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Factors influencing High Female Gender Ratio to Male in the Study of Home Economics: (A Case Study of Home Economics Department, College of Education, Afaha Nsit, Akwa Ibom State)

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Abstract

This study investigated factors responsible for high female students ratio to male ratio in the study of Home Economics in Akwa Ibom State College of Education Afaha Nsit. Two research questions were formulated to guide the study. The study adopted ex-post factor research design. The researchers designed a 20-item instrument on a four-point rating scale to obtain information from the respondents, and three academic sessions (2018/2019, 2019/2020 and 2020/2021) admission lists from the Department of Home Economics. The instrument was validated by two experts from the Department of Home Economics Michael Okpara University of Agriculture Umudike Abia State and one expert from the Department of Home Economics College of Education, Afaha Nsit all their comments and suggestions were used in production of the final questionnaires structured for the study. The data collected from the trial test was analyzed using Cronbach Alpha statistical tool and a reliability co-efficient of 0.82 was used to obtained the results of the administered questionnaires. The data collected were analyzed using descriptive statistics results, revealed that those factors responsible for high female students ratio to male in the study of Home Economics includes personal analysis, job analysis, matching through scientific advising, parental attitudes, availability of materials for practical work among others. It was recommended that both state and federal government should equip all technical and vocational schools with requisite and adequate equipment, tools and machines for practical work. it was concluded that scholarship should be given to students especially the females who like to pursue Home Economics at the Tertiary Institutions.

Keywords: Factors, Influence, Gender, Female, Male Ratio, Parental, Perception, Stereotype, Personality,

Introduction

Home economics has grown from a subject that was taught as domestic science to a multifaceted interdisciplinary course. Domestic science of the colonial days included simple training in cookery, housewifery, laundry work, sewing, spindle and childcare. It was in the early days a course that prepared girls for the stereotyped role of the wife whose singular responsibility was to deep the house for the "man" of the house (Olubajo & Olaiya 1998).

Today Home economics is one of the approved vocational subjects taught in Colleges in Education as a viable course in national development.

Both male and female have their own role and functions. In addition, there is a tendency based on the nature and characteristics of each. In traditional culture where males tend to be encouraged by parents, teachers and relatives to pursue the majors of male domination, such as science, mathematics, and engineering. In contrast, females tend to be encouraged to pursue women's dominance majors such as social sciences, education, art, literature and home economics (Hong Mc Cathy Veach & Lawrenz 2005). But it cannot be denied in certain cases that women can have an interest in a field generally occupied by men. Likewise, men can have an interest in a field that is generally occupied by women or domestic field. This also happens with the interest of students in choosing a major in their school because school is very important for themselves and others.

In the long history of the home economics class at school, moreover, the scouts were founded in 1910, in large part, in response to the "feminization" felt by American males the white middle-class, heterosexual men experienced a "masculinity crisis" in the decades the decline of the nineteenth century primarily due to the dire economic cycles, shifts in work patterns, increased urbanization, waves of immigrants and the inclusion of women into the workplace though as unskilled workers and the like (Mecychling, 2005). By having the goal to prepare young men and women for skilled and profitable work and equip them to take their place in society as useful parents and citizens (Christopherson, 1957). This became one of the reasons for making it to form in society.

Some of the goals with Home Economics Department in some vocational schools are among others. The most departmental goals and schools in the field of home economics is to build a healthy education program, to attract student who have intellectual desirable and personal qualities. (Christopherson 1957) the field of home economics is seen as the subject preparing students for the demands of their daily lives (Kenway, 1992). In high school, students are expected to develop practical cooperative and information gathering skill to manage daily life activities. Particularly "the task is to guide students to take responsibility for their health, human relations and finances as well as the comfort and safety of their immediate environment" while recognizing their relationship to local culture and the opportunities created by international and multicultural connections (Lisa, 2014) this makes home economics a reason for students to choose the course.

Choice of subjects among Nigerian youth has been influenced by gender stereotyping since formal education started in the country (Buku, 2016) says that vocational guidance helps students to address gender issues in occupation which will complement the effort that will help eliminate stereotypes from the society. This informal education that existed long before the introduction of formal education in the country was fully influenced by gender. The mentality

developed from the informal was carried to the formal education of which energy demanding roles attracted males and others of less energy demanding attracted females. When learning a trade, the females were compelled to go in for careers such as sewing, hairdressing, bakery, selling, weaving, pottery and many more. The males were expected to opt for driving, carpentry, fishing, hunting, farming and the likes. The same is said about the formal education. There have been traditional courses for boys as well as girls in Nigerian schools and colleges since the introduction of formal education. For instance, technical/science-based courses such as physics, chemistry, biology, electronics, engineering, mechanical and others were previously male dominated and no-go area for female students while courses such as home economics (secretariat, catering and sewing) was predominantly female courses. Home economics has been branded names such as Home sciences (catering and sewing) domestic science, life skills and all these are female dominated now at the basic school 's level Home economic has been integrated with a technical skills and visual arts to newly introduced course Basic Design and Technology (BDT).

This course is made up of visual art, technical and home economics with their various sub- disciplines. At tertiary institutions, Basic Design and Technology is referred to as Technical Vocational Education and Training (TVET) Home Economics has been a field of study that equips individuals with skills such as management in living, catering, sewing, food and nutrition, hospitality management, entrepreneurship and many more. Amu (2017) indicated that, in Ghana, gender inequalities is recognized as critical societal problem and discussed in relation to educational policies. These include setting target for equal access and enrolment for male and female students. Teachers and other opinion leaders have been discouraged teachers/tutors from using gender insensitive words as examples in their classroom for instance, policeman Kofi is playing football "Efua is sweeping. These influences are so strong that certain academic decisions as a universal phenomenon. In Ghana, the first female secondary school "Wesley Girls High School" (W.G.H.S) was started as a home science institution with 18 female students (Mc William & Kwamena – Poh (1978).

This artificial distinction created by gender stereotyping has become international concern that is being addressed in all policies world over. T.TEL (2016) advised that colleges take deliberate steps to be gender responsive so as to ensure equality within all aspects of the institutions practice. In the days of Middle School Leaving Certificate (M.S.L.C) Examination male students wrote history as part of their final year examination while female students wrote home science. This may be due to the fact that Ghanaian culture at that period considered domestic work such as cooking, cleaning, cooking, utensils, sweeping and childcare as duties reserved for women. These perceptions of the Ghanaian culture were carried over to the school cultural environment during that period and that was why in Home Economics the female student were more in number.

Udonwu (2015) argued that gender has got nothing to do with student academic performance and achievement of students offering Home Economics as a subject of study. This might be attributed to how people in her society perceive Home Economics as a subject of study. The discernments of the people in the society and other environmental factors play an important role when it comes to female gender offering the subject than the male. Manwa and motsi (2010) indicated that the attitude of parents towards the teaching and learning of Home economics influences the choice of the subject. They found out that 60% of the parents had negative attitudes towards the study of Home Economics while 40% had positive attitudes towards the subject. This might be due to the gender role stereotypes that give clear dichotomy between career choice for male and female. In some Ghanaian homes in the absence of females, the male may not be able to prepare food for him, and attitude which is very unfortunate.

Manwa and Motsi (2010) stated that when it comes to the prevision of teaching and learning resources for Home Economics practical work, parents with negative attitudes towards the study of Home Economics feel reluctant to provide those materials to their wards while those who hold positive attitudes towards Home Economics readily provides those needed resources. Consequently, students whose parents have positive perception about the study of Home Economics were those who perform well in their examination and are able to demonstrate their achievement in Home Economics with the needed interest. Some female students also see mathematics and science related subjects as an area reserved for the male students.

The female students of Indonesia in the academic year of 2017 – 2018 are interesting to study. This is because of the view that every female student would prefer a feminine department than a masculine department. Factors for high female gender to male in Home economics depend on the following according to Buku (2016) indicated that, Trait and factor theory is based on a three-part model of career guidance as (i) personal analysis (ii) job analysis (iii) parental attitudes

Statement of the Problem

Education is very important and vital to the development of every society. Technical and Vocational Education has the potential of improving the socio-economic sector of the country. The skills of the work-force make the economy of its country competitive. Ansah and kissi (2017) indicated that the purpose of Technical and Vocational Education and Training (TVET) is to equip people with the technical skills needed for socio-economic and industrial development of the country. This way specifically meant for those who want to acquire technical and vocational skills for employment in the world of work. Avoke (2008) supported this assertion that Vocational Education is a form of education that helps students to prepare for a job. This is done by helping students to learn the required vocational skills necessary for the job. It is clearly perceived that more female students offer Home Economics than the male students due to the fact that most of the female students would prefer a feminine department

than a masculine department and parental attitudes toward Home economics subject. Motsi (2010) found out that 60% of the parents had negative attitudes towards the study of Home Economics while 40% had positive attitudes toward the subjects. This might be due to the provision of materials for Home Economics practical work. Manwa and Motsi (2010) stated that, when it comes to the provision of teaching and learning resources for Home Economics practical work, parents with negative attitude towards the study of Home economics feel reluctant to provide those materials to their wards while those who hold positive attitudes towards Home Economics readily provide the needed resources. Again, the female gender whose parents had positive perception toward Home Economics studies perform well in their examination and are able to demonstrate their achievement in Home Economics with the needed interest.

Objectives of the Study

The main object of the study is the determine factors responsible for the high female gender to male ratio in the study of Home Economics in College of Education, Afah Nsit, Akwa Ibom State. Other specific objectives include:

1. To examine factors responsible for high female gender to male in Home Economics.
2. To examine the perception of female and male gender in the study of Home Economics.

Research Questions

1. What are those factors responsible for the high female gender to male ratio in the study of Home Economics?
2. What are the females and male perception in the study of Home Economics?

Review of Related Literature

Gender and Home Economics Students' Achievement

The relationship between gender and home economics achievement of students has been observed in different culture throughout the worlds. Some of the measures which have come under investigation include cognitive styles achievement (Lynn, 1972; Okeke & Wood-Robinson, 1980; Siann & Ugwuegbu, 1980) and ability to perform tasks (Hanson, 1966, Ogunyem, 1972; Onocha & Okpala, 1986). The general conclusion from these studies is in the direction of male superiority over female. It is only ogunyemi's study that indicated that the achievement of females and not males improved from teacher-supplied information about a science related, situation (Ogunyemi, 1972). He mentioned that girls included in their answers fine details which showed evidence of understanding. The performance of the boys were superior to those of girls. Okpala (1986) opines that males are likely to be more effective in planning and implementing activity-oriented investigations than females. He reported that a

large percentage of male pre-service teachers in his study demonstrated the ability to use formal reasoning patterns in problem solving situations than their female counterparts. There are other researchers (Hanson & Brembeck, 1966) who have also seen women teachers as having a predominantly literary bent or at least antiscientific and anti-technological bent. In other words, men are seen to be more practical, more scientific and more technologically, oriented than women.

What could be responsible for the male superiority over female which had manifested into what Fromm (1968) called "a war between sexes"? area these biases or is it a calculated propaganda against the female gender? Answers to questions such as those have lead to various explanations about the differences between the genders. A number of dimensions range from natural (Fromm, 1968 & Lynn, 1972) to socio-cultural. They have pointed out that the characteristic differences between males and females are derived from anatomical and physiological differences. Lynn (1972), thinks that nature combines with the usual process of acquiring feminine identification to produce a style of thinking and learning for females that differ measurably from the style characteristics of males. But Hodges (1974) contends that what society regards as masculine and feminine is essentially rooted in cultural conventions rather than biology. Also, Siann & Ugwuegbu (1980) feel that the different patterns of abilities seen as sex-appropriate in any culture are related to the expected stereotypes which the culture holds about sex roles. They asserted with particular reference to technical task, that social rather than physical variables account for sex difference in achievement.

The socio-cultural dimensions for sex difference seem to hold sway. Researchers (Mbilinyi, 1970; Hoftman, 1972; & Pringle, 1974) have stressed the element of socialization in the nature-culture controversy over sex differences. Mbilinyi (1970) attributes what is regarded as the intellectual inferiority of women in certain areas to ingrained attitudes, prevalent in socio-cultural practices in child-rearing among cultures. And as Hoftman (1972) puts it, female socialization emphasizes the importance of affinitive tendencies (the forming of warm peronsal relations) as opposed to the achievement motives more emphasized for males. Also, Pringle (1974) explains that parental attitudes and expectations are different according to the sex of a child. Children grow in environments which clearly distinguished behaviour expected boys and girls, the proximate grounds for enforcing the proper roles is expressed in terms of what constitutes manly and womanly behaviour (Komarousky, 1962).

Conceptual Framework

This artificial distinction created by gender stereotyping has become international concern that is being addressed in all policies world over T-TEL (2016) advised that colleges take deliberate steps to be gender responsive so as to ensures equality within all aspects of the institution's practice. There are four areas of concern which include "Gender Responsive, Academics, Programming and Pedagogy". With this, college authorities are expected to include female student teacher in every group or committee formed in the colleges.

In the days of Middle School Leaving Certificate (M.S.L.) Examination male students wrote history as part of their final year examination while female students wrote home science. This may be due to the fact that Ghanaian culture at that period considered domestic work such as cooking, cleaning cooking utensils, sweeping and childcare as duties reserved for women. These perceptions of the Ghanaian culture were carried over to the school cultural environment during that period. Edjah, Janhonen-Abruquah, posti-Ahocas and Amu (2017) supported this view that, gender position present in Ghanaian homes and the societies' culture at large influence the practice of choosing Home economics education in the Ghanaian schools.

Formerly, the education of the girl child was relegated to the background. We at times see and hear of teenage marriages in some Ghanaian philosophies. In some Ghanaian culture, females were previously not allowed to contribute to public discussions. Edjah, Janhonen-Abruquah, Posti-Ahocas and Amu (2017) indicated that, in Ghana, the gender division of labour is still prevalent in many communities and cultures. In some Ghanaian homes, some parents even select courses for their wards. These at time lead to some confusions among the parents and the children. These situations require the service of counselors. This is however in contrast with the view of Udonwu (2015) who argued that, gender has nothing to do with students' academic performance and achievement of students offering Home Economics as a subject of study. This might be attributed to how people in her society to perceive Home Economics as a subject of study. The discernments of the people in the society and other environmental factors play an important role when it comes to choose a subject of study. Manwa and Motsi (2010) indicated that the attributes of parents towards the teaching and learning of Home Economics influence the choice of the subject. They found out that 60% of the parents had negative attitudes towards the study of Home Economics while 40% had positive attitudes towards the subject. This might be due to the gender role stereotypes that give clear dichotomy between career choice for male and female. In some Ghanaian homes in the absence of females, the male may not be able to prepare food for himself, an attitude which is very unfortunate.

Theoretical Framework

A person's choice of a course of study towards a future career depends upon so many factors and theories. Frank Parsons (1909) as cited in Buku (2016) indicated that, Trait-and-Factor Theory is based on a three-part model of career guidance as (i) personal analysis, (ii) job analysis and (iii) Matching through scientific advising. This means one should consider one's capabilities, interest, personality physical abilities among others before selecting an occupation. For example, before enlisting into the military, the individual should be medically fit by military standards before getting into the career. On the other hand, to take a course in Home Economics the individual should analysis the job, his or her interest among others. There should be the intervention of the counselor to assist individual to make some capabilities. Ipaye (2000) supported this view by indicating that counseling is meant to assist individual to make some adjustment by relating his/her capabilities, achievements, interests and to adjust to the

appropriate decisions he/she has made. Even when the choice of the subject has been made, counselors need to assist them to adjust to the course requirements that would enhance their achievement. Therefore, for either boys or girls to offer Home Economics should be a major concern to the counselor.

To ensure effective education to help youth fit appropriately into the society, series of educational reforms has been formulated and implemented. Among these was the Educational Act of 1987. This was aimed at turning the 1974 Dzobo committee measures into reality. The interest to the researchers was the idea of introducing technical and vocation education into the Ghanaian school curriculum for the first time as an examinable subject of study. The idea among others was to ensure students are equipped with employable skills. This 1987 education reforms recommended by Dzobo 1974,that people pay much attention to the study of general education at the neglect of technical and vocational education to ensure that graduates from Ghanaian schools make appropriated choices towards their future career the following were some of the recommendations made to help equip the youths with the needed skills in the Dzobo New Educational Reforms in 1987:

1. Guidance and counseling shall be offered to students at the JSS to enable them to choose the right programmes to suit their interest and skills.
2. After JSS there will be two parallel streams made up of general and technical education.
3. Special attention will be given to the training of teachers in technical, vocational, Agricultural, Special Needs Education, Guidance and Counseling, ICT and French.
4. TVET shall provide employable skills through the informal apprenticeship, vocational, technical and Agricultural institutions; technical Universities and other Universities.
5. The Council for Technical and Vocational Education and Training (COTVET) shall be established to develop policy, co-ordinate and regulated all aspects of TVET.
6. Industries shall play role in all aspect of TVET.
7. Service conditions for TVET teachers shall be improved to attract qualified and experienced teachers from industries.

All these were aimed at making Technical and Vocation Education attractive to both boys and girls yet different people have different opinion from the study of both subjects. In some instances, they look at technical and vocational education as a course for those who are not academically good. This assertion has become a serious misconception, which is dissuading a lot from choosing a course of their interest. Even the few who do not favor this idea may expect the female to go in for vocational courses while the male counterparts go for technical.

Empirical Literature

Ansah and Kissi (2017) indicated that the purpose of Technical and Vocational Education and Training (TVET) is to equip people with the Technical skills needed for socio-economic and industrial development of the country. They continued that, TVET provides a mix knowledge and career focus, hands-on and skills-based education that were needed to run the productive sectors of the economy and to build the nation (Government White Paper on Education, 2004). This was particularly meant to provide avenues for skills development for the youth who complete the junior secondary Schools and Senior secondary Schools. This was specifically meant for those who want to acquire technical and vocational for employment in the world of work. (researchgate.com). Avoke (2008) supported this assertion that Vocation Education is a form of education that helps students to prepare for a job. This is done by helping students to learn the required vocational skills necessary for the job.

The researchers focused on gender due to various argument about why gender studies. T-TEL (2017) argued that there have been unfair treatments of female based on false assumptions about what they can or cannot do. T-TEL (2017) commented that the unfair treatment could be related to race, class or gender. These unfair treatments are said to be completely unjust because it may be based on hugely false assumptions and misconceptions about intelligence ability and that one group is vulnerable or superior to another T-TEL (2017) concluded that the effects of unfair treatment based on gender may limit persons' aspirations, affects persons' achievement and limit the entire groups, achievement and representation to some career choices.

Methodology:

The study design adopted for this study is ex-post factor. The area of study was Akwa Ibom State College of Education, Afaha Nsit, specifically, the Department of Home Economics. The researchers made written application to the Head of Department, Home Economics requesting for admission list of the student from 2018/2019 session, 2019/2020 and 2020/2021 academic year and this was granted. The population of the study is the total number of male and female gender in the department which was 50. Forty-five females and five males respectively. The researchers designed a 20-item instrument on a four-point rating scale of: strongly agree (SA=4), agreed (A=3) disagree (DA=2), strongly disagree (SD=1), to get information from the respondents. The instrument was validated by two experts from the Department of Home Economics Michael Okpara University of Agriculture, Umudike, Abia State and one expert from the Department of Home Economics, College of Education Afaha Nsit, all their comments and suggestions were used in the production of the final questionnaires structured for the study. A test re-test method was used for this study. About 50 female genders were selected from the Department of Home Economics, Michael Okpara University of Agriculture Umudike to obtain the reliability coefficient of the instrument. The data collected from the trial test was analyzed using Cronbach Alpha statistical tool and a reliability

coefficient 0.82 was used to obtain the result of the administered questionnaires for the period. The data collected were analyzed using mean.

Data Presentation and Findings

Research Question 1: what are those factors responsible for the high female gender to male ratio in the study of Home Economics.

Table 1: Factors influencing high female gender to male ratio in the study of Home Economics.

S/N	Factors responsible for high female gender to male ratio in the study of Home Economics	$\bar{X}$	Remarks
1.	Personal analysis	3.60	Agreed
2.	Job analysis	3.50	Agreed
3.	Matching through scientific advising	3.70	Agreed
4.	Parental attitudes	3.67	Agreed
5.	Perception of people in the society	3.67	Agreed
6.	Good relationship with teachers	3.50	Agreed
7.	Interactions between the students and other teacher	3.60	Agreed
8.	Understanding of the subject	3.50	Agreed
9.	Availability of materials for practical work	3.65	Agreed
10.	Provision of textbooks for teaching and learning the subject.	3.55	Agreed
	Grand Total	**3.55**	

The results in Table 1, showed that all the 10 items identified have mean responses above 2.50 implying that all the respondents agreed on all the item identified as factors responsible for high female gender to male ratio in the study of Home Economics subject. In this study, the researcher considered three academic sessions to arrive at the population of the study. Thus; 2018/2019, 2019/2020 and 2020/2021. In 2018/2019 session a total of fifteen students were admitted, fourteen females (14) and one male (1), in 2019/2020 academic year. Twenty-five (25) students were admitted to pursue (N.C.E) all were female students and in 2020/2021 session, ten (10) students were admitted, nine were females while one was male a total of 50 students makes the population for the study.

Research Question 2: what are the male and male perceptions in the study of Home Economics

Table 2: The females and male perception in the study of Home Economics.

S/N	Items for the females and male gender perception in the study of Home Economics	$\bar{X}$	Remark
1.	The females have high while male have low perception	3.40	Agreed
2.	Home Economics was predominantly female course	3.50	Agreed
3.	The male gender cannot have interest in Home Economics because the field	3.35	Agreed
4.	The female gender do more cleaning activities in the kitchen than males	3.60	Agreed
5.	In the course of study, female gender establishes more interaction and relationship than the males.	3.50	Agreed
6.	The female shows more interest than the males while the males depend on the females to pass examination	3.65	Agreed
7.	Females whose parents had positive attitude toward home economics are able to demonstrate practical skills	3.50	Agreed
8.	Low level of participate of male in home economics is as a result of parental influence	3.40	Agreed
9.	Females perceived home economics has their choice of course	3.60	Agreed
10.	Male perceived home economics as optional	3.50	Agreed
	Grand Total	**3.34**	

The result in Table 2 showed that all the ten items have mean responses above 2.50 which imply that the respondents agreed on all the items identified as females and male gender perception in the study of home economics.

Discussion of Findings

The work was to examine factors responsible for high female gender to male ratio in the study of Home Economics. The results revealed that various factors have great influence in high female gender to male ratio. In line with Buku (2016) and Manwa (2010) that gender position such as cooking, sweeping, washing etc present in Nigerian homes and the schools at large influence the practice of choosing Home Economics education by females. This gives credence to the reason why in many Nigerian schools the number of female's students offering Home economics is for more than the male students. In Akwa Ibom State College of Education for instance during the 2018/2019 academic year out of fifteen (15) students admitted to pursue Nigeria certificate in Education (NCE) fourteen only were females, one (1) were male but during 2019/2020 academic year, twenty five (25) were admitted all were females. In 2021/2022 academic session, ten (10) were admitted, nine were females while one was male. Making a total number of 50 students in the department.

Further, the findings also pointed out that that the students themselves especially the females have personal passion for the study of Home economics as the course was predominantly female subject. Again the findings revels that due to the attitudes of parents towards the teaching and learning Home economics influences the choice of the subject Motsi (2010) found out that 60% of the parents had negative attitudes towards Home economics while 40% had positive attitudes towards the subject. This might be due to the gender role stereotypes that give clear dichotomy between career choice for male and female. Farrugia (2016) had an opposing opinion about gender and the choice of Home Economics as an optional subject Farrugia (2016) was of the view that both boys and girls offer Home economics because they found it as a very useful subject as well. This is because they indicated their interest in career related to Home economics. These may be because of the overwhelming number of unemployed youths in the country, many students are shifting to the study of practical skills.

Moreover, the research, finding revealed that the practical work demands for home economics are more expensive for some parents to manage. In situations where the students are not able to pay for practical fees and the parents are not supportive and willing to provide money to their wards poses problems for the students. These findings support Manwa and Motsi (2010) that when it comes to the provision of teaching and learning resources for Home Economics practical work, experience, parents with negative attitudes towards the study of Home Economics feel reluctant to provide those necessary materials to their students while those who had positive attitudes towards Home economics provide the needed resources promptly.

Finally, the findings also pointed out that there are many factors that lead to the choice of studying Home economics subject. This correspond to the views of Buku (2016) which indicated that, trait and factor theory is based on a three – part model of career guidance as 1) personal analysis 2) job analysis 3) matching through scientific advising. This means one should consider his/her capabilities, interest, personality physical abilities, parental attitudes among others before selecting an a course of study.

Summary of the Findings

1. Home economics is a subject meant for girls
2. Parents discourage their students to offer Home economics
3. Boys prefer other elective subjects more than Home economics
4. The practical activities in Home economics make it more expensive for many students.
5. Many families do not encourage male students to become chefs.

Recommendations

In light of the study results, the following recommendations are made:

1. Teachers and parents should always encourage genders studies in Home Economics for skill acquisition and vocational knowledge for employment in the world.
2. Both state and federal government should equip all technical and vocational schools with requisite and adequate equipment, tools and machines for practical work.
3. Scholarship should be given to students who would like to pursue Home Economics at the tertiary institutions.
4. Guidance and counseling should be given to the students to enable them choose the right course of study to suit their interest and skills.
5. Gender advocator should campaign vigorously against the misconception of the study of gender issues.

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Lifelong Learning in Science Education

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Abstract
There is a common notion that as human advances in age, the quest for knowledge also diminishes or stopped. This might not be the case again due to advancement of Science and Technology for a better life. Hence a problem for the average man who believed that learning new things at their present age is meaningless since they are not young. This paper is on Lifelong Learning (LLL) in Science Education. The importance of Lifelong Learning cannot be underestimated due to constant research and development in the Technological world where knowledge in Science is very important. Lifelong Learning in Science Education as the name implies is a continuous learning where different skills in Science are learnt throughout man's life for the purpose of improvement and at times for financial reasons. The skills obtained are not only to satisfy ones 'self but mankind with the skills learnt. For this reason, this paper is discussed under the following sub headings; concept of Lifelong Learning, Importance of Lifelong Learning, benefits of Lifelong Learning in Science Education, challenges of Lifelong Learning in Science Education, and how to be successful in Lifelong Learning in Science Education.

Keywords: Learning, Lifelong Learning, Science Education

Introduction

To acquire knowledge, one must learn. When one learns, one grows and when one stop learning, he or she stops growing knowledge wise. As one engages in learning, there should be improve in the acquisition of knowledge and ability to do better, exploring deeper into the horizon of our interest. There is no limit to learning, no age limit, no time limit, no area limit, as well as no boundary limit to learning. Learning is therefore a continuous process throughout man's life, involving different spheres of man's life and disciplines. According to Aleandri and Gabriella (2012) people and societies are involved in a continuing changing process, such that education has become crucial for the individual life, knowledge, work and for economic well-being of societies. Learning therefore can be easy or difficult to acquire, cheap or expensive, time consuming, cheap or expensive to acquire depending on the type of learning and where it is acquired. It does not necessarily need to be learned in the school environment but can also be traditional coaching like sculpture, pottery, farming, to mention a few learning processes as well. Wikipedia (1) explain learning as a process built on the acquisition of new understanding or knowledge in behavior, skills, values, attitudes and preferences. Through these processes,

new knowledge is gained; new skills and values are acquired, thereby improving the life style of man. This not only builds the individual but develops the growth the community or society at large.

Concepts

Learning is a process that leads to changes which occur as a result of experience (Ambrose, et al, 2010). This involves the increase in the potential for improve performance and future learning. Similarly, Behlol and Dan (2010) define learning as a quantitative increase in knowledge involving the memorization of facts, skills and methods that can be retained and used as necessary. From all indications, it shows that learning is important, and since it is important, it should continue for a long time as far as it is for the benefit of man's growth. Lifelong learning which takes place throughout one's life is defined by Wikipedia as an ongoing voluntary and self-motivated pursuit of knowledge carried out for either personal or a professional reason.

Soran, Akkoyunu and Kavky (2006) asserts that Lifelong Learning means creating new opportunities for individuals by updating their skills or providing more advanced educational possibilities. In Encarta's (2008) assertion Lifelong Learning is the development undertaken after formal education. This involves the continuing development of knowledge and skills that are experienced by people after formal education as well as throughout their lives. Lifelong Learning system according to Ates and Alsal (2012) has a cradle until death philosophy that provides people with competition power to maintain their position in society and in the world. Solmaz (2017) defines Lifelong Learning as a learning process that continuous throughout life and is everywhere in order to adapt to ever-changing conditions in contrast with education and learning skills compressed to a particular period of time. Mankind faces new challenge in coping with rapid change in knowledge consequently, adapting oneself to this challenge affected society directly (Yazici & Ayas, 2015). They explained that Lifelong Learning seems to be the only tool to satisfactorily reply to the stated challenge and covers all modes of learning throughout life: formal, non-formal or informal. Lifelong Learning can be self-taught activities whereby one learns of his/her own accord according to interest and motivation.

The interest developed by such individuals spore them to undergo studies online also, leading to the acquisition of new knowledge and skills. Lifelong Learning as explained by Korosec (2019) is the learning throughout man's life, it shows that man does not stop learning and improving upon one's self everywhere man goes. The learning can enhance the understanding of the world around man, provides man with better opportunities and improve quality of life. Capps (2018) sees lifelong learning as an ongoing, voluntary and self-motivated pursuit of knowledge for personal and professional purposes, and further mentioned some among the following as ways to practice lifelong learning at home;

a. Creating and maintaining a positive attitude to learning both for personal and professional development

b. Learners are motivated to learning and development because they want to

c. Learning is a deliberate and voluntary act
d. It can enhance the understanding of the world around man
e. Provide man with more and better opportunities and improve the quality of man life.

Science Education according to Wikipedia is the teaching of Science to non-scientists. These should be school children, college students or adult within the general public involving scientific content and process. Science Education is aimed at increasing understanding of Science and the construction of knowledge as well as the promotion of scientific literacy to the responsible citizens of a country, like Nigeria. Science Education however seeks to promote the development of scientific skills to meet the specific education policy objective and practice of government. Lifelong Learning in Science Education is aimed at acquiring a lifelong Science knowledge and conceptual understanding in skills to solve problems. This is achieved through taking the rightful decision as regard scientific contexts.

Lifelong Learning and Science provides the foundation for learning and working supports thinking, self-management and social interaction, thereby enabling the support of goals. The learning is a form of self-initiated education and focuses on a person as an individual. Lifelong Learning in Science Education is a multidimensional concept which describes attitudes and way of life in order to achieve a continuous knowledge, skills and competencies developed (Aleandri & Girottic, 2012). They explain that to achieve a deep-rooted lifelong learning and education culture, it is important to increase education programs and activities at every span of life, from youth to adulthood. Lifelong Learning in Science Education involves learning new skills and technology, acquisition of new knowledge as well as self-taught study to mention a few.

Importance of Lifelong Learning in Science Education

Lifelong learning promotes learning and provides experience acquisition through which scientific knowledge is attained as a result of scientific literacy. This is as a result of understanding the learning area and development. Similarly, in science direct, lifelong learning does not only enhances social inclusion, active citizenship and individual development, but also increases competitiveness, employability. Lifelong learning which is a voluntary act of learning throughout life is, involving the processes of gaining knowledge and learning new scientific skills in life.

Lifelong learning according to Filk and Dierking (2012) is the learning that takes place beyond school and brings about changes in the society on how people live and are transformed. They further contend in order to create a comprehensive lifelong learning in science education the society must recognize, respect and support the various places, ways and reasons why people of all age learn in their everyday lives. Yazici and Ayas (2015) assert that Lifelong learning does not only enhance social inclusion active citizenship and individual development but also increases competiveness and employability. They also stated that, Lifelong learning increase life expectancy, increasing the old age dependency, the desire to increasing the quality of life as well as trying to keep them in good physical and mental condition. Science education

process is very important for the effectiveness lifelong learning in science education bearing in mind that a problem of interest needs to be identified. These required the scientific processes to be able to arrive at an answer to the problem.

Benefit of Lifelong Learning in Science Education

Korosec (2019) mentioned the following as benefits of Lifelong Learning in Science Education; renewal of self-motivation, recognition of personal interest and goals, improvement in other personal and professional skills as well improvement of self-confidence. Similarly listed the following as benefits of Science Education;

1. It can help man to succeed at one's work
2. It can help man brain to stay healthy
3. It can help man to stay connected
4. It can help man to stay fulfilled in life
5. It can help man to be happier
6. It can improve self-confident, it involves the ability to produce something new and original
7. It can improve self-trust in oneself and one's level of competence
8. It can give values to others
9. It can be innovative; it involves the ability to imagine or invent something new
10. It can be creative, involve the innovation which creates new ideas
11. It can give excellent problem-solving skills.

Success of Lifelong Learning in Science Education

Lifelong learning in Science Education is concerned with how things are done for the benefits of one and others. It is not done out of compulsion. These successes are achieved by the following ways

1. By taking notes
2. By setting goals
3. By ordering books on topics of interest
4. Planning day trip and take tours
5. By seeking resources and what to do with them
6. By knowing ones interest and goals
7. By visiting local museum
8. By surrounding oneself with other lifelong learners
9. By learning from different mediums
10. Attending seminars on topic of interest
11. By using technology
12. By encouraging critical thinking
13. By encouraging independent learning
14. By developing innovating skills and growth mindset

Lifelong learning according to Yazia and Ayas (2015) initially belong to only the most developed countries around the world before it horizon have been widen to now including developing countries and less develop countries. Some challenges in Lifelong Learning in Science Education as further mentioned by them in developing countries include the following;

1. Creating awareness of lifelong learning to the general public
2. By improving the condition and governance of lifelong learning
3. By improving career guideline
4. By improving data on lifelong learning and better monitoring and evaluation
5. By providing adequate and effective financing of lifelong learning
6. By improving levels of school attainment to create solid foundations for Lifelong Learning
7. By providing a system for recognition of prior learning
8. By improving quality assurance and delivery of Lifelong Learning

Conclusion

Lifelong Learning in Science Education is a continuous process throughout man's life as well as for professional areas. It occurs as an interest and involves innovative and creative skill. Lifelong Learning in Science Education involves scientific literacy and the application of scientific knowledge for the benefit of mankind. Though Lifelong Learning in Science Education has its own share of challenges, but its' benefits out weight any problems it faces when it processes success for the individual and society at large. Some Lifelong Learning is done for personal satisfaction and fulfillment because the people involve are happy doing what they do out of interest as well as hobby, since it is their dream job and cannot be valve in money. Learning which is of self-initiated, self-taught or trial and error process brings out the curiosity in man and it does not necessarily take place in the formal education setting. In the end, the haughty mindset of Lifelong Learning led people to their success or their own end.

Suggestions

Lifelong Learning in Science Education should be encouraged in the society by appreciating peoples' creativity and innovation. All those who show interest in their personal development and societal development should be encouraged and motivated. Finances should be made available for those who are creative but cannot sponsor their research work, provided research works will be beneficial for the development of the society.

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