The Influence of Teacher Trainees' Attitude towards Objectives of Home Science Education in Kenya

Catherine Sempele[1], Jacob Natade[2] and Ruth Otunga[3]

Department of Hotel and Hospitality Management, University of Eldoret, Kenya[1]
Email: sempnaire@gmail.com

Member of Management, University of Eldoret, Kenya[2]

Department of Curriculum and Instruction, University of Eldoret, Kenya[3]

Abstract

A major challenge affecting the teaching of Home Science is related to the attitudes both students and society have towards the subject. Attitudes are an internal state that influences the personal actions of an individual. Home Science Education has been stereotyped as a subject for girls and women only and as a subject for the academically weak students. The society perceives it as a subject that does not require one to go to school in order to study it. Attitudes form an integral component of the context of curriculum implementation which influences the achievement of both educational and instructional objectives to a great extent. This study sought to establish how teacher trainees' attitude towards Home Science Education affects the extent to which course objectives are being achieved. Three hundred and eighteen teacher trainees (318) and thirty (30) primary school teachers took part in this study. Research information was collected by use of self administered questionnaires. Results obtained showed that generally, teacher trainees have a positive attitude towards Home Science Education. Regression analysis results (β=0.069, p=0.002) showed a significant relationship between teacher trainees' attitude towards the subject and achievement of course objectives. The study concluded that teacher trainees' attitude towards Home Science Education significantly contributes towards achievement of course objectives, thus recommends that there is need to sensitize the general society including primary school pupils, parents, high school students and all teacher trainees on the benefits of Home Science Education. This should be done by the Ministry of Education, Public health practitioners, Primary Teacher Training Colleges and all Home Science teachers in the country. This will help improve societal perceptions towards the subject given that it is bound to improve individuals, families and societal standards of living.

Key words: Home Science, Education, Attitudes, Course Objectives.

INTRODUCTION

Home Science is an interdisciplinary field of study that prepares its graduates to develop themselves with multiple vocational and career options (Mwiria, 2007; KIE, 2006). It is classified as a technical and vocational subject (KIE, 2006; Nyangara *et al*., 2010; MOE, 2003; Serem, 2011) offering prevocational skills directly applicable to the world of work. Its mission is to help individuals, families and communities improve their economic, social, cultural and political environment (Education Information Centre (EIC), 2006; Nyangara *et al*., 2010).

The main objectives of Home Science Education are to promote self-reliance and the improve of the quality of life of students, their families and immediate community (KIE,

2004; MOE, 2003; Nyangara *et al*., 2010; Serem, 2011). Home Science was introduced as a technical and vocational subject by the Christian missionaries towards the end of the nineteenth century in Kenya. The aim was to equip African women with skills that would enhance family life and enable them provide quality services to the white settlers apart from preparing young girls for marriage (Sang, 2002; Serem, 2010; Serem, 2011; Sigot, 1987). Courses that were considered for training then included Cookery, Needlework, Childcare, First Aid, Housewifery and Nutrition (Serem, 2011).

The major challenge that affects the teaching of Home Science is related to students and societal attitudes towards the subject. For instance, Home Science Education has been stereotyped as a subject for girls and women only (Serem, 2010) and as a subject for the academically weak students (Anene, 2002). The society perceives it as a subject that does not require one to go to school in order to study it. According to Otunga (2011) and Mwaka et al. (2014), attitudes form an integral component of the context of curriculum implementation which to a great extent influences the achievement of both educational and instructional objectives.

Akinbobola (2009) emphasizes that attitudes are an internal state that influence the personal actions of an individual. They may be learned from other people, be an experience or a creation in one's mind. Attitudes are thus acquired through learning and can be changed through persuasion using a variety of techniques. A teacher is responsible for facilitating the learner to acquire new knowledge, skills and attitudes. Therefore, attitudes have been found to determine to a great extent, the degree of success to be achieved in learning (Imarhiagbe, 2002; Okeke, 2006). This study sought teacher trainees' attitude towards Home Science and the effect this has on the extent to which objectives of Home Science Education are being achieved.

MATERIALS AND METHODS

The study employed the mixed methods research approach which combines both qualitative and quantitative research strategies in one study (Creswell, 2014). The basic assumption is that the use of both quantitative and qualitative methods, in combination, provides a better understanding of the research problem and questions than either method by itself. Owing to the nature of the population that was widely spread, a cross sectional survey was deemed appropriate for gathering the information required.

The study was carried out in PTTCs and primary schools near the PTTCs in Kenya. This is because it is at the PTTCs that the PTE Home Science curriculum is implemented and graduates from the PTTCs teach in the primary schools. The study considered PTTCs that were operational since the last review of the PTE Home Science curriculum in the year 2004. This gave a total of thirthy (30) PTTCs Nineteen (19) public and Eleven (11) private PTTCs). Six (6) public and three (3) private PTTCs (30%) that were based on their ratios of approximately 2:1 were then randomly selected from the list for inclusion in the study sample. The nine (9) PTTC's selected had a total of 1,915 teacher trainees: 940 males and 975 female.

Guided by the Yamane formula of 1967, 331 teacher trainees were identified as study respondents. There was need to collect data from practicing primary school teachers who are graduates of PTTC's since they had experienced the PTE Home Science curriculum. The PTTC selected for study formed the basis of selecting the primary school which would be

involved in the study. The researcher thus purposively selected the primary school nearest to the selected PTTC for inclusion in the study sample; hence, 30 primary school teachers who studied option A subjects in the PTTCs were included in the study as respondents.

The study used self administered questionnaires for both the teacher trainees and the primary school teachers to collect the information required. The questionnaires were semi structured. They each had two parts: the first part that consisted of both open and closed ended questions sought respondent's demographic information that included sex, age, background in Home Science Education, respondents' educational and professional qualifications besides the teaching experience for primary school teachers. The second part sought information on trainees' attitude towards Home Science Education by soliciting their ratings on attributes related to attitude towards Home Science Education. The Cronbach alpha internal consistency coefficient was computed to determine the reliability of the research instruments. Results gave a reliability coefficient of 0.74 for teacher trainees' questionnaire and 0.82 for primary school teachers' questionnaire thus both instruments were considered reliable for data collection.

RESULTS AND DISCUSSIONS

Demographic Information

Out of the total 331 teacher trainees identified, 160(50.3%) males and 158(49.7%) females participated in the study giving a total of 318 respondents. According to their age distribution, 198(62.3%) teacher trainees were 20 years and below; 105(33%) ranged between 21 and 30 years and 15(4.7%) between 31 and 40 years. Asked whether they had studied Home Science before joining the respective PTTCs, only 39(12.3%) agreed while the majority, 279(87.7%) said they first came across Home Science at the PTTC level. These finding suggest that Home Science tutors are likely to experience a lot of challenges when introducing and teaching the subject at PTTCs given that a majority of their trainees would be experiencing the subject for the first time and this must be done in an already congested 2 year curriculum.

A total of 30 primary school teachers took part in this study out of which sixteen (53.3%) were male and 14(46.7%) female. Based on their age distribution, 1(3.3%) respondent was aged below 20 years, 12(40%) were aged between 21 and 30 years while 17(56.7%) were aged between 31 and 40 years. Regarding their teaching experience, most of the primary school teachers had taught for between 1 and 3 years 13(43.3%). Four (13.3%) teachers had either taught for less than a year or for between 4 and 6 years while 9(30%) of them had been teaching in primary schools for at least 10 years.

The study also established that only 3(10%) of the primary school teachers had studied Home Science before joining the PTTCs. Out of the three, 1(3%) took Home Science at high school level and the remaining two (7%) at primary school level. The higher percentage 27(90%) of primary school teachers had no background information in Home Science Education thus experienced the subject for the first time at the PTE level of study.

These finding is similar to that of teacher trainees which established that only 39(12.3%) had studied Home Science before the PTTC level with 17(43.6%) studying the subject at primary school level and 22(56%) at the high school level. In total, only 12% (39 teacher trainees and 3 primary school teachers) of the respondents had background knowledge in the

subject which is introduced to them during their second year of study with expectations that they graduate as Home Science specialists.

These finding corroborates Ndiga (2004) who established that teacher trainees enrolled in teacher training colleges lacked sound Home Science background which hindered effective training as primary school Home Science teachers. Background knowledge in a subject is believed to influence a learner's interest and mastery of the content being taught. It is therefore important that teacher trainees taking option A subjects have background knowledge in Home Science Education for effective training as Home Science teachers. This can be achieved if Home Science is offered at all levels of education starting from primary schools even if it is as an optional subject.

Perceptions towards Objectives of Home Science Education

Respondents were required to rate the six objectives of Home Science Education according to the extent to which they are being achieved. According to the results shown in table 1, respondents agreed that the objectives; 'helps to appreciate the importance of Home Science to primary school children' (59%), 'enables improvisation of materials and formulation of realistic strategies for solving problems in life' (56%), 'improves the standards of living of self, the family and community' (59%) and 'enables use of basic principles and skills as a function for further learning' (56%) are being achieved to a great extent.

On the contrary, respondents opined that the objectives 'enable teacher trainees transfer Home Science knowledge and skills to children' (47%) and 'enable the ability to adapt to new situations and changes in society' (48%) are being achieved to a small extent. The chi square result indicated that there was a significant relationship between respondents' ratings on only one objective. The objective 'enable the transfer of Home Science knowledge and skills to children' that yielded the chi square result (χ^2=38.093, df=8, p=0.000) at 95% confidence level was rated similarly by both teacher trainees and primary school teachers.

Further, respondents indicated that the remaining five objectives of Home Science Education are being achieved to different measures. Therefore, all ratings given on these five objectives showed no significant relationships. In general, the findings showed that study respondents were in agreement that five out of the six objectives of Home Science Education were being achieved to a great extent with the remaining one objective being achieved only to a small extent.

Table 1: Respondents' Perceptions towards Achievement of Objectives of Home Science Education

S/NO	Course objectives	Achievement of objectives	% Distribution	χ^2	df	Sig
1.	Help to appreciate the importance of Home Science to the primary school child.	Great Extent	204 (59%)	10.477	8	0.233
		Undecided	48 (14%)			
		Small Extent	96 (28%)			
		Total	348 (100%)			
2.	Enable the transfer of Home Science knowledge and skills to children	Great Extent	163 (47%)	38.093	8	0.000
		Undecided	34 (10%)			
		Small Extent	151 (43%)			
		Total	348 (100%)			
3.	Enable improvisation of materials and formulation of realistic strategies for solving problems in life.	Great Extent	196 (56%)	13.162	8	0.106
		Undecided	24 (7%)			
		Small Extent	128(37%)			
		Total	348 (100%)			
4.	Enable ability to adapt to new situations and changes in society.	Great Extent	168 (48%)	12.631	8	0.125
		Undecided	37 (11%)			
		Small Extent	143 (41%)			
		Total	348 (100%)			
5.	Improve the standards of living of self, the family and community.	Great Extent	205 (59%)	10.032	8	0.263
		Undecided	22 (6%)			
		Small Extent	121 (35%)			
		Total	348 (100%)			
6.	Enable use of basic principles and skills as a function for further learning.	Great Extent	196 (56%)	10.867	8	0.209
		Undecided	39 (11%)			
		Small Extent	113 (32%)			
		Total	348 (100%)			

Source: Research data (2018)

Perceptions towards Attributes related to Attitude towards Home Science Education

Further, several statements as shown in table 2 were used to establish teacher trainees' and primary school teachers' attitude towards the subject. In total, study respondents opined that they like Home Science subject (70%), they would advice a friend or relative to study the subject (60%), would share knowledge gained from Home Science Education with friends (51%), would study Home Science in the future (51%), would rather that Home Science is reintroduced in primary schools (83%) and that Home Science be taught right from their first year of study (75%).

This finding implied that teacher trainees at PTTCs perceived these six attributes positively thus rated all six attributes above 50%. The chi square analysis was done to establish

whether teacher trainees' ratings on these six attributes had any relationship with ratings given by primary school teachers. Results showed significant relationships on all six attributes at 95% confidence level. This therefore meant that they perceived the six attributes similarly. Basically, more than half the respondents agreed with all six attributes related to teacher trainees' attitude towards Home Science Education.

Table 2: Perceptions towards Attributes related to Attitude towards Home Science

S/NO	Attributes related to attitude towards Home Science	Extent of agreement	Count & % Distribution	χ^2	df	Sig
1.	I like studying Home Science.	Agree	243 (70%)	406.614	5	0.000
		Undecided	36(10%)			
		Disagree	69 (20%)			
		Total	348 (100%)			
2.	I would advice a friend or relative to study Home Science.	Agree	210 (60%)	406.478	5	0.000
		Undecided	58 (17%)			
		Disagree	80 (23%)			
		Total	348 (100%)			
3.	I do share my knowledge in Home Science with friends	Agree	177 (51%)	377.657	5	0.000
		Undecided	63 (18%)			
		Disagree	108 (31%)			
		Total	348 (100%)			
4.	I would study Home Science subject in the future.	Agree	176 (51%)	392.808	5	0.000
		Undecided	71 (20%)			
		Disagree	101 (29%)			
		Total	348 (100%)			
5.	I would rather Home Science is reintroduced in primary schools.	Agree	288 (83%)	402.574	5	0.000
		Undecided	29 (8%)			
		Disagree	31 (9%)			
		Total	348 (100%)			
6.	I would rather Home Science is taught from first year in PTE.	Agree	261 (75%)	408.963	5	0.000
		Undecided	13 (4%)			
		Disagree	74 (21%)			

Source: Research data (2018)

It is notable that this positive attitude does not change even after completion of PTE despite the fact that Home Science is not currently offered in the primary schools where PTE graduates are eventually employed to teach. This may imply that PTE graduates value the usefulness of the competencies acquired through Home Science Education in PTE. It would thus be meaningful if trainees that graduate in Home Science Education from PTTCs are able to practice the competencies acquired in their world of work which is in the primary schools in which they are eventually employed to teach.

Simple multiple regression analysis was used to establish the influence teacher trainees' attitude towards Home Science Education has on achievement of the objectives of Home Science Education. The result (β=0.069, p=0.002) showed a significant relationship between

the two variables at alpha level 0.05. This meant that teacher trainees' attitude towards Home Science makes a significant contribution towards achievement of the objectives of Home Science Education. Hence, this result supports the hypothesis that teacher trainees' attitude towards Home Science does significantly contribute towards achievement of the objectives of Home Science Education.

These finding agrees with Serem (2010) and Serem (2011) who established that students and teachers perceived Home Science subject positively. This is despite the fact that a majority of them experience Home Science at the teacher training college level for the first time. However, this finding contravenes findings by Sang (2002) who found out that students dislike Home Science because of its practical nature especially clothing and textiles which they said was difficult to pursue. Further, this finding is contrary to findings by Anene (2002), who noted that many students hate Home Economics to the extent that some show little interest in the subject that they do it half way and drop it and Arubayi (2010), who concluded that students had a negative attitude towards the subject.

It is students from high schools who finally join the PTTCs to pursue Home Science Education. Hence, if they come in with a negative attitude towards the subject, then this is bound to affect the results of the implementation of the PTE Home Science curriculum. So far teacher trainees have a positive attitude towards the subject which should be nurtured if Home Science Education is expected to do well in the country and the world at large.

CONCLUSIONS AND RECOMMENDATIONS

The study established that teacher trainees in PTTCs and primary school teachers have a positive attitude towards Home Science Education which makes a significant contribution towards the extent to which the objectives of Home Science Education are being achieved. The study recommends that for there to be continuity in learning, Home Science should be offered at all levels of learning starting from the primary schools. This will ensure that there is adequate time for content delivery and mastery. Moreover, this will ensure that there is ample time for practice and acquisition of skills by learners besides building up on the attitude developed towards the subject. Further, it is possible that a change of name from Home Science to Home Economics would improve societal perceptions towards the subject. Therefore, the Ministry of Education, PTTCs, Home Science tutors and teacher trainees should sensitize the general public on the benefits of Home Science Education so as to improve their perceptions towards the subject. This will make society embrace Home Science Education and appreciate its benefits to its trainees, their families, the community and society at large. In turn, those pursuing Home Science Education will be doing this out of their own will hence better placed to acquire the competencies expected. Upon graduation, they will be able to utilize the knowledge and skills acquired to the best of all in society.

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