at both levels felt that HE be allotted extra time to the existing ones for the workload. This is because; HE is taught under creative and performing Arts subjects at the primary educational level and this makes the workload heavy and invisible on both the teachers and learners according to them. Teaching more of practical than theory was also advocated for by Form 3 students in order to learn more productive skills. They felt that society should be oriented towards encouraging males into learning HE in order to have more HE male teachers. The need for more scientific knowledge and art base in HE was also discussed.

Conclusion

The level of willingness to learn HE is relatively lower among Primary school pupils than junior secondary school students at the basic education level in South Central Region of Botswana. However, the lesser students stereotype beliefs irrespective of class, the better attitude and higher willingness they have towards learning HE. This could be attributed to a broader knowledge about the usefulness of HE. However, proper incentives are not given to learning this subject from human to material resource aspects. Negligence of this nature could be ripping off the values and needed skills for self-reliance and sustainable future among youths in Botswana and other developing nations with poor recognition of HE education.

This study has implications on the preparation of youths at the BEL with entrepreneurial, social, and health skills in order to alleviate poverty, health and social problems rampart in families and societies at large today.

Recommendations

Recommendations were directed towards:

1. Teacher preparation for effective teaching of HE from primary level to higher educational level.
2. Curriculum reform is necessary to remove obsolete curriculum content and bring in more contemporary HE related issues for learners' interest.
3. Provision of quality material resources as well as government assistance in funding.
4. Integrating ICT into HE education to entice and encourage more males into the field.
5. Policy makers should endeavour to make HE an examination and compulsory subject right from the primary school level. This will give children proper orientation about HE education from the grassroots.

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