Influence of Classroom Practice of Home Science on Employability among the Youth in Kakamega County, Kenya

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Abstract
Tackling unemployment through vocationalisation of education is a strategy that has worked in countries such as United States, Australia, United Kingdom, Switzerland and Mozambique among others. It is in the light of this that the study sought to evaluate the methods of teaching Home Science in secondary schools for the purpose of informing policy on quality education delivery in vocational education. Home Science is a vocational subject which, if effectively taught; impacts learners with practical skills and attitudes necessary in equipping graduates with the ability to transform themselves into self-employed citizens. This study sought to investigate the influence of classroom practice of home science on youth employability in Kakamega County. Specifically, the study sought to create sensitization on the problem of unemployment among the youths in Kakamega County and to identify the competencies developed through Home Science that are related to employability in Kakamega County. The study adopted a descriptive survey design in which 188 respondents were sampled to take part. Respondents were identified from Secondary Schools in Kakamega Central teaching Home Science subject. Respondents from the study included students, Home Science teachers and head teachers. The study used questionnaires for Home Science teachers and students and an interview schedule for head teachers in collecting data. To ascertain validity of data collection instruments, a pilot study was undertaken before administering the instruments to respondents and feedback from the pilot study informed the corrections in the data collection instruments. Reliability of data collection instruments was ascertained through the use of test-retest method where Cronbach’s Alpha coefficient was computed and found to be reliable. Both descriptive and inferential statistics were employed in the process of data analysis. Study data was analysed using Statistical Package for the Social Science (SPSS) version 22.0 for windows. Descriptive statistics included frequencies and percentages. These were used to summarize and describe the study data. Inferential statistics used in the study included regression analysis, t-test, Pearson Product Moment Correlation Coefficient and Chi-Square. Inferential statistics were used to determine independence of scores and relationships between and among study variables. All statistical procedures were computed at 95% confidence level. Study findings revealed that unemployment levels were significantly high among secondary school leavers. The study also revealed a statistically insignificant positive relationship between Home Science skills and employability among the youth in Kakamega County.

Keywords: Home Science, Employability, Youth

1.1 Background to the Study
Whereas secondary education was once viewed as academic preparation for entrance of higher education, over the years greater attention has been given to the relevance of what is taught at the secondary School level to preparing graduates for the world of work. This in so doing meets the needs of not only those who go into higher education but also those likely to get paid or self employment immediately after completing secondary school. It is where the relevance of vocationalisation comes in. Vocationalising education provides more training opportunities for the increasing number of students completing school with a view to preparing them for self-employment through the promotion of the requisite practical skills, knowledge and attitudes. Vocationalised Secondary education is here understood as being a curriculum which remains overwhelming “general” or academic in nature, but which also includes vocational or practical subjects as a minor portion of the timetable during the Secondary School course. The greater that portion becomes, the more training and vocational education (TVE) is required in terms of time and objectivity for purposes of employment preparation. A “diversified” curriculum structure can be seen as a means to greater equality of opportunity because it would purportedly cater to a wider range of talents and prepare for a wide range of future activity than to purely academic curriculum. This view has historically been part of the rationale for comprehensive secondary schools in many countries. There is the international influence of the US high schools Model. Some African countries have historically been influenced by North American or by Soviet models of comprehensive secondary school. Vocationalisation of Secondary Education Revisited (Maclean and Wilson, 1999).

In Kenya, Vocationalisation on a large scale was chosen in the 8 – 4 – 4 reform of 1986, in order to help the transition of Secondary school leavers into employment and further vocational training. A practical oriented curriculum was to offer skills for a wide range of employment opportunities. The new system was to ensure that students graduating at every level would have some scientific and practical knowledge that could be utilized for self –employment, or further skills training. There was also some concern with preparing students so that they would better adjust to the domestic worlds. All secondary schools were required to offer vocational subjects.
The issue in the African countries, at the heart of policy debate on vocationalisation has undoubtedly been “economic relevance”. By teaching vocational skills, the hope has been that students would more easily find work when they leave school, and become more productive and trainable, sometimes a declared goal in preparation for self-employment. This research is an extension to the study on Vocationalisation of Secondary Education in Kenya by Kilemi Mwiria (2005) prepared for the Vocational Skills Development Review, which was carried out in 2002 – 2005 by the Human Development Department in the World Banks Sub – Sahara Africa regional department. The study yielded discouraging findings on the failure of vocationalisation in Kenya. It provided a review on the results of implementation of the vocationalised reform (8-4-4) system of secondary education. Under the 8-4-4 system the secondary school curriculum was expanded to include a number of practical subjects that prepared learners for practical challenges of the labour market and industry in general. Some of the applied subjects such as home science, agriculture, business studies (accounting, commerce, and economics), and industrial education were introduced into the curriculum prior to 1986.

This research narrows the problem and selects to study an individual vocational subject; Home Science, reviewing the methods of teaching Home Science with the rationale of assessing if the learning outcome translates into employment. The employment factor is the expected outcome of the 8-4-4 reform, a system introduced to vocationalise the school education in Kenya.

Exploring a narrower scope, Home Science for this matter provides a clear link of skills taught and how they apply for a secondary school leaver to get paid or self-employed. It is upon this backdrop that the study sought to investigate the influence of classroom practice of home science on employability in Kakamega County.

1.2 Statement of the Problem

The specific objective of vocationalising the education system in Kenya was to enable Secondary School leavers to join the labour market with requisite skills and also enable them to access opportunities for further training in relevant institutions of higher learning. Therefore each vocational subject taught was to produce skills that would positively impact on employment in a respective area of job creation, tackling the challenge of youth unemployment crisis. While the objective remains worth, there is need to assess the success of the reform measures implemented for the policy in order to ascertain if intended objectives set for vocationalisation are being attained. It was thought prudent that pilot studies may be launched for independent research to study specific vocational subjects and how their curriculum is delivered since the result determines the skills and attitudes learned which directly transform into employability. It is in this context that this study sought to investigate the influence of classroom practice of home science on employability in Kakamega County.

1.3 Objectives of the Study

The study was guided by the following specific objectives;

i. To create sensitization on the problem of unemployment among the youths in Kakamega County

ii. To identify the competencies developed through Home Science that are related to employability in Kakamega County

1.4 Theoretical Framework

This study was guided by social cognitive theory advanced by Albert Bandura (1986), a behavioural Psychologist who proposed that social and cognitive factors as well as behavior play important roles in learning. According to Bandura (1986), observational learning, also called imitation or modeling, is learning that occurs when a person observes and imitates someone else’s behavior. Effective Home Science teaching methods should be practical oriented, involving learning, observation, and demonstration. This exposes learners to real life situation which is essential particularly if practical skills need to be imparted. The capacity to learn behavior patterns by way of observing what others do reduces the burden associated with trial and error learning.

According to Bandura, most human learning is done by selecting, observing, and placing into memory the behavior of others. Bandura (1963) wrote ‘learning would be laborious, not to mention, hazardous if people had to rely on the effects of their own actions to inform them of what to do’.

Bandura(1963) further established that most human behavior is learnt observationally through modeling; from observing others, one forms an idea on how behaviors are performed and on later occasions, this coded information serves as a guide for action.

For instance when going on an industrial field trip, it is expected that a lot of learning takes place. Furthermore, getting information directly from personal observations as well as observation is usually more interesting than getting it from a video. Trips involve a learning experience that is multi-sensory in nature, bringing together visual, audio, tactile appreciation of the content being learnt. Trips are also a mode for learning through exploration. Unlike behaviorists, social learning theorists believe that something is learnt when an observer consciously attends to some behavior and then places that observation in long term memory. The observer has not yet performed the observed behavior so there have been no behavioral consequences, which
behaviorists maintain are necessary for learning to occur. Bandura (1963) asserts that observational learning is a process that involves three steps: the learner has to pay attention to critical aspects of what is to be learnt, retain or remember the behavior and the learner must be able to reproduce or perform the behavior.

Ryan (1984) supports Bandura’s point of view by asserting that not all learning has to take place in the school of hard knocks. In fact civilization itself requires that we be able to capitalize on the experience of others. Artists and other talented people can make the experience of others accessible to us for enjoyment, edification, or both.

Practice and mental rehearsals used in direct instruction are processes that help learners to retain and produce observed behavior.

Hyggin (2000) established that the emphasis on self instruction, self talk, and self regulatory learning provides an important shift from learning controlled by others to responsibilities for one’s own learning. These self enacted strategies can significantly improve students; the above is true for heuristic methods of teaching Home Science since they encourage the learner to think independently. These methods provide an opportunity for students to have a real world experience. They clearly illustrate and enhance information taught in the curriculum.

1.5 Conceptual Framework
The study was based on the concept which explains that delivery of quality Home Science education through use of effective teaching methods would improve chances of self employment among learners after Secondary School education.

The dependent variables were the scenario of self – employment while the independent variable is Home Science which is a vocational subject. Vocational education provides leaners with knowledge relating to a specific industry or trade under well-defined limitations. Home Science if efficiently delivered to learners through effective teaching methods, will impart practical skills necessary for creating jobs in related industrial field.

![Conceptual Framework](image-url)

**Figure 1.1: Conceptual Framework (Self Conceptualized, 2017)**
1.6 LITERATURE REVIEW

1.6.1 The Concept of Unemployment

Unemployment is a situation where academically qualified personnel are unable to secure job opportunities. It is a situation where qualified workforce is unable to secure permanent, contractual or even part-time jobs. Mohammed (2011) in his study notes that the Chief Executive Officer of Dangote Group, Alhaji Aliko Dangote (GCFR), said that in Nigeria a nation with over 50% of the populace being youths, youth employment is necessary and urgent. The country cannot develop as required if over half of its populace is unemployed due to lack of jobs or necessary skills. Most troubling is that the highest unemployment rate is found in the fast growing youth population. Therefore, Nigerian youths at the height of their productivity are under-employed, unemployed or unemployable.

According to the World Bank (2008), as chances of white collar jobs diminish, entrepreneurship among youths offer a way of their integration into the changing labour markets and enhancing their financial status. For some youths world over, entrepreneurship offers income, independence and a self-motivated path for the development of human capital. Also, youthful entrepreneurs can be more receptive of new income generation trends. Entrepreneurship is capable of unleashing the economic capabilities of youths and also offers new jobs while at the same time improving their economic autonomy. The youths can no more rely permanent jobs except self employment. Entrepreneurial training assists youths in acquiring new talents needed to tackle other life challenges. Non-cognitive skills, such as opportunity recognition, innovation, and decision making acquired through entrepreneurship may profit all youths irrespective of their choice to become or continue as entrepreneurs.

1.6.2 Concept of Vocational and Vocationalised Education

Both Vocational and Vocationalised education entails talent enhancement. While in vocationalisation, skills acquired are supposed to build one’s competence to act differently in real life situations, vocational education provides skills for a particular vocation within certain defined limitations. Without developing broad skills, the exact skill cannot assist one to survive life. In that respect vocational education is relevant in the development general understanding of learners’ circumstances and shaping their behaviour to make their lives better. Hence, vocationalisation of education is vital to every education.

According to Ebede (2004), education Vocationalisation is the imparting of skill that allows students to plan, start and run their own entrepreneurial ventures. Swartland (2009), observed that entrepreneurial education aims to arouse creativity in learners, enable them to spot chances for improvement and inspire them to convert ideas into practical activities in a social, cultural or economic context.

1.6.3 Vocationalisation of Secondary School in Kenya

The commitment by Kenyan government to vocationalisation of secondary school education arises from the 1976 recommendations by the National Committee on Educational Objectives and Policies (NCEOP) (Kenya 1978). The committee also advocated for the reorganization of the education system in the country so as to efficiently meet basic needs. This could be achieved through improving income generation chances learners after high school and changing learners’ attitudes to favor vocational skills capable of stimulating self-employment. NCEO’s recommendations later formed the foundation for streamlining Kenya’s education structure from the British 7-4-2-3 to American 8-4-4 education system. This was informed by the Presidential Working Party Report on Kenya’s Second University in (Kenya, 1984).

Without wasting time, the KIE availed important policy document on the new education system (Kenya, 1984). In the light of the new policy, education was expected to offer learners with needed life skills by teaching technical skills as the main focus. Without taking into account the past talks on limitations of academics in influencing job-related achievement (Foster, 1965) the notion that academics generates employment was adopted without much research.

In an indirectly forceful way, a new commission report, Totally Integrated Quality Education and Training (TIQUET) into the Education System (Kenya, 1999), accords education with an added accountability of teaching a basis of basic techniques that enable a graduate to communicate well, work in teams with minimal direction, utilize IT in acquiring new modes of accomplishing tasks, enhance self-employment training as well as creative and innovative capabilities” (Kenya, 1999).

1.6.4 Tackling Unemployment through Vocationalisation

In brief, the policy documents cited broad aims for vocationalisation as: the provision of more training chances for the growing numbers of school-leavers in order to prepare them for self reliance by enhancing their practical skills and attitudes, promoting instruction and guidance that meets Kenya’s main economic growth in precise areas. These areas include Home Science, Agriculture, Industry and Commerce, Building vocational entrepreneurial talents as the origin of more individual growth, enhancement of the creation of qualified artisans, technicians and technologists need in the countries formal and informal sectors, exposing learners to scientific trends, skills and ideas and promoting ultimate skills. These enable students to appropriately adjust to their work and domestic worlds via the inculcation of techniques that support creativity, cooperation, innovativeness and
problem-solving skills and lastly, preparing learners for future post-secondary training. Amusan (2004) is of the opinion that vocationalisation of education can offer learners with chances to examine their attitude, aptitude and skills concerning those practical skills important to owning a business or self employment. Vocationalisation intends to equip students with unusual traits, skills and managerial shrewdness for current and future needs. Onifade (2004) views self employment as an act of starting a business and taking on the associated risks.

As Sasaki (2006) revealed, youth self employment is a good means of promoting income generation among young people. Studies in African cities and municipalities have shown that employment for youths can be created by actively promoting education through vocationalisation.

1.6.5 Development of Home Science as a Subject
Long before Kenya was colonized, various societies in the country had their own indigenous education. Rafu (1973) observes that, African traditional education was supposed to fit children into the community by educating them to love and respect their families, clans, tribes, religion and traditions.

Girls were taught at home by mothers through demonstration. During such exercises, girls observed the tasks being performed very keenly after which they too performed these tasks. The mothers corrected the girls whenever tasks were not well performed. The kind of education described above is Home Economics. Kithinji (1990), writing on Home Economics as a profession says that, Home Economics is a discipline which has undergone a great revolution in definition, academic status, content and scope in many countries of the world. Its definition has developed over the years from humble beginning of cooking, sewing, house craft, mother care, house wifery, hygiene, domestic science, domestic economy, household management, to broader and more inclusive terms such as Home Science and Home Economics. The subject is called Home Science in primary and secondary schools while it is referred to as Home Economics in universities and other institutions of higher learning in Kenya.

Subjects related to Home Science were introduced in Kenya at Kikuyu in in central Kenya as early as 1904. Anderson (1976) remarks that Watson taught Laundry at schools in Kikuyu in 1904. At Tumutumu in 1912, Maran Stevenson taught girls activities related to the house. In Western Kenya the work of Mrs. Moller at Ng’iya Girls and that of Miss Appleton of Church Missionary Society (C.M.S) are well known.

In 1924, the Phelph Stoke Education Commission introduced a new element, that of adopting the curriculum to the local situation. Areas which were emphasized included home life, industry, simple health, agriculture, and recreation. The report indicated that industrial education was to focus on the need for better housing, clothing and village industries such as weaving, leather work and basket making. The first Jeans school and native industrial training Depot was established at Kabete in 1925 and another one at Athi River in 1930. These two centers trained the African men and their wives in various activities such as simple community life, child care, and industrial education. The Ominde report of 1964 saw the need to provide the type of education that met the needs of learners; it recognized the need for vocational element in the curriculum to be taught side by side with the academic element.

Bessey report (1972) observed that certain essential areas like House Wifery and Cookery were being neglected and that Needle work was being emphasized too much. The subject matter covered at that time dealt mainly with Needle work and since that time, Home Science started appearing as a fragmented subject. This trend continued up to mid 1980’s when the system of education changed to eight (8) years of primary education, four (4) years of secondary education, and four(4) years of university education.(8:4:4).With the introduction of 8:4:4, the subject was no longer fragmented as before.

1.7 RESEARCH METHODOLOGY
The study used descriptive survey design. This method was found appropriate because the research intended to explore the relationship between the different variables forming the study that’s methods of teaching Home Science and ability of Home Science subject to create self-employment for the learners. According to Mugenda and Mugenda (2003) descriptive survey design is considered to be relevant in a survey because it involves collecting data which can then be used to answer the research question in the current state of the object of the study. Sekaran (2010) asserts that surveys provide information about population variables. The study was conducted in Kakamega County, Kenya. The study targeted seven public Secondary Schools in Kakamega County which offer Home Science. Of these, four were Girls’ while three are mixed. The total number of students forming the study sample were 700 while 14 teachers and 7 Head teachers also formed the population.

Purposive sampling technique was used to select the schools offering Home Science education, to select head teachers of those schools and to select Home Science teachers from the selected schools. Simple random sampling technique was employed in selecting students to take part in the study. The study used 2 questionnaires, one for Home Science teachers and another one for Home Science students. An interview schedule was used to collect data from Head Teachers.

The data obtained from the field was organized, edited to ensure completeness and consistency,
classified and coded according to research hypotheses and objectives for analysis. They were analyzed by use of both descriptive as well as inferential statistical procedures with the aid of the Statistical Package for the Social Sciences (SPSS) version 22.0 for windows. Pearson Product Moment Correlation Coefficient was used to investigate the relationships between study variables while Chi-Square was employed to investigate extent of independence of scores. Two sample independent t-test was conducted to establish significance of the differences between mean scores in the study while regression analysis was performance to determine the direction and magnitude of influence of the challenges to the implementation of Home Science curriculum in secondary schools. All statistical measurements were performed at 95% confidence level.

1.8 Study Findings
1.8.1 Demographic Characteristics of Respondents
Respondents from the students’ segment were asked to indicate their age range and findings presented in figure 1.

![Figure 1: Age Brackets of Respondents](image1)

Results in figure 1 reveal that 63.91% of the respondents were aged between 16 and 20 years while 24.85% were over the age of 20 years. Findings also revealed that 11.24% of the respondents were aged between 10 and 15 years. This is a clear description of the average age of students who have completed secondary schools in Kenya where most of them are normally within the age range of 18 to 21 years. This finding also shows that the student sample was composed of a fairly large number of relatively mature students that would understand and respond to the study questionnaire.

![Figure 2: Gender of Students](image2)

Findings of the study reveal that 72.19% of the students who took part in the study as respondents were female while 27.81% were male. This is a clear indication that more female students are taking Home Science subject in secondary schools as compared to their male counterparts.
1.8.2 Demographic Characteristics of Head Teachers

The study sought to find out gender of Head Teachers and findings presented in figure 3.

Figure 3: Gender of Head Teachers

From the study findings in figure 3, it was found that 71.43% of the respondents from head teachers’ category were female while 28.57% were male. This is characteristic of the fact that majority of the respondents from the study sample were from Girls’ schools, which are mostly headed by female head teachers. The reason for selecting more girls’ schools to take part in the study was that Home Science subject is offered in nearly all Girls’ schools within the study area.

Respondents were also asked to indicate their highest academic qualifications and findings presented in table 1.

Table 1: Academic level of Head Teachers

<table>
<thead>
<tr>
<th>Academic Level</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate Degree</td>
<td>4</td>
<td>57.14</td>
</tr>
<tr>
<td>Masters</td>
<td>3</td>
<td>42.86</td>
</tr>
<tr>
<td>Doctorate</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Results in table 1 reveal that 57.14% of the respondents had Bachelors degrees while 42.86% had Masters degrees. There was no respondent in this category with doctorate qualifications. Findings suggest that the respondents in the study were well educated individuals with vast knowledge and experience in the management of curriculum implementation in their respective schools. Such qualifications made it possible for the head teachers to understand the items in the interview data collection tools and to respond appropriately.

1.8.3 Demographic Characteristics of Home Science Teachers

Teachers were asked to state their highest level of education and findings presented in figure 4.

Figure 4: Academic level of Home Science Teachers

Study findings in figure 4 reveal that 64.29% of the respondents from the category of Home Science
Teachers had Bachelors’ degree qualifications while 28.57% had masters. The study also found that 7.14% of the respondents were diploma holders. This shows that a large majority of the respondents for the study were well educated and qualified individuals who understood curriculum implementation and preparation of students for the job market after secondary education.

Respondents were also asked to indicate their teaching subjects and findings indicated that 58.67% of the respondents taught Home Science and Biology while 41.33% taught just Home Science. This is an indication that the study sampled the relevant teachers who had practical knowledge and experience relating to curriculum implementation for the Home Science subject.

Respondents were asked to state their teaching experience and findings presented in table 4.3.

Table 2: Teaching experience of Home Science Teachers

<table>
<thead>
<tr>
<th>Academic Level</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5 years</td>
<td>2</td>
<td>14.29</td>
</tr>
<tr>
<td>5 – 10 years</td>
<td>8</td>
<td>57.14</td>
</tr>
<tr>
<td>Over 10 years</td>
<td>4</td>
<td>28.57</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Findings in table 2 reveal that 57.14% of the respondents had a teaching experience of 5 to 10 years while 28.57% had a teaching experience of over 10 years. The study also found that 14.29% of the respondents had a teaching experience that was less than 5 years. The findings suggest that a large majority of the respondents of the study were highly experienced individuals with immense knowledge in teaching methodology, syllabus coverage and curriculum implementation. This was key in preparing students for the industry after secondary education.

1.9 Sensitization on the problem of unemployment among the youths

The first objective of the study sought to create sensitization on the problem of unemployment among the youth in Kakamega County. Study constructs relating to extent of sensitization on unemployment among the youth as obtained from students and teachers questionnaires were subjected to descriptive statistics and findings presented in table 3.

Table 3: Nature of unemployment

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>169</td>
<td>1.2396</td>
<td>.31993</td>
<td>.041833</td>
</tr>
<tr>
<td>Head Teachers</td>
<td>7</td>
<td>1.2454</td>
<td>.32415</td>
<td>.040453</td>
</tr>
<tr>
<td>Teachers</td>
<td>14</td>
<td>1.2645</td>
<td>.31027</td>
<td>.039941</td>
</tr>
</tbody>
</table>

With regard to the nature of unemployment, all the three categories of respondents agreed that unemployment levels were significantly high among secondary school leavers. This is revealed by the relatively small differences in their respective mean responses (1.2396, 1.2454 and 1.2645) for students, head teachers and teachers respectively to the study items relating to nature of unemployment in Kakamega County. This shows that the extent of awareness of the problem of unemployment among the youth in Kakamega County is significant. Based on the small scores in the mean and standard deviation as regards the responses on sensitization about unemployment in Kakamega County, the study sought to investigate whether the responses were statistically significant. A two sample independent t-test for equality of means was computed for responses on nature of unemployment and findings presented in table 4.

Table 4: t-Test on mean differences as regards unemployment levels

<table>
<thead>
<tr>
<th></th>
<th>Levene’s test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal Variances Assumed</td>
<td>F: 0.296</td>
<td>T: 1.044</td>
</tr>
<tr>
<td></td>
<td>Sig.: .392</td>
<td>df: 36</td>
</tr>
<tr>
<td></td>
<td>Sig.(2-tailed): .032</td>
<td>Mean Difference: 2.654</td>
</tr>
<tr>
<td></td>
<td>Standard Error: 1.209</td>
<td></td>
</tr>
<tr>
<td>Equal Variances not Assumed</td>
<td>F: 1.381</td>
<td>T: 37.336</td>
</tr>
<tr>
<td></td>
<td>Sig.: .039</td>
<td>df: 14</td>
</tr>
<tr>
<td></td>
<td>Mean Difference: 2.844</td>
<td>Standard Error: 1.261</td>
</tr>
</tbody>
</table>

*t-critical (df=2,36, t= 1.68, p≤0.05); t-calculated (df=2,36, t=1.044, p=0.032)

Study findings in table 4 indicate that the mean differences in responses about nature and extent of unemployment among the three categories of respondents were not statistically significant (t=1.044, P > 0.05, df=2,36). This is further shown where the critical value of t (1.68) is greater than the calculated value of t (1.044). This implies that the differences in opinion of respondents regarding extent of sensitization on the general problem of unemployment among the youth were largely uniform and in agreement. In order to investigate the extent of unemployment in the formal sectors, respondents from the students category were asked
to state ways in which skills acquired from learning home science have been of economic value to them and findings presented in table 5.

**Table 5: Usefulness of Home Science Skills**

<table>
<thead>
<tr>
<th>Usefulness of skills</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Scale Retail Business</td>
<td>16</td>
<td>9.47</td>
</tr>
<tr>
<td>Hotel Business</td>
<td>27</td>
<td>15.98</td>
</tr>
<tr>
<td>Tailoring Business</td>
<td>14</td>
<td>8.28</td>
</tr>
<tr>
<td>Other forms of Entrepreneurship</td>
<td>28</td>
<td>16.57</td>
</tr>
<tr>
<td>No benefit</td>
<td>84</td>
<td>69.7</td>
</tr>
<tr>
<td>Total</td>
<td>169</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Findings in table 5 reveal that 69.7% of respondents did not find their Home Science skills useful after school. It was also established based on study findings that 16.57% of respondents used their Home Science skills in other forms of entrepreneurship while 15.98% used their Home Science skills in the hotel industry either as employees or small scale proprietors. It was further revealed that 9.47% of respondents used their skills in small scale businesses while 8.28% used their Home Science Skills in tailoring. This shows that a large majority of respondents did not find their Home Science skills useful after school.

### 1.10 Competencies developed through Home Science that are related to employability

The second objective of the study sought to find out the competencies developed through learning Home Science that are related to employability. This objective sought to investigate if there was a relationship between skills and competencies developed by Home Science students and their ability to gain employment after school. Study constructs relating to skills and competencies acquired through home Science Home Science and those relating to employability were subjected to Pearson Product Moment Correlation Coefficient and findings presented in table 6.

**Table 6: Correlation Coefficient for the Relationship between Home Science Skills and Employability**

<table>
<thead>
<tr>
<th>Employability</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Science</td>
<td>.661*</td>
<td>.039</td>
<td>188</td>
</tr>
</tbody>
</table>

**Correlation is significant at 0.0 level (2-tailed)**

**Correlation significant at 0.01 level (2-tailed)**

Study findings in table 6 reveal a statistically insignificant positive relationship between Home Science skills and employability among the youth in Kakamega County (r=0.661; P<0.05). This implies that skills and competencies acquired through learning Home Science assist students to gain employment and improve their prospects of employment after school. This is in line with the objective of vocational training which is to equip young men and women with the technical and professional skills needed for socio-economic development of the country. The emphasis is on training people for self-employment.

To establish the various skills and competencies acquired through Home Science, study data was analyzed using regression and findings presented in table 7.

**Table 7: Regression Results for the Competencies acquired through learning Home Science**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficients</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.042</td>
<td>2.606</td>
<td>0.011</td>
</tr>
<tr>
<td>Creative Thinking</td>
<td>0.095</td>
<td>0.563</td>
<td>0.001*</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>0.347</td>
<td>3.276</td>
<td>0.002*</td>
</tr>
<tr>
<td>Planning and Organizing</td>
<td>0.491</td>
<td>2.580</td>
<td>0.012*</td>
</tr>
<tr>
<td>Interpersonal Skills</td>
<td>0.350</td>
<td>3.292</td>
<td>0.002*</td>
</tr>
<tr>
<td>Willingness to take Risk</td>
<td>0.381</td>
<td>3.337</td>
<td>0.014</td>
</tr>
</tbody>
</table>

**Goodness of Fit:**

- \( R^2 = 0.684 \)
- \( Adjusted \ R^2 = 0.622 \)
- \( F\)-value = 4.567

Findings in table 7 shows the regression analysis for the competencies acquired through learning Home Science in Secondary Schools where constructs variables involved were creative thinking, problem solving, planning and organizing, interpersonal skills and willingness to take risk. The result showed that, calculated t-statistics \( t = (0.563, 3.276, 2.580, 3.292 \) and 3.337) for parameters creative thinking, problem solving, planning and organizing, interpersonal skills and willingness to take risk respectively were greater than tabulated t-statistics at 95% confidence interval. This finding reveals that creative thinking, problem solving, planning and
organizing, interpersonal skills and willingness to take risk were the vital competencies acquired through learning Home Science in Secondary Schools in Kakamega County. The coefficient of determination ($R^2$) was 0.684 showing that creative thinking, problem solving, planning and organizing, interpersonal skills and willingness to take risk accounted for 68.4% of variation in skills and competencies acquiring though offering Home Science in Secondary Schools in Kakamega County. The remaining 31.6% unexplained variable was largely due to variation in other variables outside the regression model which are otherwise included in the stochastic error term. The overall regression model was statistically significant in terms of its overall goodness of fit ($f = 4.567, P < 0.05$).

1.11 Conclusions and Recommendations

The first objective of the study sought to create sensitization on the problem of unemployment among the youth in Kakamega County. With regard to the nature of unemployment, all the three categories of respondents agreed that unemployment levels were significantly high among secondary school leavers and there was need for more sensitization on the problem.

The second objective of the study sought to find out the competencies developed through learning Home Science that are related to employability. Study findings revealed a statistically insignificant positive relationship between Home Science skills and employability among the youth in Kakamega County. Further still, it was found that creative thinking, problem solving, planning and organizing, interpersonal skills and willingness to take risk were the vital competencies acquired through learning Home Science in Secondary Schools in Kakamega County. A number of measures could enhance the quality and relevance of Home Science and other vocational education subjects in creating employment especially for the youthful school leavers.

Firstly, when setting objectives for any educational reform, the process of planning for implementation of a new curriculum has to be widely consultative, and accorded adequate time for instituting all the requisite human and physical resources. Implementation proceeds well when undertaken phases as the required resources become available to those leading the implementation process. With respect to curriculum implementation, it would be prudent for the objectives to be realistic and achievable for its content to be based on the immediate and everyday needs of learners. Of great importance is regular upgrading of teachers’ skills as well as of the teaching resources available to them. In-service training for teachers and regular advice by school inspectors should contribute to enhanced ability of teachers to introduce new knowledge and to improvise in the absence of adequate learning/teaching facilities as well as settle on high quality and effective teaching methods for Home Science and other vocational subjects intended to create employment for secondary school leavers. Considerable acceptance of vocational subjects by students and parents is likely to result if the taught subjects present real and visible long-term benefits. This can be realized by way of timely reviews of the curriculum where all the key stakeholders like employers are brought on board and also where frequent meetings with parents during school open days as well as exhibitions of products that are made by students undertaking vocational courses and related measures. Parents are also likely to be embraced vocational courses if they are not required to shoulder the costs associated with introducing and sustaining these subjects. Gender stereotyping in preferences for courses by boys and girls is likely to be overcome if it can be shown that available career chances have the potency to benefit both genders and if in the case of girls, deliberate steps are taken to show examples of females who have succeeded in careers traditionally considered as a preserve for men. Parents, teachers and students have a collective duty of not discouraging any gender from enrolling for vocational courses. Further still, the national examination system requires remodeling and modification to increase relevance and support for the goals of vocationalization. In this regard, more practical knowledge needs to be tested as opposed to more theoretical aspects. Given the potential role of vocational education in economic growth, it would be appropriate to consider other criteria, apart from excellence in academic performance in determining whether graduates of vocational education make meaningful contribution towards employment creation for themselves and others in the communities where they live.

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