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EDITORIAL NOTE

The Nigerian Journal of Home Economics (Nig-JHEC) is a publication of the Home Economics Professional Association of Nigeria (HEPAN) managed by Home Economics Council (HECON) which is the national body. Nigerian Journal of Home Economics (Nig-JHEC) brings together emergent issues and current trends on all aspects of Home Economics, and most importantly, how Home Economics teachers and practitioners might improve and renew the everyday work and lives of Home Economist, individual and households. It features quantitative and qualitative, disciplinary and trans-disciplinary, empirical and theoretical work and includes special editions on key developments. It aims to push the boundaries of theory and research to seek out new paradigms, models and ways of framing Home Economics.

The Journal welcomes contribution from members and non-members, from a variety of disciplinary and theoretical perspective. Manuscript should be sent electronically to Prof Lilian Salami via liliansalami@yahoo.com or hepan.ng@gmail.com

The above notes are subjects to review by the editorial board from time to time

Professor Lilian I. Salami
Editor-in-Chief
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ASSESSMENT OF THE CHALLENGES OF ACQUIRING AFFORDABLE HOUSING AMONG CIVIL SERVANTS IN SOUTH EAST, NIGERIA

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Abstract
Acquisition of quality housing by civil servants is the great aspiration of any government worker. The study assessed the challenges in acquiring affordable housing among civil servants in South-Eastern Nigeria. The study was of a cross sectional descriptive design. The population of study was 500 civil servants within the level 1-6 working with State owned establishments in 5 south-eastern states. The study employed multi-stage sampling techniques to select ministries in each state from out of the five states and simple random sampling was used to select respondents. The instrument for the study was the questionnaire. Data collected was analyzed using IBM SPSS version 21. Descriptive statistics frequency and percentage, mean and standard deviation was used while significance was judged at 0.05 alpha level. Findings show that half (50.8%) of the civil servants reported level of income as factor influencing choice of residential accommodation while poor salary structure 4.10±1.24, irregular payment of salaries 4.04±1.22, high cost of land 4.64±0.59 and high cost of building materials 3.69±1.34 were the challenges enumerated by the civil servants as the problems facing housing in South East Nigeria. In conclusion the study showed that most civil servants in South East Nigeria could not afford quality housing. The study recommends urgent attention towards regular payment of salaries, increment in salary and housing allowances that could enable the civil servant within these areas in South East Nigeria to afford quality houses to better and healthy living.

Keywords: Affordable, Civil Servants, Housing.

Introduction
The right to adequate housing is universally recognized by the community of nations. All nations without exception have some form of obligation in the shelter sector, as exemplified by their creation of housing ministries or housing agencies, by their allocation of funds to the housing sector, and by their policies, programmes and projects. All citizens of all States, poor as they may be, have a right to expect their Governments to be concerned about their shelter needs, and to accept a fundamental obligation to protect and improve houses and neighborhoods, rather than damage or destroy them. Adequate housing is defined within the Global Strategy as meaning adequate privacy, adequate space, adequate security, adequate lighting and ventilation, adequate basic infrastructure and adequate location with regards to work and basic facilities-all at a reasonable cost. The United Nations Human Settlements Programme (UN-HABITAT) defined affordable housing as “housing which is adequate in quality and location and does not cost so much that it prohibits its occupants from meeting other basic living costs or threatens their enjoyment of basic human rights” (UNHABITAT, 2011).

Housing affordability is an issue of ability and willingness of the householder to back up their housing demand with the required financial resources (Jinadu, 2007). It has been argued that a maximum of 30% of household income spent on housing be used as a yard stick for measuring housing affordability across Europe and elsewhere (Aribigbola, 2011; Pittini, 2012). However, what is termed affordability problem in a given place or nation might not be applicable in other places and this is for no other reason but for the dynamics in economic and social variations. Meanwhile, the increase in the prices of conventional building materials which are imported and the fluctuating economy is contributing to the ailing problem of housing affordability (Gbadeyan, 2011). Aribigbola (2013) and Aribigbola & Ayeniyo (2012) haven reviewed past. housing policies explained that the Nigerian housing policy was basically aimed at providing affordable housing for Nigerians, but this has not been successfully implemented, even among the civil servants.

Civil service is a feature of all nations. Nigerian civil service is the greatest asset of the country in its quest for sustainable development. Civil service as an
organization lies at the center of Public Administration structure. It is the major instrument through which government; federal, state or local manage development (Olu-Adeyemi, 2009). Accommodation problem of civil servants in many countries has become a crucial demand to be tackled. For many years, civil servants have been victims of life because of un-affordability to rent, buy or build their own houses in the market rates (Ndubueze, 2009). With regard to home ownership, the majority of civil servants have a low purchasing or building power (Muturi, 2013) due to low income, lack of access to credit from financial institutes and access to land (Fasika, 2011; Ndubueze, 2009). As a result, the majority of civil servants in many countries are forced to live in private rental houses (Thapa, 2005) whose rents are rising rapidly with no or limited mechanisms laid down to control it. The rapid rate of urbanization in combination with the poorly developed economic base has posed a number of problems, including housing deficiency and un-affordability, in cities of the developing world. Nigeria, being one of the developing countries, is facing serious housing problems in most of its towns and cities. The housing sector in Nigeria can be described as of poor quality, having massive shortage, and being congested, unsecured and unplanned (Ibimilua and Ibimilua, 2011).

Many studies have been conducted on issues relating to housing problems in some States of Nigeria and other African countries. Rukayat et al. (2015) found that federal civil servants in Minna, Nigeria spend between 7.3% and 23.8% of their annual income on rents. Their study also revealed that civil servants’ level of income having a relative index of 0.96 is the major factor influencing the choice of residential accommodation by federal civil servants in their study area. They further revealed a strong positive correlation between their annual income and rental values of residential properties occupied by them. The sampled respondents expressed varied levels of satisfaction with the houses they occupy, with as much as 59% being unsatisfied with their rented housing units.

In their study Ugonabo and Emoh (2013) identified a multiplicity of factors inhibiting effective housing development and delivery in Anambra State to include lack of secure access to land, high cost of construction, limited access to finance, bureaucratic procedures, high cost of land registration and titling, uncoordinated policies and implementation at Federal and State levels, ownership rights under the Land Use Act, lack of critical infrastructure, affordability gap, inefficient development control, youths harassment of developers, inelegant revocation and compensation process among others. Elsewhere in Ethiopia Lemma et al. (2018) explore the persisting housing conditions and Affordability problems of civil servants in Aleta Wondo Town, Ethiopia. Their result indicated that 70.9% of the respondents were living in rented houses and only 27.8% were found to be homeowners. Among the renters, the majority (83.9%) rented a housing unit from private residents. Their study revealed that lack of disposable income (89.2%), the difficulty of obtaining land (86.5%), high and increasing cost of building materials (73%) and lack of access to housing finance (54.1%) as factors that affected civil servants to homeownership.

However, limited study to the best of the researcher’s knowledge exists in south eastern Nigeria. Therefore, this study is expected to fill this gap and add to the body of the existing knowledge. The general objective of the study was to assess the challenges to acquiring affordable housing among civil servant in South east, Nigeria; examine the housing tenure status of civil servants in South East Nigeria and to determine the factors influencing choice of residential accommodation among civil servants in South East Nigeria.

**Methodology**

**Study Design:** The study was a cross sectional descriptive survey design. This was necessary as this study seeked to get a snapshot of the mean responses on challenges in acquiring affordable housing among a defined group (civil servants).

**Study Area:** The study was carried out in South-East zone of Nigeria comprising of Abia, Anambra, Ebonyi, Enugu and Imo States. It has a land area of approximately 28,972km2 and the vegetation of the area is a mixture of savanna and tropical rainforest with average annual rain fall of 2500mm (Ezemoney and Emeribe, 2012).

**Population of Study:** The study population included only civil servants from grade level 1-6 in State Government owned agencies/parastatals in the five South-eastern States of Nigeria.

**Sample Size and Sampling Technique:** The study was based on a sample size of 500 respondents, 100 from each of the five South-eastern States. A multi-stage cluster sampling techniques was used. In the first stage all five South-eastern States were purposively selected for the study. In the second stage three State Government ministries/parastatals from the five South-eastern States where conveniently selected while simple random sampling was used to select respondents.

**Ethical Approval:** Ethical approval was sought and obtained for the study from the heads of the Ministries. Informed consent of the participants was obtained after the objectives of the study have been explained to them.
Data Collection: A well-structured and validated questionnaire was the instrument for data collection. The questionnaire was designed into the following sections, background information, house tenure status of civil servants, factors influencing choices of residential accommodations and challenge on acquiring affordable housing. Face to face administration technique was employed and the questionnaire took 3 minutes to complete. 

Statistical Analysis – The data was analyzed using SPSS version 21. Descriptive statistics frequency and percentage, mean and standard deviation was used while significance was accepted at 0.05 alpha level.

Results

Table 1: Demographic Characteristics of the Respondents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>264</td>
<td>52.8</td>
</tr>
<tr>
<td>Female</td>
<td>236</td>
<td>47.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>500</td>
<td>100</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-30 years</td>
<td>79</td>
<td>15.8</td>
</tr>
<tr>
<td>31-35 years</td>
<td>179</td>
<td>35.8</td>
</tr>
<tr>
<td>36-40 years</td>
<td>48</td>
<td>9.6</td>
</tr>
<tr>
<td>41-45 years</td>
<td>128</td>
<td>25.6</td>
</tr>
<tr>
<td>46-50 years</td>
<td>62</td>
<td>12.4</td>
</tr>
<tr>
<td>Above 50 years</td>
<td>4</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>500</td>
<td>100</td>
</tr>
<tr>
<td><strong>Income per month</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N18, 000-N25, 000</td>
<td>64</td>
<td>12.8</td>
</tr>
<tr>
<td>N26,000-N30,000</td>
<td>84</td>
<td>16.8</td>
</tr>
<tr>
<td>N31, 000-N35, 000</td>
<td>107</td>
<td>21.4</td>
</tr>
<tr>
<td>N36, 000-N40,000</td>
<td>50</td>
<td>10.0</td>
</tr>
<tr>
<td>N41, 000-N45, 000</td>
<td>113</td>
<td>22.6</td>
</tr>
<tr>
<td>N46, 000-N50,000</td>
<td>82</td>
<td>16.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>500</td>
<td>100</td>
</tr>
<tr>
<td><strong>Grade level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 01</td>
<td>64</td>
<td>12.8</td>
</tr>
<tr>
<td>Level 02</td>
<td>84</td>
<td>16.8</td>
</tr>
<tr>
<td>Level 03</td>
<td>107</td>
<td>21.4</td>
</tr>
<tr>
<td>Level 04</td>
<td>50</td>
<td>10.0</td>
</tr>
<tr>
<td>Level 05</td>
<td>113</td>
<td>22.6</td>
</tr>
<tr>
<td>Level 06</td>
<td>82</td>
<td>16.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>500</td>
<td>100</td>
</tr>
</tbody>
</table>

The results on the background information of the civil servants is presented on Table one. About half (52.8%) of the respondents were males while 47.2% of them were females. Some (35.8%) of the respondents were between the ages of 31-35 years, 25.6% were between the ages of 41-45 years while few (0.8%) were above 50 years of age. Some (22.6%) of the respondents earned a monthly income in the range of N 41, 000- N 45, 000, a further 21.4% earned an income between N31, 000- N 35, 000 while just 12.8% earned between N 18, 000- N 25, 000. Some (22.6%) of the respondents were in level 5, a further 21.4% were in level 3 while 12.8% were in level 1.
Table 2: Frequency of Housing Tenure Status of Civil Servants

<table>
<thead>
<tr>
<th>Tenure status</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private- built by owner</td>
<td>14</td>
<td>2.8</td>
</tr>
<tr>
<td>Private- purchased</td>
<td>10</td>
<td>2.0</td>
</tr>
<tr>
<td>Private-Inherited</td>
<td>72</td>
<td>14.4</td>
</tr>
<tr>
<td>Rented-Public</td>
<td>337</td>
<td>67.4</td>
</tr>
<tr>
<td>Rented-Private</td>
<td>50</td>
<td>10.0</td>
</tr>
<tr>
<td>Living with family</td>
<td>17</td>
<td>3.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>500</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table two shows the house tenure status of the civil servants. Many (67.4%) of the respondents resides in a rented public houses, 14% resides in a private inherited house while few (2.0%) and (2.8%) resides in private purchased house and private house built by owner respectively.

The factors influencing choice of residential accommodation of the civil servants is presented in figure 1. Half (50.8%) of the respondents reported level of income as factor influencing choice of residential accommodation, some (22%) reported household size, 15% reported proximity to work place as a factor while just 12.2% reported security as a factor influencing choice of residential accommodation. This is represented in bar chart below.

![Figure 1: Factors Influencing Choice of Residential Accommodation](image)

Table 3: Mean Responses of Challenges on Acquiring Affordable Housing

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor salary structure</td>
<td>4.10</td>
<td>1.24</td>
<td>Accept</td>
</tr>
<tr>
<td>Irregular payment of salaries</td>
<td>4.04</td>
<td>1.22</td>
<td>Accept</td>
</tr>
<tr>
<td>High cost of building materials</td>
<td>3.69</td>
<td>1.34</td>
<td>Accept</td>
</tr>
<tr>
<td>Multiple taxation</td>
<td>2.19</td>
<td>0.94</td>
<td>Reject</td>
</tr>
<tr>
<td>High cost of land</td>
<td>4.64</td>
<td>0.59</td>
<td>Accept</td>
</tr>
</tbody>
</table>
Discussion of Findings
Findings from this study revealed that (35.8%) of the respondents were between the ages of 31-35 years; these young civil servants earn low income as some (22.6%) of the respondents earned a monthly income in the range of N 41, 000- N 45, 000 and as they are new entrants as government employees as such they cannot have their own house and their only option is to live in rental houses, as a result many (67.4%) of the respondents resides in rented public houses. This finding was in agreement with the findings of Lemma et al. (2018), who reported that 70.9% of civil servants in AletaWondo town in Ethiopia lives in rented houses.

Findings On the factors influencing choice of residential accommodation of the civil servants shows that level of income, household size proximity to work place and security were the key factors identified by the civil servant, this result agrees with the findings of Rukaiyat et al. (2015) who revealed that civil servants' level of income was a major factor influencing the choice of residential accommodation by federal civil servants in Minna, Nigeria. Some of the major challenges to acquiring affordable housing includes poor salary structure, irregular payment of salaries, high cost of building materials and high cost of land. Obviously, facilitating access to land and securing the means of paying for it is one of the most important prerequisites for the development of sustainable human settlement policy. This findings agreed with the reports of Lemma et al. (2018), who reported that lack of disposable income (89.2%), difficulty of obtaining land (86.5%), high and increasing cost of building materials (73%) and lack of access to housing finance (54.1%) as factors affecting civil servants to homeownership. As noted by Sheuya, (2007), adequate housing finance is considered the most important factor of housing production, because it can help to produce the essential components of housing namely: land, on-site and off-site infrastructure, building materials, as well as offsetting construction costs. Unfortunately in Nigeria, housing finance market has remained very difficult for the urban poor to access. Ugonabo and Emoh (2013) identified a multiplicity of factors inhibiting effective housing development and delivery in Anambra State to include lack of secure access to land, high cost of construction, limited access to finance, bureaucratic procedures, high cost of land registration and titling, uncoordinated policies and implementation at Federal and State

Conclusion
In conclusion many of the respondents resides in a rented public house while level of income was the major factor influencing choice of residential accommodation of the civil servants as poor salary structure, irregular payment of salaries, high cost of building materials and high cost of land all borders on the income.

Recommendations
This study recommends urgent attention to be given to regular payment of salaries, increment in salary and housing allowances that could enable the civil servant within these areas in South East Nigeria to afford quality houses to better and healthy living. There is therefore need for provisions to be made for lower level civil servants to be able to acquire affordable housing.

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CHILD PROTECTION AND RIGHTS FOR SUSTAINABLE DEVELOPMENT IN NIGERIA

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Abstract
The period of childhood is a phase that the child requires a particular attention and protection. A child is protected when the child is loved, gets required food nutrients, not abused and safety measures of the child put in place. The 2030 Agenda for Sustainable Development was agreed upon globally through a long political process. Though the goals focus on sustainable development, they are inextricably linked to human rights generally and the rights of the child. This paper discusses child protection and right for sustainable development. It also looks at the child protection policies and the risks and challenges as regards to the protection and realization of children's right. The paper equally discusses the child right act in Nigeria and the twelve (12) rights of a child. The paper concludes that child-centered approach may make it easier to advocate for policy change with a strong focus on the rights and interests of children. This will help to operationalize a broad range of the SDG targets.

Keywords: Child, Child Protection and Right, Sustainable Development

Introduction
Children are affected by all of the sustainable development goals, whether poverty, hunger, inequality or climate change. The 2030 agenda for sustainable development was agreed upon globally through a long political process. By ratifying its declaration, high income countries became accountable participants in the development process while retaining their obligations as donors. Although few of the 17 sustainable development goals (SDGs) are explicitly child focused, children are mentioned in many of the 167 targets.

Children should be the main beneficiaries of actions to realize the world vision to achieve equality, sustainability and empowerment, since they are the generation who will take the SDG agenda forward into the post 2030 era (Bruckauf & Cook, 2017). The sustainable Development Goals and targets have been defined to be something that will inspire action to safeguard the needs of present and future generations, (United Nations Human Right, 2017). Governments thereby commit to prioritize reaching all children everywhere by focusing on those most excluded and at risk of being denied their rights. As such, the 2030 agenda for sustainable development represents a historic opportunity to promote the realization of the rights of all children in all countries to get their best start in life to survive and to thrive and to live free from violence and abuse, (UNHR, 2017).

The realization of children right is the foundation for securing a sustainable future. When children's right are protected, respected and fulfilled, dividends are returned in the form of global security, sustainability and human progress. Children rights are reaffirmed in the 2030 agenda by setting forth a vision for a world that invests in its children and in which every child grows up free from violence and exploitation. The SDGs are about progress achieved by government actions, often conducted through inclusive partnership with multi-sector stakeholders. Bruckauf and Cook (2017) stated that the SDG framework is seen by many as a step up from the eight goals and 18 targets of the Millennium Development Goals (MDGs). The universality of the SDGs is arguably the biggest leap forward and the SDG framework is distinct from the MDGs because it was adopted by both the poor and rich nations.

Overview of Child Protection/Right
Child protection is the protection of children from violence, exploitation, abuse and neglect. Article 19 of the UN Convention on the rights of the child provides
for the protection of children in and out of the home. Child protection systems are a set of usually government run services designed to protect children and young people. UNICEF defines a child protection system as the set of laws, policies, regulations and services needed across all social sectors, especially social welfare, education, health, security and justice, to support prevention and responses to protection-related risks.

All children could be vulnerable by virtue of the young age and evolving capacities. They could be open to harm, injury, violence and abuse. Due to deficient circumstances and factors, children could also be vulnerable to adverse influences and at risk of behavior. The effect of child vulnerability and marginalization could be short term or long term depending on the extent, nature and severity. The effect could be on the physical, emotional, social, psychological and mental well-being of the child. Child protection is any measure or initiative that addresses or prevents children from situations of violence, abuse, neglect, and exploitation, (save the children, 2018). This refers to protecting children from or against any perceived or real danger or risk. It helps to reduce their vulnerability in harmful situations. It also means protecting children against social, psychological and emotional insecurity and distress. Child protection ensures that no child falls out of the social security and safety net and those who do, brought back into the safety net, it is the right of every child to be protected. Some children are more vulnerable than others and need special attention. Examples of this kind of children are, street children, children with disabilities, child laborers among others. It is pertinent that states ensure the child's wellbeing by establishing a protection system for the child. In 2016, the Lagos state Government issued an executive order (No EO/AA08 of 2016), for safeguarding and protecting the child. The order was a programme developed to prescribe management systems in place to create and maintain a safe environment for all children in Lagos State.

An effective protection system for the child is expected to include laws, politics, procedures and practices intended to prevent and fight against various problems of mistreatment, violence and discrimination that could damage a child's well-being (Humanum, 2016).

A child is safe and protected when the child is:

a. Loved, cared for and looked after
b. Nurtured and gets required food and nourishment health facilities and education.

c. Giving safety measures in terms of physical safety.
d. Taught how to protect himself or herself.
e. Not abused physically, emotionally and sexually
f. Having faith in the structures, systems and people who are responsible for providing protection to children (Save the children, 2018)

A major aspect of child protection is protecting the children right. Children's rights are the human rights of children with particular attention to the rights of special protection and are afforded to minors, (Wikipedia, 2019). The 1989 convention on the rights of the child (CRC) defines a child as “any human being below the age of eighteen years, unless under the law applicable to the child, majority is attained earlier”. Children rights were recognized after the 1st world war, with the adoption of the declaration of Geneva, in 1924. The process of recognition of children rights continued with the adoption of the declaration of children right in 1959. The recognition of the child interest and his rights become real on 20th November 1989 with the adoption of the international convention on the rights of the child which in the first international legally binding text recognizing all the fundamental rights of the child (Humanium, 2018).

Children rights are human rights. They protect the child as a human being. They are specifically adapted to the child because they take into account the fragility, specificities and age appropriate needs.

**Child Rights Act in Nigeria**

Nigeria signed the international human rights convention agreement on the rights of child. It was officially passed into law in 2003 by former president chief OluseguObansanjo as the children right Act 2003 (CRA). The children right Act 2003 (CRA) was created to serve as a legal documentation and protection of children rights and responsibilities in Nigeria, (Child Rights Act, 2003).

Nigeria adopted the child rights act to domesticate the convention on the rights of the child. Although this law was passed at the federal level, it is only effective if state assemblies also adopt it. The law has three primary purposes: to incorporate the rights of the convention on the rights of child and the African charter on Human and People's right into the national law; to provide the responsibilities of government agencies associated with the law and to integrate children focused legislation into one comprehensive law. It also acts as a legislation against human trafficking since it forbids children from being separated from parents against their will, except where it is in the best interest of the child.

**Rights of the Child**

Children are human beings and are the subject of their own rights. They are neither the property of their
parents nor helpless objects of charity. The following are some of the rights of the child;

The 12 Rights of the Child
1. Every child has the right to be born well, and to be cared and raised well.
2. Every child has the right to live with a family, who loves, cares and teaches good morals to him or her.
3. Every child has the right to have proper care and importance from other people.
4. Every child has the right to have the basic needs of people such as food, shelter, water, clothing and health care.
5. Every child has the right to have everything he or she needs for a better life.
6. Every child has the right to be educated.
7. Every child has the right to play and enjoy whenever they have the opportunity.
8. Every child has the right to be protected from abuse of adults.
9. Every child has the right to live peacefully away from bad influences.
10. Every child has the right to be cared whenever their parents are not available or cannot sustain their needs.
11. Every child has the right to be living in a good government who helps them strengthen their faith and to become better citizens.
12. Every child has the right to grow up peacefully and getting what they want for the good of their lives (Cebu, 2017).

The Importance of Children Rights
There are many reasons for singling out children’s right in a separate human rights convention. Some of the reasons as listed by UNICEF, (2018) are;

a. Children are individuals.
b. Children start life as totally dependent beings.
c. The actions or inactions of government impact on children is more strongly than any other group in the society.
d. Children’s views should be heard and considered in the political process.
e. Many changes in society are having a disproportionate and often negative impact on children.
f. The cost of society failing its children are huge.

Children Protection Policies
A children protection policy is a statement of intent that demonstrates a commitment to safeguard children from harm and make clear to all what is required in relation to the protection of children. It helps to create a safe and positive environment for children and show that the organization is taking its duty and responsibility to care seriously. The national Health Insurance and the National Pension are the two major social protection schemes in Nigeria, (Umukoro, 2013). Social protection in Nigeria generally is low because the country does not spend much of its GDP for protecting her citizens. It is very disheartening that Nigeria does not have any ministry that deals with the affairs of children directly. This makes the protection of the rights of children difficult. Although, Nigeria has implemented the convention on the rights of the Child (CRC), however only 21 states have fully implemented it, (Adewole & Ademolawa, 2018). As part of her commitment in meeting the goals of MDG, Universal Basic Education (UBE) Programme has been established in Nigeria. The programme makes first nine years of education free and compulsory for all children. This is to make children have access to education which is one of their rights.

Challenges towards the Realization of Child Protection and Right in Nigeria
1. Violence, Exploitation and Abuse of Children: Living a life without violence is the right of all children. Abuse in all its forms is a daily reality for many Nigeria children and only a fraction ever receive help. Six out of every 10 children experience some form of violence, (UNICEF, 2017). One in four girls and 10 percent of boys have been victims of sexual violence. Fewer than five out of a 100 received any form of support. The drivers of violence against children are rooted in social norm, including the use of violent discipline, violence against women and community belief about witchcraft all of which increase children vulnerability, (UNICEF, 2017).

2. Child Bride: Nigeria has the largest number of child brides in Africa with more than 23 million girls and women who were married as children, most of them from poor and rural communities. While data suggests a decline of 9 percent in the prevalence of child marriage since 2003, and a projected further decline of 6 percent by 2030 worldwide, Nigeria’s rapid population growth means that the number of child brides will in fact increase by more than one million by 2030 and double by 2050.

3. Birth Registration: Only 30 percent of children below five years were registered at birth (UNICEF, 2018). Besides being a first right of any child, improved birth registration is critical for national planning and governance functions and serves as a foundation for achieving progress in wider child protection areas and the attainment of sustainable development goals.
4. **Poor Policies:** Governments have policies to protect the rights of the child, but these policies to a great extent are not been implemented. Government does not review the policies and approaches to ensure their consistency with children’s rights and the corresponding ambitions as reflected in the 2030 Agenda framework.

5. **Ignorance:** Ignorance of what constitutes the rights of the child has been a major problem in ensuring that the child is safe and protected. People don't know that the child has rights and as such lack knowledge of the policies that protect the child. This is why a lot of children suffer different forms of intimidation, violence and exploitation without anyone fighting their cause.

### Child Protection/Right and the Achievement of Sustainable Development

Child protection/right must be ensured first by the parents and the community which surrounds them. Each child is a unique human with specific needs. The timing of public action over the human life cycle determines the extent of individual’s outcomes and consequently, the effectiveness of public investments. It is non-controversial to say that the well-being of children today translates into the well-being of adults tomorrow.

All sustainable development goals and targets should be implemented in accordance with the convention on the rights of the child and the general comments and recommendations of the committee on the rights of the child relevant to each goal and target area. While not all of the 17 sustainable development goals and 169 targets refer to children, the fulfillment of children potential and the protection and realization of their human rights, for example, bringing about free primary and secondary education for all children relies upon access to safe water, and sanitation facilities and requires environments that are safe and free from violence. Adequate investment in health and education service can be dependent on combating corruption to ensure that sufficient domestic resources are available. Similarly, ensuring that children survive and grow up in good health relies upon adequate air quality and on other basic needs, which are undermined by the impacts of climate change, (UNHR, 2017).

The integrated and holistic nature of the sustainable development goals and targets thus reflects the indivisible, mutually reinforcing nature of the rights of the child and all human rights. Poverty is multidimensional and often intergenerational and when rights are denied in one area, such as access to services, they are also denied in other aspects. A child rights-based implementation of the SDG’s therefore requires a wide-range of approaches which include; the realization of economic, social and cultural rights, civil and political rights which includes protection from all forms of violence and the implementation of key economic and environmental goals that will facilitate the achievement of more sustainable and equitable development for all children, regardless of where they come from or where they live, (UNICEF, 2017). In implementing the 2030 Agenda, all states should ensure proper reporting on expenditure and programs that impact children and increase investment on child–focused SDG priorities. By doing this, it will ensure a child rights-based approach to financing and investment in the implementation of the 2030 Agenda and in turn bring about sustainable development (UNICEF, 2018).

### Conclusion

The 2030 sustainable development goals embody the highest aspirations for a bright future for the world's children. The sustainable development goals agenda is a vision and shared commitment to building a prosperous and fair future for all. Human rights including the rights of the child should serve as a driving tool towards effective delivery of the sustainable developments. They are the main future beneficiaries of the agenda and fulfilling their rights by reaching those who are the furthest behind is a prerequisite for achieving the SDG’s.

### Recommendations

The authors suggest the following

a. Children should be taught their rights. People who know their rights are better able to claim them.

b. Government should develop policies based on the protection and rights of the child and ensure proper implementation of such policies.

c. Government should ensure integrity of the child should be protected and all forms of violence prohibited.

### References


SKILL ACQUISITION IN TEXTILE FOR YOUTH EMPOWERMENT FOR SUSTAINABLE ECONOMIC DEVELOPMENT IN NIGERIA

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Abstract
This paper focused on Skill Acquisition in Textile for Youth Empowerment for Sustainable Economic Development in Nigeria. Universally, youths are associated with developing the society where youths dwell. This paper discussed the benefits of youth empowerment in the community and society. It also viewed textile designs as a skill that can be used to empower the youths for personal development for self-reliance and for wealth creation. This paper provides insight in various challenges and suggested that skill acquisition should be backed-up with skills and orientations that can take care of numerous challenges that hinder developing youth’s skillfulness to avert/avoid negative life-style in them. This is done through creation of conducive atmosphere for learning and setting up a trustworthy committee that manage skills-acquisition skills for Nigerian youths sustainable development.

Keywords: Youth Empowerment, Textile, Sustainable Economics, Skill-Acquisition.

Introduction
The goal of Textile Industry is to orient students and youths towards self-reliance and sustainability if wage earning jobs become inaccessible. Hence, textile education which is one of the major areas of Home Economics that is studied in most tertiary institutions emphasized skill acquisition for its graduates with a view to enhancing their capacity ventures. Despite policies and programmes to curb unemployment, unemployment remains a major challenge to the developmental process of the Nigerian economy. Youth unemployment appears to be on the increase as many youths lack appropriate skills that will empower them for jobs after graduation from school. Prolonged unemployment can be severe on the youths which may devastate their entire life-style. Youths, has been defined by various psychologists and Para-psychologist. According to United Nations Educational Scientific and Cultural Organization (UNESCO (2000) youth is a young people within the age range of 18 and 35 years. Hornby, (2007) viewed youth as a period of being young especially between the time of childhood and maturity. Similarly, Bello (2004) analyzed population of youths in Nigeria, using 1991 population census as a yard stick to classify the population of Nigerian youths. Youths are the most vulnerable segment of the population, emotionally, religiously, socio-economically, politically among others. These youths have peculiar and unmet needs. Textile is a field of study that provides the necessary knowledge for giving a fulfilled life. It is a branch of applied/industrial arts directly connected with designs suitable for fabric printing for clothing, furnishing materials and soft sculptures or toys. The process of textile production for youths include, quitting, screen printing, block printing, stencil, embroidery, appliqué, weaving, knitting among others. As a skill vocation, textile has great potentials in the economic and moral empowerment of the youths in every society. Youth empowerment according to Indigenous. Peoples, Grade (2003), is the role youths play to change their conditions. It connotes a process through which growing individuals (between the ages of 18 to 35 years) are provided with experiences that promotes self-actualization. Youth's employment therefore, provides an enabling environment that will help them to develop their true potential in order to contribute meaningfully to the development of themselves, others and the society at large.

Textile is the production or making of cloths from the fiber stage to the finished fabric which is used for clothing, furnishing and toys (Isibor, 2011). The author is of the view that without textile the world will go naked, as textile serves as a protection for protective covering of the body and the home linens. Textile as a fabric, serves utilitarian commercial and aesthetic needs of man. It is observed that from the time Nigeria became independent in 1960 till date, the country made various attempts by the government to formulate educational policies that can promote skill acquisition in the society till date. As it stands, a lot has been seen in various programmes and projects at federal and state
levels. These projects in line with the National Policy on Education have helped to empower a lot of youths in Nigeria in one skill or another. Most of these programmes in Nigeria lasted for an average of one year and beneficiaries were given “equipment take-off grants” which they could use to start a small scale business venture. According to Ajayi (2002), textiles have been and are still a major basis for prosperity in most countries in the world. Textile design is one of the oldest arts in Nigeria and it has been internationalized.

Textile prepares individuals for employment opportunities in occupation relating to fiber production, spinning, weaving, knitting, lace and embroidery making, dyeing, printing, and finishing, among others. Nigerian textiles have gone beyond causal caftan or boubou to include formal and informal designs and they can be made into various outfits for men, women, and children. This textile material are locally made as clothes, bags, gifted items, some crafted trendy outfits, from quinea brocade and Aso-Oke, bright and colourful hats styled in the pattern of traditional headgears popularly known as Gele hats called Fila Oge that were made from damask and Aso-Oke and stunning threads (Esiowu, 2011). For the students/youths to be able to perform adequately in textiles, the course content should be effectively taught. The extents to which the rate of learning on students and youths generally can be accelerated depend on the Instructors and teachers and the extent to which they can apply all the teaching devices at their disposal.

Currently, the local dyed materials have been mass-produced in form of print wax. The dyed material was emphasized in Lagos in 2004 during Obasanjo Olusegun’s presidential regime and it generated millions of Naira to refurbish the textile sector in Nigerian’s wears to textile till ex-president Obasanjo left the seat. This move by ex-president Obasanjo during his regime led to sustainability of utilization of textile materials in Nigeria today. Sustainability in textile deals with activities, method, analyzes, report issues among others as they occur. Sustainability is a tool use to become more efficient and effective. Sustainability recognizes the role of activities and information required in textile and the extent it has helped to improve the lifestyle of the families and individuals (Shaibu, Mbaegbu and Nwosu, 2017). Similarly, sustainable national development are interwoven, intertwined and interconnected, while in another hand, it is geared towards producing or creating something new or more advanced for the members and the society. Thus, Rajaj and Chiv (2009) viewed sustainable development as a tool that is required to achieve, desired new things, to create something new and more advance.

How to Enhance Youth Empowerment and Economic Development through Skill Acquisition:

- Skill acquisition in textiles will enhance the youth employment prospects and become competent in handling tasks they may meet ahead of them.
- When youths are empowered, they will be less dependent on the government, the community and society. And the nation may be more enjoyable in terms of employment opportunities and self-realization, which is the vital tool for economic development.
- Skill acquisition will help youths to function in the society and promote economic development to ensure that the demands needed in various types of labours/jobs are matched with the supply simultaneously.
- Ensure the youths are well equipped with necessary materials, tools and equipment required for successful beginning and advancement of the skills learnt for employment and self-reliance for wealth creation.

The Way Forward: The vital way to move youths forward towards sustainable economic development empowerment under listed below;

1. All programmes on skill acquisition should involve all participants in education. Example: government, churches, private individuals, among others. All the people involved in education should be ready to prepare youths in today's world of work.
2. Adequate training should be made available for youths everywhere in all societies.
3. Youth education should be geared towards developing human and material resources, process and technology skill among others in all societies.
4. The skills should be characterized by relevance to the needs of the society and comprehensive scopes, creative positive self-concepts, and individual effectiveness in skill development among others.
This will sustain the youths occupationally and equip them better for technical work for self and the society. It will enhance the youths' employment prospect and become competent in handling tasks they may meet ahead of them. The solution to prevent the prevailing economic problems as a nation depend on how far the people in the society are able to plan for tomorrow, today and how best to evolve and practice the right policies. Also, to plan for the youths in the church and its environs should be drawn by capable hands that can draw good plans.

Youths need to be empowered with skill in textile for self-empowerment, employment and self-reliance for job and wealth creation. Any interested worker that needs acquiring skills to boost their salary should be accepted as part of the arrangement.

**Conclusion**

Without approved and accepted education, no meaningful development can take place successfully. For any country to develop fully, the youths should be fully developed educationally. To acquire appropriate skills in technology, education involves vital skill acquisition. It is expected to equip its recipients with balanced theoretical and practical knowledge to enable them function effectively in the society. And also promote economic development to ensure that the demand for various labour are matched with supply.

**Recommendations**

- Skill acquisition programme should involve all categories of individuals in the society, to prepare youths for today's world of work
- Workshops should be organized at the local level to address youths on the importance of acquiring skills, vocational or more for varieties in knowledge.
- Adequate training for youths should be provided in textile items as motivation
- Youth should be encouraged to be involved in practical skill work than running after color jobs.
- Provide high quality training that builds self-confidence and skills in youths that keep them motivated and focused.

**References**


Indigenou,. Peoples,Grade (2003), Role youths play to change their conditions. It connotes a process through which growing individuals (between the ages of 18 to 35 years) are provided with experiences that promotes self-actualization over individual youths.


Abstract

The study investigated the clothing communication problem of pregnant women in Oguta Local Government Area of Imo-State, Nigeria. The study adopted a descriptive survey research design. Three research questions guided the study. The population for the study consisted of one thousand five hundred and thirty eight (1538) pregnant women. The sampled population of 224 was purposefully selected from the seven communities in Oguta. A validated structured questionnaire was used for data collection. The statistical tool used for data analysis was mean and standard deviation. Cronbach Alpha(r) reliability method was used which yielded an overall coefficient of 0.89. The findings of the study revealed among others that poverty, lack of knowledge of clothing selection, high illiteracy rate were causes of clothing communication problems. Furthermore, the findings showed that all the strategies mapped out for curbing indecent clothing such as organizing workshop and seminars, counseling and creation of awareness through media on proper ways of clothing/dressing were highly accepted by pregnant women in the study area. Based on the findings, the study recommended that government, schools, and parents should join hands in educating female children and pregnant women on selection of clothing as it will curb clothing communication problems.

Keywords: Clothing, Communication, Pregnant Women, Oguta.

Introduction

Clothing is an important component of physical appearance that communicates cultural identity, class distinction, profession, costumes and gender differences. Anyakoha, (2015) defined clothing as any article placed on the body to protect, adorn or communicate an intent. This comprises all the articles worn on the body such as dresses, shoes, jewelry, handbags, head ties, hairdo, and make up. Emechebe, (2014) conceived clothing as a cultural phenomenon, an aesthetic medium for the expression of ideas, desires and beliefs circulating in the society.

Various attempts have been made to explain the motivations or reasons underlying peoples clothing choices and decision. Marshal, Stanley, Kefgan, Touchie, Specht, (2000) in Anyakoha(2015) stated four major theories that have been used to explain the reason behind individual's clothing choices and decisions. Such theories include modesty, immodesty, protection and adornment theories (Marshall, et al.in Anyakoha, 2015). Modesty theory stresses that clothes are worn solely to conceal or cover nakedness. Immodesty theory states that clothing is used not only to cover the body, but to attract attention. Protection view physical protection and psychological protection as the major reason for wearing clothes. Adornment theory stresses that clothing is worn for beauty's sake. Clothing therefore conveys message of ones' personality traits, emotions, educational status and social economic status.

Women go by different styles and types of clothes which make some impressions on the beholders. Beliefs and desires about clothing may be beyond the realm of conscious emotions. It can cause them to react in certain ways. Most women are influenced by the level of education, wealth, status or class, religion and other social symbols in their choice of clothes. Ohaka (2010) noted that beauty is very important especially to women and girls. Personal appearances matter much to an average woman in Nigeria society. Married women in Oguta Local Government Area of Imo State are not exception. The emphasis is that people wear clothing to decorate or adorn the body according to their culture. People adorn themselves for social attraction and as a means of communication.

Communication is the activity or process of expressing idea and feelings. Hornby (2006) described communication as a dynamic process of sharing information between individuals. Gottman (2018) opined that communication is a complex process of sending information, ideas concepts or message from a receiver via a channel. Communication can come in two major forms: verbal communication and non-verbal communication. Marrwh (2016) explained that verbal communication is a straight forward
component of communication that must come with words, while non-verbal communication is the accompanying message between the individuals involved in a communication. It is also the message an individual conveys about the relationship at hand. In this regard, clothing is used as a non-verbal means of communication hence it is called a silent language used by individuals as tools for social interaction.

Similarly, clothing communicates individuals’ interest, values, attitude, habits, temperaments, trustworthiness and integrity of all which signify the individuals’ personality (Ohaka, 2010). Communication between spouses should have central influence on the accurate transmission and interpretation of verbal messages in order to avoid misunderstanding and communication gap. Clothing therefore conveys one’s message of personality traits, emotions, educational status and socio-economic status. Individual appearance invariably affects the way one is treated by others at home, hospital, social gathering, market, schools and offices. These may go a long way to influence the attention pregnant women receive in offices, farming, market place and antenatal clinics. A Considerable attention has to be paid to clothing needs of pregnant women for maternal health protection.

Pregnancy is a period of dynamic change in women. During this period, fetus relies solely on pregnant women for nourishment and comfort. Patrea and Blazena, (2010) described pregnant woman as one who is carrying a developing, Fetus in the womb for a period of nine (9) calendar months. A tremendous change occurs physically and psychologically during pregnancy. There is enlargement of abdomen and breast which automatically imply changes in the clothing needs of pregnant women. Ohaka, Lemchi, Egi and Ozor (2018) stated that pregnant women need comfortable clothes to care of their changing body sizes and shapes. Comfortable clothing during pregnancy helps pregnant women to feel at ease and most importantly accommodate the physical changes associated with pregnancy periods. Tight clothing around the waist/bust areas make pregnant women feels very uncomfortable. Krieger (2012) emphasized that inappropriate clothing worn by pregnant women can predispose them to infection diseases and death of the baby in the womb. Pregnant women need clothes that have expandable feature to provide room for expansion of the stomach.

In the present society, pregnant women like to wear tight and flattering clothing that may predispose to breast cancer, impede blood circulation and expose body parts. Ohaka and Igbo (2012) reported that pregnant women wear clothes that expose sensitive part of the body which suggest careless life styles and contravene values, ideas and norms of the society. The mode of dressing communicates waywardness and negative impression on the beholders which may resort to verbal rebuke and derogatory remarks on the wearer. Some examples of such dresses include spaghetti straps, transparent clothes, tight dresses that show contours of the body, sleeveless clothes and skimpy. It therefore becomes questionable whether pregnant women that put on such clothing have proper knowledge of the implication of such clothing. From the foregoing, there is the need to educate pregnant women of the clothing communication problems faced during pregnancy.

Research Questions
The following research questions guided the study:
1. What are the factors influencing clothing communication problems of pregnant women in Oguta LGA?
2. What are the challenges countered by pregnant women in clothing communication practices in Oguta LGA?
3. What are the strategies for enhancing clothing communication practices of women in Oguta LGA?

Methodology
Design and Area of the study
Descriptive survey research was adopted. Area of the study was Oguta Local Government Area of Imo State Nigeria. Oguta LGA is one of the 27 Local Governments in Imo State. It has an area of 3,435km² and population of 206,042 at 2006 census (FRN, 2004)

Population for the Study
The population for the study comprised 1,538 pregnant women that registered for antenatal care at the basic health centres of the communities in Oguta LGA between the periods of January, 2019 to August, 2019. Source: Health Centre OrsuObodo, Oguta LGA, (2019).

Sample of the Study
Two hundred and twenty four (224) pregnant women were purposively sampled from estimated one thousand, five hundred and thirty eight (1538) respondents from the seven (7) health centres in Oguta LGA. It was purposive because only those seen physically and agreed to participate were given the questionnaire instrument.

Instrument for Data Collection
A 4-point rating structured questionnaire based on Strongly Agree, Agree, Disagree and Strongly Disagree was developed for data collection. Out of the total number of 224 copies of the questionnaire
distributed to the respondents, 210 copies were returned and found useful. This represents 96% response rate. Face validation of the questionnaire was performed by three academic staff of Home Economics Department of AlvanIkoku Federal College of Education, Owerri. The internal consistency of the instrument was determined using Cronbach alpha. It yielded an alpha value of 0.89 which was considered high enough.

**Data Collection and Analysis Techniques:** The instrument was cross checked and collated for data analysis. The data collected were analyzed using mean and standard deviation. Responses above 2.5 were considered relevant for the study.

**Results**

**Research Question 1:** What are the factors influencing clothing communication problems of pregnant women in Oguta Local Government Area?

Table 1 showed that the mean responses of respondents

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEM</th>
<th>X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Low level of education</td>
<td>3.45 ± 0.707</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Low family values</td>
<td>3.43 ± 0.721</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Non-accessibility to internet services</td>
<td>3.43 ± 0.844</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Peer group influence</td>
<td>3.35 ± 0.833</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Limited knowledge of dress sense</td>
<td>2.79 ± 1.032</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Low decision making authority</td>
<td>3.13 ± 0.852</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Religion/cultural background</td>
<td>2.93 ± 0.954</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Low sanitation habit</td>
<td>2.80 ± 1.010</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Nature of the job performed</td>
<td>2.92 ± 1.012</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Poor standard of living</td>
<td>3.04 ± 0.927</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Lack of adequate antenatal information</td>
<td>3.30 ± 0.946</td>
<td></td>
</tr>
</tbody>
</table>

Mean greater than cut-off point (2.5) accepted as agreed

Key: X = mean, SD = standard deviation; N = 224, C = 2.5

on all items ranged from 2.79 ± 1.032 to 3.50 ± 0.721 and greater than the cut-off point of 2.5. The standard deviation of the responses ranged from 0.707 to 1.932 and was low. This indicates that the responses were clustered around the mean. Hence, respondents agreed to all the item statement.

**Research Question 2:** What are the challenges encountered by pregnant women in clothing communication problem?

Table 2: Mean Responses of Respondents on the Challenges Encountered in Clothing Communication Problem of Pregnant Women.

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEM</th>
<th>X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Careless life styles</td>
<td>3.03 ± 0.961</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Exposure of sensitive parts of the body</td>
<td>3.01 ± 1.042</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Dressing communicate waywardness</td>
<td>3.06 ± 0.996</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Dressing communicate derogatory remarks</td>
<td>3.21 ± 0.995</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Tight dress shows body contours</td>
<td>3.11 ± 0.912</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Dressing contravenes values and norms of society</td>
<td>3.16 ± 0.998</td>
<td></td>
</tr>
</tbody>
</table>
Table 2 revealed that the mean responses of respondents in Oguta LGA on all items ranged from 3.01 to 3.41. These were greater than cut-off (2.5). The standard deviation of the responses ranged from 0.832-0.998 and this was low. This indicates that the responses were clustered around mean. Hence, respondents agreed to all the item statement.

**Research Question 3:** What are the strategies for enhancing clothing communication practices by pregnant women in Oguta LGA?

Table 3 revealed that the mean responses of pregnant women in Oguta Local Government Area on strategies for enhancing the clothing communication practices ranged from 2.92 to 3.55 and were greater than cut-off (2.5). The standard deviation of the responses ranged from 0.533 to 1.052 and was low. This shows that the responses were clustered around the mean. Hence, respondents agreed to all the item statement.

**Table 3: Mean Responses of Respondents on Strategies for Enhancing Clothing Communication Practices**

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEM</th>
<th>X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Creating awareness on good dress sense</td>
<td>3.01</td>
<td>1.052</td>
</tr>
<tr>
<td>2.</td>
<td>Good parental upbringing</td>
<td>3.17</td>
<td>0.897</td>
</tr>
<tr>
<td>3.</td>
<td>Sponsoring of workshop by government</td>
<td>3.13</td>
<td>1.030</td>
</tr>
<tr>
<td>4.</td>
<td>Counseling on proper clothing through media</td>
<td>3.55</td>
<td>0.533</td>
</tr>
<tr>
<td>5.</td>
<td>Seminars by lecturers in Dept of Home Economics</td>
<td>2.92</td>
<td>0.976</td>
</tr>
<tr>
<td>6.</td>
<td>Antenatal lecturers on proper clothing</td>
<td>3.09</td>
<td>0.971</td>
</tr>
<tr>
<td>7.</td>
<td>Educating female children on wise selection of clothing</td>
<td>3.00</td>
<td>0.956</td>
</tr>
<tr>
<td>8.</td>
<td>Creating alternative source of income</td>
<td>3.06</td>
<td>0.978</td>
</tr>
<tr>
<td>10.</td>
<td>Provision of comfortable clothes</td>
<td>3.25</td>
<td>0.983</td>
</tr>
<tr>
<td>11.</td>
<td>Provision of clothes with expandable features</td>
<td>2.98</td>
<td>0.979</td>
</tr>
<tr>
<td>12.</td>
<td>Provision of internet services</td>
<td>3.10</td>
<td>0.949</td>
</tr>
</tbody>
</table>

Table 3 revealed that the mean responses of pregnant women in Oguta Local Government Area on strategies for enhancing the clothing communication practices ranged from 2.92 to 3.55 and were greater than cut-off (2.5). The standard deviation of the responses ranged from 0.533 to 1.052 and was low. This shows that the responses were clustered around the mean. Hence, respondents agreed to all the item statement.

**Discussion of Findings**

The findings on the factors influencing clothing communication problem of pregnant women in Oguta Local Government Area revealed that respondents accepted and agreed to all items as contributory factors to choice of clothing styles. Pregnant women in Oguta LGA possessed low family values and limited knowledge of dress sense. This is because most pregnant women have low level of education which is a major reason for non-accessibility to internet services that would have enhanced their clothing communication practices. This finding disagree with the report by Anyakoha (2015) that some of the reasons for wearing clothes include comfort, adornment, self-confidence, expression of personality/status and protection. Wearing clothes for wrong reasons has been the underlying factors for indecent dressing among pregnant women in Oguta LGA. When pregnant women’s mode of dressing is provocative and erotic, the outcome is often inducement of sexual harassment. This finding is corroborated by the result obtained by Umeh (2014) who stated that accessibility to media, internet services provided information that improved family values and standard of living for great impact on their decision making towards good dress sense.

The mean scores of problem items encountered by pregnant women in clothing communication were above 2.5. These imply that pregnant women in Oguta Local Government Area accepted encountered problems with clothing communication in finance, careless lifestyles, and exposures of sensitive parts, waywardness, and derogatory remarks exposure of body contour due to tight clothes, sexual harassment, and contravention of values/norms of society.

Unavailability of finance was a major problem item pregnant women in Oguta LGA encountered. This may lead to purchase of inadequate clothes, low quality clothes, poorly made maternity clothes that can easily fall apart, shrink, pull, fray, and sometimes make them feel hot. These pose problems of discomfort to pregnant women; attract derogatory remarks and sexual harassment. This is in agreement with the view of Ohaka (2010) who advised that tight clothes should not be worn by pregnant women as it exposes the body contours, obstructs the body movement and restricts the flow of blood to the stomach. Similarly, Agbo (2013) reported that uncomfortable maternity clothing should be avoided during pregnancy. This the author observed could lead to a feeling of isolation, unwholesome attitude of pregnant women towards colleagues at work place.
and low productivity. This finding collaborates with the report by Akubue (2012) who reported high cost of clothing article as problem encountered in clothing communication of pregnant women in Oguta LGA. However, the finding is in agreement with the finding of Kurave and Audu (2002) who concluded that the 21st century pregnant women are facing diverse challenges in their dressing as it contravenes values and norms of society. Supporting this, Schor (2005) reported that clothing problems were as a result of careless lifestyles and unavailability of finance. It can be stated therefore that the responses of respondents on the problems encountered in clothing communication of pregnant women did not differ in all the items.

The present study identified 12 strategies for enhancing the challenges of clothing communication practices which include creating awareness on good dress sense through workshop, seminars, ante-natal, parental upbringing, provision of comfortable and expandable clothes, wise use of money in clothing purchase and provision of internet services. These finding is in line with the study of Ohaka, Ozor and Igo (2014) that it is necessary for pregnant women to wear soft and comfortable loose clothes to provide support for the stomach. This finding corroborates with the report by Stephie (2018) and Krieger (2012) fostering family closeness through effective communication, support connectedness to internet services, providing textile education, organizing workshops consumer education and ante-natal education are necessary strategies for enhancing pregnant women clothing communication practices. In the same view Ebay (2014) and Petra and Bazena (2010) observed that media can provide information on fashion beauty and body satisfaction as a mean of promoting image of pregnant women for social development and sense of dignity. However, pregnant women awareness of clothing needs entail harmonious communication with their husband to provide finance used for provision of appropriate maternity clothing.

**Conclusion**

The study has appraised clothing communication problem of pregnant women in Oguta Local Government Area of Imo State. It determined the practices adopted by pregnant women, challenges facing pregnant women in clothing communication problem and possible strategies to enhance clothing communication practices of pregnant women in Oguta Local Government Area. In view of the result of the study, important approaches were agreed upon as strategies for enhancing the challenges faced by pregnant women in clothing communication practices. The adoption of these approaches will help to reduce negative experiences encountered by pregnant women in clothing communication problem. This include; finance, careless lifestyles, exposures of sensitive parts, derogatory remarks due to tight clothes that expose body contours, sexual harassment and contravention of values/norms of society. In addition, inappropriate clothing worn by pregnant women in Oguta Local Government Area can predispose mothers and fetus in the womb to health problem such as breast cancer. This implies that majority of pregnant women possessed low family values and limited knowledge of dress sense.

Accessibility to media, internet services, creating awareness on good dress sense through workshop seminars and parental upbringing will provide adequate information that can enhance family values and standard of living for great impact on their decision making towards good dress sense. It therefore, becomes imperative for nurses and guidance counselors to lay more emphasis on the importance of effective and appropriate clothing communication practices among pregnant women in Oguta Local Government Area in Imo State.

**Recommendation**

Based on the findings of this study, the researcher made the following recommendation that will curb clothing communication problems.

1. Seminars and workshops should be organized for pregnant women and female children on good dress sense. This will educate them on proper selection of soft and comfortable loose clothes to provide support for the stomach.
2. Creation of awareness should be provided for pregnant women through media, women meeting and ante-natal education on the proper dressing code to curb the menace of immodest dressing in the community.
3. Women living in rural and urban areas should adopt correct and good parental upbringing that will help to educate the younger girls and future mothers on the way to dress decently as well as nice clothing selection/choice.
4. Nurses should lay more emphasis on the importance of pregnant women wearing appropriate clothing during their antenatal talk in the hospitals.

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PRODUCTION OF HOMEMADE SOAP USING WASTED WATERMELON SEED FROM OFFLOADING SITES AT UBANI MARKET IN UMUAHIA

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Abstract
This study was on the production of homemade soap using waste watermelon seeds recovered from offloading sites at Ubani market in Umuahia, Abia State. The objectives of the study include, extraction of watermelon seeds from watermelon fruits, extraction of oil from watermelon seeds, production of soap from watermelon seed oil and the evaluation of the acceptability of soap produced from watermelon seed oil, commercial toilet soap served as the control. Traditional method of seed oil extraction was employed in extracting the oil from the seeds while cold process was used for the soap production. The physiochemical properties of the soap produced was assessed. ANOVA was used to analyse the physiochemical and acceptability parameters of the soap produced. The results showed that the soaps produced had moisture content ranging from 10.95-18.95. The matter insoluble in alcohol content of the commercial soap (15.12±0.15) was higher than those of the watermelon seed oil soap. The total fatty matter of the watermelon seed oil soap 99.5±0.64 was significantly higher than the 88.15±0.78 observed in the commercial soap. However the watermelon seed oil soap (10.08±0.02) was slightly lower than the recorded for the commercial soap (10.69±0.01). The result shows that the watermelon seed oil soap will be good for both bath and laundry purposes. The recommends improvement in the shelf life of the soap by the reduction in the moisture content and further use of watermelon seed oils in the production of other cosmetic and also pharmaceutical products due to its protective nature against oxidative stress.

Keywords: Watermelon Seed, Homemade Soap, Waste, Seed Oil, Production

Introduction
Watermelon is one of the major utilized fruits grown in the warmer part of the world. The juice or pulp from watermelon (Citrulluslanatus) is used for human consumption, the rind and seeds are major solid wastes (Dane & Liu, 2007). Watermelon seeds are potential source of protein and Lipids (ZoharyHopf, 2000; Mandel, 2005&Motes et al., 2005). Watermelon seed oil contains high amounts of unsaturated fatty acids with linoleic and oleic acids as the major acids, which are major components in soap making (Tarek&Khaled, 2001). Watermelon seeds are low in carbohydrate, but high in calories so roasted watermelon seeds are also loaded with several of the vitamin B like thiamine, riboflavin, niacin, vitamin B6 and pantothetic acid, which are necessary for converting food into energy and other important bodily functions. Many authors defined soap in different ways. Warra,(2013), regarded as any cleaning agent, manufactured in granules, bars, flakes, or liquids from obtained by reacting salt of sodium or potassium of various fatty acids that are of natural origin (salt of non-volatile fatty acids). Soaps can also said to be any water soluble salt of fatty acid containing eight or more carbon atoms. Soaps are produced for varieties of purpose ranging from washing, bathing, medication etc. The cleansing action of soap is due to the negative ion on the hydrocarbon chain attached to carboxylic group of fatty acids (Okeke,2009). However, watermelon seeds are majorly wastes observed by the researchers in South-eastern Nigeria especially at the offloading sites. In these sites, watermelons as well as other fruits majorly grown in the Northern part of the country are offloaded. Like every other fruit and vegetable, the stress of transporting post-harvest spoilage give rise to heavy amounts of waste, which are seen heaped around the offloading site. One of such waste dump sites can be seen in Ubani main market of Abia State. Watermelon seed do not decompose as fast as the fleshy mesocarp and endocarp, or the hard exocarp and as a result can be recovered from dumpsites and put into good use. Thus, the study will seek to produce homemade soap using waste watermelon seed recovered from offloading sites at Ubanimain market, Abia State.

Methodology
Study area
The study was carried out at Umuahia North Local Government Area of Abia State.

Materials used
500 ml base oils (watermelon seed oil)
250 ml of diluted lye
Colorant (red and green colour)
Source of Materials
The watermelon seeds used for this study were collected from the offloading site at Ubani main market, Abia State.

Oil Extraction
The watermelon seeds were extracted from the rotten pods, washed and sun dried for 7 days. The seeds were ground with a hammer mill and then kneaded with mortar and pestle. After which the watermelon seed paste was squeezed with a muslin cloth and the oil filtered with a plastic filter.

Procedure: 250 ml NaOH (lye) solutions was poured directly into the plastic container containing the oil in the ratio 1:2 (v/v), and intimately mixed and stir frequently for 10 to 15 min using wooden stirrer. Perfume and other ingredients (Glycerine and Foam booster) were added as additives at the last minute before pouring the saponification mixture into moulds. After pouring, the soap was allowed to harden by air-drying for 24 h to obtain the soap bars, according to the method reported by Warra (2009).

Physicochemical Analysis of Soap Produced
Standard procedures as described by AOCS (1997), were used for the analysis of physicochemical properties of soap with slight modifications as explained.

PH Determination: For determination of pH, 10 grams of the powdered bar soap were weighed and dissolved in distilled water and made up to 100 ml. This was made up to prepare 10% soap solution. The pH of the soap solution was determined using a pH meter (Hanna pH 211 microprocessor pH meter). Two grams of finished soap was dissolved in 10 ml of distilled water and retained till sample dissolved. The pH was determined with the same instrument.

Moisture Content: For determination of moisture content, 5 grams of samples was accurately weighed using analytical balance of sensitivity 0.1 mg into dried tarred moisture dish in an oven for 2 hrs and temperature of 101°C and repeated until a constant weight was reached. The % moisture was calculated using the following formula:

\[ \% \text{ moisture} = \frac{Cs - Cl}{Cs - Cw} \times 100 \]

where:
CW = Weight of crucible,
CS = Weight of crucible + sample,
CL = Weight of crucible + sample after floating.

Free Caustic Alkali: Free caustic alkali was determined by the method described by Milwidsky and Gabriel (1994). According to these method 5 grams of finished soap was weighed and dissolved in 30 mL of ethanol. Few drops of phenolphthalein indicator and 10 mL of 20% BaCl2 were added. The resulting solution was then titrated against 0.05 M H2SO4 (aq). Free Caustic Alkali—the volume of the acid obtained was calculated using the formula:

\[ FCA = \frac{0.31}{w} \times V_A \]

where:
VA = Volume of acid,
W = Weight of soap.

Total Alkali: The total alkali was determined by titrating excess acid contained in aqueous phase with standard volumetric NaOH solution as described in AOCS (1997). 10 grams of soap were weighed and 100 mL of neutralized alcohol added to it. 5 mL of 1 N H2SO4(aq) solution was added to the mixture and heated till the soap sample dissolved. Test solution was titrated against 1 N NaOH using phenolphthalein indicator. The total alkali was obtained with the formula:

\[ \% \text{ total alkali} = \frac{VA - VB}{W} \times 3.1 \]

where:
VA = Volume of acid,
VB = Volume of base,
W = Weight of soap.

Total Fat Matter: Determination of total fat matter followed a method described in AOCS (1997), with slight modifications. The total fat matter test was carried out by reacting the different soaps with acid in the presence of hot ethanol and measuring the fatty acids obtained. About 10 grams of soap was weighed and 150 mL of warm neutralized ethanol was added and heated. The dissolved solution was then filtered and the residue dried in the oven at 110°C for one hour and weighed again. The total fat matter was obtained using the following formula.

\[ 100-(MC+MIA)/1.085 \]

where:
MC = Moisture content and
MIA = Matter insoluble in alcohol.

Analysis of Matter Insoluble in Alcohol: Analysis of matter insoluble in alcohol was determined by a method described in AOCS (1997), with modifications. Five grams of soap sample were dissolved in 50 ml hot ethanol and quantitatively transferred in a pre-weighed container.
filter paper. The residue was dried in the oven at 105°C for 30 minutes, cooled and weighed again then reading taken. The calculations were carried out by using the following formula.

\[
\frac{(WS-FP)}{W} \times 100
\]

where:

- \( WS = \) Weight of sample + filter paper,
- \( FP = \) Weight of filter paper,
- \( W = \) Weight of the sample.

**Results and Discussion**

Values are means ± standard deviation of duplicate samples.

- \( WSS = \) watermelon seed soap
- \( CS = \) commercial soap

<table>
<thead>
<tr>
<th>Samples</th>
<th>Moisture (%)</th>
<th>Matter insoluble in alcohol (%)</th>
<th>Total alkali (%)</th>
<th>Free caustic alkali (%)</th>
<th>Total fatty matter (%)</th>
<th>pH</th>
</tr>
</thead>
<tbody>
<tr>
<td>WSS</td>
<td>18.99±0.02</td>
<td>6.36±0.02</td>
<td>0.48±0.04</td>
<td>0.01±0.01</td>
<td>99.55±0.64</td>
<td>10.08±0.02</td>
</tr>
<tr>
<td>CS</td>
<td>10.95±0.06</td>
<td>15.12±0.15</td>
<td>1.01±0.02</td>
<td>0.05±0.00</td>
<td>88.15±0.78</td>
<td>10.69±0.01</td>
</tr>
</tbody>
</table>

Moisture attributes the existence of liquid especially water, usually in trace extent. Moisture content is a parameter that is used in assessing the shelf life of a product. High moisture content in soap would lead to reaction of excess water with un-saponified fat to give free fatty acid and glycerol in a process called hydrolysis of soap on storage. From the values obtained in the analysis, watermelon seed soap had the highest level of moisture content. The results obtained in this study for moisture content compares well with the study done by Viorica et al., 2011 (10% - 16.2%) and Kuntomet et al. (1999), (9% - 16%) for the commercial soap but were greatly different from that obtained by Osuji et al. (2013), of 18.8% - 22.5%. The results obtained for the watermelon seed soap compared well with the result of Osuji et al. (2013). The results obtained for the moisture content of the soaps in this study are below those obtained by Ogunsuyi and Akinnawo (2012), of 29.05% and above that obtained by Ainie et al. (1996), which had a ranged of (6% - 8%). These dissimilarities may be due to difference in the soap preparing methods though this was not investigated in this study.

The results matter insoluble alcohol obtained for the soap were found to be lower as compared to the results obtained by Viorica et al. (2011), of 20% - 28% but compared well with that of Ogunsuyi and Akinnawo (2012), that varied from 3.5% - 14.80%. Matter insoluble in alcohol (MIA) is a parameter that is used to determine the purity of soap Viorica et al. (2011). It is the measure of non-soap ingredients known as builders or fillers such as sodium silicate, sodium phosphate, sodium carbonate and minor constituents as bleachers, whitening agents and fluorescing agents in the finished product. The soap with high MIA values suggests that it contained high level of impurities which may be attributed to the level of impurities of alkali used for producing the soap Viorica et al. (2011). The slight difference in hardness could be accounted for by the presence of impurities which contributed to the bulkiness of soap Ogunsuyi and Akinnawo (2012).

Total alkalinity is the total alkaline material present in soap. They include alkaline components such as hydroxides, sodium (II) oxide, carbonates and bicarbonates. The results obtained in the current study for watermelon soap compares with that obtained by Warra et al. (2011), of 0.57% however, the total alkali results obtained for the soaps were found to be higher compared to the results obtained by Mak-Mensah and Firempong (2011) of value of 0.24% and that of 0.34% for the Ghanaian Standards.

The results obtained in the current study for the soaps compares with that obtained by Oyedele (2002), of a pH range of 9 - 11. The pH values obtained for the soaps were found to be high as compared with the results obtained by Beetschet et al. (2013), of pH value of 9, but compares well with Warraset al. (2011), of pH value of 10.72, and lower than Viorica et al. (2011), who had a range of pH between 5.5 - 8.0, Mak-Mensah and Firempong (2011) who had a pH value of 10.4, Warraset al. (2011), of pH value of 9.38 for cotton seed oil soap and Tan (1985), who had a pH range of 7.84 - 10.55. High pH values are as a result of incomplete hydrolysis resulting from saponification process. It can be overcome by adding excess fat or oil or any other super fatting agent to reduce the harshness of soap Warraset al. (2011). This indicates that the analysed
soaps are corrosive to the skin. As the salt of a weak acid (fatty acid) and a base, soap is alkaline to aqueous solution. Alkaline substances neutralize the body’s protective acid mantle that acts as a barrier against bacteria and viruses. Healthy skin has a pH of 5.4 to 5.9 Mak-Mensah and Firempong (2011). The alkalinity favors detergency (Kaoru, 1998).

The results obtained in this study showed that total fat matter was above that of washing soaps obtained by Viorica et al., 2011 of 71% - 84% and Kuntomet al. (1999), of 74% - 92%. These differences in the TFM is responsible for high moisture content and the kinds and quantities of the used fatty materials and also perhaps due to the differences in the saponification method. The lower TFM value is due to presence of unreacted NaOH in the mixture (Roila et al., 2001). However, dry skin needs soap which is high in TFM of 80%. This rehydrates the skin making it smooth, and additionally the high oil content within the soap acts as a lubricant throughout the day (Mak-Mensah and Firempong, 2011).

The obtained results for free caustic alkalinity of the analysed soap samples are below those obtained by Ogunsuyi and Akinnawo (2012), of 0.09% - 0.25% for laundry and 0.2% for toilet soap, 2.95% obtained by Beetseh et al. (2013), and 1.24% of free caustic alkalinity obtained by Taiwo et al. (2008). This study showed that the free caustic alkalinity of all the analysed soap samples was below acceptable limits, hence the amount of free caustic alkalinity in the analysed soap samples had no adverse effect on cloth or skin.

Conclusion
The results obtained in this study were compared with the data in the literature. The result revealed that the watermelon seed soaps were higher in moisture content and total fatty matter while the commercial soap was higher in matter insoluble in alcohol, total alkali, free caustic alkali and pH. This result shows that the watermelon seed oil soap will be good for both bath and laundry purposes.

Recommendations
This study recommends soaps that has minimal matter insoluble in alcohol as this will be pure, minimal moisture content as this will increase the shelf life and high amounts of total fat matter for lubricating the skin while washing.

It should also have lower levels of caustic alkalinity to reduce adverse effects on skin and cloth and higher pH values make the soap basic and lather easily.

This study further recommends improvement in the shelf life of the soap the reduction in the moisture content and further use of watermelon seed oils in the production of other cosmetic and also pharmaceutical products due to its protective nature against oxidative stress.

References


Appearance management involves the creation and control of peoples' appearances by themselves, and because appearance can be individually created and controlled as a clothing behaviour, aspects of one's appearance can be personally revealed as necessary. This study therefore examined the relationship between appearance management and clothing behaviour of Civil Servants in Akwa Ibom State. Three research questions and one hypothesis were raised to formulate the study. Using a structured questionnaire, data was collected from 150 respondents using multi-stage sampling technique to obtain the sample. The data was analysed using simple correlation coefficient. The hypothesis was tested using the F-ratio at 0.05 level of significance. The study revealed that there is a significant relationship between appearance management and clothing behaviour patterns of Civil Servants. The study recommended among others that Civil servants should consider societal acceptance in the course of clothing decisions and selection.

Keywords: Appearance Management, Clothing Behaviour, Civil Servants, Dress Code, Values, Clothing Purchase.

Introduction

It is a socio-cultural norm that people clothe, adorn, shape, and decorate their bodies to create an appearance to present to others. An attractive appearance has important social consequences. Emphasis on the importance of physical attractiveness as a means of conveying desirable information has led people to manipulate their appearances through the use of cosmetics, plastic surgery, weight reduction, hair dressing, ornaments, accessories, and clothing in order to attain at least an approximation of attractive physical appearances. Dixon (2007), states that appearance can be used to create a favourable public image and influence the perceptions of others. By modifying the body through weight loss and changing one's appearance through the use of clothing, an individual can change the perceptions of others so that they become more favourable. More favourable evaluations by others can lead to an increased self-concept. Appearance is one of the most prominent ways to display and reinforce self-concept.

Appearance is an extremely important part of one's self-concept. It is believed that through personal appearance an individual presents personal identity, attitudes, moods, and value or self-worth (Damhorst, 2005). Appearance management involves the creation and control of peoples' appearances by themselves, and because appearance can be individually created and controlled as a clothing behaviour, aspects of one's appearance can be personally revealed as necessary. Appearance management involves the process of thinking about how one looks, and also carrying out all activities pertaining to the way one looks. Purchase and wearing of clothes, as well as body modification processes are also components of appearance management. Appearance management is a process enacted with others in mind that involves experimentation and self-expression. Appearance management includes dress as a process as well as the assessment of the social consequences of one's appearance. Individuals engage in appearance management each day of their lives, even though the level of involvement and concerns related to dress and appearance may differ from person to person and culture to culture (Kaiser, 2013). People will very quickly make assumptions based on your personal appearance; the clothes you wear, how well-groomed you are and your body language. Perhaps the most obvious element of personal appearance, and certainly the easiest one to change, is what you wear and how well-groomed you look. Appearance is a reflection of one's own self-esteem. An individual should aim to present himself/herself to his/her best possible advantage.

Clothing behaviours such as dieting and exercising are considered part of appearance management. Clothing behaviour refers to consumer behaviour related to the purchasing and wearing of clothing (Robinson, 2003).
According to Koca & Koc, (2016), the factors influencing a consumer's clothing purchase behaviour can be put into the following groups: personal, psychological and socio-cultural. The personal factors, which are among the most important factors determining consumers' clothing purchase behaviour, are age, gender, profession, level of education, level of income and marital status. Just as individuals are able to make different clothing choices depending on their psychological makeup and society's value judgments based on their gender, so it has also been determined by research that changes in social, physical, economic and psychological characteristics at different ages are able to influence people's preferences. Koca & Koc, (2016) again assert that grouped among the psychological factors, personality characteristics do affect consumers' perceptions and purchasing behaviour. Personality, education, perception, impressionability and other exhibited attitudes, which all vary from one individual to another, may be listed as the psychological factors that can affect clothing purchasing behaviour.

Another factor influential in consumers' purchasing behaviour is the socio-cultural factor, which includes family, group, social class, peers and cultural makeup. It can be easily observed in everyday life that the culture and values encompassing all the factors giving direction to individuals' thoughts, behaviour and attitudes do affect consumers' awareness of fashion and brand names, and that similarly individuals from different social classes possess different opinions with respect to fashion and brand name products in their clothing purchasing behaviour. Koca & Koc (2016) quip that while they may be treated under separate headings, when it is taken into consideration that the influence of personal factors is overpowering in individuals' purchasing behaviour, it can be seen that the decision-making and purchasing behaviour of male and female consumers can change depending on a variety of reasons having different dynamics. In recent times, consumers have gained access to new and powerful tools. These consumer tools refer to new communication technologies such as the internet, mobile telephony and peer-to-peer connectivity. These are also critical consumer tools.

Individuals construct and interpret images through processes of appearance management (Kaiser, 1997). Appearance is an extremely important part of the self-concept, and therefore of body image. Interest in appearance is multifaceted and expressed partially through the amount of time, energy, and resources expended on appearance. Appearance management includes not only the process of thinking about how one looks, but also carrying out any activities pertaining to the way one looks. On an individual level clothing and appearance management can provide information about the wearer's attitude, clothing behaviour, social and personal relationship. Appearance management is highly visible; it allows others to formulate opinions about the wearer. Including personal information, Towers (2011) according to Kaiser (1997), any activities and thoughts that lead to the purchase and wearing of clothing, as well as body modification processes such as dieting and exercising, are considered part of appearance management. People engage in a variety of appearance management behaviours to construct and maintain aesthetically pleasing appearances. Rudd and Lennon (1994) opine that behaviours associated with appearance management include dieting, exercising, weight training, cosmetic use, and selection of apparel to enhance one's appearance.

The appearance management of the wearer is the totality of his true identification. It sends out a message, a statement to others about the wearer. The way one appears has a remarkable impact on the people they meet and how they are treated. Ensuah, Abraham and Kyeremeh (2018) state that the appearance of individuals in an organisation sets a definite tone for an employer in the setting. In a corporate environment, it is even more important to define and maintain specific appearance. In spite of all attempt by some organisations to introduce compulsory dress codes to help keep the organisation's image and public perception under control and maintaining the organisation's chosen image in public, some corporate workers are more interested in current style instead of what their employer might want. They are simply not as interested in what the world might think of them; these employees certainly seem to be in disagreement over how workplace attire affects productivity; an attitude that can be relatively dangerous to the image of the organisation. In a professional setting such as the Civil Service, dressing properly is important since most of the civil service environment adhere to a business professional setting. It has been observed that some civil servants in Akwa Ibom state lack good sense of appearance management and positive clothing behaviour. At some occasions, male civil servants are seen wearing shirt with unsuitable ties, traditional attires, some wear poor fitting clothes while others are worn to enhance one's appearance.
Objectives of the Study
1. To examine the appearance management clothing decisions of civil servants in Akwa Ibom State
2. Identify clothing behaviour patterns of civil servants in Akwa Ibom State.
3. Examine the relationship between appearance management decisions and clothing behaviour patterns of civil servants in Akwa Ibom State.

Research Questions
1. What are the appearance management clothing decisions of civil servants in Akwa Ibom State?
2. What are clothing behaviour patterns of civil servants in Akwa Ibom State?
3. What is the relationship between appearance management clothing decisions and the clothing behaviour?

Hypothesis
There is no significant relationship between appearance management and clothing behaviour of civil servants in Akwa Ibom State.

Significance of the Study
With the civil service population currently driving some trends in the fashion industry, more information could assist marketers and retailers of apparel better in meeting the needs and demands of civil servants in Akwa Ibom State. A better understanding of the civil servants' clothing needs and values could also be crucial in affecting clothing behaviours of the civil servants. The benefits envisaged from the study would cut across various sectors of the economy specifically in Akwa Ibom State where civil servants might develop creative initiatives in their appearance management and clothing behaviour.

Findings of this study might also be of benefit to researchers in the clothing and textiles discipline who will now look at appearance management and clothing behaviour from a problem-solving approach. Lecturers might utilise the findings of the study to plan and develop instructions for teaching socio-psychological aspects of clothing and textiles in tertiary institutions. The findings of the study would be of immense benefit to students of clothing and textiles in tertiary institutions as new concepts would have been learnt to enhance their creativity and innovation in the clothing and textiles field of study.

The study findings might generate new approaches to curriculum developers who would build into the clothing and textiles curriculum concepts of appearance management and clothing behaviour most especially at the tertiary educational level.

Entrepreneurs of clothing and other fashion products might form a synergy which will enable occupational sub-sectors realise the need for proper appearance management and clothing behaviour.

The body of literature on clothing purchase and appearance management would be boosted from the findings of this study. The study findings might also be used for consumer education and research. The findings of this study might be used to infuse socio-psychological aspects into the clothing and textiles curricular at the various levels of the educational system. Finally, the findings of this study might be beneficial to Akwa Ibom State Government in implementing and enforcing a dress code for civil servants in her employ.

Scope of the Study
The study was restricted to civil servants both male and female in selected ministries which are ministry of Agriculture and Natural Resources, ministry of commerce and industry, ministry of education, ministry of finance, ministry of health, ministry of Economic development, ministry of women Affairs and social welfare and ministry of works and transport. It was also delimited to the relationship between appearance management and clothing behaviour of the civil servants.

Methodology
Research Design
A survey design was adopted for this study. This is a design used to obtain data by administering questionnaires or interviews. In most instances, this survey design tends to capture individual values, attitudes or behavioural patterns.

Area of the Study
The research was carried out in Akwa Ibom State. It is located on the South-south geopolitical zone of Nigeria, lying between latitude 4’33 and 5’35 North and longitude 7’35 and 8’25 East of the equator. The people have a rich cultural background and are predominantly civil servants. Akwa Ibom State has (19) nineteen ministries under the Civil Service Commission.

Population of the Study
The population for this study was made up of male and female civil servants within the various Ministries in Akwa Ibom State. The total number of Akwa Ibom State Civil Servants was approximately 13,000 persons as at the time of the study.

Sample and Sampling Technique
A multi-stage sampling technique was used to select the sample. First, out of a total of 19 ministries, 8 were
randomly selected. The procedure involved writing and folding the names of the ministries into a basket and picking out 8. In the second stage, 20 staff were purposively selected from a list of staff from each of the ministries chosen for the study. These were staff who have spent 10 to 15 years in service. They were chosen based on their long years of service in the civil service and their knowledge of civil service dress code.

A total of 160 respondents were selected for the study. Each of the civil servants picked was given a questionnaire with adequate instructions to fill and return. This gave rise to a total of 160 questionnaires, to make up the sample size.

Instrument for Data Collection
The instrument used for data collection in this study was a questionnaire on: The Relationship between Appearance Management and Clothing Behaviour of Civil Servants in Akwa Ibom State with two different sections and adequate instructions to guide the respondents. The instrument was divided into two sections; section A and B.

Section A had information on socioeconomic characteristics while Section B includes items on the relationship between appearance management and clothing behaviour of civil servants. A four-point scale such as, Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) was used. The respondents were expected to put a tick (✓) in column with appropriate alternative that showed the extent to which each statement was true of them.

Validation of Instrument
The instrument was validated by two lecturers from the University of Uyo. The number of items on the instrument before validation was twenty eight (28). After validation the items were increased to sixty-three (63).

Reliability of the Instrument
To ensure that the survey instrument was reliable, it was subjected to a test-retest reliability test. This involved the comparing of the first distribution of the question to the civil servants who filled and returned it after one day. After two weeks, another set of questionnaire with the same items were administered to the same group who made up the total study sample. The results were analysed using simple percentage table and chart. The result of the analysis portrayed a correlation coefficient of 0.85 which indicated that the instrument was reliable.

Data Collection
One hundred and sixty (160) questionnaires were administered to 160 respondents who are civil servants in the area of the study. Out of the one hundred and sixty questionnaires, one hundred and fifty (150) were retrieved. This accounts for 93.75% return.

Data Analysis
The statistical tools used to analyse the study results was simple correlation coefficient.

Results
What are the appearance management clothing decisions among civil servants in Akwa Ibom State?

Table 1: Identification of Appearance Management Clothing Decisions Among Civil Servants in Akwa Ibom State.

<table>
<thead>
<tr>
<th>Options</th>
<th>Number of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>30</td>
<td>20.0</td>
</tr>
<tr>
<td>Agree</td>
<td>40</td>
<td>26.7</td>
</tr>
<tr>
<td>Disagree</td>
<td>15</td>
<td>10.0</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>65</td>
<td>43.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>150</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 1 revealed that 30 respondents amounting to 20% of the study sample strongly agreed to such affirmative statements as like wearing corporate wear to office on Mondays; I give much attention to colour combination when choosing my clothing for office; My height influences the type of shoes I put on to office; My shape affects what I put on to office; My complexion affects my clothing combination; During rainy season I like wearing/putting on pullovers to office; As a lady I prefer trouser suit to skirt suit for office; I like wearing traditional apparel due to my cultural norms; I am aware of fashion trends and to be one of the first to try them; Although my apparel is similar to what everyone wears it is how I wear it that makes it different from
other staff in the ministry; I dress appropriately for all event I attend; I am confident in my ability to recognise fashion trends; I usually dress so as to make a good impression at work; I dress in line with the civil service dress code; The way I dress makes me successful at work.

This indicates that appearance management clothing decisions are actually identified among the Civil servants in Akwa Ibom state. 26.7% Agree, 10% Disagree while the largest proportion of 43.3% strongly disagree concerning the existence of appearance management clothing decisions among Civil servants in Akwa Ibom state.

What are the clothing behaviour patterns of civil servants in Akwa Ibom State?

Table 2: Identification of Clothing Behaviour Patterns Among Civil Servants in Akwa Ibom State

<table>
<thead>
<tr>
<th>Options</th>
<th>Number of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>15</td>
<td>10.0</td>
</tr>
<tr>
<td>Agree</td>
<td>68</td>
<td>45.3</td>
</tr>
<tr>
<td>Disagree</td>
<td>22</td>
<td>14.7</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>45</td>
<td>30.0</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

Civil servants in Akwa Ibom state.

From table 2, it is observed that 15 respondents representing 10% of the study sample strongly agreed to such affirmative statements as I express my ethnicity through my dress and appearance; I feel my cologne/perfumes is part of my dressing; Clothes are one of the most important way I have of expressing my individuality; Most days I appear casual to office to give me some comfort; My working environment has much influence on my clothing behavioural pattern negatively; I appear casual to office only on Fridays; My clothes do not fit closely to my body due to my norms and beliefs; I do not repeat a particular appearance twice in a week to office; The civil service dress code affects me negatively because of my beliefs and value system; My apparel is similar to what everyone wears, but how I wear make me different from other staff; When I dress properly it gives me sense of belonging and self confidence in the office; Proper appearance management gives me a projection of self image; When I wear corporate materials it adds value to my career profession as a civil servant.

This signifies that clothing behaviour patterns are actually identified among the Civil servants in Akwa Ibom state. The largest proportion of 45.3% Agree, least proportion of 14.7% Disagree while 30% strongly disagree concerning the existence of clothing behaviour patterns among Civil servants in Akwa Ibom state.

Table 3: Relationship between Appearance Management and Clothing Behaviour Patterns Among Civil Servants

<table>
<thead>
<tr>
<th>Options</th>
<th>Appearance management</th>
<th>Clothing behaviour pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>Agree</td>
<td>40</td>
<td>68</td>
</tr>
<tr>
<td>Disagree</td>
<td>15</td>
<td>22</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>65</td>
<td>45</td>
</tr>
</tbody>
</table>

N = 8
Correlation coefficient, \( r_{pb} \) = 0.53
Significance level = 0.05
Calculated-F = 21.87
Critical-F = 13.75
Remarks = Reject \( H_0 \)

From Table 3 above, it shows a correlation coefficient of 0.53 denoting a positive correlation between appearance management clothing decisions and Clothing behaviour patterns. That means high
appearance management decisions lead to the exhibition of high clothing behaviour patterns. From the test of significance, the calculated F (21.87) is greater than the critical F (13.75), thus; the null hypothesis was rejected. This however shows that there is a significant relationship between Appearance management and Clothing behaviour patterns.

Discussion of Findings
The significant relationship between appearance management and Clothing behaviour is in line with the findings of Towers (2011), and Kaiser (1997). They opine that Appearance management makes important impression and they give clues to one's personality; reveal one's self esteem, social status, culture, religion and self-confidence. Any activities and thoughts that lead to the purchase and wearing of clothing, as well as body modification processes such as dieting and exercising, are considered part of appearance management (Kaiser, 1997). On the other hand, the findings of this study are at variance with the findings of Entsuah et. al. (2018) which sees appearance management of employees with the workplace clothing behaviour, an attitude that can be relatively dangerous to the image of the organisation. Similarly, the findings of this study differs from the study of Koca & Koc (2016) who noted that in everyday life culture and values encompassing all the factors giving direction to individuals’ thoughts, behaviour and attitudes do affect consumers’ awareness of fashion and brand names, and that similarly individuals from different social classes possess different opinions with respect to fashion and brand name products in their clothing purchasing behaviour. Generally, the way in which civil servants in Akwa Ibom State present their values in Clothing and appearance management has a significant relationship and influence on their ultimate Clothing behaviour.

Conclusions
There is a significant relationship between Appearance management and Clothing behaviour patterns. This is evident by a positive correlation ratio of 0.53 between the two variables. This was further confirmed by the rejection of the null hypothesis following the calculated F-ratio of 21.87 falling beyond the range of acceptance testing at a significance level of 0.01 with a critical F-ratio of 13.75. This study thus posits that the way in which Civil servants in Akwa Ibom State utilise his or her Clothing values is related and may to some extent influence their appearance management and Clothing behaviour.

Recommendations
Based on the findings of the study, the following recommendations are made:
Civil servants should consider societal acceptance in the course of clothing decisions and selection as suitable clothes attracts praise, builds confidence and a sense of acceptance while unsuitable clothing decisions tends to be awkward.

References


The purpose of this study was to develop an instructional manual for teaching precious stone attachment on a sewn garment to the physically challenged women in Lafia Local Government Area of Nasarawa State. The study adopted an R&D design for the study. The population of the study constituted all physically challenged ladies in Lafia Local Government Area, which were estimated to be about 450. The study sampled 45 physically challenged ladies from Lafia. The data was collected using three sets of instruments- the established average need assessment on attachment of precious stone on sewn garment, instructional manual draft on attachment of precious stone and researcher assessment questionnaire. The finding revealed among all the nine specific objectives suggested, to develop adequate skill on hand sketching patterns for stone decoration has the highest mean of 4.70. Other findings includes that it is far cheaper to buy garment and decorate it with stone than buying ready to wear stoned garments among others. The study concluded that appropriate means of survival is very necessary to everyone and most especially the physically challenged (immobile) people in our community so that they will not feel rejected by the society. In order to stimulate meaningful understanding and skill acquisition especially where competency-based learning is expected, self-instructional manuals is the most appropriate. Federal government of Nigeria should build skill acquisition centres for the physically challenged in every Local Government Area of this country.

Key words: Physically Challenged, Instructional Manual, Skill on Stone Garment, Teaching

Introduction
Manual is an instructional book or booklet that is supplied with almost all technologically advanced consumer products such as home appliances which carries information on how best to maximize the product. It therefore becomes important to develop a manual for stone attachment to enable users, especially the challenged to carry on. According to Shailong and Igbo (2017), information contained in manuals typically includes: Safety instructions, Assembly instructions, instruction for use, maintenance instruction and programming instructions among others. Hobbies (2015) defines instructional manual as one of the most common forms of writing in business and industry.

Instructional manual could be used by both the learner and the teacher either to learn or to teach respectively. According to Shailong (2015), instructional manual is a step-by-step information for carrying out practical skills which contains brief explanations and pictorial illustrations of performance of that particular skill. She further stated that these manuals have many purposes which includes the following- to train new employees, to function as operational policies and procedures, to ensure that workers follow safe procedures; and they can be used to document the expertise of a group of workers through teaching.

Teaching according to Gary (2014), is the art and science which help others to grow in their knowledge and understanding. Teaching could be seen as a systematic presentation of facts, ideas, skills, and techniques to students ((Shailong 2017, Aja, 2010). Although human beings have survived and evolved as a species partly because of a capacity to share knowledge, teaching as a profession did not emerge until relatively recently. The Oxford advanced learners dictionary defines teaching as the ideas of a particular person or group especially about politics, religion or society that are taught to other people both those who are not with any challenges and those that are physically challenged.

Physically challenged person is referred to those people with a physical disability, particularly someone who is unable to walk because of an injury or illness (Susan and Arthur 2012). According to Agbo (2013),
the physically challenged most of the time are not regarded in the society as they are always seen as if they have nothing to offer the society. She found out that though these disabilities may be there but that does not mean they are not useful. Agbo (2013) also observed that these set of people are very good in hand work that needs patience to handle such as decoration of sewn garments with precious stone attachment.

Precious stone work according to Marriam (2014), could be seen as the art or craft of attaching precious stone to a sewn garment. Precious stones comes in a variety of shapes and sizes. Stones are used to create jewellery or other articles of adornment, they are also used in wall hanging and sculpture among many other art works. Modern stone work is often used as a creative hobby to create handbags, coasters, shoes and dozens of other crafts. Stones are available in many different designs, sizes, colours, and shapes allowing much variation among stone artisans and products. Berman, (2000), stated that designing of garments with precious stones is taking the place of embroidery. This fashion is in vogue now and it is very rich but expensive to obtain just like the hand embroidery. Agbo (2013) noted that the physical challenge when engaged into craftwork are seen to be very patient with their work. Promoting the physically challenge ladies by teaching them stone attachment design on sewn garment result in making the physically challenged ladies self-reliance, providing job for others and generating revenue for the nation and conserving the nations reserve which could have been used in importing hand stone attachment garment on embroidery craft design garments in a country like Nigeria where underemployment are at its peak but the best option is to become self-reliant, useful and enterprising. The physically challenged ladies feels they are not useful to the society, standing by the road or street begging and this have exposed them to so many dangers as some men can sexually harass them and dump them like trash thus the need for this study.

Some samples of precious stones.

Diamond

[Images of various diamond pieces]
Gemstones are very useful for the humankind. These stones have been used since time immemorial for ornaments and jewelry. Precious stones have been fixed on crowns of royals all over the world for thousands of years. In modern times also gemstones are used as one of the many status symbols.

**Objectives of the Study**
The main purpose of this study was to develop an instructional manual for teaching physically challenged women skills on stone attachment in Lafia Local Government Area of Nasarawa State. Specifically, the study will -

1. Develop instructional materials, tools and equipment for performing the tasks in attachment of precious stone on sewn garments.
2. Provide step by step procedure of performing tasks in attachment of precious stone on sewn garments.
3. Identify evaluation guidelines that could be utilized in assessing the attainment of the skill in attachment of precious stone on sewn garment.

**Research Question**
1. What are the instructional materials, tools and equipment for performing the tasks in attachment of precious stone on sewn garments?
2. What are the step by step procedure of performing tasks in attachment of precious stone on sewn garments?
3. What are the self evaluation guidelines that could be utilized in assessing the attainment of the skill in attachment of precious stone on a sewn garment?

**Scope of the Study**
The study was limited to physically challenge women in Lafia municipal only

**Methodology**

**Design of the Study**
This study adopted a Research and development (R&D) design. This design refers to innovative activities undertaken by corporations or governments in developing new services or products, or improving existing services or products (Shailong, 2015). Research and development constitutes the first stage of development of a potential new service or product (Gall Gall and Borg, 2007) The study was carried out in stages.

**Stage 1** - The objectives for the study were enumerated and face validated (1 week)

**Stage 2** - The researcher developed a draft of the instructional manual using the correction from the validators( 3 weeks)

**Stage 3** - The researcher trained two research assistants who helped the researcher in carrying out the study( 2 weeks)

**Stage 4** - Both the researcher and the two research assistants trained the physically challenge ladies using the drafted manual 5 weeks.

**Stage 5** - The physically challenged ladies were assessed to the level of their understanding and professionalism.

**Area of Study** - This study was carried out in Lafia Local Government Area of Nasarawa State

**Population of the Study** - The population of the study consists of 450 physically challenge ladies in Lafia Local Government Area of Nasarawa State.

**Sample and Sampling Technique** - Simple random sample technique was used to sample 45 physical challenge women in the study which was 10% of the total population.

**Instrument for Data Collection** - Three sets of instruments were used for data collection. They are:
1. Need Assessment Questionnaire on attachment of precious stone on sewn garments (NAQBSG)
2. Developed Instructional manual draft on attachment of precious stone on sewn garments (IMDBSG)
3. Researcher Assessment Questionnaire (RAQ)

**Validation of Instrument** - The three instruments used were subjected to validation by two lecturers in Department of Home Science and management, who are specialist in clothing and textile.

**Method for Data Analysis**
The data was analyzed using simple descriptive statistics such as mean, standard deviation and percentages.
Results and Discussion

Table 1: Mean Ratings of the Respondents on the developed Instructional Materials, Tools and Equipment for Performing the Tasks in Attachment of Precious Stone on Sewn Garments.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Materials / Tools</th>
<th>Mean Value</th>
<th>Std. Deviation</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tailor’s chalk</td>
<td>4.46</td>
<td>0.59</td>
<td>SA</td>
</tr>
<tr>
<td>2</td>
<td>Table</td>
<td>4.28</td>
<td>0.50</td>
<td>SA</td>
</tr>
<tr>
<td>3</td>
<td>Sketched pattern paper</td>
<td>4.63</td>
<td>0.79</td>
<td>SA</td>
</tr>
<tr>
<td>4</td>
<td>Heat presser</td>
<td>4.37</td>
<td>0.53</td>
<td>SA</td>
</tr>
<tr>
<td>5</td>
<td>Pressing iron</td>
<td>4.46</td>
<td>0.55</td>
<td>SA</td>
</tr>
<tr>
<td>6</td>
<td>Picker</td>
<td>4.43</td>
<td>0.54</td>
<td>SA</td>
</tr>
<tr>
<td>7</td>
<td>Interfacing fabrics / Teflon sheet</td>
<td>4.71</td>
<td>0.81</td>
<td>SA</td>
</tr>
<tr>
<td>8</td>
<td>Hand held hotfix</td>
<td>4.57</td>
<td>0.65</td>
<td>SA</td>
</tr>
<tr>
<td>9</td>
<td>Tape</td>
<td>4.61</td>
<td>0.80</td>
<td>SA</td>
</tr>
<tr>
<td>10</td>
<td>Tailor’s pin</td>
<td>4.67</td>
<td>0.92</td>
<td>SA</td>
</tr>
<tr>
<td>11</td>
<td>Stone</td>
<td>4.57</td>
<td>0.58</td>
<td>SA</td>
</tr>
<tr>
<td>12</td>
<td>Ultrasonic stone application machine</td>
<td>4.67</td>
<td>0.63</td>
<td>SA</td>
</tr>
</tbody>
</table>

Table 1 above is showing the mean response of the respondents on the instructional materials, tools and equipment for performing the tasks in attachment of precious stone on sewn garments. Twelve items guided this research question. All the twelve items were found to be very necessary for the study and so, they were all accepted.
Step by Step Procedure of Attachment of Precious Stone on Sewn Garments

<table>
<thead>
<tr>
<th>S/N</th>
<th>Step by Step Procedure of Attachment of Precious Stone on Sewn Garments.</th>
<th>Mean Value</th>
<th>Std. Deviation</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fabric which will be decorated with stone should be spread on a flat surface or a table.</td>
<td>4.28</td>
<td>0.46</td>
<td>SA</td>
</tr>
<tr>
<td>2</td>
<td>The fabrics is undergoing pressing to remove all the folds and wrinkles from the surface of the fabrics.</td>
<td>4.35</td>
<td>0.48</td>
<td>SA</td>
</tr>
<tr>
<td>3</td>
<td>With the aid of chalk, a sketch of the pattern to be decorated with stone is designed.</td>
<td>4.39</td>
<td>0.54</td>
<td>SA</td>
</tr>
<tr>
<td>4</td>
<td>Pour the size of stone you desire to use in your left hand and use the picker to pick the stone.</td>
<td>4.33</td>
<td>0.47</td>
<td>SA</td>
</tr>
<tr>
<td>5</td>
<td>When you pick the stone with the picker, you place it on the pattern already sketched on the garments.</td>
<td>4.41</td>
<td>0.54</td>
<td>SA</td>
</tr>
<tr>
<td>6</td>
<td>Following the pattern sketched keep placing the stone until it come of the size when they are to be fixed.</td>
<td>4.30</td>
<td>0.47</td>
<td>SA</td>
</tr>
<tr>
<td>7</td>
<td>At this stage place the heat presser on top of the stone to heat for one minutes.</td>
<td>4.37</td>
<td>0.53</td>
<td>SA</td>
</tr>
<tr>
<td>8</td>
<td>After placing the heat presser on the stone for 1 min, press the stone to the garment with strong pressure. Continue with step 1-8 until you finish the whole design.</td>
<td>4.41</td>
<td>0.50</td>
<td>SA</td>
</tr>
<tr>
<td>9</td>
<td>Hand held hotfix machine. This type of stone fixing machine is usually plugged to the electricity. It comes with different shapes and sizes of nozzle which picks stones of different shapes and sizes. With the aid of the electricity, heats the stone after holding it for a while, then the stone is fixed to the garment.</td>
<td>3.0</td>
<td>0.82</td>
<td>A</td>
</tr>
<tr>
<td>10</td>
<td>Ultrasonic rhinestone fixing machine which uses high frequency sound waves of ultrasonic generator can produce high voltage which is converted to high-frequency mechanical vibration on the diamond and glue, and at the melting point fixes itself on the fabric.</td>
<td>2.32</td>
<td>1.03</td>
<td>DA</td>
</tr>
<tr>
<td>11</td>
<td>Ultrasonic rhinestone fixing machine in action is very fast when handled by an expert.</td>
<td>2.52</td>
<td>1.14</td>
<td>DA</td>
</tr>
</tbody>
</table>

Key: SA—strongly agreed  A agreed  DA disagree
Table 2 shows the step-by-step application of precious stone on a sewn garment. Eleven (11) steps were outlined and two out of it (items 10 and 11) were rejected and were not accepted as steps that are appropriate for the physically challenged ladies whom the manual was meant for.

Table 3: Mean Ratings of the Respondents on the Self-Evaluation Guidelines that could be Utilized in Assessing the Attainment of the Skill in Attachment of Precious Stone on Sewn Garment.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Self-Assessment On Stone Application</th>
<th>Mean Value</th>
<th>Std. Dev.</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use a flat table</td>
<td>4.85</td>
<td>0.63</td>
<td>SA</td>
</tr>
<tr>
<td>2</td>
<td>Iron the garment before attaching stone</td>
<td>4.72</td>
<td>0.50</td>
<td>SA</td>
</tr>
<tr>
<td>3</td>
<td>Sketching a pattern on the fabric</td>
<td>4.46</td>
<td>0.62</td>
<td>SA</td>
</tr>
<tr>
<td>4</td>
<td>Following the pattern carefully</td>
<td>4.72</td>
<td>0.58</td>
<td>SA</td>
</tr>
<tr>
<td>5</td>
<td>Pressing down the stone with pressure</td>
<td>4.67</td>
<td>0.52</td>
<td>SA</td>
</tr>
<tr>
<td>6</td>
<td>Following original pattern on fabric carefully</td>
<td>4.83</td>
<td>0.49</td>
<td>SA</td>
</tr>
<tr>
<td>7</td>
<td>Used telfon sheet / interfacing on silk fabrics</td>
<td>4.30</td>
<td>0.87</td>
<td>SA</td>
</tr>
<tr>
<td>8</td>
<td>Correct use of tools and equipment</td>
<td>4.61</td>
<td>0.49</td>
<td>SA</td>
</tr>
<tr>
<td>9</td>
<td>Correct pressing of the attached garment</td>
<td>4.67</td>
<td>0.60</td>
<td>SA</td>
</tr>
<tr>
<td>10</td>
<td>Neatness of the whole work</td>
<td>4.98</td>
<td>0.15</td>
<td>SA</td>
</tr>
<tr>
<td>11</td>
<td>Use of expensive fabric</td>
<td>2.09</td>
<td>0.01</td>
<td>DA</td>
</tr>
</tbody>
</table>

Key: SA- strongly agreed  DA- disagree

Table 3 revealed the data that provided answers to the research question 4. The data reveals that out of 11 items presented, only 1 item was dropped as not necessary for assessing the attainment of the skill in attachment of precious stone on sewn garment. They were rejected and were not accepted as steps that are appropriate for the physically challenged ladies whom the manual was meant for. This was because the people that the manual were meant for are physically challenged and could not use their legs. This machine could be effective for them if it is converted to be operated with hands.

Discussion
Table 1 shows the mean response of the respondents on the instructional materials, tools and equipment for performing the tasks in attachment of precious stone on sewn garments. This table has the answer to research question 1. Twelve items sort answer to this research question. All the twelve items were found to be very necessary for the study and so, they were all accepted.

Table 2 shows the step-by-step application of precious stone on a sewn garment. Eleven (11) steps were outlined and two out of it (items 10 and 11), though could be a process in attachment of precious stone but

Table 3 revealed the data that provided answers to the research question 3. The data reveals that out of 11 items presented, only 1 item was dropped as not necessary for assessing the attainment of the skill in attachment of precious stone on sewn garment. This is because the high cost of fabric is not a yardstick to assessing how well the precious stones were attached on a sewn garment rather it is on the skills exhibited in the process.
Summary
The physically challenged ladies feel they are not useful to the society and so, majority of them are found standing by the major road side or along the streets begging for alms. This have exposed them to so many dangers as some men can sexually harass them and dump them like trash. This situation always increases their rate of dependency on others. The fact that one is physically challenged does not make one completely useless in the society. For this reason, the researcher was prompted to carry out this research to develop instructional manual for teaching the physically challenged ladies attachment of precious stone on a sewn garments. This skill if acquired will tremendously change their lives.

Conclusion
Nigerian educational system is expected to device appropriate strategies for equipping individuals with skills to cope with the situation of serious challenges of unemployment facing individuals, families and the country at large. Appropriate means of survival is very necessary to most especially the physically challenged people in our community so that they will not feel rejected by the society. This can be achieved by engaging them in skill training like this precious stone attachment on sewn garments.

Recommendations
Based on the findings of this study, the following recommendations are made:
1. In order to stimulate meaningful understanding and skill acquisition especially where competency-based learning is expected, self-instructional manuals are the most appropriate.
2. Physically challenged ladies will be highly encouraged with the use of self-instructional manual so as to be carried along with other members of the society.
3. Crafts should be taught at all level of education as a separate course to enable Nigeria citizens to start early enough in acquiring skills.
4. Federal government of Nigeria should build skill acquisition centres for the physically challenged.
5. Federal government should as a matter of priority, provide adequate tools, facilities and fund for the consumables to Home Economics programmes to encourage skill acquisition among our people.
6. Workshops, seminars and conferences should be organized for the teachers to enlighten them on the importance and use of instructional manuals.
7. Self-instructional manual should be used for all skill oriented training so that the objective of eradicating unemployment in Nigeria could be achieved.

References


Gray, M. vocational skills. en.m.wikipedia.org/wiki/vocation


## DEVELOPED PRECIOUS STONE APPLICATION INSTRUCTIONAL MANUAL

<table>
<thead>
<tr>
<th>TASKS/PERFORMANCE</th>
<th>ILLUSTRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fabric which will be decorated with stone should be spread on a flat surface or a table</td>
<td><img src="image1.png" alt="Illustration 1" /></td>
</tr>
<tr>
<td>2. The fabric is undergoing pressing to remove all the folds and wrinkles from the surface of the fabric</td>
<td><img src="image2.png" alt="Illustration 2" /></td>
</tr>
<tr>
<td>3. With the aid of chalk, a sketch of the pattern to be decorated with stone is designed</td>
<td><img src="image3.png" alt="Illustration 3" /></td>
</tr>
<tr>
<td>4. Pour the size of stone you desire to use in your left hand and use the picker to pick the stone</td>
<td><img src="image4.png" alt="Illustration 4" /></td>
</tr>
<tr>
<td>Step</td>
<td>Instruction</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>5</td>
<td>When you pick the stone with the picker, you place it on the pattern already sketched on the garment.</td>
</tr>
<tr>
<td>6</td>
<td>Following the pattern sketched keep placing the stone until it come of the size when they are to be fixed.</td>
</tr>
<tr>
<td>7</td>
<td>At this stage place the heat presser on top of the stone to heat for 1 min.</td>
</tr>
<tr>
<td>8</td>
<td>After placing the heat presser on the stone for 1 min, press the stone to the garment with strong pressure. Continue with step 1-8 untill you finish the whole design.</td>
</tr>
</tbody>
</table>

Hand held hotfix machine. This type of stone fixing machine is usually plugged to the electricity. It comes with different shapes and sizes of nozzle which picks stones of different shapes and sizes. With the aid of the electricity, heats the stone after holding it for a while, then the stone is fixed to the garment.
Ultrasonic rhinestone fixing machine which uses high frequency sound waves of ultrasonic generator can produce high voltage which is converted to high-frequency mechanical vibration on the diamond and glue, and at the melting point fixes itself on the fabric.

The researcher is operating the Ultrasonic rhinestone fixing machine.
FINISHED WORK BEING TESTED.
EXTRACTION OF NATURAL DYE FROM CASSAVA (MANIHOT ESculenta) LEAVES FOR COLOURATION OF COTTON FABRIC

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Abstract
In recent times, ecological considerations are now becoming an important factor in the selection of consumer goods, increasing the interest in exploration of natural dyes. Natural dyes can be obtained from various parts of plants including roots, bark, leaves, flowers, and fruit. The aim of this study was to extract natural dye from cassava leaves and evaluate its potential in dyeing cotton fabric. Water and ethanol were used as the extracting solvent while alum was the mordant used. The colour fastness of cotton fabrics dyed with the extracts were evaluated. The dyestuff produced gave yellowish-brown colour on the cotton fabric with the dyestuff produced using fresh cassava leaves and ethanol while that from dried cassava leaves and water gave a cream colour. Results of the colour fastness assessment revealed that the colour does not fast in pre-mordant in water and simultaneous in water, and pre-mordant in ethanol washing and rubbing wet colour does not fast but there is colour fastness on pre-mordant on ethanol sunlight and rubbing dry. It was recommended that eco-friendly dyes should be used, exploring plant dyes and there application which will improve the health and socio-economic development of the nation.

Keywords: Natural Dye, Cassava leaves, Dye extraction, Cotton, Mordant

Introduction
Natural dyes refer to all the colouring materials derived or extracted from nature. It can be extracted from plant, animal, mineral and microbial origins are used for colouration of a variety of textile materials (Saxena&Raja, 2014). These dyes have been used for the dyeing of textile materials and have become a regular ritual of human lives from time immemorial (Alam, Rahman,&Haque,2007). Major areas of application of natural dyes since pre-histories times have being in colouring of food substrate, leather as well as natural fibres like wool, silk and cotton. The main purpose of the dyeing on textile material is for value addition, improvement of the performance or to fulfil customer's needs. Since the advent of widely available and cheaper synthetic dyes in 1856 which has moderate to excellent colour fastness properties, the use of natural dyes having poor to moderate wash and light fastness has declined to a great extent.

Textile dyeing industry at present uses excessive amount of synthetic dyes to meet the required coloration of textiles globally due to its cheaper prices, wider ranges of bright shades, and considerably improved fastness properties in comparison to natural dyes. However, Oktav, Bulut and Akar (2012) warned that although processes involving the use of natural dyes are slightly more expensive than synthetic dyes, the natural dye does not contain carcinogens and other harmful toxins, unlike synthetic dyes. Also, Siva (2001) in Bhuiyan, Islam, Islam, Hossain and Nahar (2017) some of these synthetic colorants are found to be allergic, carcinogenic and deleterious to human health and environment. There has been a revival of interest in the application of non-allergic, non-toxic and eco-friendly natural dyes in textile fibres because of their high compatibility with the environment, as well as the availability of various viable natural colouring resources (Bhuiyan et al., 2017).

In recent times, there is a trend aimed at safeguarding human health as well as protecting and prolonging life on earth, which have increased green minded consumers globally. Ecological considerations are now becoming an important factor in the selection of consumer goods. This has further increased the interest in natural dyes. A huge number of researches (Ado, Musa, Gumel and Yahaya, 2015;Abuh, Onoja, &Osabohien, 2016; Ozougwu and Anyakoha, 2017) has been made across the globe to explore the extraction of natural dyes from various sources such as plant, animal and minerals as well as an optimization of their application process through overcoming the limitations for the coloration of textile fibres.

Cassava (Manihot esculenta) is one of the most important tropical root crops and is known to have the highest carbohydrate content compared to other staple
According to Ashaye, Adeyi, Willoughby, Ola, and Ayodele (2018), cassava plays a major role in mitigating Nigeria's food crisis because of its efficient production of food energy, tolerance to extreme stress conditions and suitability to various farming and food systems. Nigeria is the largest producer of cassava in the world with an estimated annual output of 54.8 million metric tonnes (about 70% of the world production) and the remaining 30% was shared by Thailand, Indonesia, Brazil, and Ghana (Top Ten World Cassava Producing Countries, 2016). More than 90 per cent of production of cassava takes place on smallholder farms that typically cultivate 0.5 hectare of cassava, often intercropped with crops such as maize and legumes (United Nations Industrial Development Organisation (UNIDO)/Federal Government of Nigeria (FGN), 2006).

Currently, cassava is cultivated in Nigeria as well as other parts of the world majorly for its tuber while the leaves are used as livestock feed. The greenish cassava leaves which are often left in the fields after the tuber and the stems have been harvested have a potential for used as a natural dye for textile products if explored. This research therefore, is based on extracting dye from cassava leaves and using the extract in dyeing cotton fabric.

Materials and methods

Materials
Cassava (Manihot esculenta) leaves of TME 419 improved specie was obtained from the eastern farm of the National Root Crops Research Institute Umudike, while the 100% cotton fabric, ethanol (70%) and alum were bought from Ndom market all in Abia state, Nigeria. Equipment for this work were got from the clothing laboratory, Department of Home Science/Hospitality Management and Tourism, Michael Okpara University of agriculture, Umudike, Abia state, Nigeria.

Methods

Dyeing
The dyeing of cotton with cassava leaf dye was carried out in three stages;  
1. Dye extraction,  
2. Pre-treatment and Mordanting,  
3. Dyeing.

Dye extraction
Freshly harvested cassava leaves were divided into two and given different treatments. The first half was crushed and soaked in ethanol for 7 days; the other was allowed to air dry and crushed when completely dried. The crushed dried cassava leaves were then boiled for 15 minutes in water. The solutions were filtered for immediate use.

Pre-treatment and Mordanting
The use of natural dyes is much improved by using a mordant. To remove impurities from the cotton fabric and ensure improved dye uptake, the cotton fabric washed with soap in warm water and air-dried. The air-dried cotton fabrics were then soaked in a solution containing 10% on weight of fabric of mordant (Alum – potassium aluminium sulphate), at 60°C for 30 minutes with material-to-liquor ratio of 1:20 and air-dried.

Dyeing
The mordanted cotton fabric samples were dyed with dye extract. Dyeing was done by the conventional dyeing method. The mordanted fabrics were wetted and submerged into the dye bath. In the ratio of cotton fabric (substrate) to dye extract was kept at 1:20, dyeing running time was 90 minutes at room temperature. When the dyeing process was completed, the dyed fabric was removed from the dye bath and allowed to oxidize for 10mins; after which it was rinsed with warm water to remove loose dye particles that adhered to the surface of the dyed fabric. The dyed fabric was then air dried after which the fastness properties were tested.

Test Methods
A panel of fifteen (15) final year students in the Department of Home Science/Hospitality Management and Tourism, Michael Okpara University of Agriculture, Umudike, Abia State, who voluntarily accepted to take part in the evaluation were selected to do the evaluation. The evaluation chart developed to evaluate the degree of fastness to wash and to rubbing were explained and handed to them to carry out the evaluation visually. The evaluation chat ratings ranged from 1-5, a score of 1 meaning not fast and a score of 5 meaning fast. The mean scores were described as follows:
Scores less than 2.0 = Colour change 2.00- 2.99 = Slight colour change;  
3.00- 3.99 = Very slight colour change4.00- 5.00 = Colour retained

The panellists were given two 8 x 10 inch cut out of each of the dyed fabric. To evaluate colour fastness to wash, each of the panellist was given two plastic bowls, household washing soap bar (key soap) and water at room temperature to wash the piece of the dyed fabric and air-dried. The air-dried samples were then evaluated with reference to the samples that were not washed.

Results and Discussion
Table 1. Properties of the Extracted Dye

<table>
<thead>
<tr>
<th>Sample</th>
<th>Nature</th>
<th>Extracting Solvent</th>
<th>Colour of extracted dye</th>
<th>Substrate</th>
<th>Mordant</th>
<th>Colour impacted on the substrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Crushed Dry</td>
<td>Water (Boiled for 30 minutes)</td>
<td>Deep Khaki</td>
<td>100% white cotton</td>
<td>Alum (potassium aluminium sulphate)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cassava Leaves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cream</td>
</tr>
<tr>
<td>Y</td>
<td>Crushed Fresh</td>
<td>Ethanol (Absolute)</td>
<td>Seaweed green</td>
<td>100% white cotton</td>
<td>Alum (potassium aluminium sulphate)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cassava Leaves</td>
<td>Soaked for 7 days</td>
<td></td>
<td></td>
<td></td>
<td>Khaki</td>
</tr>
</tbody>
</table>

Table 2: Mean Ratings of Fastness Properties of Dyed Fabric

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Sample</th>
<th>Panelist Scores</th>
<th>Total Scores</th>
<th>Remarks</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 P14 P15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wash Fastness</td>
<td>X</td>
<td>2 3 3 2 4 3 3 3 2 3 3 4 3 3</td>
<td>44 2.93</td>
<td>Slight colour change</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>1 2 2 1 3 2 2 2 1 2 2 2 2 2</td>
<td>28 1.87</td>
<td>Colour change</td>
<td></td>
</tr>
<tr>
<td>Rub Fastness (Wet)</td>
<td>X</td>
<td>1 2 1 1 3 2 1 2 1 1 1 1 3 2 2</td>
<td>24 1.60</td>
<td>Colour change</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>2 2 2 1 3 2 2 2 1 2 2 2 3 2 2</td>
<td>30 2.00</td>
<td>Slight colour change</td>
<td></td>
</tr>
<tr>
<td>Rub Fastness (Dry)</td>
<td>X</td>
<td>2 3 3 3 3 3 3 3 3 3 3 3 3 3 3</td>
<td>44 2.93</td>
<td>Slight colour change</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>2 3 2 2 4 3 2 2 2 2 2 4 3 3</td>
<td>39 2.60</td>
<td>Slight colour change</td>
<td></td>
</tr>
</tbody>
</table>

X = Fabric Dyed with dye extracted from crushed dried cassava leaves in water, x = mean
Y = Fabric Dyed with dye extracted from crushed fresh cassava leaves in ethanol
Discussion of Findings
Extraction of pigment from cassava leaf as dye cotton fabric, the two methods we used, extraction water and extraction ethanol method, the colour for both water and ethanol extract dye were different and effect on fabric were also different. After that on the fabric, water extraction dye gives a cream colour on the fabric and ethanol extraction dye gives a yellow colour on the fabric. It was observed that mordant which is alum used had influence to the colour fastness on the fabric in some method of mordanting.

The rating of colour fastness is washing, sunlight, rubbing wet and rubbing dry and the method of mordanting is pre-mordanting, and simultaneous mordanting both water and ethanol. It was also observed that water does not fast in pre-mordant in water and simultaneous in water, and pre-mordant in ethanol washing and rubbing wet colour does not fast but there is colour fastness on pre-mordant on ethanol sunlight and rubbing dry. It was also discovered that simultaneous in ethanol colour does not fast on rubbing wet but there is colour fastness on washing, sunlight and rubbing dry. And this shows that there is high colour fastness in ethanol extraction than water extraction.

Conclusions and Recommendations
From the findings of this work, Cassava also has a potential of adding value to our clothes by extracting eco-friendly dye from the leaves. Although the fastness of the extracted dye from the leaves is not colour fast, Most of the natural dyes/colours are eco-friendly except for a distinct few. Some of the natural colours are not only eco-friendly but also added value for its medicinal effects on the skin. Textile dyers must know the chemistry of these natural colours and its added advantage of medical values. Therefore the researcher is recommending that a study should be carried out on how to improve colour retain using eco-friendly dyes.

References


Abstract
This study assessed the food handling practices of students in public secondary schools in Asaba Delta State. The study adopted survey research design. Three research questions were raised to guide the study. The population for the study comprised of all the 4,000 JSS3 students in the public secondary schools in Asaba Delta State. The sample size for the study was 200 students that were randomly selected. The instrument for data collection was a structured questionnaire on food handling/hygiene practices of students in public secondary schools in Delta State. The instrument had a four point rating scale weighted as Strongly Agree, -4 points, Agree, -3 points, Disagree, -2 points and Strongly Disagree -1 point. The questionnaire was subjected to face and content validity. The reliability of the instrument was established using Cronbach Alpha and a coefficient of 0.86 was derived. Data collected were analyzed using mean, with 2.50 score as a criterion mean to determine the cutoff point. The results showed that more than half of the students with mean (x) for most of the items, above 2.50 criterion mean(x), exhibited good food handling practices before cooking. In conclusion, the study showed some of the food handling practices the students in JSS3, in public secondary schools in Asaba, Delta State engaged in that conformed to the right food handling practices. It was recommended among other things that emphasis should be laid on food hygiene instructions by teachers for proper food handling practices by the students.

Keyword: Food Handling Practices, Hygiene, Food Handlers, Public Secondary Schools

Introduction
Food is one of the basic necessities of life that is taken by all living organisms to stay alive. Food is any substance in liquid or solid form that when eaten, provides the body with energy, materials for growth, repair and regulation of body function. The type of food organisms eat, determine the quality and quantity of their physiological wellbeing (Nwokocha, 2014). Quality of food may be compromised if not properly handled. Food handling is the overall process it takes an individual to transport food from the farm gate to the table for consumption (Sizer and Whitney, 2017). Transporting food from the farm to the table entails all the activities from the point of harvest to the market or food processing industry, to the kitchen and finally to the dining table where it is consumed. This action supports the slogan of World Health Organisation (WHO, 2015) of food safety from farm to plate.

During the process of food handling, contamination could occur especially when hygiene is not applied. Hygienic food handling entails maintaining utmost cleanliness at every stage or point when food is handled. Food hygiene is the art of keeping food safe and wholesome for consumption through proper handling during storage, preparation and serving to prevent bacteria gaining entry into the food (Emenike, 2004). Food can provide ideal conditions for bacteria to thrive and produce toxins (Sizer and Whitney 2000). However, good hygiene practices could minimize the effect of toxins and bacteria on humans. Hygiene instructions could be imbibed or taught through formal or informal setting. Hygiene is often taught in schools, (Nursery/Primary and Secondary Schools) and most especially in junior secondary Home Economics when food is handled during practical.

The importance of Home Economics as stated by Anyakoha and Eluwa (1997) cannot be over-emphasized as it is vital in achieving the national goals and objectives of education through educating youths for family living that also includes hygiene practices at both primary and secondary levels of education. Public Junior Secondary Schools in Asaba study Home Economics. Food preparation, food hygiene and other aspects of food handling are taught in Home Economics. Poor hygiene could be a source of food contamination and a way of spreading diseases/microorganisms (WHO, 2015). Poor food hygiene could prevent the absorption of food nutrients in the body that could lead to sickness or death (Ljungdahl, 2000).

Hadiza, Utulu and Achor (2018) noted that the junior secondary school curriculum for Home Economics is spread between JS1-3. The curriculum covers among other things good grooming (that includes some forms
of hygiene) family living, managing the home, the family and feeding the family. The objectives of teaching Home Economics at Junior Secondary School levels among other things are; to contribute to a healthy family, develop manipulative skills that will enable the students function effectively in the society and most especially in the application of rules of hygiene in their daily lives (FRN, 2007). Despite the hygienic instructions taught in JSS 1-3, Home Economics students in JSS3 especially are complacent in applying the rules of hygiene during Home Economics Practical. Observing the level of complacence student's exhibit on issues pertaining to food handling, emphasis on food hygiene instruction is suggested to create consciousness in the students when food is handled. It is to this end that the assessment of food handling practices of students in Asaba, Delta State is being undertaken.

Statement of the Problem
During food preparation/practical Students are expected to dress in clean clothes, wear clean laboratory coat/apron with hair covered and maintain low finger nails without nail polish (to prevent food contamination), put on low covered shoes(to prevent falls/injury) while cooking. The Students are also expected to use clean water to cook their food and most especially when washing vegetables and fruits to prevent infection by worms and other microorganisms. However, the reverse is the case with most Students in public Secondary Schools in Asaba, Delta State as they have been observed to violate most of the rules of hygiene and food handling processes like, not wearing of laboratory coat/apron during food practical, keeping long finger nails, painted with nail polish, washing of fruits and vegetables with unclean water, using certain cooking tools/equipment wrongly like (stirring of soup with tablespoon instead of ladle, thawing food on the kitchen table/carbine, instead of the refrigerator) and violating some forms of personal hygiene rules like picking of nostrils, cleaning wet/stained hands with their dresses instead of napkins among other things have persisted over time. These poor food handling/hygiene practices could result in illness or death if not corrected. The consequences of poor food handling practices are well researched. Fraser, Mitchell, Condlin and Nunnery (2003) observed that foodborne illnesses can lead to death. They further noted that foodborne illnesses are preventable if food is handled safely (like washing of hands regularly, wearing clean clothes, avoiding sneezing over food) and also observing safe food handling practices from the time of purchase of food to the time of service.

Research Questions
The research seeks to answer the following questions;
1. What are the food handling practices of students in public secondary schools that promote food hygiene?
2. What are the food hygiene practices in public junior secondary schools in Asaba?
3. What strategies can help students in public junior secondary schools to advance food handling practices to promote food hygiene?

Literature Review of Food Handling Practices
Food is any substance liquid or solid which when eaten and digested provides the body with nourishment. Nourishments are derived from food nutrients, nutrients in food supply the body with materials for growth, repair and regulates body function (Madichie and Nubia, 2010) (Nwokocha, 2014). Food on its own cannot perform any function in the body unless it is handled and eaten by individuals. Food handling is the involvement of people in the process of purchasing, preparing, manufacturing, inspecting, serving and packing of food for sale and consumption ((Australian Institute of Food Safety, 2016). Food handling is any aspect of the operations in the preparing, storage, packaging, wrapping, exposure for sale, service or delivery of food (“food handling”, 2020). Food could be prepared in a room or portion of a room designed, arranged, intended or used for cooking or otherwise making food ready for consumption (like kitchen, food laboratory among others). Most often, the kitchen becomes a place where potential food poisoning may occur if certain food safety steps are not taken. Fraser Mitchell, Condlin and Nunnery (2003) World Health Organization (WHO) (2015) identified safe food handling steps to include.

(1) Clean: Meaning that food handlers should wash their hands, utensils and surfaces often, before, in-between and after cooking.

(2) Separate: Meaning that food handlers should avoid cross contamination of food items by using separate cutting boards and plates for products like meat, poultry, seafood and eggs.

(3) Cook: Meaning that foods should be cooked to the right temperature. For example, food is safely cooked when the internal temperature is high enough to kill germs that could make someone to be sick.

(4) Chill: Meaning that foods should be refrigerated or frozen promptly immediately after purchase. Perishable foods should be refrigerated within two hours of purchase.

Taken together, Royal Borough of Kensington and Chelsea (2006) emphasized that hand washing and drying, especially after visiting the toilet and before touching food, after handling garbage, raw foods,
smoking, eating or drinking, putting hand in nostrils or mouth, touching of hair should be avoided when handling food. WHO (2019) suggested the use of paper towels (to be used and disposed), hand gloves (to be changed on a single touch of one perishable food items) and also, sanitizing of flat wares or other cooking utensils that may have fallen or stained in the course of food preparation to avoid contamination and ensure food safety.

Safe food handling practices refers to the food handling guidelines and accessing processes of food products in order to prevent them from all the unwanted and unhealthy factors (Osama, 2016). These practices and actions can minimize risk from potential hazards and will enhance the quality and productivity of food. Poor food handling practices could lead to foodborne illnesses. Foodborne illnesses are major public health issues across the globe (WHO, 2015) as they are often linked to poor food hygienic practices of food handlers (Individuals and Students) (Henok Dagne, Raji. Tesfaye and Kidstemariam. 2019.) Uzoka (2018) noted that food handling practices cannot be discussed in isolation of some forms of hygiene (food hygiene and personal hygiene). The author added that poor personal/food hygiene practices displayed when handling food, could lead to contamination of food and facilitate the growth of micro-organisms in food that could be dangerous to individuals.

Fraser Mitchell, Condlin and Nunnery (2003) opined that washing of hands and cooking surfaces, avoiding cross contamination by washing chopping board at every use, cooking food to proper temperature refrigerating foods promptly after cooking could help prevent the spread of bacteria when handling food and make the food safe for consumption. Taken together Anderson (2017), Louise (2016) Ljungdah (2000) noted that microorganisms responsible for food contamination often grow in the food and produces toxins. When the food (toxic food) is eaten, the person is infected by the microorganisms present in food. Most often, these organisms dwell in the intestines and other people can be infected if they come in contact with the infected waste product of a host, if good food hygiene is not practiced when food is handled.

WHO (2019) Emphasized that food handlers students inclusive, should use paper towels that can be disposed after each use to prevent the spread of bacteria, instead of kitchen napkins (Cloth). Also using a pair of gloves for handling all perishable foods should not be practiced to avoid cross contamination. Sizer and Whitney, (2017); Sizer and Whitney, (2000); Tieno (2004); Mckey, (2004) and Anyakoha (2015) identified other points of food contamination in the course of handling to include:

1) Farm gate: When food is handled during harvest, injuries may be inflicted on the products (food) with the food harvest implement (like knife, cutlass). That could create openings for microorganisms to infect the food.

2) Market: Foods transported for sale may be affected by harsh weather condition (excessive sun or rain that could facilitate the decay of the food products), accident due to bad road, poor carriage and poor loading of food products result in poor food handling practices.

3) Industry: Foods are processed mostly in food Industries. Foods may be handled poorly in the course of processing. Foods that are handled under poor hygienic condition can be contaminated. Contaminated foods lead to foodborne diseases and death in extreme cases.

4) Kitchen: This is where foods are prepared (cooked). The Kitchen could be a point of food contamination, if food and personal hygiene's are not maintained.

5) Table: Food handling process is said to be complete when the food gets to the dining table and consumed. At this point, if the food handlers (students) do not experience any form of discomfort/infection/contamination, the process of food handling is then said to be successful and complete.

**Hygiene Practices of Food Handlers (Students)**

Safe food handling requires high levels of some forms of hygiene especially by students. Ronald and Victor (2000) identified three forms of hygiene that ensures food safety to include; personal hygiene, food hygiene and kitchen hygiene. The authors stated that students should maintain good personal hygiene by taking their bath regularly. Personal hygiene is the observance of sanitary measures, cleanliness and care of the body by individuals to avoid infection and prevent the spread of diseases (Uzoka, 2018). The essential parts of good personal hygiene according to the author includes, washing of hands, hair and body regularly, wearing protective clothing, wearing protective hair cover, using clean utensils and clean equipment at all times, avoiding scratching of head/hair, tasting food with unwashed spoons, coughing or sneezing over food, smoking, among other things while cooking (WHO, 2015; Anyakoha, 2015), the authors added that good personal hygiene can promote safe food handling and prevent food-borne diseases and infections. Another form of hygiene needed for safe food handling is kitchen hygiene. Kitchen hygiene entails maintaining cleanliness in the kitchen. The kitchen is a place, workshop or laboratory in the home, school or establishment where food is prepared or cooked.
spurts liquid when the can is opened because the deadly
use food from broken jars or have loose bulging lids,
containers that leak, bulge or evenly dented or buy or
people should not buy or use foods from damaged
from dripping and contaminating other foods. Again,
select frozen and perishable foods last to prevent them
(2002) suggested that during shopping, people should
and reheating of cooked food. Wardlaw and Kessel
during food purchase, preparation, cooking, storing
prevented by keeping to some fundamental rules
food borne diseases. Food borne diseases can be
Food hygiene practices involve regular application and
quality measures in food production, purchasing,
 enforcement of the kitchen refuse
flies, rats and other house pests from gaining entry into
the kitchen, disposing of the kitchen refuse
immediately in a covered bin and attending to dirty
disches and remnants of food to avoid accumulation of
dirty plates (Idiaghe, 2009; Emenike, 2004; Anyakoha,
People, students inclusive require some forms of food
hygiene instructions to be able to handle food safely.
Food hygiene instruction could be effective when
messages are targeted towards changing behaviours
that could most likely result in food borne illnesses.
Medeiro (2011) opined that consumer food safety
instruction should be focused on hand washing,
adequate cooking, avoiding cross contamination,
keeping food at safe temperature and avoiding foods
from unsafe sources. Economic Research Service
(ERS, 2002) opined that safety education programs be
organized mainly on reducing the prevalence of poor
food-handling, preparation and consumption practices
associated with food borne diseases to help improve
good health and prevent death in connection with poor
hygiene among individuals and students‘ in particular.
Food hygiene is the measure or steps taken by
individuals to ensure safety of food from the point of
production to consumption, it is the observances of
sanitary measures in food production, purchasing,
processsing and marketing (Olusanya, Bala, Eyi, Olojola (2000); WHO (2015); Anyakoha (2015).
Food hygiene practices involve regular application and
observance of absolute cleanliness to ensure safety
with the food people consume, in order to prevent food
contamination (Okeke, 2009) and food borne
diseases/illnesses. Food borne diseases can be
prevented by keeping to some fundamental rules
during food purchase, preparation, cooking, storing
and reheating of cooked food. Wardlaw and Kessel
(2002) suggested that during shopping, people should
select frozen and perishable foods last to prevent them
from dripping and contaminating other foods. Again,
people should not buy or use foods from damaged
containers that leak, bulge or evenly dented or buy or
use food from broken jars or have loose bulging lids,
and should not taste or use food that has a foul odor or
spurts liquid when the can is opened because the deadly
clostridium botulin toxin may be present (Wardlaw and
noted that during food preparation, jewelries like ring
must not be worn to prevent contamination of food;
people should wash their hands with hot soapy water
before and after handling food, avoid coughing or
sneezing over foods. Still, cuts on hands should be
covered with sterile bandage if food must be prepared
by the person affected, moldy parts of food should be
completely removed or the food should not be eaten.
Also, Sizer and Whitney (2017), WHO, (2015) added
that foods should be cooked thoroughly, especially
beef and fish to prevent food borne diseases, food
should be consumed immediately or within two hours
after cooking, people should not serve cooked food in
the same plate used for raw food without washing, hot
food should be kept hot and cold food kept cold, this is
because food-borne microbes thrive more in moderate
temperature while some micro-organisms grow in the
refrigerator, as such people should reheat leftover
foods to 165°F (74°C) to kill the bacteria that may be
present.

Methodology
Design of the Study
The study adopted a descriptive survey research
design. Survey research design involves using either
questionnaire, observation and sometimes interview or
the combination of the three ways to collect
information and generalizing the results of the sample
to the population from which it was drawn.

Population
The population comprised of all the 4,000 Junior
Secondary 3 (JS3) students in the eight (8) public
secondary schools in Asaba.

Sample/Sampling Technique
Stratified random sampling technique was used to
select four public secondary schools and each school
represented a strata. Two hundred (200) students were
randomly selected from JSS3 (50 students from each
school) to represent 5% of the entire population of
4,000 students in JSS3 in the four public secondary
schools selected for the study since Home Economics
is compulsory at Junior Secondary Level of
Education in Delta State.

Instrumentation
The instrument for data collection was a structured
questionnaire arranged in two sections (A and B).
Section A contained the demographic information
about the students, while section B contained items on
food handling/ hygiene practices of the students. The
questionnaire was based on four point scale of Strongly
Agree, (4points), Agree (3points), Disagree (2points),
Strongly Disagree (1), with a criterion mean (x) of
2.50. The instrument used for data collection was a structured questionnaire that sort responses on student's food handling/hygiene practices in JSS3 in public secondary schools in Asaba, Delta State.

Validity of Instrument
The instrument for the study was face and content validated by three experts, two in Home Economics (Unit) in Vocational Education Department, Delta State University, Abraka and one expert in Measurement and Evaluation, Delta State University, Abraka.

Reliability of the Instruments
The reliability of the instrument was determined using Cronbach Alpha. Cronbach Alpha was used to determine the internal consistency of the items and a coefficient of 0.86 was obtained for all the items. The instrument showed high reliability and thus considered satisfactory and stable for the study.

Method of Data Analysis
Data collected were analyzed using mean (X) statistics
to calculate the responses on the 4 point scale. The mean cut-off point was 2.50 and any item with a mean score of 2.50 and above was considered an important measure while items below 2.50 were considered not important.

Results
One hundred students representing (50%) of the respondents were males while one hundred students representing (50%) of the other respondents were females. Total respondents were 200 students in public secondary schools (JSS3) in Asaba, Delta State.

Research Question 1: What are the food handling practices of the students in public secondary schools that promote food hygiene?

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items on Food handling procedures before cooking</th>
<th>Mean((\bar{x}))</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Covering of hair</td>
<td>4.00</td>
<td>High</td>
</tr>
<tr>
<td>2.</td>
<td>Washing of hands after touching garbage</td>
<td>3.50</td>
<td>High</td>
</tr>
<tr>
<td>3.</td>
<td>Washing of hands after visiting the toilet</td>
<td>3.50</td>
<td>High</td>
</tr>
<tr>
<td>4.</td>
<td>Covering of open wounds while cooking</td>
<td>3.41</td>
<td>High</td>
</tr>
<tr>
<td>5.</td>
<td>Putting on apron</td>
<td>3.25</td>
<td>High</td>
</tr>
<tr>
<td>6.</td>
<td>Washing of hands</td>
<td>3.25</td>
<td>High</td>
</tr>
<tr>
<td>7.</td>
<td>Putting on protective cloths</td>
<td>2.50</td>
<td>High</td>
</tr>
<tr>
<td>8.</td>
<td>Cutting of finger nails</td>
<td>2.20</td>
<td>Low</td>
</tr>
<tr>
<td>9.</td>
<td>Bathing before cooking</td>
<td>1.90</td>
<td>Low</td>
</tr>
<tr>
<td>10.</td>
<td>Removing rings and other jewelries</td>
<td>1.65</td>
<td>Low</td>
</tr>
<tr>
<td>11.</td>
<td>Changing of clothes</td>
<td>1.10</td>
<td>Low</td>
</tr>
</tbody>
</table>

Criterion Mean(\(\bar{x}\)) = 2.50

Table 1 above showed the mean responses on the food handling practices of students in public schools that promoted food hygiene, with mean ratings above the criterion mean of 2.50 for items 1-7. While items 8-11 showed mean rating below 2.50.
Research Question 2: What are the food hygiene practices of students in public junior secondary schools in Asaba?

Table 2: Mean (x) Responses of the Food Hygiene Practices of Students in Public Junior Secondary Schools in Asaba (n=200)

<table>
<thead>
<tr>
<th>Items on food hygiene procedures when handling(cooking) food</th>
<th>Mean(x)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Thawing frozen foods on kitchen carbine</td>
<td>3.38</td>
<td>High</td>
</tr>
<tr>
<td>2. Buying frozen foods first during shopping</td>
<td>3.35</td>
<td>High</td>
</tr>
<tr>
<td>3. Using same cutting board to cut different food items without washing</td>
<td>3.35</td>
<td>High</td>
</tr>
<tr>
<td>4. Buying foods in dented cans/tins</td>
<td>3.30</td>
<td>High</td>
</tr>
<tr>
<td>5. Washing hands in between during meal preparation</td>
<td>3.20</td>
<td>High</td>
</tr>
<tr>
<td>6. Carrying foodstuffs in used (dirty) bags</td>
<td>2.90</td>
<td>High</td>
</tr>
<tr>
<td>7. Buying canned foods in bulging tins/cans</td>
<td>2.60</td>
<td>High</td>
</tr>
<tr>
<td>8. washing all cooking utensils before use</td>
<td>2.60</td>
<td>High</td>
</tr>
<tr>
<td>9. Picking of nose while handling food</td>
<td>2.30</td>
<td>Low</td>
</tr>
<tr>
<td>10. Scratching of hair while handling food</td>
<td>2.10</td>
<td>Low</td>
</tr>
<tr>
<td>11. Licking of fingers while cooking</td>
<td>1.90</td>
<td>Low</td>
</tr>
<tr>
<td>12. Thawing of frozen foods in the refrigerator</td>
<td>1.90</td>
<td>Low</td>
</tr>
<tr>
<td>13. Eating of stale/soured food</td>
<td>1.82</td>
<td>Low</td>
</tr>
<tr>
<td>14. Washing of vegetables under running water</td>
<td>1.70</td>
<td>Low</td>
</tr>
</tbody>
</table>

Table 2 showed the mean (X) analysis of the food hygiene practices of public junior secondary school Asaba Delta, State. As shown in the table above, the mean(X) obtained ranged from 3.38-1.70 with five items (9-14) less than the criterion mean of 2.50. This showed that almost half of the students in JSS3 in public schools in Asaba do not comply with the food hygiene practices.

Research Question 3: What strategies can help students in public junior secondary schools to advance food handling practices to promote food hygiene?

Table 3 Showed the Mean (x) Responses, on the Strategies to Improve the Food Handling/Hygiene Practices of (JSS3) Students in Public Secondary Schools in Delta State.

<table>
<thead>
<tr>
<th>Item on strategies for improving food handling/hygiene practices of students</th>
<th>Mean (x)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Teachers inspect student’s fingers before food practical</td>
<td>1.70</td>
<td>Low</td>
</tr>
<tr>
<td>2. Washing points are provided for students wash their hands regularly</td>
<td>1.50</td>
<td>Low</td>
</tr>
<tr>
<td>3. Teachers ensure that students wash their hands after break time</td>
<td>1.50</td>
<td>Low</td>
</tr>
<tr>
<td>4. There is regular electricity supply in the school</td>
<td>1.30</td>
<td>Low</td>
</tr>
<tr>
<td>5. There is regular water supply in the school</td>
<td>1.00</td>
<td>Low</td>
</tr>
</tbody>
</table>

Table 3 showed that all the items (1-5) had mean (x) responses below the criterion Mean(x) of 2.50. It further showed that some of the practices were not carried out and the facilities mentioned on the measures to improve food handling/hygiene practices were not in place.

Discussion of Results

The results from the research questions showed that the students in public Junior Secondary Schools in Asaba comprising of male and female students are involved in Home Economics food practical as such, they engage in food handling practices that will require some forms of hygiene practices. From the findings, the result showed that more than half of the students exhibited...
good food handling practices before cooking. Issues on keeping finger nails short, removing rings and other jewelry's before cooking, changing of clothes, and bathing before cooking indicated that students did not engage in proper food handling procedures. Noncompliance to the rules of food handling practices could lead to food contamination and spread of microorganisms. Henok, Dagne, Raji, Tesfaye, and Kidstemariam (2019) observed that the activities of food-borne diseases are aggravated by unsafe food handling practices of food handlers, students inclusive. WHO ( 2015) , Anyakoha (2015) opined that the essential parts of good personal hygiene when handling food are ; washing of hands, hair and body regularly, wearing protective clothing, wearing protective hair cover, using clean utensils and clean equipment at all times, avoiding scratching of head/hair, tasting food with unwashed spoons, coughing or sneezing over food, smoking, among other things while cooking promote safe food handling and prevent food-borne diseases and infections.

Findings also showed that one third of the students do not comply with the rules of food hygiene practices when cooking. The response showed clearly that Students exhibited some unhygienic practices while cooking like; Picking of nose, Scratching of hair, licking of fingers, thawed frozen foods outside the refrigerator, eating of stale/soured food, washing of vegetables under running water. This is in line with Wardlaw and Kessel (2002) who suggested among other things that people should not taste or use food that has foul odor or spurts liquid when the can is opened because the deadly clostridium botulin toxin could be present. Consequently, Economic Research Service (ERS, 2002) opined that safety education programs be organized mainly on reducing the prevalence of poor food-handling, preparation and consumption practices associated with food borne diseases to help improve good health and prevent death in connection with poor hygiene among individuals and students' in particular.

The findings further showed that the students do not comply with the strategies to improve on the food handling/hygiene practices since water and electricity are not provided/not functional in schools; students are not inspected by the teachers to make sure their finger nails are cut short and no proper enforcement of hand washing by teachers when students return from break. This is at variance with Emenike (2004) suggestions that to maintain a clean kitchen environment, basic social amenities like portable water, electricity and certain kitchen equipment like; freezers, refrigerators among other things should be provided especially in the food laboratory for students' use. The findings are also at variance with Medeiro (2011) opinion that consumer food safety instructions should be focused primarily on hand washing.

**Conclusion**

The findings from the study showed some of the food handling/hygiene practices the students in JSS3, in public secondary schools in Asaba, Delta State engaged in that conformed to the right food handling practices. Findings on the food handling practices to promote food hygiene revealed that more than half of the students displayed good food handling practices. Also, the findings showed that one third of the students do not comply with the food hygiene practices. More still, the students showed none compliance to all the strategies they needed to improve on their food handling/hygiene practices.

**Recommendations**

1. Teachers should enforce hand washing by creating hand washing points in different locations in the school compound.
2. Teachers should also expose students to proper food handling practices during practicals to serve as model in their various homes.
3. Emphasis on the activities of microorganisms should be laid by teachers to create consciousness in the students on the existence of these organisms and how harmful they can be to humans.
4. Teachers should lay emphasis on food hygiene instructions for proper food handling practices.

**References**


Abstract
The study evaluated the nutritional knowledge, anthropometric and iron status of female adolescents in government secondary schools in Adazi-ani, Anaocha Local Government Area, Anambra State, Nigeria. A cross sectional survey design was employed. A multi stage sampling technique was used to select 315 female adolescents aged 13-19 years from four government secondary schools. Questionnaire was used to obtain information on the socio-economic status, nutrition knowledge, food consumption pattern and health history of the subjects. Anthropometric measurements and hematological parameters (haemoglobin, c-reactive protein and serum ferritin) were obtained using standard procedures. Data obtained were coded and entered into the computer and analyzed using Statistical Product for Service Solution (SPSS) version 21. Chi-square was used to determine the relationship existing among variables at p < 0.05 level of significance. The result showed that the subjects had high level of nutrition knowledge (72.4%) whereas a few (2.9%) had low nutrition knowledge. A majority (83.5%) of the subjects consumed an average of three meals in a day. Breakfast, lunch and dinner were skipped occasionally by 53.3%, 23.0% and 32.4% of the subjects respectively. A few of the subjects were moderately (11.1%) and severely (1.3%) stunted whereas the majority (61.0%) of the subjects had normal body mass index-for-age. Prevalence of iron deficiency and high risk of infection was 5.7% and 48.6%, respectively. The researcher concluded that the subjects had high nutrition knowledge and low prevalence of iron deficiency anaemia.

Key words: Nutrition, Anthropometry, Adolescent, Iron Status.

Introduction
Nutrition knowledge refers to knowledge of concepts and processes related to nutrition and health including knowledge of diet and health, diet and disease, foods representing major sources of nutrients, and dietary guidelines and recommendations (Miller & Cassady, 2015). It influences consumption pattern and enhances nutritional status as it improves behaviour and changes attitude towards wrong practices of food consumption (Jyoti, Rashmi, Sangeeta & Bhateri, 2013). One of the negative effects of poor nutrition knowledge is malnutrition which refers to deficiencies, excesses or imbalances in a person's intake of energy and/or nutrients. It is one of the health challenges in developing nations despite efforts by governmental and non-governmental organizations to reduce it (Allen, Taylor & Kuiper, 2007).

Adolescence is a period of dramatic physical growth and development marked by rapid and sequential physical and mental changes that transform a child into a young adult (World Health Organization (WHO), 2017). These physical changes include increase in height, weight and deposition of fat. The physical changes that occur require increased nutrients like vitamins, protein and carbohydrates. Adolescent growth and development is closely linked to the diet they receive during childhood and adolescence (Pallavi, 2012). They tend to eat differently from what they did as children due to factors which include work...
activities, increased mobility, skipping meals in a bid to be thin, greater time spent at school and preoccupation with self-image which may affect their food choices.

Adolescent nutrition has received very little attention and is difficult to quantify accurately due to rapid change in growth and development seen in adolescence (Ahmed & Tomas, 2015). Their food choices and personal preferences for the taste, texture and appearance of food have become increasingly unhealthy, putting them at increased risk of malnutrition as they grow older (Noble et al., 2000). Adolescent girls are faced with a common nutritional problem of iron deficiency because of the increase in the requirements for iron due to rapid growth in puberty and the onset of menstruation (Salam et al., 2016). Certain factors predispose them to iron deficiency. These include poor nutrition choices and behaviour, poverty, low dietary intakes of iron, poor bioavailability of consumed iron and adolescent pregnancy (Alam et al., 2010).

Iron deficiency anemia is a micronutrient deficiency that most adolescents especially females experience. It is reported that three-quarters of 1 million deaths occur every year in Africa and South-east Asia as a result of iron deficiency anemia (Kayode et al., 2012). Epidemiological study in south western Nigeria indicates that 47.5% of adolescent females were iron deficient (Olumakaiye, 2013). Iron deficiency anemia among female adolescents affects their future roles as mothers, hence the need for this study on the nutrition knowledge, anthropometric and iron status of adolescent girls in Adazi-ani, Anaocha Local Government Area, Anambra state.

Methodology

Study Area
Adazi-ani is one of the towns in Anaocha Local Government Area of Anambra State. It is located along Nnewi/Agulu Road.

Study Design
A cross sectional survey design was adopted for the study.

Study Population
The study population consist of all (1185) secondary school female adolescents in Adazi-ani, Anaocha Local Government Area.

Sample Size
The sample size used for this study was calculated using the formula:

\[ N = \frac{4P (1-P)}{W^2} \]

Where
\( N \) = total number of children required for the study.
\( P \) = proportion of the respondents assumed to have abnormal iron status.
\( = 27\% \) (prevalence of anaemia occurring among adolescent girls in developing countries by Kayode et al. (2012) and Balcet al. (2012). The prevalence of iron deficiency anaemia was used in this calculation because iron deficiency anaemia is the most prevalent, difficult to control and with most dangerous systemic implications.

\( W \) = required precision level or probability level taken for this study (0.05 or 5%).

\[ N = \frac{4 \times 27\% (1-27\%)}{W^2} \]

\[ N = \frac{4 \times 27}{100} \times \frac{1-27}{100} \]

\[ N = \frac{0.05^2}{0.0025} \]

\[ N = 1.08 \times (1-0.27) \]

\[ N = \frac{1.08 \times 0.75}{0.0025} \]

\[ N = 315.36 \approx 315 \text{ respondents} \]

Ten percent of the sample size was selected as sub-sample for biochemical tests and this gave a total of 32 female adolescents.

\[ N = \frac{10}{100} \times \frac{315}{1} = 31.5 \approx 32 \]

\[ N = 32 \text{ respondents} \]
Table 1: Sample Size and Sub Sample of Adolescents used for the Study

<table>
<thead>
<tr>
<th>Government secondary schools</th>
<th>Total population of female students</th>
<th>Sample size</th>
<th>Sub-sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ojiako Memorial Grammer School, Adazi-ani</td>
<td>287</td>
<td>74</td>
<td>8</td>
</tr>
<tr>
<td>Community Secondary School, Adazi-ani</td>
<td>281</td>
<td>78</td>
<td>8</td>
</tr>
<tr>
<td>Flora Azikiwe Memorial Comprehensive Secondary School, Adazi-ani</td>
<td>239</td>
<td>61</td>
<td>6</td>
</tr>
<tr>
<td>Girls Secondary School, Adazi</td>
<td>378</td>
<td>102</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1185</strong></td>
<td><strong>315</strong></td>
<td><strong>32</strong></td>
</tr>
</tbody>
</table>

**Sampling Techniques**
Multi-stage random sampling technique was used in selecting 315 subjects from all the government secondary schools in Adazi-ani for the research.
1st stage: All female subjects within the ages of 13-19 years in the various schools were selected using the school register.
2nd stage: Proportionate sampling was used to determine the number of subjects used for the study from each school.
3rd stage: Random sampling by balloting without replacement was used to select the subjects used for the study from each school.

**Ethical Clearance/Informed Consent**
Application for ethical approval was submitted to Anambra State Ministry of Health. Ethical approval certificate (MH/AWK/M:321/211) was issued. The study commenced after the approval was granted. The researcher explained to the students the full information about the study and questions raised were answered to the understanding of the respondents. Informed consent forms were given to all the selected students to sign. Only consenting respondents were used for the study.

**Data Collection Questionnaire**
Structured questionnaire was developed and validated by lecturers in the Department of Home Science, Nutrition and Dietetics, University of Nigeria, Nsukka. The questionnaire was used to obtain the background information, dietary practices and nutrition knowledge of the subjects.

**Anthropometry**
The height and weight were measured using standard techniques of the World Health Organization WHO, 1995. Height was measured to the nearest 0.1cm using a height meter. Body weight was measured using Chris bathroom scale to the nearest 0.1kilogram. The subjects were assessed while standing erect on the scale, barefooted and with minimal clothing and accessories on. Their weight and height were classified according to the WHO, (2007) BMI classification.

**Biochemical Analysis**
**Collection of Samples:** A medical laboratory scientist was employed to collect two millimeters of venous blood from the subjects. Blood samples were stored in well-labelled EDTA tubes that contain anticoagulant. Plasma tubes in which the blood samples was stored, were wrapped with carbon papers in black polyethylene bags before putting them into gnostyle vaccine carrier lined with frozen ice packs to ensure preservation at a temperature of −20°C.

**Serum Ferritin Determination**
The serum level of ferritin was assayed using FerritinAccuBindtest kit manufactured by Monobind Corporation, United States of America with manufacturer number 2825-300A and lot number EIA-28K4J6. This assay was based on enzyme-linked immunosorbent assay (ELISA). Serum (0.025ml) was pipetted into the assay well. Ferritin biotin reagent (0.100ml) was added to each well. The microplate was swirled for 20-30 seconds to mix, was covered and incubated for 30 minutes at room temperature. The content of the microplate was decanted and 350ul of wash buffer was added and the mixture was decanted.
The procedure was repeated two additional times for a total of three washes. The ferritin enzyme conjugate (0.100ml) was added to each well and incubated for 30 minutes at room temperature. The content of the microplate was discarded by decanting. Wash buffer (350ul) was added and the mixture was decanted. This was repeated twice totalling three washes. Working substrate solution (0.100ml) was added to all wells and incubated at room temperature for fifteen minutes. Stop solution (0.050ml) was added to each well and mixed for 15-20seconds. The absorbance in each well was read at 450nm (using a reference wavelength of 620-630nm to minimize well imperfection) in a microplate reader. The result was read within thirty minutes of adding the stop solution.

**Haemoglobin Determination**

This was carried out using the standard procedure by cyanmethemoglobin method. Well mixed venous blood (2ml) was added to 5ml of Drabkins solution in a test tube to give a dilution of 1:250. This was mixed and allowed to stand for 10 mins at room temperature. The absorbance was colorimetrically determined at 540 nanometre using Drabkins solution as blank. The absorbance reading was multiplied by a factor of 36.8 to give the actual haemoglobin value in g/dl.

**Determination of Packed Cell Volume (PCV)**

This was carried out using the standard haematological procedure by Ochei and Kolhatkar (2008). Well mixed anticoagulated blood was aspirated into a capillary tube with one end sealed with plasticin. The tube was spun in a haematocrit centrifuge for 5mins and then read off a PCV reader.

**Determination of Creatine Reactive Protein (CRP)**

Serum CRP was assayed using commercially available CRP kits (East Wing Diagnostic Limited) with manufacturer number CRP-100 and lot number 69191. The reagent and sample was brought to room temperature of 37°C, wavelength of 630nm and cuvette path lenght of 1cm. The activation buffer sample (450ul) and latex reagent(50ul) were pipetted into the cuvette. The samples were mixed and incubated for 5minutes. The sample (5ul) was mixed well and absorbance was read at 10 seconds and 2 minutes. The concentration of CRP was calculated thus;

\[ \Delta A = (A1 - A2) \]

Concentration of CRP in sample = \[ \Delta A \text{sample} \times \text{conc. of calibrator} \]

\[ \Delta A \text{ Calibrator} \]

Where; A1=Absorbance at 10 seconds
A2=Absorbance at 2 minutes.

**Data Analysis**

The nutrition knowledge of the respondents were rated as low (≤ 40%), moderate (41%-69%), and high (≥ 70%) (Kigaru et al., 2014).

Body Mass Index (BMI), an international standard that is defined as the weight in kilograms divided by the square of the height in meters (kg/m²) was calculated for each respondent. Anthropometric indices: Height-for-age, weight-for-age and body mass index-for-age was used to classify respondents as overweight, underweight, stunted, malnourished and normal using WHO (2007) child growth standard. Body mass index-for-age z-score were classified as -1SD, -2SD or -3SD which indicates normal, moderate and severe malnutrition. Then overweight and obesity was +2SD and +3SD respectively.

Cut off value of <15μg/l for serum ferritinwas used for iron deficiency in the absence of infection whereas <30μg/l was used for iron deficiency in the presence of infection (WHO, 2004). Depleted iron stores <15ug/l (CRP<10mg/l) in the absence of infection whereas depleted iron stores < 30ug/l (CRP ≥ 10mg/l) in the presence of infection (Zimmermann & Hurrell, 2007). A serum CRP threshold of less than 5 mg/l was suggested to define normal values when using a rapid test, or less than 3-10mg/l when using immunoassays (WHO, 2011). High risk of infection equals >20mg/l whereas mild risk of infection equals 10-20mg/l and low/no risk of infection equals <10mg/l (Hashizume et al., 2005).

**Statistical Analysis**

Data obtained was analyzed using the computer programme, Statistical Product for Service Solution (SPSS), for windows versions 21. Data was presented as means, standard deviation, frequencies and percentages. Chi-square was used to define relationship among variables. P< 0.05 was the acceptable level of significance.

**Results**

Table 1 presents socio-economic characteristics of the respondent's parents/guardian. Some of the fathers (53.3%) and mothers (48.9%) were traders. A majority (63.8%) of the respondents' mothers had secondary education while 16.8% had primary education. A majority (67.0%) of the respondents' fathers had primary education while 18.4% had secondary education.
Table 2 presents nutrition knowledge of the subjects. A majority (72.4%) of the subjects had high nutrition knowledge whereas some (24.8%) of the subjects had moderate nutrition knowledge. A few (2.9%) of the subjects had low nutrition knowledge.

Table 2: Nutrition Knowledge of the Subjects

<table>
<thead>
<tr>
<th>Nutrition knowledge</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (=40%)</td>
<td>9</td>
<td>2.9</td>
</tr>
<tr>
<td>Moderate (41%-69%)</td>
<td>78</td>
<td>24.7</td>
</tr>
<tr>
<td>High (=70%)</td>
<td>228</td>
<td>72.4</td>
</tr>
<tr>
<td>Total</td>
<td>315</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 3 presents the food habits of the subjects. A majority (83.5%) of the subjects ate three meals daily. A majority (75.9%) of the subjects did not skip meals. Breakfast, lunch and dinner were skipped occasionally by 53.3%, 23.0% and 32.4% of the subjects, respectively.
Table 4 presents the reasons for skipping meals among the subjects. A majority (83.8%) of the subjects skip breakfast because they were late for school. Some (41.9%) of the subjects skip lunch because they were not hungry whereas 24.3% skip dinner because they do not like the food.

<table>
<thead>
<tr>
<th>Reason for skipping Meals</th>
<th>Breakfast</th>
<th>Lunch</th>
<th>Supper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too late to school</td>
<td>62(83.8)</td>
<td>31(41.9)</td>
<td>27(36.5)</td>
</tr>
<tr>
<td>Not hungry at that moment</td>
<td>4(5.4)</td>
<td>17(22.9)</td>
<td>18(24.3)</td>
</tr>
<tr>
<td>Sick</td>
<td>2(2.7)</td>
<td>15(20.3)</td>
<td>16(21.6)</td>
</tr>
<tr>
<td>Don’t like the food</td>
<td>1(1.4)</td>
<td>17(22.9)</td>
<td>18(24.3)</td>
</tr>
<tr>
<td>Lack of access to food</td>
<td>3(4.0)</td>
<td>4(5.4)</td>
<td>6(8.1)</td>
</tr>
<tr>
<td>Do not want to be overweight</td>
<td>2(2.7)</td>
<td>7(9.5)</td>
<td>8(10.8)</td>
</tr>
<tr>
<td>Total</td>
<td><strong>74(100.0)</strong></td>
<td><strong>74(100.0)</strong></td>
<td><strong>74(100.0)</strong></td>
</tr>
</tbody>
</table>

Table 5 presents the anthropometric and biochemical indices of the subjects. Mean body mass index-for-age was 18.9kg/m² whereas mean height and weight of the respondents were 1.8m and 48.2kg respectively. The mean serum ferritin was 43.7ug/l whereas the mean haemoglobin, packed cell volume and creatine reactive protein were 179.5g/dl, 41.1% and 19.2mg/l, respectively.
Table 5: Mean Anthropometric and Biochemical Indices of the Subjects

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean ± standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body mass index-for-age (kg/m²)</td>
<td>18.9±3.6</td>
</tr>
<tr>
<td>Height (m)</td>
<td>1.8±0.08</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>48.2±10.2</td>
</tr>
<tr>
<td>Serum ferritin (ug/l)</td>
<td>43.7±14.8</td>
</tr>
<tr>
<td>Haemoglobin (g/dl)</td>
<td>17.9±21.8</td>
</tr>
<tr>
<td>Packed cell volume (%)</td>
<td>41.1±4.9</td>
</tr>
<tr>
<td>Creatine reactive protein (mg/l)</td>
<td>19.2±3.1</td>
</tr>
</tbody>
</table>

Table 6 presents the anthropometric indices of the subjects. A majority (80.6%) of the subjects had normal height-for-age while some (11.1%) of the subjects were moderately stunted. A majority (61.0%) of the subjects had normal body mass index-for-age while a few (5.1%) of the subjects were severely thin.

Table 6: Anthropometric Indices of the Subjects

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height-for-age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severely stunted (-3SD)</td>
<td>4</td>
<td>1.3</td>
</tr>
<tr>
<td>Moderately stunted (-2SD)</td>
<td>35</td>
<td>11.1</td>
</tr>
<tr>
<td>Normal (-1SD to +1SD)</td>
<td>254</td>
<td>80.6</td>
</tr>
<tr>
<td>Above normal (= + 1SD)</td>
<td>22</td>
<td>7.0</td>
</tr>
<tr>
<td>Total</td>
<td>315</td>
<td>100.0</td>
</tr>
<tr>
<td>Body mass index-for-age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severe thinness(-3SD)</td>
<td>16</td>
<td>5.1</td>
</tr>
<tr>
<td>Moderate thinness(-2SD)</td>
<td>87</td>
<td>27.6</td>
</tr>
<tr>
<td>Normal(-1SD to +1SD)</td>
<td>192</td>
<td>61.0</td>
</tr>
<tr>
<td>Overweight(+2SD)</td>
<td>20</td>
<td>6.3</td>
</tr>
<tr>
<td>Total</td>
<td>315</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 7 presents the biochemical indices of the subjects. Greater percentage of the subjects had normal levels of serum ferritin (94.3%), haemoglobin (100.0%) and packed cell volume (85.7%). A few (5.7%) of the subjects had depleted iron stores in the presence of infection. A majority (51.4%) of the subjects had mild risk of infection.

Table 7: Biochemical Indices of the Subjects (N=35)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum ferritin (ug/l)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal (=15)</td>
<td>33</td>
<td>94.3</td>
</tr>
<tr>
<td>Depleted stores&lt;=15(CRP&lt;10mg/l)</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Depleted stores&lt;30 (CRP=10mg/l)</td>
<td>2</td>
<td>5.7</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>100.0</td>
</tr>
<tr>
<td>Haemoglobin (g/dl)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal (12-17.5)</td>
<td>35</td>
<td>100.0</td>
</tr>
<tr>
<td>Packed cell volume (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (= 35)</td>
<td>5</td>
<td>14.3</td>
</tr>
<tr>
<td>Normal (= 36)</td>
<td>30</td>
<td>85.7</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>100.0</td>
</tr>
<tr>
<td>C-reactive protein (mg/l)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High risk of infection (20)</td>
<td>17</td>
<td>48.6</td>
</tr>
<tr>
<td>Mild risk of infection (10-20)</td>
<td>18</td>
<td>51.4</td>
</tr>
<tr>
<td>Low/ No risk of infection (&lt;10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 8 presents the relationship between nutrition knowledge and anthropometric indices of the subjects. A majority (64.8%) of the subjects that had normal body mass index-for-age had high nutrition knowledge whereas a few (1.3%) of the subjects who were severely stunted had moderate nutrition knowledge. There was no significant relationship (p>0.05) between nutrition knowledge and anthropometric indices of the subjects.

Table 8: Relationship between Nutrition Knowledge And Anthropometric Indices of the Subjects

<table>
<thead>
<tr>
<th>Variables</th>
<th>Low N K</th>
<th>Moderate N K</th>
<th>High N K</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anthropometric indices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body mass index-for-age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severe thinness</td>
<td>0(0.0)</td>
<td>3(3.8)</td>
<td>13(5.77)</td>
<td>16(15.1)</td>
</tr>
<tr>
<td>Moderate thinness</td>
<td>4(44.4)</td>
<td>31(39.7)</td>
<td>52(22.8)</td>
<td>87(27.6)</td>
</tr>
<tr>
<td>Normal</td>
<td>5(55.6)</td>
<td>39(50.0)</td>
<td>148(64.8)</td>
<td>192(61.0)</td>
</tr>
<tr>
<td>Overweight</td>
<td>0(0.0)</td>
<td>5(6.4)</td>
<td>6.6(15)</td>
<td>20(6.3)</td>
</tr>
<tr>
<td>Total</td>
<td>9(100.0)</td>
<td>78(100.0)</td>
<td>228(100.0)</td>
<td>315(100)</td>
</tr>
</tbody>
</table>

$\chi^2 = 10.606 \quad df = 6, \quad p = 0.045$

Table 9 presents the relationship between nutrition knowledge and biochemical indices of the subjects. A majority (96.6%) of the subjects that had normal serum ferritin had high nutrition knowledge. Some (17.2%) of the subjects that had low packed cell volume had high nutrition knowledge. There was no significant relationship between nutrition knowledge and biochemical indices of the subjects.

Table 9: Relationship between Nutrition Knowledge and Biochemical Indices of the Subjects

<table>
<thead>
<tr>
<th>Variables</th>
<th>Low N K</th>
<th>Moderate N K</th>
<th>High N K</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum ferritin(ug/l)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal (=15)</td>
<td>1(100.0)</td>
<td>4(80.0)</td>
<td>28(96.6)</td>
<td>33(94.3)</td>
</tr>
<tr>
<td>Depleted stores&lt;15(CRP&lt;10mg/l)</td>
<td>0(0.0)</td>
<td>0(0.0)</td>
<td>0(0.0)</td>
<td>0(0.0)</td>
</tr>
<tr>
<td>Depleted stores&lt;30(CRP=10mg/l)</td>
<td>0(0.0)</td>
<td>1(20.0)</td>
<td>1(3.4)</td>
<td>2(5.7)</td>
</tr>
<tr>
<td>Total</td>
<td>1(100.0)</td>
<td>5(100.0)</td>
<td>29(100.0)</td>
<td>35(100.0)</td>
</tr>
</tbody>
</table>

$\chi^2 = 3.225 \quad df = 2, \quad p = 0.268$

<table>
<thead>
<tr>
<th>Variables</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Haemoglobin(g/dl)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal</td>
<td>1(2.9)</td>
<td>5(14.3)</td>
<td>29(82.8)</td>
<td>35(100.0)</td>
</tr>
</tbody>
</table>

$\chi^2 = 2.342 \quad df = 2, \quad p = 0.127$

<table>
<thead>
<tr>
<th>Variables</th>
<th>Low PCV</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Haemoglobin (g/dl)</td>
<td></td>
<td>0(0.0)</td>
<td>5(17.2)</td>
<td>5(14.3)</td>
</tr>
<tr>
<td>Normal</td>
<td></td>
<td>1(100.0)</td>
<td>24(82.8)</td>
<td>30(85.7)</td>
</tr>
<tr>
<td>Total</td>
<td>1(100.0)</td>
<td>5(100.0)</td>
<td>29(100.0)</td>
<td>35(100.0)</td>
</tr>
</tbody>
</table>

$\chi^2 = 3.227 \quad df = 4, \quad p = 0.233$

<table>
<thead>
<tr>
<th>Variables</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Creatine reactive protein(mg/l)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High risk of infection</td>
<td>1(100.0)</td>
<td>4(80.0)</td>
<td>12(41.4)</td>
<td>17(48.6)</td>
</tr>
<tr>
<td>Mild risk of infection</td>
<td>0(0.0)</td>
<td>1(20.0)</td>
<td>17(58.6)</td>
<td>18(51.4)</td>
</tr>
<tr>
<td>Total</td>
<td>1(100.0)</td>
<td>5(100.0)</td>
<td>29(100.0)</td>
<td>35(100.0)</td>
</tr>
</tbody>
</table>

$\chi^2 = 5.229 \quad df = 4, \quad p = 0.043$

NK = Nutrition knowledge, n = frequency, %= percentage, df = degree of freedom, $\chi^2$ = chi-square, p = probability
Discussion
A majority had high knowledge of nutrition which is contrary to the reports of Essien et al. (2014) who noted that 71% of female adolescents in Sokoto had poor nutrition knowledge. This could be attributed to increased nutrition awareness in schools which continues to be an important place for broadening knowledge that may influence societal health. Promotion of nutrition knowledge is known to play a key role in enhancing positive attitudes with the objective of influencing healthy dietary habits and consequently improve nutrition and health status of adolescents.

More than half of the subjects ate three meals in a day and this agreed with the study conducted by Olumakaiye (2010) which shows that 66.1% of rural adolescents ate three meals each day. Some of the subjects skipped meals contrary to the findings of Osisanya et al. (2008) who reported that 54.4% of adolescents in Lagos State skipped meals. Story and Stang (2005) reported that dietary behaviours are vital throughout adolescence, as this period is characterized by intense growth. Stuijvenbergetal. (1999) reported lateness to school (89%), not being hungry at meal times (90%) and dislike of food prepared (94%) as the major reasons why meals were skipped among school children in South Africa. Osisanya et al. (2008) also observed that personal dislike for food; economy and health issues were reasons for skipping meals among adolescent girls in Lagos State. Adolescents have been reported to have poor food habits characterized by skipping of meals, eating between meals (Ene-obong & Akosa, 1993) and snacking on high calorie foods. This agreed with the findings of the study in which biscuits were the most commonly consumed snack by the subjects. Majority of the subjects come to school with meals prepared at home. Regular eating practices and healthy food choices ensure female adolescents meet their nutritional requirements for growth and health maintenance particularly their reproductive needs.

Some of the subjects were stunted which is similar to the reports of a study conducted in Umuahia by Ogechiet al. (2007) that showed 57.8% stunting among adolescent girls. Thinness was observed among the subjects and this was in line with an earlier report among adolescents (8.1%) by Omuemu and Ogwuche (2008) in Warri. A few of the subjects were overweight and this agrees with the report of a study conducted in Abeokuta by Ridwan (2018) which showed 3.8% of overweight among adolescent girls.

The subjects had normal haemoglobin level which is contrary to the findings of Kayode and Adeolu (2012) who reported anaemia occurring among adolescent girls in Ibadan. The result of a study conducted by Onabanjo (2014) showed 24.4% prevalence of anaemia among female adolescent in Ogun State. The findings of this study revealed that there was a low prevalence of iron deficiency anaemia among the subjects which is contrary to the study conducted in South Western Nigeria by Olumakaiye (2013) who reported 47.5% of iron deficiency anaemia among adolescent girls.

Conclusion
The study group was knowledgeable in nutrition. Meals were skipped occasionally by some of the subjects. A majority of the subjects had normal height-for-age, body mass index-for-age and normal serum ferritin. A few subjects had depleted iron stores in the presence of infection. Haemoglobin levels of the subjects were within the normal range. Packed cell volume of the subjects were within the normal range except for a few subjects that had low packed cell volume. There was a mild risk of infection among the subjects. There was low prevalence of iron deficiency anaemia among the subjects. There was no significant (P > 0.05) relationship between nutrition knowledge and biochemical indices of the subjects.

Recommendations
Therefore, dietitians and nutrition educators should:

- Enlighten parents, adolescents and teachers on the nutrient needs of adolescents.
- Develop nutritional intervention strategies that aims at promoting a healthy eating habits for the adolescent girl.
- Mothers should target behavior change by preparing foods that will meet the nutrient needs of the adolescent girls since they are primary decision makers in what is prepared for meals.

References


HAIRSTYLE FASHION OF FEMALE ADOLESCENTS IN MICHAEL OKPARA UNIVERSITY OF AGRICULTURE, UMUDIKE

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Abstract
This paper focused on hairstyles fashion of female adolescents. Three research questions guided the study. The research design adopted for the study was a descriptive survey. The population for the study was 250 students offering Home Economics programme. There was no sampling because the population was manageable. The instrument for data collection was structured questionnaire titled hairstyle fashion of female adolescent. The instrument was validated by three Home Economics experts. Reliability coefficient was 0.78 using Cronbachalpha Formular. The data for the study were collected by administering 250 questionnaires to the respondents. The data collected was analyzed using mean and standard deviation. From the data collected and analyzed, the study identified seven (7) factors influencing the choice of hairstyles, Eight (8) possible behaviors they want to exhibit, Eight (8) possible strategies to overcome the pressures of choosing a hairstyle. Based on the findings, it was study recommended that clothing education should be given to female adolescents to enable them take necessary decisions concerning hairstyle. Self-confidence in choosing hairstyle should be encouraged and hairstyles chosen should be based on priority and constructive criticism.

Keywords: Fashion, Hairstyle and female adolescents.

Introduction
Many hairstyles are influenced by fashion. Hair is a fashion statement. It's colour and adornment can say all sorts things about a person who wears it be it mood or outlook. According to Steven (2016), Fashion in hairstyles is applying the latest traces on the hair to offer a new look. Latest hairstyles are an immediate of appearance enhancement Fashion is an endless popularity contest (Johnson, 2015). Advertisements and articles about fashion contain such terms as “fad”, “classic” and status “symbol”. A fad is a fashion that is very popular for a short time. Wooding (2016) describe fad as fashions of the moment. The students think that having them will make them to be more popular and up to date in the fashion scene. Winden (2014) informed that an individual may choose less expensive fad items such as ribbons, hairpins, barrettes, headbands to update a garment. A classic is an additional style that can stay in fashion for a very longtime. It lasts longer and it is recommended for adults who are not fashion fads. Status symbol on the other hand is an item that gives the wearer special feeling of importance or wealth. Thus, fashion changes very quickly due to changes in technology.

There are many factors that influence fashioning the hair. David (2017) opined that those that really appear fashionable endeavor to acquire hairstyles that match face shape, lifestyle or personality and choice of style. Dalton (2016) added body proportions, hair density, hair type, headshape. According to Winden (2014) it was noted that one's own personality will decide whether to cut hair short or leave it long. The person may be outgoing or introverted. Ako (2015) stated that an outgoing person may wear striking fashions. An introverted person may want to hide behind her and may try not to stand out from the crowd. Thus, Steven (2016) advises that one should choose a length that is in proportion with one's body and suits hair type (curly, wavy or straight). The hair can form part of overall look. The head style reduces apparent head size, contributing to the overall impression of added height: large head tend to dwarf the body. Female adolescents are not left out.

Adolescence is the stage from approximately 13 years to about 20 years. Papoola (2016) noted that adolescent girls are usually very concerned about their figure type and regard it as an important consideration in selecting different hairstyles especially those that are in voque. Furthermore, female adolescents are concerned about their physical appearance and peer group standards of dressing hair.Female adolescents appearance conforms to the peer group is considered important. Consequently, the desire for peer group approval and acceptance influence the actions and choices of individual hairstyles (Akintayo, 2017). Obviously, any hairstyle that is acceptable to female adolescents will definitely enjoy a wide range of
patronage by the adolescents.

Female adolescents have different physical characteristics. Males have wider shoulders, narrow hips than females. Ogla and Adams (2014) explained that females have more body fat than males. UNDP (2011) noted that body sizes and shapes can vary drastically among adolescents, by race and ethnicity as well. It follows that there are diversities in body types. Physical changes occur in height, weight and body shape. At this point, fashion in hairstyle becomes very important to adolescents because they use hair to adorn themselves.

According to David (2017) face shape may be oval face - length equal to one and half times width. Round face – face is as wide as it is long. Rectangular or oblong – longer than it is wide. Heart – narrow at jaw line, wide at cheek bone or forehead. Square – face is about as wide as it is long. Diamond – width at cheek bones narrow forehead and jaw line of approximately equal widths. For round face – to add length to one's face, a layered shaggy look is perfect. For Oblong face, side parting work well. Triangular face, styles that are full at the temples and taper at the jaw are perfect. Diamond face, experiment with a variety of styles or shorter styles to achieve more balance between cheek bones and chin lines.

To minimize heart shaped face, side parted hairstyles around the upper face, with gently whipsy bangs should be used. This creates a balanced look by given fullness where it is necessary. Short, full styles that emphasize the upper face or styles with too much height at the crown should be avoided. For a diamond shaped face, experiment with a variety of styles or shorter styles to achieve more balance between check bones and chin line. To minimize diamond face, try not to wear too much hair on the face so as to hide such features. In finding the right hairstyle, however, body proportions, texture of the hair, skill in handling it personal expressions and aesthetic (Dread locks, punk, the business hairstyle or very long hair), social and cultural values should be considered.

Nowadays, the hairstyle of an individual is rated by the way the styles appear and not the styles that work well for them. They wear hairstyles that cover up one's "perfect" features, with heavy bands. They also wear too much hair length irrespective of their height and face shape. Steven (2016) warned that styles with much height at the crown should be avoided.

Furthermore, large head tend to dwarf the body. In finding the right hairstyle, however body proportions, texture of the hair, skill in handling it, personal expressions and aesthetic (dread locks, punk, very long hair) social and cultural values should be considered. Latest hairstyles are an immediate solution for anyone in guest of appearance enhancement. This calls for research on issues relating to fashion in hairstyle of female adolescents in Michael Okpara University of Agriculture, Umudike.

**Purpose of the Study**

The purpose of this study was to ascertain hairstyle fashion of female adolescents in Michael Okpara University of Agriculture, Umudike. Specifically, the study identified:

1. Factors influencing the choice of hairstyles
2. Find out possible behaviours they want to exhibit
3. Determine possible strategies to overcome pressures in the choice of hairstyles.

**Research Questions**

Three research questions guided the study.

1. What are the factors that influence choice of hairstyle?
2. What are the possible behaviours they want to exhibit in choosing hairstyles?
3. What are the possible strategies to overcome pressures in choosing hairstyles?

**Significance of the Study:**

The study may likely be beneficial to the following: students, lecturers, curriculum experts, females, hairdressers. It is expected that the findings of this study will be beneficial to the students because they will utilize the information obtained in this study in preparing themselves in hairdressing occupation.

It will help curriculum planners to introduce innovation in Home Economics curriculum. The findings of this study will be beneficial to families to enhance family income as looking for white collar job will be a thing of the past. It will help hair dressers in dressing the hair and achieve self-employment. The findings of this study will be beneficial to lecturers as they will use this as a reference point.

**Methodology**

The descriptive survey research design was used for the study. Survey was used to establish issues related to fashion in hairstyles of female adolescents in Michael Okpara University of Agriculture, Umudike. It geared towards a thorough understanding of clothing practices of female students.

The study was carried out in Michael Okpara University of Agriculture, Umudike. The area of the study was chosen because students are wearing crazy styles irrespective of their height and face shapes.

This comprises all female adolescents in Michael
Okpara University of Agriculture, Umudike offering Home Economics. The total target population was 250. This number was retrieved from school record for (2016) academic session of Michael Okpara University of Agriculture, Umudike. CAFST students was 222 and College of Education students was 28.

There was no sample. All the students offering Home Economics programme were used because the number was manageable.

A 4-point scale questionnaire was used for data collection. It had two parts. Part one sought information of selected personal data of respondents. Part two focused on the research questions.

The instrument was subjected to face validation by three experts in Home Economics who critically examined the items included in the specific purpose of the study and made useful suggestions and improve the quality of the instruments. Their recommendations, advice, suggestions and observations were used to review the questionnaire item.

Two hundred and fifty questionnaire were administered by hand to the respondents by the researcher with the help of two trained research assistants. This showed 100% return rate.

However, mean and standard deviation were used to analyze the data collected. Any item with a mean score of 2.50 and above was regarded as agreed. Similarly, any item scored below 2.50 was regarded as disagreed.

Findings of the Study
Findings are summarized in tables 1-3.

Research Question One: What are the values held by female adolescent in choosing hairstyles?

Table1 shows that respondents agree with all the items on factors influencing the choice of hairstyles of female adolescents in MOUAU.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Factors influencing the choice of hairstyles</th>
<th>Mean</th>
<th>SD</th>
<th>XG</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Students knowledge of hairstyles</td>
<td>3.34</td>
<td>0.80</td>
<td>3.54</td>
<td>Agreed</td>
</tr>
<tr>
<td>2.</td>
<td>Peer group</td>
<td>3.28</td>
<td>0.69</td>
<td>3.39</td>
<td>Agreed</td>
</tr>
<tr>
<td>3.</td>
<td>Social Class</td>
<td>3.63</td>
<td>0.66</td>
<td>3.63</td>
<td>Agreed</td>
</tr>
<tr>
<td>4.</td>
<td>Money available to students</td>
<td>3.32</td>
<td>0.78</td>
<td>3.57</td>
<td>Agreed</td>
</tr>
<tr>
<td>5.</td>
<td>Personality of individual</td>
<td>3.86</td>
<td>0.54</td>
<td>3.53</td>
<td>Agreed</td>
</tr>
<tr>
<td>6.</td>
<td>Resources available to the family</td>
<td>3.26</td>
<td>0.72</td>
<td>3.59</td>
<td>Agreed</td>
</tr>
<tr>
<td>7.</td>
<td>Cultural influences</td>
<td>3.41</td>
<td>0.76</td>
<td>3.93</td>
<td>Agreed</td>
</tr>
</tbody>
</table>

Research Question Two: What are the possible behaviours they want to exhibit?

Table 2 shows the possible behaviour they want to exhibit. From the table above, the possible behaviour respondents disagreed include sadness and inferiority complex. This could be seen from the low mean score on items 3 and 7.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Possible behaviour</th>
<th>Mean</th>
<th>SD</th>
<th>XG</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Sexuality</td>
<td>2.92</td>
<td>0.89</td>
<td>3.13</td>
<td>A</td>
</tr>
<tr>
<td>2.</td>
<td>Happiness</td>
<td>3.01</td>
<td>0.95</td>
<td>3.61</td>
<td>A</td>
</tr>
<tr>
<td>3.</td>
<td>Sadness</td>
<td>1.28</td>
<td>0.64</td>
<td>2.02</td>
<td>R</td>
</tr>
<tr>
<td>4.</td>
<td>Youthfulness</td>
<td>2.89</td>
<td>0.87</td>
<td>3.64</td>
<td>A</td>
</tr>
<tr>
<td>5.</td>
<td>Sophistication</td>
<td>3.45</td>
<td>0.66</td>
<td>3.98</td>
<td>A</td>
</tr>
<tr>
<td>6.</td>
<td>Superiority</td>
<td>3.10</td>
<td>0.72</td>
<td>3.75</td>
<td>A</td>
</tr>
<tr>
<td>7.</td>
<td>Inferiority</td>
<td>2.42</td>
<td>0.53</td>
<td>3.55</td>
<td>R</td>
</tr>
<tr>
<td>8.</td>
<td>Self confidence</td>
<td>3.18</td>
<td>0.69</td>
<td>2.00</td>
<td>A</td>
</tr>
</tbody>
</table>

Disagree
Discussion of Findings

The result as presented in table 1 revealed the factors that influence the choice of hairstyles of female students in MOUAU in various ways. Knowledge, background and experience are also considered as factors influencing the choice of hairstyles. It helps individual to collect as much information as possible about the styles of hair they want to make. This means findings from the study show that female adolescents choose hairstyles which will suit them. The students think that having them will make them to be more popular and up to date in the fashion scene.

This finding is in line with part of the report of John (2015) who stated that knowledge of hairstyles and fit will help individuals' hair. This is followed by the personality of individuals in choosing hairstyles. An outgoing person may wear striking fashions. That will decide whether to cut hair short or leave it long. An introvert may choose less expensive fat items such as ribbons, hairpins, barrettes that dress conservatively.

The result in Table 2 revealed possible behaviour exhibited in the choice of hairstyle. Their behaviour includes showing sexuality, sophistication, superiority, self-confidence. This can be seen from the table, where some items are above 2.50 which is the cut-off point. This is also in agreement with Akintayo (2016) who maintained that one should show good behaviours in choosing hairstyles because it will make one to choose the type that will flatter the figure.

This means choosing the hairstyles that create first impression, poise, power and self-confidence. This is also in agreement with Dalton (2015) who opined that in every appearance of hairstyle. For every individual should portray a unique combination of contour, proportion textures and colours. They disagreed choosing hairstyles out of sadness and inferiority.

The result as presented in table 3 revealed possible strategies to overcome the pressure of choosing a hairstyle. The respondents agreed with the items given. Most times, female adolescents set priorities, show assertiveness, understand face shapes, sense of maturity in choosing hairstyles. This is shown in the most agreed strategy which understands one's basic face shape. An individual face shape is the starting point to choosing a new hairstyle. Salako, (2014) added that the hair type of female adolescent is the next thing to be considered in choosing hair style of female adolescents.

Conclusion

Hair is a fashion statement. Hair style fashion of female adolescent is to apply latest traces on the hair to offer a new look. The students think that having them will make them to be more popular and up to date in the fashion scene. Experts lament that female adolescents enjoy fads, they may not know that fad is not going to last forever because their experience with fashion is limited. Female adolescents change hairstyles without minding that their resources are limited. They show social class, personality, peer group in choosing hairstyles. They also show youthfulness, superiority or superiority in their choice of hairstyles. For clarity purposes it is better to understand one's basic face shapes, sense of maturity and showing constructive criticisms in their day to day handling of hair. That is why the respondents agree on items on the table.
Recommendations
Based on the findings, it is recommended that:
1. Clothing education should be given to female adolescents to enable them take necessary decisions concerning choice.
2. Self-confidence in choosing hairstyles should be encouraged.
3. Decision on hairstyles should be based on family priority and constructive criticism.

References


Winden Anna (2014). *What is the function of Human Hair?* http://www.eindianhair.com/100%gurantee100 %virginhair.highquality..

Abstract
The paper assessed utility preference between imported to locally made apparels in Lagos State Nigeria. The population comprised of 2,228 heterogeneous apparel consumers between the age of 20 and 50 years old living at Agege Local Government Area of Lagos state. Nigeria. The sample size of 100 respondents was selected for the study using multistage random sampling techniques and purposive sampling techniques respectively. A descriptive survey method was adopted using a four point Likert type questionnaire tagged Preference of Imported to Locally Made Apparels Questionnaire (PILMAQ). Four research questions were formulated to guide the study. Data were analyzed using percentages, mean scores and standard deviation. The findings revealed that imported apparels are always available, durable, decently packaged, are of high quality, but are not affordable. The findings revealed that locally made apparels are readily available, not expensive and are of good quality but are poorly packaged. The result revealed that respondents who prefer locally made apparels are more than those who prefer imported ones ($\bar{x} = 3.00$). The study concluded that respondents prefer locally made apparels because they believe that locally made apparels are readily available, not expensive and are of good quality. It was recommended that Government, producers and the media should continue to intensify promoting locally made apparels.

Keywords: Imported Apparel, Locally Made Apparel, Preference.

Introduction
At every stage of life and in every ceremony, clothes play an important role. They cover our body and protect it from adverse climatic conditions. Clothes enhance our personality which are made from various kinds of materials and sewn in several forms called dresses or garments. A well-fitted dress, worn according to the occasion and time speaks a lot about the person's habits, taste, social status, behaviour and many other traits. Textile fabrics have intricate features that make them unique or different from one another. Due to the influx of foreign imports, the traditionally made textile fabric is being relegated to the background in the industry and it is commonly believed by many people that an average Nigerian prefer imported to made-in Nigeria fabrics. (Achumba, 1996) Nigerian consumer has access to several products from around the world and the information on the country of origin may be used to evaluate these products. According to Abimbowo, (1999) there is a popular belief that the qualities of local products are lower than those of their imported counterparts. In spite of the widespread belief that locally manufactured products are inferior in quality to the foreign ones; complaints of the high prices of locally-made items are also rampant. Consumers want to take advantage of the affluent and latest services that technology and business can offer (Achumba, 1996). Consumers are personalities whose behaviour is governed by different and varied influences such as: their society beliefs, attitude, past learning, experience, perception and expectations. These form
their taste choice and product preference. Not only that, economic factors which tend to favour consumer preference for foreign products centre around product quality, price, and availability (Leon and Kantuk, 2007).

In 1990, there were 175 textile factories operating in Nigeria but today we have 42 epileptic operators. Only 12 of these can boast with operating at 30% capacity. Among these, 4 textile factories produce embroidery lace materials as part of their product brands. This further establishes the inadequacy of the local supply of textile products in Nigeria and also in the presence of perennial problems of under capacity utilization of production machines and irregular power supply (Alego, 1992), local production is discouraged. They result in fluctuating product supply and prices, low quality output, product shortages, low corporate reputation and general marketing failure. Price and quality have been observed to be the determining factors for consumer's choice of goods (Ogundele, 2000). As earlier pointed out, the non-availability of local raw materials, high cost and epileptic supply of electricity, old and dysfunctional machinery and brand designs are factors responsible for high cost of production which cause the prices of products to rise. These have also resulted to low quality products especially when compared with the imported “smuggled” ones. The abundance of foreign brands of many kinds of products in Nigerian markets makes it easy for consumers to satisfy their yearnings for these imported items. While, for many others, oversea countries are places they would cherish to visit either for sightseeing or for image-boosting purposes; as a result, they buy their products as a way of identifying themselves with those countries (Ogundaine, 2010). In general, made-in- Nigeria goods are perceived as inferior, even when the foreign products were not really better in value or physically different from the domestic alternatives, except for the labels describing them as imported or made-in- Nigeria. Most Nigerians go for the imported fabrics mostly than the locally made ones and this is what attracts the researcher to examine empirically the determinants of Nigerian consumers attitudes towards imported fabrics.

The preference among Nigerians for foreign made fabrics is both alarming and disturbing especially when considered in the light of its effect on local industries. The general notion among some Nigerians is that locally made fabric are inferior to imported and foreign made ones in terms of quality and performance to the extent that some local manufacturers have resorted, in a bid to remain relevant, to claiming a foreign origin for their products. Cordell (1992) in his study in economically underdeveloped countries found that preference for domestic products tends to be weaker in the countries studied. However, Almonte, J. C.,Falk, R, Skaggs, & Cardenas, M. (1995) (1995); Bailey and Gutierrez (1997) discovered that upper-income earners in the same country prefer foreign products. Opoku and Akorli (2009) in their assessment of Ghanaians' attitudes towards made in Ghana products and goods with foreign origin discovered that country of origin is more important than price and that other product attributes are at least as important as brand name, in their consumer choice. Next to quality as an economic determinant of consumer choice is price. In spite of the widespread belief that locally manufactured products are inferior in quality to the foreign ones, complaints of the high prices of locally made items are rampant. For example, Sobowale (1997) has claimed that although imported textiles are superior in quality to home-made ones, they are much cheaper. Alego (1997) pointed out that effective marketing management is essential in the process of building up a favorable image for any product. The absence of consumer orientation on the part of producers appears to have contributed to the alienation of the Nigerian consumer and the resulting consumer preference for imports. Thus, they feel imported goods look distinct and boost their image unlike local ones that other people are using. Truly speaking, level of technology/automation is very low as most production activities are performed manually and the resultant human errors shown in clearly visible poor products finishing (Omobowale, 2010).

Many Nigerians seems to perceive locally made goods as inferior or fake and expensive hence their patronage for it is very low. Shobowale (1997) states that although quality of imported textiles is higher than local goods, they are still much cheaper. Abimbowo (1999) assert that many companies wrongly and unilaterally price their products by not considering many determining factors from the viewpoints of consumers. There is therefore, need to examine those factors that influence and affect consumer buying decision with a view to uncovering reasons behind Nigerian apparel consumers seeming preference for foreign textile apparel over locally manufactured ones. The study attempts to assess the preferred utilization of imported to locally made apparels and to examine the influential factors. The findings of the study may be of immense benefit to the consumers, manufacturer, distributor, the government and its agencies and the general public.

**Purpose of the Study**

The general purpose of the study is to assess the utility preference between imported to locally made apparel. The specific purposes are to:

1. Determine the factors that influence choice of...
2. Investigate consumers’ preference to locally made apparel;
3. Investigate consumers’ preference to imported made apparel
4. Examine consumers’ preference between locally made to imported apparel.

Research Questions
The research attempts to address the following research questions:
1. What are those factors that influence the choice of apparel?
2. Do consumers prefer locally made apparel?
3. Do consumers prefer imported apparel?
4. What is consumers’ preference between locally made to imported apparel?

Design of the Study
The study adopted a survey research design where data was collected from subjects using Likert type scale questionnaire.

Population of the Study
The targeted population for the purpose of this study comprised of 2,228 textile apparel consumers between the age of 20 and 50 years old such as civil servant, traders, artisans and students living at Agege local government Area of Lagos state.

Sample and Sampling Techniques
The sample size of 100 respondents was selected for the study. Researchers suggested that 5-30% of the population making up the sample is reasonably adequate and representative of the population. (Ali, 2006). Multistage sampling techniques were used as follows:

Stage 1: Involved stratifying Lagos state into 20 Local Government Area
Stage 2: Involved purposively selecting Agege local government Area of Lagos state. Stage 3: Involve using random sampling technique in selecting one ward from Agege local government Area of Lagos state comprising 2,228 apparel consumers (20&50years old)
Stage 3: Involve selecting 100 sample of textile apparel consumers (20 and 50 years) living at Agege local government Area using purposive sampling technique.

Stage 5: involve using proportional stratifying sample technique to randomly select a sample size of 100 constituting approximately five percent of the population.

Instrumentation: The study used Questionnaire tagged Preference of Imported to Locally Made Apparels Questionnaire (PILMAQ) as instrument for data collection for this study. Responses of each item will be rated on a 4-point scale ranging from 1 which indicates strongly disagree || to 4 which indicates strongly agree.

Validity of the Instrument: The instrument was validated by three experts, two in the field of Home Economics and one in Measurement and evaluation, all from University of Benin.

Reliability of the instrument: To estimate the reliability of the questionnaire, ten validated copies of the instrument were administered to ten respondents within the population but who are not parts of the sample for the study. The scores obtained were subjected to statistical analysis using Cronbach's Alpha coefficient statistics formula. The reliability obtained using Cronbach's Alpha coefficient formula was 0.75.

Method of Data Collection: Data were collected from the subjects by administering the instrument to respondents. The questionnaires were distributed by the researcher and two (2) trained research assistants.

Method of Data Analysis: Data collected were analyzed with descriptive statistics such as, frequencies, percentages, mean (X), standard deviation (SD) and inferential statistics. Research Questions 1-4 were analyzed. The means of the responses were interpreted in line with the 4-point rating scale. For decision making, the lower limit of the Agreed response categories, which is 2.50, was used as the cut-off point. Any item with a mean response of 2.50 over was accepted as an influencing factor. The null hypotheses formulated in the study will be tested with inferential statistics Pearson Product Moment Correlation and Independent t- test. All null hypotheses were tested at 0.05 level of significance at which the null hypotheses will either be accepted or rejected.

Results and Discussions:
Table 1:- Analysis of Demographic Characteristics of Respondents.

<table>
<thead>
<tr>
<th>(N-100)Characteristic</th>
<th>Status</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>33(33.0)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>67(67.0)</td>
</tr>
<tr>
<td>Age in years</td>
<td>20 yrs and below</td>
<td>21(21.0)</td>
</tr>
<tr>
<td></td>
<td>21-30 yrs</td>
<td>22(22.0)</td>
</tr>
<tr>
<td></td>
<td>31-40 yrs</td>
<td>34(34.0)</td>
</tr>
<tr>
<td></td>
<td>41-50 yrs</td>
<td>23(23.0)</td>
</tr>
</tbody>
</table>
The demographic results revealed that a total of 33 (33%) male and 67 (67%) females participated in the study. The ages of the respondents fall between 20yrs and below to 41-50yrs old. Those within ages 31-40 yrs constituted the highest majority (34%), followed by 41-50 years old (23%), 21-30 years (22%) while 20years and below (21%) came least in the distribution.

**Research Question one:** What are those factors that influence the choice of apparel?

### Table 2: Mean Ratings and Standard Deviation of Respondents on Factors that Influence the Choice of Apparel. (N-100)

<table>
<thead>
<tr>
<th>S/N</th>
<th>Item Statements</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I purchase according to income at hand</td>
<td>2.77</td>
<td>.92</td>
<td>Agree</td>
</tr>
<tr>
<td>2.</td>
<td>I purchase according to my job (occupation)</td>
<td>2.52</td>
<td>2.30</td>
<td>Agree</td>
</tr>
<tr>
<td>3.</td>
<td>I purchase according to apparel quality and durability</td>
<td>2.53</td>
<td>.88</td>
<td>Agree</td>
</tr>
<tr>
<td>4.</td>
<td>I purchase according to my position in the society (social status)</td>
<td>2.95</td>
<td>.82</td>
<td>Agree</td>
</tr>
<tr>
<td>5.</td>
<td>I purchase according to apparel design</td>
<td>2.51</td>
<td>.99</td>
<td>Agree</td>
</tr>
<tr>
<td>6.</td>
<td>I purchase according to apparel color</td>
<td>2.87</td>
<td>.79</td>
<td>Agree</td>
</tr>
<tr>
<td>7.</td>
<td>I purchase according to the family need</td>
<td>2.93</td>
<td>.86</td>
<td>Agree</td>
</tr>
<tr>
<td>8.</td>
<td>I purchase according to the country of origin</td>
<td>3.34</td>
<td>2.15</td>
<td>Agree</td>
</tr>
<tr>
<td>9.</td>
<td>I purchase according to traditional identity</td>
<td>3.27</td>
<td>.764</td>
<td>Agree</td>
</tr>
<tr>
<td>10.</td>
<td>I purchase according to affordable price.</td>
<td>3.19</td>
<td>.73</td>
<td>Agree</td>
</tr>
</tbody>
</table>

The mean ( \( \bar{x} \) ) of 2.50 was used for the decision, this was in line with the points on the 4-point rating Scale. A mean rating on any item by the respondents equal to or above 2.50 was accepted as an influencing factor and taken as “Agree” while any mean rating lower than 2.50 was taken as “Disagree”. The data presented in Table 2 showed that the mean of the items ranged from 2.51 to 3.34. All of the items had their means above the cut-off point of 2.50. This indicated that respondents agreed with all the statement above and this implied that all the factors influence the choice of apparel and contribute to respondents using them.

**Research Question Two:** Do consumers prefer locally made apparel?

### Table 3: Mean Ratings and Standard Deviation of Respondents on Consumers' Preference to Locally Made Apparel (N-100)

<table>
<thead>
<tr>
<th>S/N</th>
<th>Item Statements</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Locally made fabrics are reasonably finished than imported ones.</td>
<td>2.57</td>
<td>1.02</td>
<td>Agree</td>
</tr>
<tr>
<td>2.</td>
<td>I like buying locally made fabrics</td>
<td>2.89</td>
<td>.82</td>
<td>Agree</td>
</tr>
<tr>
<td>3.</td>
<td>Government help in promoting locally made fabrics</td>
<td>2.57</td>
<td>1.11</td>
<td>Agree</td>
</tr>
<tr>
<td>4.</td>
<td>Country of origin affect my purchasing decision of Locally Made Fabrics</td>
<td>2.77</td>
<td>.92</td>
<td>Agree</td>
</tr>
<tr>
<td>5.</td>
<td>locally made fabrics are not readily available</td>
<td>2.26</td>
<td>.92</td>
<td>Disagree</td>
</tr>
<tr>
<td>6.</td>
<td>locally made fabrics are relatively expensive</td>
<td>2.22</td>
<td>.91</td>
<td>Disagree</td>
</tr>
<tr>
<td>7.</td>
<td>locally made fabrics are of Poor Quality</td>
<td>2.46</td>
<td>.98</td>
<td>Disagree</td>
</tr>
<tr>
<td>8.</td>
<td>locally made fabrics are Poorly Packaged.</td>
<td>2.57</td>
<td>.96</td>
<td>Agree</td>
</tr>
</tbody>
</table>
The data presented in Table 3 showed that the mean of the items ranged from 2.22 to 2.89. All of the items had their means above the cut-off point of 2.50, except items 5, 6 and 7 with means of 2.26, 2.22 and 2.46 respectively. This indicated that respondents disagree with the statement that locally made fabrics are not readily available, relatively expensive and of poor Quality. They however agree that they are Poorly Packaged.

**Research Question Three:** Do consumers prefer imported made apparel?

Table 4: - Mean Ratings and Standard Deviation of Respondents on Consumers' Preference to Imported Apparel. (N-100)

<table>
<thead>
<tr>
<th>S/N</th>
<th>Item Statements</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>Imported Fabrics are affordable</td>
<td>2.26</td>
<td>.91</td>
<td>Disagree</td>
</tr>
<tr>
<td>12.</td>
<td>Imported Fabrics are reasonably priced than locally made ones.</td>
<td>2.52</td>
<td>2.30</td>
<td>Agree</td>
</tr>
<tr>
<td>13.</td>
<td>Imported Fabrics are always available when needed</td>
<td>2.53</td>
<td>.88</td>
<td>Agree</td>
</tr>
<tr>
<td>14.</td>
<td>Imported Fabrics are available nationwide</td>
<td>2.95</td>
<td>.82</td>
<td>Agree</td>
</tr>
<tr>
<td>15.</td>
<td>Owning Imported Fabrics is a pride</td>
<td>2.51</td>
<td>.99</td>
<td>Agree</td>
</tr>
<tr>
<td>16.</td>
<td>Imported Fabrics are durable</td>
<td>2.87</td>
<td>.79</td>
<td>Agree</td>
</tr>
<tr>
<td>17.</td>
<td>Imported Fabrics are reliable</td>
<td>2.93</td>
<td>.86</td>
<td>Agree</td>
</tr>
<tr>
<td>18.</td>
<td>Imported Fabrics are of high quality</td>
<td>3.34</td>
<td>2.15</td>
<td>Agree</td>
</tr>
<tr>
<td>19.</td>
<td>Imported Fabrics are neatly and decently packaged</td>
<td>3.27</td>
<td>.764</td>
<td>Agree</td>
</tr>
<tr>
<td>20.</td>
<td>Imported Fabrics are good value for money</td>
<td>3.19</td>
<td>.73</td>
<td>Agree</td>
</tr>
<tr>
<td>21.</td>
<td>Imported Fabrics are produced to customers’ taste</td>
<td>2.90</td>
<td>.81</td>
<td>Agree</td>
</tr>
<tr>
<td>22.</td>
<td>Imported Fabrics are of modern design</td>
<td>3.19</td>
<td>.69</td>
<td>Agree</td>
</tr>
</tbody>
</table>

The mean ($\bar{x}$) of 2.50 was used for the decision, this was in line with the points on the 4-point Likert Scale. A mean rating on any item by the respondents equal to or above 2.50 was accepted as an influencing factor and taken as “Agree” while any mean rating lower than 2.50 was taken as “Disagree”. The data presented in Table 4 showed that the mean of the items ranged from 2.26 to 3.34. All of the items had their means above the cut-off point of 2.50 except item one with a mean of 2.26. This indicated that respondents disagree with the statement that imported Fabrics are affordable but all the other factors mentioned above had influence on the adoption of imported fabrics and contribute to respondents using them.

**Research Question Four:** What is consumers' preference between locally made to imported apparel?

Table 5: - Mean Ratings and Standard Deviation of Respondents on Consumer Preference between Locally Made to Imported Apparel. (N-100)

<table>
<thead>
<tr>
<th>S/N</th>
<th>Item Statements</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I like to purchase imported apparel</td>
<td>2.96</td>
<td>.80</td>
<td>Agree</td>
</tr>
<tr>
<td>2.</td>
<td>I feel good when I purchase foreign made apparel</td>
<td>2.84</td>
<td>.85</td>
<td>Agree</td>
</tr>
<tr>
<td>3.</td>
<td>I prefer locally made apparel</td>
<td>3.00</td>
<td>.79</td>
<td>Agree</td>
</tr>
<tr>
<td>4.</td>
<td>Locally made apparel are better</td>
<td>2.88</td>
<td>.91</td>
<td>Agree</td>
</tr>
<tr>
<td>5.</td>
<td>Imported apparel are better</td>
<td>2.86</td>
<td>.84</td>
<td>Agree</td>
</tr>
<tr>
<td>6.</td>
<td>I don’t regret buying locally made apparel.</td>
<td>2.92</td>
<td>.75</td>
<td>Agree</td>
</tr>
<tr>
<td>7.</td>
<td>I don’t regret buying imported apparel.</td>
<td>2.80</td>
<td>.86</td>
<td>Agree</td>
</tr>
</tbody>
</table>
The data presented in Table 5 showed that the mean of the items ranged from 2.80 to 3.00. All of the items had their means above the cut-off point of 2.50. This indicated that respondents agree to all the items. The mean value showed that respondents prefer locally made and imported apparel but those who prefer locally made apparel had highest mean.

Discussion of Findings
The demographic results revealed that a total of 33 (33%) male and 67 (67%) females participated in the study. The result on factors influencing choice of apparel revealed that respondents purchase apparel according to their occupation, social status, apparel quality and durability, apparel design and color, country of origin and family need. This agreed with Achumba, (1996) who discovered that Consumers want to take advantage of the affluent and latest services that technology and business can offer. This finding corroborates the findings of (Ogundele, 2000) who discovered that Price and quality have been observed to be the determining factors for consumer's choice of good. The findings were also in consonant with Opoku and Akorli (2009) who in their assessment of Ghanaians’ attitudes towards made in Ghana products and goods with foreign origin discovered that country of origin is more important than price and that other product attributes are at least as important as brand name, in their consumer choice. This finding also agreed with. (Leon and Kanuk, 2007) who stated that Consumers are personalities whose behaviour is governed by different and varied influences such as: their society beliefs, attitude, past learning, experience, perception and expectations. These form their taste choice and product preference. Not only that, economic factors which tend to favour consumer preference for foreign products centre around product quality, price, and availability.

The findings revealed that imported apparel are always available, durable, decently packaged, are of high quality, but are not affordable. All these factors had influence on consumers’ preference to imported made apparel and contributed to respondents using them. This disagrees with Shobowale (1997) who claimed that although imported textiles are superior in quality to home-made ones, they are much cheaper. The findings further indicated that consumers’ preference to locally made apparel are affected by the fact that locally made fabrics are readily available, not expensive and are of good quality but are poorly packaged. This disagrees with Agbonifoh (1995) who found that locally-produced textiles are inferior to the imported ones. The findings were also not in support of Abimbowo, (1999) who stated that there is a widespread belief that locally manufactured products are inferior in quality to the foreign ones and that the prices of locally-made items are also high. This finding however agree with Shobowale, (1997) whose findings discovered that level of technology/automation is very low as most production activities are performed manually and the resultant human errors shown in clearly visible poor products finishing in locally made fabrics. The result equally revealed that respondents who prefer locally made fabrics are more than those who prefer imported fabrics this may be because they believe that locally made fabrics are readily available, not expensive and are of good quality. This finding does not support the findings of Achumba (1996) who discovered that it is commonly believed by many people that an average Nigerian prefer imported to made-in Nigeria fabrics.

Conclusion:
It was concluded from the result of the findings that respondents preferred locally made apparel to imported apparel because they believe the former are readily available, not expensive and are of good quality.

Recommendations
Based on the findings of the study the following recommendations were made:

1) Local product should be given much publicity by manufacturer and government. Government and the media should help in promoting locally made fabrics and the producers should endeavor to make it more durable in quality.
2) The government should not allow all kinds of products to be imported (or dumped) into the country at low rates of import duties or through its feeble attempts at checking smuggling.
3) Nigerians should be encouraged to have pride in using and promoting their local fabrics to boost the economy of the nation and our cultural heritage.

References


SUSTAINING NATIONAL STABILITY AND EMERGING CHALLENGES: A ROLE OF HOME ECONOMICS EDUCATION IN TEACHING AND TRAINING OF NIGERIAN STUDENTS

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Abstract
The paper defines education as the process of inculcating knowledge through teaching and training of young and adult in the society to reach the apex of their career in life. It stresses the importance of teaching and skill training in home economics as in curbing the menace of poverty. However, sustaining national stability and emerging challenges has been seen as hinge role of home economics education in teaching and training of Nigeria students. The height at which corruption, poverty and in appropriate teaching and training approach applied in a classroom, it is an understatement to say our education system is fading away. The paper examines the various teaching and training programmes initiated by past and present governments. The study defines the concept of Home economics education, teaching of home economics, skill training of home economics, the role of home economics in reducing poverty and increasing business opportunities, therefore preparing learner for entry into employment and advancement in his choose of career. This paper is based on a desk, literature review and a web based research. It concludes that education is national stability and emerging challenges can be resolve in our country by the ways we inculcate knowledge and advancement teaching and vocational training experience among the young and adults in our communities. Recommendations were made based on findings.

Keywords: Home Economics, Education, Teaching, Training, Sustaining, Pedagogy, National Stability

Introduction
The development of any nation reliance on her social, vocational and economic contribution of her citizens. Most attributes of national stabilities are derived from teaching and training infrastructure that are lie down in the school. Poor educational infrastructure causes emerging challenges that enunciences the incompetency in teachers, which result to a poor/low education, low self-esteem, lack of adequate health facilities, housing, Land and in ability to cloth oneself/family (Loo, 2018). Abject poor educational infrastructures, widespread hunger and illiteracy are the main problems which the Nigerian governments past and present has not been able to address. Various programmes were initiated and implemented by the governments, billions of Naira were spent on these programmes, yet Nigerians have been increasingly living in a sorry situation of poor education environment and illiteracy. However, the national policy on education places much emphasis on inculcation of National consciousness and unity in diversity on the acquisition of appropriate knowledge, ability, skills, competence and self-reliance (NPE, 2004). To achieve these, focus must be shifted to families’ development participation in sustainable capacity building which can be attained through vocational Education.

Home economics is a vocational subject that passes knowledge and skills from the grass root home/family. Molokwu (2010) stresses that the teaching and training which Homes Economics provides can be taught in school, formally organised or even in a non-formal settings and skills, individuals involve in these skills acquisition can become self-reliant or employers of labour. Therefore, sustainable human development can be achieved through home economics. Career opportunities available in home economics include teaching, textile design, fashion design, dietetic, nursery day-care management, interior design, clothing, food and beverage production and service. Enyi and Akpan (2002) expressed similar views about the situation in Nigeria which happens to be a former British colony like Ghana. There is low enrolment of students over the years due to poor teaching and learning infrastructure. Home economics as a vocational subject play a significant role in the life of many in most of the Nigeria societies due creating careers to individuals. Home economics can be seen to contribute to life indifferent ways; home economics as an aspect of vocational and technical education plays significant roles in the growth and development of the
national economy through an improved teaching and learning skills.

According to Uko-Avioma (2005) stated that home economics as an entrepreneurial-based and skill-oriented field of study is expected to equip learners with sale able skills that make for self-reliance and paid employment. Home economics as a field of study is divided into three major groups which are:

- Food and Nutrition
- Clothing and Textile
- Home Management

The above mention groups of home economics cannot be properly taught without the provision of both human and materials resources. Even with the contributions of home economics to the growth and development of the National Economy there are still some problems associated with home economics which is the problem of teaching and training the subject “home economics”. Over the years there have been series of challenges faced by most teachers in teaching home Economics in schools and colleges. According to Arubayi (2010) stated that without funds these material resources cannot be made available and this will lead to poor quality teaching and training which in turns have a negative effect on learning abilities of the individual, poor motivation and frustration on the part of the students. It is to this reason that their searcher wishes to share his opinion on the topic Sustaining National Stability and Emerging Challenges: A Role of Home Economics Education in Teaching and Training of Nigerian Students.

Statement of the Problem

In Nigeria despite the poverty and economics challenges, Nigeria is still faced with the problems of Education, teaching and training of student in Home Economics. According to Anyakoha(2007), Home Economics is a skill oriented field of study that is expected to equip learners with survival skills that make for self-reliance, employment and paid employment. Occupational skills are best understood as competency on resourceful skills capable of steering an individual to be self-reliant, independent and productive in meeting life challenges. Creese, (1976) says that, occupational skills are life survival skills which an individual need to function effectively and face the challenges of life. Occupational skills in Home Economics include food and nutrition skills, home management skills and clothing and textile skills. Teaching and training about occupational skills in Home Economics Education Program enables an individual to learn, explore and prepare for a job or trade. Thus Home Economics could play a significant role in achieving the goals of the National Economic and Development strategy (NEEDS). These goals include wealth creation, employment generation, and reduction of poverty, elimination of corruption and the general reorientation of values. In spite of these laudable qualities of Home Economics, there are series of challenges which impede its developmental sustainability. Some of these challenges include, the medium of Education, lukewarm attitudes of teachers and the trainees in inculcating knowledge of vocational and technical educative programmes generally in Nigerian colleges and Universities, the perception of the society towards graduates of Home Economics as those who could not fit into any other challenging courses, lack of candidate's interest as they see the programme as expensive, inadequate manpower; as well as frustration on the part of teachers because of lack of modern equipment for proper practical to mention but few.

Objective of the Study

Time immemorial, Education has remained the panacea for ignorance and its attaching problems. This opinion is set to bring fore and to assess the role of Home Economics Education in teaching and training for sustaining national stability and emerging challenges in Nigeria and the world at large. The scope and emphasis of this opinion paper is focusing on keys factors delimiting the teaching and training of Nigerians students in Home Economics Education which has shifted the value of teaching and learning of this subjects. This study is meant to be an eye opener to all Nigerian youths and adults especially Women and Girls who constitute huge population for the government to incorporate this type of course in teaching and training of students in various levels of learning to obtain skills that will make them self-reliance in their community.

Teaching of Home Economics

The word teaching according to Marriam-Webster dictionary (2017), comes from middle English “techen”, meaning 'to show or instruct', this points-out that teaching is the process of attending to people's needs, experience and feelings and intervening so that they learn particular things and go beyond the given. Wikipedia defines teacher as a person who helps students to acquire knowledge, competence or virtue. Williamson (2008), shows that for a teacher to be competent and effective in delivering the teacher must have the pedagogy, subject knowledge, competence in teaching the subject, in curriculum, in learner assessment; psychology; planning; leadership. Goorian (1999), contend that many lecturers have been found with misconduct such as sexual abuse with their students in public offices, where teaching and learning support is the bending force. A study by the Nigerian Association of University Women reported that 9.6%
Education is the best path to poverty eradication. Having knowledge and skills of a trade will make change their living condition by taking action while education as an empowering tool would help people to the sustainable development of his/her country. Pedagogy can be thought of in two manners. First, teaching itself can be taught in many different ways, hence, using pedagogy of teaching styles. Second, the pedagogy of the learners comes into play when a teacher assesses the pedagogic diversity of his/her students and different capacity of their learning skill. For example, an experienced teacher and parent described the place of a teacher in learning as follows: "The real bulk of learning takes place in self-study and problem solving with a lot of feedback around that loop. The function of the teacher is to pressure the lazy, inspire the bored, deflate the cocky, encourage the timid, detect and correct individual flaws, and broaden the viewpoint of all. This function looks like that of a coach using the whole gamut of psychology to get each new class of rookies off the bench and into the game (Walters, 1999).

Home Economics Training
Home economics, domestic science or home science is a field of study (IFHE, 2016) that deals with the relationship between individuals, families, communities, and the environment in which they live. Home economics courses are offered internationally and across multiple educational levels. Home economics courses have been important throughout history because it gave women the opportunity to pursue higher education and vocational training in a world where only men were able to learn in such environments. In modern times, home economics teaches people of all genders important life skills, such as cooking, sewing, and finances. With the stigma the term "home economics" has earned over the years, the course is now often referred to by different terms, such as "family and consumer science (AAFCS, 2015).

Home Economics Education
Formal education is an academic or technical way of presenting knowledge and skill, which will enable the learner to be self-reliant and foster his contribution to the sustainable development of his/her country. Education as an empowering tool would help people to change their living condition by taking action while having knowledge and skills of a trade that will make them become competitive in the productive field. Education is the best path to poverty eradication. Educated people are able to achieve their goals in a much better way. Wikipedia defines education in general sense as a form of learning in which the knowledge, skills and habits of a group of people are transferred from one generation to the next through teaching training, or research. The best means of eradicating poverty among youth and adults in our country and improving sustainability is to create self-employment programmes such as skill acquisition and jobs. Education provides a foundation for eradicating poverty and fostering economic development. It is the groundwork on which much of the economic and social wellbeing of the citizens is built (Omoniyi, 2013).

However, the Home economics institute of Australia views Home economics education as the central focus of the wellbeing of people within the context of their personal, family communication and work roles. The institute also observed that Home economics education is about becoming independent connecting with others and taking action towards preferred future that support individuals and family wellbeing. It further states that through home economics education students become empowered, active and informed members of the society. Furthermore, the focal point of Home economics education is to equip young people and adults with sustainable skills, relevant knowledge and attitudes for work in chosen occupation and career opportunity. In 2004 the federal government of Nigeria in its national policy on education categorically spelt out the broad aims and objectives of home economics education under vocational and technical education to include: to give training and impact the necessary skills that will regenerate the teaching and training for the production of craftsmen, fashion design, interior decoration, event planning and other skilled personnel who will be enterprising and self-reliant. IFHE (2016) also defines Home economics as a field of study and a profession, situated in the human science that draws from a range of disciplines to achieve optimal and sustainable living for individuals, families, and communities.

Home economics is concerned with empowerment and wellbeing of individuals, families and communities and facilitating the development of attributes for lifelong learning for paid, unpaid and voluntary work, and living situation IFHE (2007). McGregor (2006) opined that Home economics is inter-disciplinary, multi-disciplinary and trans-disciplinary. It is a field of knowledge with numerous marketable skills that make for self-reliance and self-employment. Osuala (2001) is also of the view that for greater emphasis on vocational education in which Home Economics is inclusive has its goal as the preparation of the learner for entry into employment and advancement in his/her
career, meeting the manpower needs of the society increasing the option available to students, adults and also to enable learners to wisely select a career. Ene- obong (2006) gave a more elaborate definition of home economics as a field of study evolved out of the concern for the family and raised by the condition of a society becoming increasingly dominated by commercial and industrial interest. Ene –obong further asserted that it is concerned with ways in which the quality and family life can be enhanced maximally through optimum utilization of its human and material resources. Home economics education/training can be said to be a means through which young people and adult may be led to a stronger growth and development, thereby enabling him/her to take responsibilities in the home, and the society at large.

The Role of Home Economics Education in Reducing Poverty
Households and the individuals living in the society are the main focus of Home economics. Education and knowledge in Home economics empowers individuals to fulfil their fundamental needs and to manage everyday life scarce resources. Education in home economics skills, like resource management and household finances in combination with psychosocial stabilization of the family leads to productive and regeneration capacity of the otherwise poverty disenfranchised individual. The well-being and the regeneration of the private home is a basic social goal for a full use of one's potential for education and paid work.

Home economics education provides knowledge in food production, poultry and animal rearing nutrition skills. Home economics education does not only ensure self-sufficiency for the individual, families and communities but also to income generating opportunities. By selling the excess food produced, animals reared eggs and birds from poultry in the family setting from a sustainable income generation activity. Opportunity is opened for families and individuals. When a cook combined food with nutritional and health skills then it leads to an adequate nutrition for the young ones and youth in the family which will make them physically fit and mentally sound to use educational opportunity at their disposal. International Federation for Home Economics (IFHE, 2012) stated that Home economics education can improve skills and competencies of families and individuals in a changing world, education and best practice in home economics includes gender equality, safe sanitation and water use, generation skills, sustainable household production and resources management as well as food production, nutrition skills and health.

Olaitan (1996) opined that organised vocational education is concerned with the development of skills and success in any useful occupation. Home economics is a field of study that offers various occupations for individuals. It is a skill base course which has the capacity of equipping young people and adult with sustainable skills, for self-reliance, employment and wealth creation thereby reducing or eliminating poverty. The knowledge and skills which home economics provides can be taught in school formally, organised apprenticeship and or even in a non-formal setting, individuals involved in these skills acquisition can become self-reliant and an employer of labour. Molkwo (2007). Home economics education prepares students for the acquisition and development of skills, competencies and attributes which are necessary for efficiency of the economics systems. It makes individuals to be job providers rather than job seekers.

Audu and Abdulkadir (2009) Home economics education at all perimeters of life is aimed at improving and providing knowledge and skills to individuals for family living. The success of any nation is dependent on the happiness, health and comfort of its families. Roberts (2011) also assert that the primary determinant of a country's standard of living is how well it succeeds in developing, utilizing skills, furthering the health and educating the majority of its population. In view of the above Nkwako (2004) opined that the basic mission of Home economics education is helping individuals and families to improve their lives through Training for necessary manpower in entrepreneurship Training and the way of imparting the necessary skills to learner should be relevant to make the learner self-reliant. Provision of technical knowledge and vocational skills necessary for national sustainability development to improve the skills, capabilities, and utilization of workers employed in government and private sectors. Education in general is indispensable to economic development and poverty eradication, no economic development is possible without education.

Audu and Abdulkadir (2009) observed educational goals as follows and come in live with the objectives of Home Education. Helping the individual to appreciate the world around and contribute meaningfully to the socio-economic development of a nation. This knowledge will help individual to have desirable skills, knowledge and value to perform specific functions so as to become self-reliant. Helping individuals to develop and build his/her capacity for meaningful decision making in all spheres of life. Molokwo (2007) opined that poverty is the exact opposite of human development. Home economics education provides knowledge, skills and competencies that are directly opposite to poverty. This type of education emphasizes
that after training, the trainee would be self-employed and self-reliant thereby producing goods and services for the benefits of the society.

**Business Opportunities Available in Home Economics Training**

Numerous business opportunities and entrepreneurial skills exist in Home economics education. Lemechi (2005) and Uko-Ayima (2006) identified a catalogue of Home economics related business opportunities grouped under the following areas:

**Food and Nutrition**

Under this group the following business related opportunities are available. Processed - flour- from different source like Yam, Cassava, Plantain, Coin (maize) etc.

- i. Starch production for laundry
- ii. Production of spices and condiments.
- iii. Production of Jam and jellies, Ice cream, Popcorn, Yoghurt Snack production like cave, pies, burns, doughnut's Outdoor catering services
- v. Event planning, Poultry, fish and other animal rearing.

**Clothing and Textiles**

- i. The business opportunities could be found under this group.
- ii. Tie and dye production Batik production
- iii. Production of handmade embroidery materials.
- iv. Toys production.
- v. Tailoring training services.
- vi. Knitting and crocheting
- vii. Laundry and dry cleaning services.
- viii. Jewelries production

**Family and Childcare**

The following business opportunities exist under this group:

- i. Operation of day-care centres and nursery schools
- ii. Operation of teaching and learning aids.
- iii. Operation of old people homes
- iv. Operating nutritional advise centre for under or malnutrition children
- v. Handling children with disabilities

**Home Management/Housing and Furnishing Related Business**

The following business opportunities exist under this group:

- i. Interior decoration
- ii. Hall and venues decorations for events
- iii. Main Services Rental services
- iv. Production of artificial/natural flowers and soup making (shampoo, liquid soap, abrasive)
- v. Cream and pomade making

For any individual to be gainfully employed in to above skills he most has been appropriately taught by a well skill, trained, knowledgeable and relevant attribute teacher. Home economics students who undergo training in the field will find one more of the above skills if well interpreted in everyday life to be a remedy to unemployment, hunger and any other of life issues.

**Conclusion**

Education is one of the vital channels by which unemployment, illiteracy; economics harshness can be reduced independent of the person's status and class. No country would experience economic development without proper education.

Conclusively, this study emphasized on Home Economics education as an important tool for family survival and general towards acquisition of sustainable skills for human capacity building. This can only be achieved if young people and adult are exposed to the knowledge of technical and vocational training necessary for human development which can reduce problems and challenges related to teaching and learning of home Economics amongst Nigerians.

**Recommendations**

Based on the foregoing discussion the following recommendations were made:

- i. Corporate bodies and non-governmental organization should adopt and implement Home economics training as part of their social responsibility program.
- ii. Government should establish more vocational centres across the county where informal instructions are given to those that could not afford formal education.
- iii. To tackle poverty at all levels. Graduates of Home economics should be given soft loan to enable them establish their own business.
- iv. Women should embrace the program/training as much of the program is more of women oriented course.
- v. This will make women self-employed thereby, making the country to accelerate its human development.

**Reference**


Abstract
The study was designed to identify home economics education as a Panacea for sustainable community development in Abia State, Nigeria. The study adopted a survey research design. Data were collected using questionnaire. Population of the study was 26 lecturers. Data were analyzed using mean scores and standard deviation. The finding revealed 11 meaning of community development, 10 objectives of community development and 9 general objectives of home economics education to the individuals, families and community. The mean value of the standard deviation indicates that the respondents opinions did not deviate widely. Based on the findings, the following recommendations were made; Home economics education should be made compulsory in schools; community should form vigilante groups to protect the projects among others.

Keywords: Home Economics Education, Community Development; Sustainable Development.

Introduction
In the developing world, the issue of community development has become a paramount issue because the vast majority of the communities remain in abject poverty, not having resources to help themselves (Nwachukwu, 2018). The resources of these countries are usually concentrated in the hands of the government at the centre and very few individuals. The government is therefore expected to bring development to the communities. In spite of the efforts of the government and the intervention from international donor agencies, the vast majority of those communities have remained poor and under developed. May be one of the reasons for this is that the communities have largely waited on the government to do everything for them. The governments across Nigeria and Abia State in particular have failed their people, but the expectations of the people from such governments were not misplaced since it was these governments who promised to develop the communities in order to justify their misappropriation of the resources of the people in Abia State. For instance, before the oil boom, many communities had their traditional system of community development, they built schools, hospitals, roads among others and they made sure that such amenities were maintained and secured for the community use always, but after the oil boom and no sooner had the government taken over those institutions that the communities started witnessing decays in their economic and social lives (Nwachukwu, 2018). It is now very clear that any development that do not emanate from the people, whereby they do not participate in the conception, planning and implementation of programmes or projects, such projects cannot be Sustained because the people have not been empowered as to be able to sustain it. Therefore, we must turn our attention away from the government (“who provides all things”) and then focus on the empowerment of the people through home economics education; let us build and maintain the projects we need in our locality for our own development.

Literature Review
Community is a term used widely in almost all areas of our lives such as in politics, corporations, professionals among others. Community is defined as an aggregation of families habitually living together within a definite geographical location, more or less rooted in the soil they occupy; living in a state of mutual interdependence supporting some basic social institutions and having some measure of political autonomy in relation to other communities (Ekong, 2010). It is also defined as a local group which contains the major institutions. The term community is often associated with one or more of the following characteristics; a relatively small society, the people of a district, the quality of holding something in common, a sense of common identity and characteristics.

However, there are three main types of communities such as geographical, communities of interest, and virtual communities. Geographical communities are identified in a physical space, so that residents come into contact with each other by virtue of proximity rather than intent. Residents in a community usually must feel a sense of belonging and hold at least some values and symbols in common. For example: a feature of the natural landscapes, such as a river, that is important to many. It could be descendants of common family lineage or people brought together as a result of war or disaster over generations. In geographical...
communities, how power is distributed has a significant impact on how the community develops. Moreso, communities of interest are sometimes referred to as communities within communities. Members of these communities choose to associate with each other on the basis of a common interest. Sometimes, communities are formed by self-identified members of a reference group based on characteristics outside of their control for example: ethnic group, low income group among others, which gives them a sense of common identity and shared concerns (Chigbu, 2012). Meanwhile, virtual communities are groups of people that primarily interact via communication media rather than face to face. If the mechanism is a computer network, It is called an online community. Online communities have been described as “Social aggregations that emerge from the internet when people carry on those public discussions long enough with sufficient human feeling, to form webs of personal relationships. For this paper, the study is concerned with the geographical communities for clarity sake. In the opinion of the researcher, the community is the village, town, or the Slum where people live and exist as human beings and are interested with each other.

Therefore, Community development is the process of improving the quality of life and services of a place by the members and also through external assistance from the government or non-governmental organization (Nwachukwu, 2018). Also, community development seeks to strengthen the capacity of members to act collectively to improve their physical, social, economic and political environment. Moreso, community development builds sustainable places through participation and empowerment of members. Meanwhile, Nwachukwu (2018), observed that community development is a process where community members come together to take collective action and generate solutions to common problems. Community well-being (economic, social, environmental and cultural) are usually a product of this type of collective action being taken at the grassroots level. For this study, community development are those things communities come together to do or put in place for the betterment of their people such as health centers, water bore holes, building of Town Halls among others. Therefore community development is a grassroot process by which communities become; More responsible, Organize and plan together, Develop healthy lifestyle options, Empower themselves, Reduce poverty and suffering, Creates employment and economic opportunities, Achieve social, economic, cultural and environmental goals (Nwachukwu, 2018).

However, from the foregoing, community development seeks to improve the quality of life of people in the community and also to sustain that quality life for the progress of the community. Therefore, sustainable development is the development that meets the desires of the community on a progressive way without retardation. It is putting in place mechanism that ensures that a development project continues to achieve its goals over a given period of time. It is also the development that ensures that the needs of the present are met without compromising the ability of future generations to meet their own needs. This infers that the people of the community need to be educated and awareness should be created so as to sustain whatever that is put in place holistically. This can be achieved through education in home economics which is education concerned with strengtheningindividuals, family and community living (Olaitan&Agusiobo, 1981). While Anyakoha (2015), observed that home economics education is concerned with the improvement of the welfare of people to sustain community development project through the education given to the people at various levels of human development.

Meanwhile, Home economics according to International Federation of Home Economics (IFHE), is a field of study and profession situated in human science that draws from a range of disciplines to achieve optional and sustainable living for individuals, families and communities. The IFHE document further explained that home economics education also is concerned with the empowerment and well-being of individuals, families and communities; also facilitates the development of attributes for life-long learning, for paid, unpaid and voluntary advocates for individuals, families and communities. Furthermore, home economics covers studies on human development, family studies, education and community services among others (Mbah, Orhewere & Osifeso2018). The profession of Home economics has the potentials to influence all sectors of the society by intervening and transforming political, social, cultural, economic, ecological and technological systems. Home economics also has the attributes of focusing on fundamental needs and practical concerns of individuals and the family in everyday life and in their community levels, societal and global levels so that well-being of the people can be enhanced in ever changing environment. It demonstrates capacity to take critical transformative and emancipator action to
enhance well-being and advocates for individuals, families, communities and other sectors of the society. As a result of these attributes, home economics is distinctively of individuals, families and communities at large. Meanwhile, education is defined as a process of teaching, training and learning especially in schools and colleges to improve knowledge and develop skills (Hornby, 2010). According to Enaibe (2012), education is a dynamic instrument of change geared towards community and national development. This infers that education is one of the most important means of empowering human beings with the knowledge, skills and self-confidence necessary to participate fully in the development of a community. Home economics education is therefore the training of individuals on how to manage human and non-human resources available to them. Moreso, home economics education is that field of education, which concerns itself with management and economics of the community.

However, there is need to sustain community development projects because it is for the benefit of everybody and for a peaceful community living. Studies have shown that maintenance and sustenance of community projects play significant roles on the peaceful living of the community and progress (Ajayi, 1995); Akpabio, 2005; Brennan 2005; Marie & Louise 2002. The ways of sustaining community development projects include maintenance, provide security for the project, peace and harmony in the community, take up responsibilities, good governance, adequate mechanism, people participation, community self-determination, social justice and equity among others. Community development projects or programmes of every kind are bound to fail if not properly and carefully managed, it may lead to the collapse of such projects, a number of studies have been done in this regard to highlight the problems a community face in the maintenance of a community project. For example, Nwachukwu (2018) posits that one of the primary challenges of community development project is to balance the need for long-term solutions with the day to day realities that requires immediate decision-making and short term action, government policies and laws. Adamu, 2006, further stated that lack of involvement of youths, inadequate motivation among others. There is urgent need to sustain any community development programmes for posterity sake. However, this study is focused on home economics education; A panacea for sustainable community development in Abia State, Nigeria.

**Purpose of the Study**
The study explored home economics education as a panacea for sustainable Community Development, specifically the study determined.

1. What community development is?
2. The objectives of community development.
3. The general objectives of home economics education.

**Research Questions:** The study answered the following questions:

1. What are community development programmes?
2. What are the objectives of community development programmes that need to be sustained?
3. What are the general objectives of home economics education?

**Methodology**
The study adopted descriptive survey research design. It was considered suitable for getting the meaning objectives of community development and home economics education.

The area of the study is Abia State. The study was conducted in Abia State using Home Economics lecturers in the Department of Home Economics Education and Home Sciences/Hospitality Management and Tourism, Michael Okpara University of Agriculture, Umudike.

The target population was home economics lecturers in Michael Okpara University of Agriculture, Umudike. The lecturers are specialist in the areas of human and non-human resources. There are 26 lecturers of home economics (office of the Head of Department Records (2019).

All the 26 home economics lecturers were purposively used for the study because of their member. Questionnaire was used for data collection. It was developed by the researcher based on literature review and the purposes of the study. It had a 4-point rating scale of strongly Agree, Agree, Disagree, and strongly disagree with nominal values of 4,3,2 and 1 respectively. The instrument contained two parts, part A and part B. Part A collected data on the demographic information of the respondents while part B got information on home economics education as a panacea for sustainable community development programmes in Abia State. The instrument was validated by three experts in home economics, Michael Okpara University of Agriculture, Umudike. The experts assessed the instrument based on the content coverage, suitability of the items and sentence structure. The observations of the experts were incorporated in the final draft of the instrument.

The reliability of the instrument was determined by carrying out a pilot study test using 5 home economics lecturers from Abia State College of Education.
(Technical) Arochukwu, Abia State. The data generated from the pilot study were analyzed using cronbachalpha which yielded a reliability coefficient of 0.74 which made the instrument to be reliable for the study. 26 copies of the questionnaire were distributed to the respondents by personal contact. All the 26 questionnaires were retrieved representing 100%.

Data were analyzed using mean with standard deviation for the research questions. Based on 4-point rating scale of the instrument, 2.50 was used as a criterion point for decisions. Any item with the mean score of 2.50 and above was adjudged as agreed while any item with the mean score below 2.50 was regarded as disagreed.

Findings of the Study:- Based on the analysis of the data collection, the following findings were made:

### Table 1: Mean Responses on the Meaning of Community Development

<table>
<thead>
<tr>
<th>S/N</th>
<th>Meaning of Community Development</th>
<th>X</th>
<th>SD</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Community development is when people from a particular location come together to work for the economic development of their place.</td>
<td>2.90</td>
<td>1.00</td>
<td>Agree</td>
</tr>
<tr>
<td>2.</td>
<td>Community development is when people come together to solve a particular problem of their community.</td>
<td>2.96</td>
<td>0.99</td>
<td>Agree</td>
</tr>
<tr>
<td>3.</td>
<td>It is government intervention to bring amenities to the communities</td>
<td>2.95</td>
<td>0.96</td>
<td>Agree</td>
</tr>
<tr>
<td>4.</td>
<td>It is a process where community members come together to take collective action and generate solutions to common problem.</td>
<td>2.80</td>
<td>0.70</td>
<td>Agree</td>
</tr>
<tr>
<td>5.</td>
<td>It is a self-help among the people with mutual support for one another</td>
<td>2.91</td>
<td>1.01</td>
<td>Agree</td>
</tr>
<tr>
<td>6.</td>
<td>It is the promotion of collective action to bring community’s preferences to the attention of political decision makers</td>
<td>2.96</td>
<td>0.99</td>
<td>Agree</td>
</tr>
<tr>
<td>7.</td>
<td>It is a process of improving the quality of life and services of a place by the members.</td>
<td>3.04</td>
<td>0.93</td>
<td>Agree</td>
</tr>
<tr>
<td>8.</td>
<td>It is a process that seeks to strengthen the capacity of local members to act collectively to improve their physical, social, economic and political environment.</td>
<td>2.95</td>
<td>0.96</td>
<td>Agree</td>
</tr>
<tr>
<td>9.</td>
<td>It is a grassroots process by which communities organize and plan their progress</td>
<td>2.98</td>
<td>0.99</td>
<td>Agree</td>
</tr>
<tr>
<td>10.</td>
<td>It is means ways adopted by the community to reduce poverty and suffering</td>
<td>3.06</td>
<td>0.92</td>
<td>Agree</td>
</tr>
<tr>
<td>11.</td>
<td>It is a process of developing healthy lifestyle options by the community</td>
<td>2.96</td>
<td>0.99</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Table 1: shows that all the items were accepted as the meaning of Community Development because they were all rated above the cut-off point of 2.50 mean.
Table 2: Mean Responses on the Objectives of Community Development Programmes.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Objectives of Community Development programmes</th>
<th>X</th>
<th>SD</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Identify felt needs of the community.</td>
<td>2.74</td>
<td>1.00</td>
<td>Agree</td>
</tr>
<tr>
<td>2.</td>
<td>Rank the needs and resources to be used</td>
<td>2.99</td>
<td>1.05</td>
<td>Agree</td>
</tr>
<tr>
<td>3.</td>
<td>Bring people together to address issues of common concern</td>
<td>2.82</td>
<td>1.04</td>
<td>Agree</td>
</tr>
<tr>
<td>4.</td>
<td>Release potentials with the community.</td>
<td>2.93</td>
<td>1.00</td>
<td>Agree</td>
</tr>
<tr>
<td>5.</td>
<td>Take action for planning and implementing.</td>
<td>2.87</td>
<td>1.03</td>
<td>Agree</td>
</tr>
<tr>
<td>6.</td>
<td>Develop skills and resources to address identified problem.</td>
<td>2.79</td>
<td>1.40</td>
<td>Agree</td>
</tr>
<tr>
<td>7.</td>
<td>Strengthen relationships in the community.</td>
<td>3.01</td>
<td>0.98</td>
<td>Agree</td>
</tr>
<tr>
<td>8.</td>
<td>Bring about positive change in knowledge, attitude and skills of the people through community actions.</td>
<td>2.95</td>
<td>1.01</td>
<td>Agree</td>
</tr>
<tr>
<td>9.</td>
<td>Bring specific change in the management of the community Project.</td>
<td>2.79</td>
<td>0.99</td>
<td>Agree</td>
</tr>
<tr>
<td>10.</td>
<td>Involve village leaders to continuously help subjects.</td>
<td>2.83</td>
<td>1.05</td>
<td>Agree</td>
</tr>
<tr>
<td>11.</td>
<td>Involve government machinery for long term effort.</td>
<td>2.91</td>
<td>0.94</td>
<td>Agree</td>
</tr>
<tr>
<td>12.</td>
<td>Utilize the resources for community welfare.</td>
<td>2.95</td>
<td>0.99</td>
<td>Agree</td>
</tr>
<tr>
<td>13.</td>
<td>There should be value for self-worth.</td>
<td>2.67</td>
<td>0.99</td>
<td>Agree</td>
</tr>
<tr>
<td>14.</td>
<td>There should be change in every aspect of the community development.</td>
<td>3.60</td>
<td>0.64</td>
<td>Agree</td>
</tr>
<tr>
<td>15.</td>
<td>Community should be seen holistically for community development to succeed.</td>
<td>3.54</td>
<td>0.67</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Table 2: shows that all the items had their mean scores higher than the cut-off point of 2.50 mean with their corresponding standard deviations. This implies that the respondents agreed that all the items enumerated were the objectives of community development in Abia State. The values of the standard deviation indicates that the respondents opinions did not deviate widely.

Table 3: Mean Responses on the General Objectives of Home Economics

<table>
<thead>
<tr>
<th>S/N</th>
<th>General objectives of home economics education</th>
<th>X</th>
<th>SD</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>To advance the community and the Nations at large.</td>
<td>3.74</td>
<td>1.00</td>
<td>Agree</td>
</tr>
<tr>
<td>2.</td>
<td>To conduct research to discover and meet changing needs</td>
<td>3.79</td>
<td>1.05</td>
<td>Agree</td>
</tr>
<tr>
<td>3.</td>
<td>To educate youths for their future roles.</td>
<td>3.82</td>
<td>1.04</td>
<td>Agree</td>
</tr>
<tr>
<td>4.</td>
<td>To prepare people for a well-rounded life in the Community.</td>
<td>2.93</td>
<td>1.00</td>
<td>Agree</td>
</tr>
<tr>
<td>5.</td>
<td>Home Economics education is to improve the service of goods used by individuals.</td>
<td>2.87</td>
<td>1.03</td>
<td>Agree</td>
</tr>
<tr>
<td>6.</td>
<td>Home economics educates people for harmonious Living.</td>
<td>2.79</td>
<td>1.40</td>
<td>Agree</td>
</tr>
<tr>
<td>7.</td>
<td>It trains people to have a sense of decency and appreciative Lifestyle.</td>
<td>3.01</td>
<td>0.98</td>
<td>Agree</td>
</tr>
<tr>
<td>8.</td>
<td>It prepares people for employment in the future</td>
<td>2.95</td>
<td>1.01</td>
<td>Agree</td>
</tr>
<tr>
<td>9.</td>
<td>It prepares future generation to meet the challenges of alleviating poverty and ignorance.</td>
<td>2.79</td>
<td>0.99</td>
<td>Agree</td>
</tr>
</tbody>
</table>
Table 3 shows that all the items had their mean scores higher than the cut-off point of 2.50 mean with their corresponding standard deviations. This implies that the respondents agreed that all the items were the general objectives of home economics education. The respondent's opinion did not deviate widely as indicated by the values of the standard deviation.

Discussion of Findings
The study revealed that for any community development programmer to be sustained it means that the project has been built successfully and now requires to be sustained. So Sustainability presupposes that the provision of project in the community has been a success and requires to be sustained. Sustainability therefore encompasses all factors of production and this can be achieved through the control and management of existing enabling infrastructure facilities and environment as well as human capacity building and political stability. The findings on the meaning of community development such as people from a particular location coming together to work for economic development, to solve a particular problem of their community; government intervention to bring amenities to the community members among others are in agreement with Okenwa (2002) who stated that community development involves people working together to source from their immediate environment the resources they need to live and solve their problems. Also, Ezeah (2005), stated that community seeks the transformation of the rural areas in such a way that the rural people would feel a sense of belonging and encouragement to develop their innate potentials for sustainable development. In a similar vein, Karikari (2000) observed that community media as a community development project; in their establishment and operations are usually guided by its accessibility to the people, popular participation and self-management. This infers that the communities put up development projects that are available and accessible to everybody in the community.

Secondly, the research revealed that the respondents accepted the objectives of community development as being in tune with the sustainable development goals (SDGs3) and this is in line with Nwachukwu (2018), who opined that the goal of community development is to empower individuals and groups of people with the skills they need to effect necessary changes within their communities. He also stated that usually these skills are not realized by the people who possess them until they are challenged to take up the responsibilities and this happens when groups are formed to accomplish a task. The finding is also in agreement with the working statement on community development from the standing conference for community development – a U.K wide development network (Wikipedia, 2014), that community development is about the active involvement of people in the issues which affect their lives and it is also based on the sharing of power, skills, knowledge and experience. In a similar vein it was also stated that community development seeks to enable individuals and communities to grow and change according to their own needs and priorities and at their own pace, provided this does not oppress other groups and communities or damage the environment. Furthermore, the findings on objectives of community development; take action for planning and implementation is also in line with Nwachukwu (2018), that it is now very clear that any development that did not emanate from the people, whereby they did not participate in the conception, planning and implementation of programmes cannot be sustainable. This infers that members of community do not get involved in the security of projects which they were not members of it or does not know how the project come on board. So they must always be involved.

However, the finding in table 3: on the general objectives of home economics education to individuals and community is in line with Lisk (1985), in Nwachukwu (2018) who observed that people's participation in community development is the involvement of the broad mass of the population in the choice execution and evaluation of programmes and projects designed to bring about a significant upward movement in their levels of living. Furthermore, according to FAO (1992), people's participation should be viewed as an active process in which people take initiative and actions that are stimulated by their own thinking, deliberations and which they can effectively influence. While Tilford, Williams &Nkamba (2008), observed that community development participation is a process in which individuals and families develop their ability to contribute toward their community. They also stated that they thus achieve a better understanding of their own situation and are motivated by desire to resolve their common problems. Mba et al (2018), also in line with the findings stated that home economics education generates knowledge as well as uses concept from other field and applies this information to help individuals and families improve their lives forward in the future through community participation. It is also in line with the philosophy of home economic as stated by Anozie&Ngoka (2014), that home economics education ensures that every individual is a worthy member of the larger society and is contributing effectively to the development of the community. The findings further indicated that home economics education prepares people for a well-rounded life in the community and also improves the services and goods used by individuals. This is in line with Pandergast (2006), who reported that Home Economic education has the potential to lead societal
change and to contribute to achieving global well-being. She further observed that as a profession that serves the society, it strives to solve the most pressing problems as well as those of the future. Therefore, it is committed to sustainable community development. This infers that home economics education is worthwhile education for all in the society.

Conclusion
Based on the findings of the study the following conclusions were drawn that community development improves the quality of life and services of a place by the members and also through external bodies like government and non-governmental bodies. Moreso, Community development builds sustainable places through participation and empowerment. It was also found that sustainable community development is a development that ensures the needs of the present without compromising the ability of future generations to meet their own needs. It was found that this can be achieved through home economics education which is concerned with the improvement of the welfare of individuals, families and communities at large. The study of home economics education has the potentials to influence all sectors of the society by intervening and transforming political, social, cultural, economic and technological systems. It was also found that the ways of sustaining community development programmes include providing security, peace in the community, good governance, people participation among others. It was also found that sustaining community development projects are necessary because it is for the benefit of all in the community and for posterity sake.

Recommendations
Based on the findings of the research, the following recommendations were made:
- Home economics education should be made compulsory for all students because of its importance to humanity.
- Community development programmes should be things that community need to live and solve their problems.
- Communities should form vigilante groups to protect the projects.
- The three tiers of government should help the community develop their community by providing them with their needs.
- All community development programmes should emanate from the people to ensure the sustainability of the programme.
- The Eze and Eze in councils should maintain peace in their communities.
- All people involved in Community development programmes should maintain transparency and honesty as their watch word to avoid conflict among members.

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Records from the Office of the Head of Department of Home Economics. College of Applied Food Science and Tourism.(Records 2019)


PRODUCTION AND EVALUATION OF MUNGBEAN – WATERYAM AKARA

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Abstract
Proximate composition and sensory evaluation of akara prepared from mungbean and water yam blends were carried out in this study. Six different samples of akara were prepared using different proportions of mungbean paste and water yam mash. The wet milled mungbean and grated water yam were mixed in the ratio of 80:20, 70:30, 60:40, 50:50 (mungbean paste/water yam mash) respectively and 100% water yam and 100% mungbean paste used as control. The choice of these levels was based on their acceptability during the preliminary trial. Standard analytical methods were used to determine the proximate composition and sensory properties of akara samples. Furthermore, changes in free fatty acid of fresh oil and fried oil value (FFA), peroxide value (PV) of the oil and thiobabarturic acid value (TBA) of the akara were also determined using standard analytical methods. The protein content ranged from 5.03% (100% water yam akara) to 22.22% (100% mungbean akara) and increased as substitution level of mungbean paste increased. All other proximate parameters increased with increased mungbean paste substitution levels except dry matter and carbohydrates which increased with increased substitution levels of water yam mash. Ash content ranged from 2.90 to 3.42%; crude fibre ranged from 1.05 to 3.31%; crude fat ranged from 15.63 to 20.66% and carbohydrate ranged from 21.48 to 50.96%. The sensory evaluation results showed a slight difference in the samples appearance tested and no significant difference (p>0.05) for flavour, taste, texture and General Acceptability were observed. This implied that mungbean and water yam blends, produced a high quality characteristic, and can be used to produce akara that will be acceptable, thus improving the culinary uses of water yam and improving the nutritional quality of its akara. The results showed that 50% of water yam substitution to mungbean lowered the fat content of akara by 3.03% and increased the protein content by 13.66%. Incorporation of water yam at 50% produced acceptable akara without affecting the sensory attributes of the akara. The results had lower PV of 0.21 to 1.35 MeqH₂O/1, FFA of 0.92 to 2.05% of fresh and fried oil respectively and TBA values ranged from 0.167 to 0.385 mg/kg. In conclusion, acceptable akara with low fat content and high protein content were produced by substituting water yam with 50% mungbean paste.

Keywords: Mungbean- Water Yam Akara, Proximate, Sensory, Antioxidant Properties

Introduction
Akara (fried bean cake) is a popular food in Nigeria and other West African countries (Ekariko, 2005), and form part of diet for most ethnic groups in Nigeria. Nigerians usually eat it as breakfast with Ogi or lunch with gari or even dinner with Eko. Akara is a traditional African food made by deep frying cowpea paste that has been whipped and seasoning with salt, pepper, onions and other optional ingredients. The outer crust of akara is crisp and the interior is spongy like bread. It is considered to be the most commonly consumed cowpea based food in West Africa (Asare et al., 2013). Akarais made mainly from legume beans and other sources like maize “Monsa”. Tubers and legumes are excellent source of energy due to their relatively high content of carbohydrate and proteins (Ogunsedelet et al., 2014).

Water yam is the most widely distributed of all the yams, being grown in all parts of the tropics. It is different from most other yams because it is mucilaginous and so, it is not as popular for cooking (Okoh,2017). It is used by the Yoruba people to make delicacies like Ikokore (water yam porridge) and Ojojo...
Mungbean (Vignaradiata (L.)Wilzeck), originating from an area in Southeast Asia deemed to be an ecological analogue of Southeastern Nigeria, has been successfully introduced and grown in Nigeria. It is well suited for cultivation throughout the tropics and subtropics and has attributes that suggest it could thrive in the south eastern Nigeria (Agugo, 2003). Mungbean is cultivated on the research farm of Michael Okpara University of Agriculture Umudike, Umuahia subsequent to securing import permit from Nigeria plant quarantine service, four varieties of mungbean (Nm92, Nm94, Vc1163, Vc6372) were obtained from Asian Vegetable Research and Development Centre (AVRDC) Taiwan (Agugo and Opara, 2009). Furthermore, in the South Eastern part of Nigeria, precisely Nsukka in Enugu State, a brown-coloured local cultivar of mungbeans (orarudi) is highly cultivated and utilized in various forms (OffiaOlua, 2019). This cultivar was used for the purpose of this present study.

Serious researches have been going on and currently intensified to increase the production and utilization of mungbeans in Nigeria, especially in Michael Okpara University of Agriculture Umudike, UmuahiaAbia State (OffiaOlua, 2019). There are different varieties of mungbean and they are crystal, satin II, Green Diamond, Regur, Berken, Jade-AU, Celera II- AU, Emerald and Black gram (Vignamungo) (Australian Mungbean Association, 2020). Mungbean (Vignaradiata) can be cooked in the dried form, sprouted or ground into flour or paste (wet milling) in intermediate product and it is a source of primary protein source and are used by the Indians to prepare various cuisines (foods) like pancake etc. (Fuller, 2007), which is high in protein and provide protein that is in most Indian regional cuisines. Mungbean flour has been substituted with wheat flour and used to produce cookies and noodles (Akaerue and Onwuka, 2010c,e). Also the effects of processing on the proximate composition, functional properties and protein isolate yield of mungbean have been studied by Akaerue and Onwuka (2010a). Various research works are on ground to improve the dehulling efficiency of mungbean (Akaerue and Onwuka, 2010b; OffiaOlua and Madubuike, 2015) to ascertain the best processing treatment for mungbean intended for pastry, baking, extrusion cooking as well as the organoleptic quality of mungbean flour supplemented with hungry rice in infant food formula and biscuit.

Mungbean (Vignaradiata) like other grain legumes is an important foodstuff in tropical and subtropical countries, mungbean provides essential nutrients and high level of protein (about 24%) making it extremely valuable where many people cannot afford protein food such as meat and fish (Apapunam and Sefa-Dedeh, 1997).

They can also be processed into paste or flour and used as food ingredient for a variety of local foods (Uwaegbuteet al., 2006). Mungbean is also rich in the essential amino acids, has a rich protein profit, through limiting in methionine and cysteine, it supplements the protein content of wateryam (1.1 – 2.8) % as yam is limiting in tryptophan and clearly deficient in methionine and cysteine (Azubike, 2010).

Akara is mainly prepared from legumes like cowpea and other beans but information on use of mungbean and water yam for Akara production in this part of the world is limited. The substitution of legume (mungbean) with tuber crops or cereals have been found to improve overall nutrition (Ruiter, 2009) but mungbean has been underutilized as various research have reported it to have a higher amino acids content, richer in minerals such as potassium (which is depleted in yam during peeling) (Azubike, 2010). Major problem associated with akara is susceptibility to various types of spoilage such as staling, rancidity and ropiness, soon after its production (Olopade et al., 2003). Akara starts to stale the minutes it leaves the fryer which makes its crumb to become firm, harsh, opaque and crumbler. The poor shelf life of akara has been attributed to its fat content and high moisture content (Olopade et al., 2003; Ikyaet al., 2013).

This study was aimed at improving the domestic and commercial use of wateryam by combining it with mungbean for the production of akara. Producing akara with wateryam and mungbean will increase the nutritional value of the akara and will also stimulate the
agricultural sector to increase the cultivation of mungbean and wateryam, therefore help in alleviating the malnutrition in developing countries and also be a source of revenue to farmers and small-medium entrepreneurs (SMES). This study will provide more information to researchers about mungbean-wateryamakara and address the country quest for maintaining nutritious foods to meet the nutritional requirement of the ever-growing population, thus contribute to Nigeria's food security. New product development and diversification will be achieved through the study by creating a new variety of existing akara. Furthermore, it will increase awareness and utility of mungbean.

**Materials and Methods**

The local variety of mungbeans with brown seed coat, which is known as” Orarudi” were procured from a local market in Nsukka in Enugu state, while the water yam tubers were purchased from Eke market, Afikpo in Afikpo North local government, Ebonyi State.

The sample preparation was carried out at the Food Science and Technology laboratory MOUAU while the other analyses on the akara blends was carried out at Biochemistry Laboratory of the National Root Crops Research Institute (NRCRI) and all reagents used were of analytical grade.

**Preparation of Mungbean Paste**

The mungbean seeds were sorted, soaked for 12 hours at ambient temperature, manually dehulled, and wet milled using an attrition milling machine.

**Preparation of Water Yam**

Wateryam tubers were peeled, washed, sliced or cut into blocks for easy handling. They were grated using a grater to obtain the water yam mash.

**Blending Formulation and Akara Production**

The wet milled mungbean and grated water yam mash were mixed in the ratio of 80:20, 70:30, 60:40, 50:50 (mungbean paste /water yam mash) respectively and 100% water yam and mungbean paste served as control.

Sample 501: 100 % Mungbeanakara  
Sample 502: 80% Mungbean paste and 20% water yam mash akara  
Sample 503: 70% Mungbean paste and 30% Water yam mash akara  
Sample 504: 60 % Mungbean paste and 40% Water yam mash akara  
Sample 505: 50 %Mungbean paste and 50% Water yam mash akara  
Sample 506: 100 % Water yam mash akara
Finely chopped onions and pepper were added into the wateryam mash/mungbean paste, a cube of maggi, little salt was also added and all thoroughly mixed together and the mixture was fried in balls in deep fat until golden brown akara were formed and ready to eat. Samples (plates 1-6) were cooled and packaged for further analyses.

**Proximate Analysis of Munbean-WateryamAkara**
The proximate analysis carried out includes crude protein, ether extract, crude fibre, moisture content, ash content and carbohydrate. The A.O.A.C (2000) methods of analysis were used to determine the above parameters.

**Sensory Evaluation**
Sensory evaluation of the akara was conducted using a 20 semi – trained panelist who were asked to score the akara quality attributes based on appearance, texture, flavour, taste and general acceptability using a 9-point hedonic scale ranging from 9 (extremely like) to 1 (extremely disliked). Samples were coded with 3-digits random number and given to the panelist (Onwuka, 2018).

**Free Fatty Acids Value of Akara Oil**
Free Fatty Acids (FFA) was determined according to the method described by Chinma et al. (2010). Briefly, 25ml diethyl ether was mixed with 25ml ethanol and 1ml phenolphthalein indicator (1%), and carefully neutralized with 0.1M sodium hydroxide. Five grams of the samples was dissolved in the neutral solvent and titrated with aqueous 0.1M sodium hydroxide while shaking until a pink colour that persisted for 15s was obtained.

The FFA was calculated as:

\[
\text{FFA content} = \text{Acids value} \times 2
\]

Where: \(\text{Acids value} = \left(\frac{\text{ml alkali} \times 5.6}{\text{weight of sample}}\right)\)

**Peroxide Value of the Akara Oil**
This was determined according to the method described by Young and Inengite (2015). Briefly, 5g of samples was weighed into a 250ml Erlenmeyer flask after which 30ml of acetic acid-chloroform solution (2:1) was added and swirled to dissolve. A saturated solution of potassium iodine (5ml) was added and allowed to stand for 1min with occasional shaking. Then, 30ml distilled water was added and titrated slowly with 0.1M sodium thiosulphate with vigorous shaking until the yellow colour almost disappeared. About 0.5ml 1% starch solution (indicator) was added to this and titration continued until the blue colour disappeared.

A blank was conducted and the peroxide value (PV) calculated as: 

\[
\text{Peroxide value (Meq Peroxide / Kg)} = \left(\frac{(S-B) \times M \times 1000}{\text{sample weight}}\right)
\]

Where:
- \(S = \text{Sample titre}\)
- \(B = \text{Blank}\)
- \(M = \text{Molarity of Sodium thiosulphate}\)

**Thiobarbituric Acid Value of Akara Samples**
Thiobarbituric acid value was determined using the method reported by Chinma et al., (2010). Ten grams of samples was macerated in 50ml of distillation flask with 47.5ml distilled water. About 2.5ml of 4M hydrochloric acid was added to bring the pH to 1.5. The flask was heated until 50ml distillate was collected from the time boiling commenced. 5ml of thiobarbituric acid (TBA) reagent was added; it was shaken and heated in boiling water for 35 min. A blank was prepared using 5ml of distilled water for 10min and the absorbance was measured against the blank at 538nm.

The TBA number was calculated as: 

\[
\text{TBA} = 7.8 \times D
\]

Where: \(D = \text{absorbance reading}\)

**Statistical Analysis**
All data obtained were subjected to statistical Analysis of variance (ANOVA) using SPSS. Means were separated using least Significant Difference (LSD) and Duncan's Multiple range test (DMRT) \((P \leq 0.05)\).
Results and Discussion

The result of the proximate composition of the akara samples were presented in Table 1. The result indicated significant differences (p< 0.05) in the proximate composition of the samples. The protein content of samples increased as the substitution level of mungbeans increased. Sample 501(100% mungbeanakara) had the highest protein value (22.22%), closely followed by sample 502 (80% mungbean-20% wateryam akara) (20.61%) while sample 506 (100% wateryam akara) had the least protein (5.03%). The protein range was higher than those reported by Adediran et al. (2013) (12.15-13.75%) and lower than those reported by Ajibola and Filani (2015) (23.5-26.2%). There were significant differences (p<0.05) in the carbohydrate content of the sample, the carbohydrate content ranged from 21.48 to 50.96%. Sample 501 (100% mungbeanakara) had the highest carbohydrate content while sample 506(100% wateryam akara) had the lowest carbohydrate content. This carbohydrate content was similar to those reported by Ajibola and Filani (2015), and lower than those reported by Adediran et al. (2013). The lower moisture content may be attributed to the difference in the quantity of water used in the recipe formulation and the initial moisture content of the paste and mash.

There were significant differences (p<0.05) in the fibre content of the akara samples, which ranged from 1.01% for sample 506 (100% water yam akara) to 3.31% for sample 506 (100% water yam akara) and increased as the substitution level of the water yam mash increased. Sample 506 (100% water yam akara) had similar fibre range as reported by Olapade and Akinyanju (2014) that worked on chemical and functional properties and performance of blends of water yam and soybean flour for water yam ball (ojojo) and the crude fibre content was reported to be 0.78 to 2.18%. There were significant differences (p<0.05) in the ash content of the akara sample, sample 501(100% mungbeanakara) had the highest ash content and 505(50% mungbean paste and 50% water yam mash) had the lowest ash content, the ash content of the akara sample ranged from 2.73 to 3.42, sample 506 (100% water yam akara) had similar range mean of ash content as reported by Olapade and Akinyanju (2014) and the ash content of the akara samples had a lower range as reported by Ajibola and Filani (2015) that ranged from 3.1 to 3.6% and has a similar ash content range mean as reported as Adediran et al. (2013) which was recorded to be 2.20 to 3.0%.

<table>
<thead>
<tr>
<th>Samples</th>
<th>DM (%)</th>
<th>MC (%)</th>
<th>CP (%)</th>
<th>CF (%)</th>
<th>FAT (%)</th>
<th>ASH (%)</th>
<th>CHO (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>501</td>
<td>71.09±0.01</td>
<td>28.91±0.01</td>
<td>22.22±0.01</td>
<td>3.31±0.01</td>
<td>20.66±0.01</td>
<td>3.42±0.00</td>
<td>21.48±0.03</td>
</tr>
<tr>
<td>502</td>
<td>73.53±0.01</td>
<td>26.47±0.01</td>
<td>20.61±0.01</td>
<td>2.81±0.01</td>
<td>18.43±0.01</td>
<td>3.13±0.01</td>
<td>28.53±0.01</td>
</tr>
<tr>
<td>503</td>
<td>73.82±0.01</td>
<td>26.18±0.01</td>
<td>20.44±0.01</td>
<td>2.58±0.01</td>
<td>18.25±0.01</td>
<td>3.01±0.01</td>
<td>29.54±0.01</td>
</tr>
<tr>
<td>504</td>
<td>73.37±0.01</td>
<td>25.63±0.01</td>
<td>20.17±0.01</td>
<td>2.36±0.01</td>
<td>18.02±0.01</td>
<td>2.78±0.01</td>
<td>31.04±0.01</td>
</tr>
<tr>
<td>505</td>
<td>74.79±0.01</td>
<td>25.21±0.01</td>
<td>18.66±0.01</td>
<td>2.03±0.01</td>
<td>17.63±0.01</td>
<td>2.73±0.01</td>
<td>33.74±0.01</td>
</tr>
<tr>
<td>506</td>
<td>75.49±0.69</td>
<td>25.01±0.01</td>
<td>5.03±0.01</td>
<td>1.05±0.01</td>
<td>15.63±0.01</td>
<td>2.90±0.01</td>
<td>50.96±0.01</td>
</tr>
</tbody>
</table>

Values with different superscripts along column significantly different (p<0.05) values are mean ± standard deviation of two replication

There were significant differences (p<0.05) in the carbohydrate content of the sample, the carbohydrate mean ranged from 21.48 to 50.96%. Sample 501(100% mungbeanakara) had the lowest carbohydrate content while sample 506(100% water yamakara) had the highest carbohydrate content. This carbohydrate was similar to those reported by Ajibola and Filani (2015) and higher than those reported by Adediran et al. (2013), the lower carbohydrate content may be attributed to the effect of wet milling and deep-frying of the akara. The reason for the value obtained on the proximate composition is as a result of wet milling and deep oil frying and it was observed that mungbean and water yam akara absorbed a lot of oil while frying.

<table>
<thead>
<tr>
<th>Samples</th>
<th>DM</th>
<th>MC</th>
<th>CP</th>
<th>CF</th>
<th>FAT</th>
<th>ASH</th>
<th>CHO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample 501: 100 % Mungbeanakara</td>
<td>71.09±0.01</td>
<td>28.91±0.01</td>
<td>22.22±0.01</td>
<td>3.31±0.01</td>
<td>20.66±0.01</td>
<td>3.42±0.00</td>
<td>21.48±0.03</td>
</tr>
<tr>
<td>Sample 502: 80% Mungbean paste and 20% water yam mash akara</td>
<td>73.53±0.01</td>
<td>26.47±0.01</td>
<td>20.61±0.01</td>
<td>2.81±0.01</td>
<td>18.43±0.01</td>
<td>3.13±0.01</td>
<td>28.53±0.01</td>
</tr>
<tr>
<td>Sample 503: 70% Mungbean paste and 30% Water yam mash akara</td>
<td>73.82±0.01</td>
<td>26.18±0.01</td>
<td>20.44±0.01</td>
<td>2.58±0.01</td>
<td>18.25±0.01</td>
<td>3.01±0.01</td>
<td>29.54±0.01</td>
</tr>
<tr>
<td>Sample 504: 60 % Mungbean paste and 40% Water yam mash akara</td>
<td>73.37±0.01</td>
<td>25.63±0.01</td>
<td>20.17±0.01</td>
<td>2.36±0.01</td>
<td>18.02±0.01</td>
<td>2.78±0.01</td>
<td>31.04±0.01</td>
</tr>
<tr>
<td>Sample 505: 50 %Mungbean paste and 50% Water yam mash akara</td>
<td>74.79±0.01</td>
<td>25.21±0.01</td>
<td>18.66±0.01</td>
<td>2.03±0.01</td>
<td>17.63±0.01</td>
<td>2.73±0.01</td>
<td>33.74±0.01</td>
</tr>
<tr>
<td>Sample 506: 100 % Water yam mash akara</td>
<td>75.49±0.69</td>
<td>25.01±0.01</td>
<td>5.03±0.01</td>
<td>1.05±0.01</td>
<td>15.63±0.01</td>
<td>2.90±0.01</td>
<td>50.96±0.01</td>
</tr>
</tbody>
</table>
which generally affected the carbohydrate value.

**Sensory Evaluation of Mungbean-Water Yam Akara**

The result of the sensory evaluation of the mungbean-wateryam akara samples are presented in Table 2. The result showed that significant difference (p<0.05) existed in the appearance of samples. Sample 501(100% mungbean akara) was least preferred (4.80) while the sample 505(50% mungbean:50% wateryam akara) was most preferred (7.10), followed by sample 503 (70% mungbean:30% wateryam akara) (6.90),504 (60% mungbean:40% wateryam akara) (6.75),505 (50% mungbean: 50% water yam akara).

There were no significant differences (p>0.05) in the flavor of samples; sample 505(50:50) was most preferred on the flavour and sample 501(100% mungbean paste) was least preferred. There were no significant differences (p>0.05) on the taste of the akara samples, sample 505 (50:50) was more preferred and sample 506 (100% water yam akara) was least preferred on the taste.

There were no significant differences (p>0.05) on the texture of the akara samples, sample 505 (50:50) was most preferred and sample 506 (100% water yam akara) was least preferred on the texture.

There were no significant differences (p>0.05) on the general acceptability of the akara samples, sample 505(50:50) was more preferred and sample 506 (100% water yam) was least preferred on the general acceptability. Sample 505 (50:50) was the sample that was most preferred in all the parameters evaluated.

<table>
<thead>
<tr>
<th>Samples</th>
<th>Appearance</th>
<th>Flavour</th>
<th>Taste</th>
<th>Texture</th>
<th>General Acceptability</th>
</tr>
</thead>
<tbody>
<tr>
<td>501</td>
<td>4.80 ± 2.00</td>
<td>5.75 ± 2.12</td>
<td>6.20 ± 1.67</td>
<td>6.40 ± 1.54</td>
<td>6.70 ± 1.45</td>
</tr>
<tr>
<td>502</td>
<td>5.80 ± 1.64</td>
<td>6.10 ± 2.15</td>
<td>6.85 ± 1.93</td>
<td>6.55 ± 1.61</td>
<td>6.90 ± 1.29</td>
</tr>
<tr>
<td>503</td>
<td>6.10 ± 1.54</td>
<td>6.20 ± 1.61</td>
<td>6.75 ± 1.45</td>
<td>6.30 ± 1.22</td>
<td>6.90 ± 1.25</td>
</tr>
<tr>
<td>504</td>
<td>6.75 ± 1.22</td>
<td>6.00 ± 1.56</td>
<td>6.30 ± 1.95</td>
<td>6.15 ± 1.60</td>
<td>6.60 ± 1.76</td>
</tr>
<tr>
<td>505</td>
<td>7.10 ± 1.37</td>
<td>6.35 ± 1.31</td>
<td>6.85 ± 1.42</td>
<td>6.80 ± 1.11</td>
<td>7.20 ± 1.28</td>
</tr>
<tr>
<td>506</td>
<td>6.90 ± 2.20</td>
<td>6.30 ± 1.69</td>
<td>6.00 ± 1.78</td>
<td>5.80 ± 1.58</td>
<td>6.35 ± 1.60</td>
</tr>
</tbody>
</table>

Values with different superscripts along column significantly different (p<0.05) values are mean ± standard deviation of two replication

Sample 501: 100 % Mungbeanakara
Sample 502: 80% Mungbean paste and 20% water yam mash akara
Sample 503: 70% Mungbean paste and 30% Water yam mash akara
Sample 504: 60 % Mungbean paste and 40% Water yam mash akara
Sample 505: 50 %Mungbean paste and 50% Water yam mash akara
Sample 506: 100 % Water yam mash akara

**Changes in Free Fatty Acid Value of Fried and Unfried Oil**

The amount of free fatty acid in a food product indicates the extent of fatty acid deterioration due to hydrolysis of fatty acid double bonds (Ajibola and Filani, 2015). Hence, formation of free fatty acid could enhance rancidity of food.

Table 3 showed the changes in free fatty acid of unfried and fried oil used for the akaradeep frying. There was significant difference (p<0.05) in the free fatty acid of oil samples. The unfried oil (refined vegetable oil) sample showed increase in free fatty acid after deep frying from 0.21 to 1.35%. The low free fatty acid observed in the oil showed the stability of fat presence in the oil before and after the deep frying.

<table>
<thead>
<tr>
<th>SAMPLES</th>
<th>FFA %</th>
<th>PV MeqH2O2/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh Oil</td>
<td>0.210 ± 0.01</td>
<td>0.92 ± 0.01</td>
</tr>
<tr>
<td>Fried Oil</td>
<td>1.345 ± 0.00</td>
<td>2.05 ± 0.01</td>
</tr>
</tbody>
</table>

Values with different superscripts along column significantly different (p<0.05) values are mean ± standard deviation of two replication
These results were in agreement with the previous results reported by Ajibola and Filani (2015) which was reported to range from 0.2 to 1.35%.

Changes in Peroxide Value (PV)
Determination of peroxide value can give an idea about the early stages of oil oxidation. Table 3 presents the peroxide values of refined vegetable oil before and after deep oil frying at (180°C±5°C). The peroxide value of the fresh oil was very low which indicated that it was of high quality. The mean range of peroxide values for the unfried oil was 0.92 meq.O₂/kg oil which was less than 10 meqO₂/Kg, and therefore, within the acceptable value range for fresh oil (CODEX, 1999). The peroxide value of the fried oil was progressively and significantly increased during the frying process, but not as sharply as the free acidity.

Peroxides are unstable compounds particularly under high temperature conditions; therefore, the peroxides decompose to form carbonyl and aldehydic compounds causing the decrease in peroxide value (El Anany and Eli, 2008). Fried oil had significantly difference (P<0.05) from the unfried oil value of peroxide which was 2.05 meq.O₂/kg oil which is less than 10 meqO₂/Kg (El Anany and Eli, 2008). Increase in peroxide value during storage period indicates formation of peroxide due to lipid oxidation. The active oxygen combines with double bonds of the fatty acids in the triglycerides to produce hydroperoxide which are useful indicators of the early stages of rancidity (Ijeh et al., 2011). However, PV alone is not a suitable parameter to assess the extent of fat and oil deterioration in food; this is because as deterioration continues, the hydroperoxide can decompose to form carbonyl and aldehydic compound causing peroxide value to decrease (Shahidi and Wanqsundara, 2002). Change in peroxide value of unfried and fried oil is shown in Table 3.

There was significant difference (p<0.05) in the peroxide value of the unfried and fried oil. There was increase in peroxide value of the unfried oil and fried oil from mean of 0.92 to 2.05 MeqH₂O₂/1 increases. Food with high PV could be harmful to human health due to the free radicals that can be generated in the oxidative process (Tagoe et al., 2012). These results are in agreement with the previous results reported by Ajibola and Filani (2015) which was reported to be 0.8 to 3.7 MeqH₂O₂/1.

Changes in Thiobarbituric Acid Value (TBA)
The changes in the TBA values (absorbance at 532 nm) of akara sample blended with different proportions of mungbean and water yam after deep oil frying at (180°C ± 5°C) are shown in Table 4. There were significant difference (p<0.05) in TBA value of the akara samples. TBA value increased with increased in proportion of wateryam to mungbean. This finding could be explained by the fact that the less stable oxidative compounds (i.e. hydroperoxides) decompose further to for aldehydic compounds (Farag and El Anany, 2006). These carbonyl compounds react with TBA reagent to produce coloured compounds which absorb usually at 532 nm (El Anany and Eli, 2008). Peroxidation of fatty acids can cause deleterious effects in foods and living tissues by forming complex mixtures of secondary break-down products of lipid peroxide (Ajibola and Filani, 2015). Further intake of these foods can cause a number of diverse effects including toxicity to mammalian cell (Ajibola et al., 2011). Thiobarbituric acid test is used as a measure of lipid peroxidation or oxidative rancidity in fat containing foods (Li et al., 2008). Thiobarbituric acid reactive substances (Malondialdehydes) are formed as a by-product of secondary lipid peroxidation, which can be detected using thiobarbituric acid as reagent. These results are in agreement with the previous results reported by Ajibola and Filani (2015).

Table 4.4 Change in TBA of Mungbean-Water Yam Akara Samples

<table>
<thead>
<tr>
<th>Samples</th>
<th>TBA (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>501</td>
<td>0.167±0.001</td>
</tr>
<tr>
<td>502</td>
<td>0.203±0.001</td>
</tr>
<tr>
<td>503</td>
<td>0.252±0.001</td>
</tr>
<tr>
<td>504</td>
<td>0.293±0.001</td>
</tr>
<tr>
<td>505</td>
<td>0.351±0.001</td>
</tr>
<tr>
<td>506</td>
<td>0.385±0.001</td>
</tr>
</tbody>
</table>

Values with different superscripts along column significantly different (p<0.05) values are mean ± standard deviation of two replication.
Conclusion
Results from this study has shown the possibility of increasing the utilization of mungbean and water yam through traditional processing methods that can be employed and adapted for use on a small scale and at household levels. Notably among other parameters measured is the effect of the addition of water yam to mungbean in akara production, and on the sensory properties in which, all the samples had better ratings but akara composition of 50% mungbean and 50% water yam was the most preferred. The substitution of 50% mungbean paste with 50% Water yam mash produced acceptable akara with low fat, and high protein content, and with this result, the protein content ranged from 5.03 to 22.22%; ash content ranged from 2.90 to 3.42%; crude fibre ranged from 1.05 to 3.31%; crude fat ranged from 15.63 to 20.66% and carbohydrate ranged from 43.32 to 44.24%. The sensory evaluation results showed a slight difference in the samples appearance tested and no significant difference (p>0.05) for flavour, taste, texture and General Acceptability at were observed. The results showed that at 50% of water yam substitution to mungbean lowered the fat content of akara by 3.03% and increased the protein content by 13.66%. The results had lower PV of 0.21 to 1.35 MeqH₂O/1, FFA of 0.92 to 2.05% of fresh and fried oil respectively and TBA values ranged from 0.167 to 0.385 mg/kg.

Recommendation
From the result of this study, mungbean has similar nutrient content as cowpea beans which is popularly known for akara production in Nigeria, and previous researches showed that consumption of mungbeans confers health benefits. Therefore, utilization of mungbean and water yam should be employed in akara production and more researchers should try and work on the flour production of both mungbean and water yam to increase the shelf life and for easy accessibility and availability and more awareness should be made on them.

References


Abstract
This study examined the influence of family lifestyles on adolescent conflict resolution in Eleme, Rivers state. The study had three specific objectives and tested one hypothesis at 0.05 level of significance. The study adopted the quantitative survey design; population of the study was 1,255 parent teachers and local government employees, while the stratified random sampling technique was used to select 120 parents for the study (55 fathers and 65 mothers). The instrument for the study was a structured questionnaire designed on a four-point rating scale. The data were analyzed using mean and standard deviation. Some of the findings include that the adolescent can listen to others, resolve differences by reaching compromise. Findings on the extent strong family values influenced adolescent conflict resolution strategies revealed: not hurting others, being respectful, not being greedy, understanding the importance of equality for all. While findings on the extent positive family relationships influenced adolescent conflict resolution strategies revealed: adolescent develop team spirit, and learn to be caring. The study further recommended that families should adopt and maintain good communication networks in the family as this will enable adolescents understand the need for conflict resolution through communication.

Keyword: Adolescents, Family Lifestyle, Conflicts Management

Introduction
The family is one of the oldest human social institutions known to man. It has existed for thousands of years. Families cope with pressures put on them by changing to meet new conditions. In Nigeria, the family is significantly important in the development of children. The Nigerian families are not the epitome of indestructible knit, but there is still that strong family bond which is mostly described by the saying that blood is thicker than water; and fueled by strong societal traditional norms. Family lifestyle greatly influences children's outcomes. The way a family is constructed can determine the ability of the child to cope in certain circumstances such as managing interpersonal conflicts and relationships (Stacey, 1996). Family lifestyle refers to the way that families live and their attitude, knowledge, and habits.

The family also has a strong influence on adolescent outcomes. Adolescence is a stage that young people want to explore and do new things while they socialize with the outer society. They want to meet with their peers, and test new things. They also have frictions with their parents and siblings. Conflict is usually a common characteristic of relationships at this stage. How family lifestyle impact on adolescent relationships is an area of concern to researchers. While adolescents struggle to manage their differences with family members, the importance the family attaches to family communication, family norms and values and positive relationships is significant to the adolescent's conflict management abilities (Berzano & Genova, 2015).

Since adolescence is a significant time in the development of social skills, particularly in relationships outside the family, then how adolescents resolve conflicts may have significant consequences as to how they will resolve conflicts in adulthood. Destructive conflict may lead to the termination of positive relationships, which will in turn affect adolescent perceptions on management of relationships. This study evaluated the correlation between family lifestyle and adolescent conflict management abilities.

Theoretical Framework: Family Developmental Theory (Mattessich and Hill, 1987). Family Developmental Theory usually is used to explain patterns of change, the dynamic nature of families, and
how change occurs with in the family life cycle. Family Developmental Theory was originally focused on stages of the family life cycle. For example many children who had launched had returned to the family home, often with children of their own. Newer models of this theory focused more on the roles and relationships within the family. The theory still focuses on developmental tasks which are the growth responsibilities that arise at certain stages in the life of the family. The major assumptions of this theory include the importance of individual development but stress that the development of the group of interacting individuals is most important. Developmental processes are inevitable and important in understanding families. Growth from one stage to another is going to happen. Families and individuals change over a period of time – they progress through a series of similar developmental stages and face similar transition points and developmental tasks. Tounder stand the family people must consider the challenges they face in each stage, how well they resolve them, and how well they transition to then ext stage. This theory is relevant to the present study because it focused on the development of the family and individuals in the family. The theory provides a lens to correlate the family with the adolescent as an individual member of the family.

**Conceptual Framework**

**Adolescence:** The word adolescence is derived from the Latin verb adolescere, "to grow into adulthood" (Berzano&Genova, 2015). Adolescence is indeed a time of "growing up." Adolescents are growing up biologically and physically from a boy or girl to a young man or young woman. They are also growing cognitively with the emergence of more sophisticated thinking abilities including abstract reasoning and metacognition (Caldwell, Orubuloye& Caldwell, 1991). As adolescents work to establish a personal identity separate from their family of origin and declare their own independence, they are growing emotionally. Social growth is also evident, as the focus of interpersonal relationships moves toward the development of the capacity for intimacy with peers. In addition, there is movement toward the attainment of adult status in society, bringing with it changes in rights, responsibilities and privileges.

**Family Lifestyle**

Lifestyle can be defined as the interests, opinions, behaviours, and behavioural orientations of an individual, group, or culture (Panasenko, 2013). Based on this definition, family lifestyle can simply be described as the ways a family lives and carries itself. The beliefs, interests, beliefs, orientations and attitudes of a family lifestyle typically reflect the family's attitudes, ways of life, values, or world view (Lynn &Eda, 2014). It is also referred to as a means of forging a sense of self and to create cultural symbols that resonate with family identity (Good, 2006).

A family's communication system can be described its lifestyle. Communication in the family is vital for family cohesion as it determines family relationships, and it impacts significantly on the lives of its members (Lynn &Eda, 2014). Communication breakdown can occur in families for many reasons. Family members who have conflicting beliefs and attitudes may simply stop talking to one another (Caldwell, Orubuloye& Caldwell, 1991). Family members get so distracted with personal problems and interests that they might neglect each other. Parents can become so involved with their work or social activities that they ignore each other as well as their children. Children can become so involved with school, sports, or peer groups that they don't have the time or want to make the effort to communicate. As a result parents stop trying because they find that they have very little in common with their children.

Communication breakdown in the family can lead to devastating conflicts between parents, and parents and their children. However, the ability to effective manage conflicts constructively can have far reaching impacts on the children (Callaway &Creevey, 1994). The so called “generation gap” occurs when the parents and children have conflicting values and attitudes. What frequently happens is that these conflicts force the family even further apart. Each family member seeks peace and solitude and quietly withdraws. Neither party can relate to the other.

Verbal threats do much more harm than good, especially on adolescents. They may get the desired behavior but they will probably “turn off” or alienate the children from their parents. Conversely if a child threatens to run away from home when he doesn't get his way, this may elicit a response of sympathy or anger but it will not establish any meaningful lines of communication (Gairdner, 2007), and the child may develop poor conflict management tactics. Families that do not communicate leave their children in constant tension or stress. Sociologists tend to agree that open communication is important for family relations especially children's development. However, excesses in communication, especially if negative, should be avoided while positive communication should be encouraged.

Family lifestyle also includes family values. Orubuloye& Caldwell (1991) noted that family values are the ideas of how families want to live their family lives, and they are often passed down from one
generation to the other. They can help define behavior in various situations, help young people make positive choices, and solidify the bond that a family has. According to Callaway & Creevey (1994), family values consist of variables such as peace, justice, freedom, equality, and bettering the community. Berzano & Genova (2015) opined that family values include treating everyone equally, regardless of ethnicity, race, religion, or sexual orientation, showing compassion to those in need, treating others as one would like to be treated, continually learning and growing both spiritually and intellectually, being modest in relations with others, respectful and nonviolent when interacting with others, being patient and taking personal responsibility for actions. When a family cultivates and imbibes by these values the children are bequeathed with positive attitudes towards resolution of conflicts. For example, Callaway & Creevey (1994) a peace child who grows up with peace will understand the importance of peace, just like child who grows up with non-violent attitudes will ensure he adopts more peaceful means of achieving his aims of pressing for his demands.

Positive family relationship is a choice, hence a lifestyle identifiable among some families. Family relationships influence how children grow to build personal and interpersonal relationships. Children do well on feelings of belonging and affection that come from having caring and supportive families, and they to treat others the same way. Research affirms that the quality of family relationships is more important for children's wellbeing and relationships, as well as in managing personal or group affairs than the size or composition of the family (Berzano & Genova, 2015). Whether families have one parent or two, whether they include step-parents, grandparents or other carers, they can build strong, positive family relationships that promote family wellbeing and support children's mental health. The keys to developing healthy family relationships include making relationships a priority, communicating effectively and providing support for each other (Panasenko, 2013). Strong family relationships are built on love, loyalty, learning, laughter, communication, and these are significant to helping young people construct their world, and manage affairs in their world positively, such as conflict management.

In a study by Giddens (2003) titled 'Youth Relationships in Kenya', the researcher surveyed 654 youths from intact and single families. The study was aimed evaluating the difference in intergroup relations between youths in intact families and single-parent families. The study adopted a cluster sampling to select the sample. Simple percentage was used to analyze the findings. The findings revealed that youths who were in intact families had more peaceful approach in their relationships than their counterparts in single-parent families. This finding showed that the nature of family a child is born, and grows in significantly affects his/her relationships.

**Statement of the Problem**
Adolescent development and the family lifestyle have strong correlations. Adolescents are confronted with several challenges. Interpersonal conflict with parents, peers, colleagues, teachers and other family members is a major occurrence in the age of adolescence. Because adolescence is a time that young people are attempting to establish their own identity, as well as declare their independence and establish autonomy. It is not arguable that there would be some degree of conflict. Friendship in adolescence is usually characterized by conflicts. However, negative family lifestyle such as unresolved marital conflicts, poor communication and negative family norms and values can influence how adolescents resolve conflicts. Hence, the need for an understanding of how family lifestyles influence adolescent conflict resolution strategies.

**Purpose of the Study**
The study has the following specific objectives:
1. To examine the influence of good family communication system on adolescent conflict resolution strategies in Eleme, Rivers state.
2. To examine the influence of strong family values on adolescent conflict resolution strategies in Eleme, Rivers state.
3. To examine the influence of positive family relationships on adolescent conflict resolution strategies in Eleme, Rivers state.

**Research Questions**
The following three research questions were examined:
1. To what extent does good family communication system influence adolescent conflict resolution strategies in Eleme, Rivers state?
2. To what extent do strong family values influence adolescent conflict resolution strategies in Eleme, Rivers state?
3. To what extent do positive family relationships influence adolescent conflict resolution strategies in Eleme, Rivers state?

**Hypothesis**
The study tested one null hypothesis at 0.05 level of significance.
There is no significant difference in the mean scores of the fathers and mothers on the influence of family lifestyle on adolescent conflict resolution strategies.

**Methodology**
The study adopted the descriptive survey design to assess the influence of family lifestyle on adolescent conflict management.

**Area of the study:** The area of the study is Eleme. Eleme is a local government area in Rivers State, Nigeria, located east of the Port Harcourt local government area. The presence of non-Elemes hoping to find work within the chemical industries has affected the social importance of Eleme cultural identity (Udogu, 2006), raising concerns over the retention of Eleme cultural practices and language use, as well as changing the structure of families. The area is also one of the council areas with the highest numbers of parents who are teachers in Rivers State.

**Population of the Study:** The population of the study was 1,255 parent-teachers and local government employees in Eleme local government area. The parent-teachers are parents who are teachers in the public primary and secondary schools in Eleme. There are 695 teachers who are parents and 565 staff at the Eleme Local Government who are also parents. Among this population, there are 620 fathers and 635 mothers.

**Sample and Sampling Technique:** The stratified random sampling technique was used to select 120 parents for the study (55 fathers and 65 mothers) which is 9.5% of the population. The population was divided into two strata/groups of fathers and mothers, from which 55 fathers and 65 mothers were selected.

**Instrument for Data Collection**
The instrument for the study was a structured questionnaire titled: 'Family Lifestyle and Adolescent Conflicts Resolution' (FLACR). The questionnaire was designed on a four-point rating scale of Strongly Agree (SA), Agree (A), Strongly Disagree (SD) and Disagree (D) with scores 4, 3, 2, and 1. The instrument was validated by two lecturers in the Department of Home Economics, Ignatius Ajuru University of Education.

**Administration and Collection of Instrument:** The questionnaire was administered using the direct contact approach, and with the services of two research assistants. The research assistants were enlightened on the method of administering the questionnaire.

**Data Analysis**
The data were analyzed using mean and standard deviation. An average mean of 2.50 was chosen; the implication was that any item that scored below 2.50 was rejected, and any item that scored 2.50 and above was accepted. t-test was used to test the null hypothesis at 0.05 level of significance.

**Results**
The results are presented in the tables below.

**Research Question 1:** To what extent does good family communication system influence adolescent conflict resolution strategies in Eleme, Rivers state?

### Table 1: Mean and Standard Deviation of Fathers and Mothers on the Extent Good Family Communication System Influenced Adolescent Conflict Resolution Strategies in Eleme

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>$\bar{x}$ 1</th>
<th>SD</th>
<th>RMK</th>
<th>$\bar{x}$ 2</th>
<th>2SD</th>
<th>RMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adolescents can listen to others</td>
<td>2.51</td>
<td>0.66</td>
<td>HE</td>
<td>3.43</td>
<td>0.58</td>
<td>HE</td>
</tr>
<tr>
<td>2. They can resolve differences by reaching compromise</td>
<td>2.54</td>
<td>0.67</td>
<td>HE</td>
<td>3.41</td>
<td>0.66</td>
<td>HE</td>
</tr>
<tr>
<td>3. Adolescents learn to be open-minded</td>
<td>3.53</td>
<td>0.72</td>
<td>HE</td>
<td>2.66</td>
<td>0.84</td>
<td>HE</td>
</tr>
<tr>
<td>4. Respect for each other’s’ viewpoints</td>
<td>3.64</td>
<td>0.69</td>
<td>HE</td>
<td>3.53</td>
<td>0.72</td>
<td>HE</td>
</tr>
<tr>
<td>5. Ability to allow others express themselves</td>
<td>2.74</td>
<td>0.68</td>
<td>HE</td>
<td>3.32</td>
<td>0.58</td>
<td>HE</td>
</tr>
<tr>
<td>6. Ability to develop positive beliefs about others</td>
<td>2.54</td>
<td>0.63</td>
<td>HE</td>
<td>3.42</td>
<td>0.65</td>
<td>HE</td>
</tr>
</tbody>
</table>

**Key:** $\bar{x}$ = Mean score; SD = Standard Deviation; LE = Low Extent; HE = High Extent
The Table 1 above showed the mean ratings and standard deviation of fathers and mothers' responses on the extent good family communication system influenced adolescent conflict resolution strategies in Eleme, Rivers state (adolescent can listen to others, resolve differences by reaching compromise, learn to be open-minded, respect others' viewpoints, allow others express themselves and develop positive beliefs about others). All the items were at high extent because they had grand mean scores of 2.50 and above. The standard deviation ranged between 0.58 and 0.84 indicating that the respondents were not far from their opinions.

**Research Question 2:** To what extent do strong family values influence adolescent conflict resolution strategies in Eleme, Rivers state?

### Table 2: Mean and Standard Deviation of Fathers and Mothers on the Extent Strong Family Values Influenced Adolescent Conflict Resolution Strategies

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>(\overline{X})</th>
<th>SD</th>
<th>RMK</th>
<th>(\overline{X})</th>
<th>(\overline{\text{SD}})</th>
<th>RMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Not hurting others</td>
<td>2.54</td>
<td>0.63</td>
<td>HE</td>
<td>3.31</td>
<td>0.57</td>
<td>HE</td>
</tr>
<tr>
<td>2. Being respectful</td>
<td>3.53</td>
<td>0.66</td>
<td>HE</td>
<td>3.40</td>
<td>0.64</td>
<td>HE</td>
</tr>
<tr>
<td>3. Not being greedy</td>
<td>2.63</td>
<td>0.61</td>
<td>HE</td>
<td>3.23</td>
<td>0.61</td>
<td>HE</td>
</tr>
<tr>
<td>4. Being honest in dealings</td>
<td>3.44</td>
<td>0.65</td>
<td>HE</td>
<td>2.61</td>
<td>0.57</td>
<td>HE</td>
</tr>
<tr>
<td>5. Understanding the need to pursue peace</td>
<td>3.01</td>
<td>0.66</td>
<td>HE</td>
<td>3.12</td>
<td>0.68</td>
<td>HE</td>
</tr>
<tr>
<td>6. Understanding the importance of equality of all</td>
<td>2.67</td>
<td>0.58</td>
<td>HE</td>
<td>3.02</td>
<td>0.67</td>
<td>HE</td>
</tr>
</tbody>
</table>

**Key:** \(\overline{X}\) = Mean score; SD = Standard Deviation; LE = Low Extent; HE = High Extent

The Table 2 above revealed the mean ratings and standard deviation of fathers and mothers' responses on the extent strong family values influenced adolescent conflict resolution strategies (not hurting others, being respectful, not being greedy, being honest in dealings, understanding the need to pursue peace, understanding the importance of equality for all). All the items were at high extent because they had grand mean scores of 2.50 and above. Also, the standard deviation ranged between 0.57 and 0.68 indicating that the respondents were not far from their opinions.

**Research Question 3:** To what extent do positive family relationships influence adolescent conflict resolution strategies in Eleme, Rivers state?

### Table 3: Mean and Standard Deviation of Fathers And Mothers on the Extent Positive Family Relationships Influenced Adolescent Conflict Resolution Strategies

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>(\overline{X})</th>
<th>SD</th>
<th>RMK</th>
<th>(\overline{X})</th>
<th>(\overline{\text{SD}})</th>
<th>RMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adolescent develop team spirit</td>
<td>3.04</td>
<td>0.64</td>
<td>HE</td>
<td>2.67</td>
<td>0.61</td>
<td>HE</td>
</tr>
<tr>
<td>2. Adolescent have ability to stay together</td>
<td>2.71</td>
<td>0.67</td>
<td>HE</td>
<td>3.05</td>
<td>0.60</td>
<td>HE</td>
</tr>
<tr>
<td>3. Adolescent learn to be caring</td>
<td>2.64</td>
<td>0.72</td>
<td>HE</td>
<td>3.42</td>
<td>0.74</td>
<td>HE</td>
</tr>
<tr>
<td>4. Adolescent learn support for others</td>
<td>3.01</td>
<td>0.62</td>
<td>HE</td>
<td>2.89</td>
<td>0.63</td>
<td>HE</td>
</tr>
<tr>
<td>5. Adolescent learn to be selfless</td>
<td>2.81</td>
<td>0.60</td>
<td>HE</td>
<td>3.00</td>
<td>0.66</td>
<td>HE</td>
</tr>
<tr>
<td>6. Adolescent learn to apply discipline</td>
<td>3.03</td>
<td>0.62</td>
<td>HE</td>
<td>2.86</td>
<td>0.68</td>
<td>HE</td>
</tr>
</tbody>
</table>

**Key:** \(\overline{X}\) = Mean score; SD = Standard Deviation; LE = Low Extent; HE = High Extent

The Table 3 above showed the mean ratings and standard deviation of fathers and mothers' responses on the extent positive family relationships influenced adolescent conflict resolution strategies (adolescent develop team spirit, have ability to stay together, learn to be caring, learn to support others, to be selfless and apply discipline). All the items were at high extent because they had grand mean scores of 2.50 and above. Also, the standard deviation ranged between 0.61 and 0.74 indicating that the respondents were not far from their opinions.
Hypothesis Testing
The study tested one null hypothesis at 0.05 level of significance.

Table 4: T-test Analysis of the Mean Responses of the Fathers and Mothers on the Influence of Family Lifestyle on Adolescent Conflict Resolution Strategies

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>( \bar{X} )</th>
<th>SD</th>
<th>P-value</th>
<th>DF</th>
<th>t-Cal</th>
<th>t-Tab</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fathers</td>
<td>55</td>
<td>2.41</td>
<td>.234</td>
<td>0.03</td>
<td>118</td>
<td>1.576</td>
<td>1.748</td>
<td>A</td>
</tr>
<tr>
<td>Mothers</td>
<td>65</td>
<td>2.36</td>
<td>.235</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The t-test result in Table 4 above revealed no significant difference between the mean responses of fathers and mothers at 0.05 level of significance, \( t \)-tabulated value of 1.748 \( t \)-calculated value of 1.576 at the same level of significant, thus the hypothesis was accepted.

Discussion
In Table 1, the findings on fathers and mothers' responses on the extent good family communication system influenced adolescent conflict resolution strategies revealed that adolescent can listen to others, resolve differences by reaching compromise, learn to be open-minded, respect others' viewpoints, allow others express themselves and develop positive beliefs about others. The implication of these findings is that good communication in the home presents the best opportunity for conflict management styles.

These findings are in agreement with Gairdner (2007) and Callaway & Creevey (1994) who posited that family communication style has significant impact on the development of children. According to Piaget, a foremost human and child psychologist, children's development is affected the environment in which they dwell. Poor communication between parents and other members of the family can translate to poor outcome for the child in adulthood. Callaway & Creevey (1994) observed children who find it difficult to relate with peers, or manage difficult relationships later in life were most likely affected by their families' poor communication system earlier in life. Such children may find it difficult to resolve differences with peers, family and others. Communication is key to any conflict management system.

More so, the findings on fathers and mothers' responses on the extent strong family values influenced adolescent conflict resolution strategies revealed: not hurting others, being respectful, not being greedy, being honest in dealings, understanding the need to pursue peace, understanding the importance of equality for all. These findings are in consonance with Caldwell, Orubuloye & Caldwell (1991) who noted that family values are significant to youth outcomes and interactions with the outside world. Berzano & Genova (2015) noted that family values include treating everyone equally, regardless of ethnicity, race, religion, or sexual orientation, showing compassion to those in need; these values will influence an adolescent in management conflict situations with peers and others.

Finally, the findings on the extent positive family relationships influenced adolescent conflict resolution strategies revealed: adolescent develop team spirit, have ability to stay together, learn to be caring, learn to support others, to be selfless and apply discipline. Giddens (1991) supported these findings. He asserted that irrespective of the families a child is born and grows, if they can build strong, positive family relationships that promote family wellbeing and support children's interactions, children will grow up aiming to make life better for others.

Conclusion
This study examined the influence of family lifestyles on adolescents' conflicts management strategies in Eleme. The study has shown that good and effective family communication, adherence to good family values, and strong family relationship influenced adolescence ability to manage conflicts.

Recommendations
Based on the findings of this study, the following recommendations are made:
1. Families should adopt and maintain good communication networks in the family as this will enable adolescents understand the need for conflict resolution through communication.
2. Family values must be maintained by the family, and inculcated in the children.
3. Parents should be encouraged to maintain and adopt positive family relationships such as love, peace, hardwork, teamwork, selflessness and communication.
References


IMPROVING INNOVATIVE SKILLS IN CLOTHING AND TEXTILE AMONG COLLEGES OF EDUCATION STUDENTS IN BENUE STATE NIGERIA: A TOOL FOR SUSTAINING NATIONAL STABILITY AND EMERGING CHALLENGES

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Abstract
The study focused on improving innovative skills in clothing and textile among college of education students in Benue State Nigeria: A tool for sustaining national stability and emerging challenges. The objective of the study was to assess the available tools and equipment needed for teaching and learning, find out if students are taught the requisite skills in clothing and textiles and Identify areas to improve skills acquisition in clothing and textiles in colleges of education. Descriptive survey research design was used for the study. A sample of 622 N.C.E Home Economics students were drawn using simple random sampling technique from the entire population. A four-point scale rating scale 30-item questionnaire was used to collect data from the study. Frequencies, mean and standard deviation were used to answer the research while Chi-square was used to test the null hypotheses at 0.05 level of significance. The findings shows that most clothing and textile skills were not intensely taught in colleges of education in north-central Nigeria and areas to improve skills acquisition in Clothing and textile includes how to effectively handle sewing machine, Pattern drafting, Cutting out Skills and Drawing and illustration. The study recommends that Private organizations who are into fashion should partner with government in the provision of recent and necessary tools and equipment in clothing and textile also Practical skills in drafting, garment construction and cutting-out components of the Clothing and Textiles syllabus should be given more priority so that students can be vast in making of garments.

Keywords: Clothing and Textiles, National Development, Innovative Skills, Self-Reliance

Introduction
Home Economics is a vocational subject aimed at developing not only practical skills but activities and habits that make the recipient creative, innovative and resourceful. Home Economics Education emphasizes training for jobs. It gives individuals knowledge, skills and attitude to enable them to take a related vocation upon completion of their studies. It also prepares youth and adult for employment in a specific occupation or a family of occupations by providing experiences which will enable them to develop competencies needed for such jobs. Home Economics Education is taught at higher institutions to train teachers, make graduates be self-employed and employ others such that they would be able to transform the nation into a fully developed and industrialized nation. (Amankwa, Gbadegbe, Selase, Selorm, & Agra, 2015).

Clothing is one of the basic needs of man. It is used by human beings to cover their nakedness, adorn themselves and protect them from harsh weather. Anyakoha (2015) described clothing as anything placed on the body to protect, beautify or adorn the body. Items worn in the body such as dresses, suits, pants, shawls, socks, footwear, gloves, body painting, jewels, handbags, head covering and scarf etc. (Phyllis, 2016). Brandenburg (2006) says that clothing is a form of self-expression. Textiles are products made from fibers, yarns or fabrics also referred to as cloths. Clothing and Textiles is one of the three key areas of Home Economics taught in Tertiary institutions in Nigeria. The study of clothing and textiles is divided into six central themes including fabrics, garment construction, clothing maintenance, consumer education, decorative process, and wardrobe planning. Arubayi (2009) observed that the value of the quality of instruction in the teaching of Clothing and Textiles in Tertiary Institutions to national development and the economic empowerment of individuals is not in doubt.
Innovation skills refer to the talent of exploiting new ideas to gain social or economic value. Innovation skills are usually a combination of one's ability to think creatively, problem-solving ability, as well as functional and/or technical abilities. Fairly speaking, innovation skills are one's ability to apply a blend of knowledge, skills, and attributes in a specific context. Innovative skills in Clothing and Textiles when properly taught will equip the learner with the saleable skills needed for self-reliance. Furthermore, acquiring skills in Clothing and Textiles is a lucrative and interesting aspect of Home Economics which is of inestimable value to society. Anyakoha (2009) sees Clothing and Textiles and related arts as an area of Vocational and Technical education which enables an individual to acquire the necessary skills, knowledge, abilities, and attitudes required to function effectively for the development of self and the society, thus contributing to the economic advancement of the nation.

Against this background, Clothing and Textiles as a field in home economics has made slow progress in Nigeria. For clarity, Home Economics is a field of knowledge that is skill-based and is primarily concerned with strengthening. The problem of orientation and belief of school leavers over the years has been education for "White Collar Job". The rate of growth of students' population may be described as being in geometric progression while the growth of job opportunities had been in arithmetic progression (Arubayi, 2010). This orientation has caused a lot of problems to the youths to the extent that all they wanted was to get a certificate so that they can get employed by the government not knowing that those jobs do not exist.

Furthermore, the competition in the labor market is high and nobody would like to settle for anything substandard. The world is changing and dynamic that our certificate is no longer enough. The graduate's inability to create jobs for themselves and others can be attributed to a lack of proper acquisition of skills. The increasing awareness of the need for mastery and competence in the area of specialization among students have necessitated the emphasis on innovative skill acquisition in Nigerian higher institutions. Enough of theory without practicality, because the output is the emphasis of the era, and the ability to produce physical product that can be marketable for self-reliance is the need of the hour.

The researcher observed that most students of Home Economics in Colleges of Education upon graduation lack practical skills to implement their professional training skills acquired during the course of study. Interactions by the researcher with some of the graduate of NCE show that the students are not skilled enough to produce garments that meet up with the approved standards. This and more are issues ravaging the Clothing and Textiles sector. Hence the need to research how to improve innovative skills in clothing and Textile among College of Education Students in North Central Nigeria:

**Objectives of the study**
The objective of this study is to:
1. Assess the available tools and equipment needed for teaching and learning the Clothing and Textiles course in colleges of education in north-central Nigeria;
2. Find out if students are taught the requisite skills in Clothing and Textiles in colleges of education in north-central Nigeria; and
3. Identify areas to improve skills acquisition in Clothing and Textiles course in colleges of education in north-central Nigeria.

**Research Questions**
The following research question were formulated to guide the study:
1. What are available tools and equipment needed for teaching and learning the Clothing and Textiles course in colleges of education in north-central Nigeria?
2. To what extent are students taught the requisite skills in Clothing and Textiles in colleges of education in north-central Nigeria?
3. How can skills acquisition in Clothing and Textiles course in colleges of education in north-central Nigeria be improved?

**Hypotheses**
1. There is no difference in the opinion of respondents on the available tools and equipment needed for teaching and learning the Clothing and Textiles course in colleges of education in north-central Nigeria?
2. There is no difference in the opinion of respondents on the extent students are taught the requisite skills in Clothing and Textiles in colleges of education in north-central Nigeria?
3. There is no difference in the opinion of respondents on the areas to improve skills acquisition in Clothing and Textiles course in colleges of education in north-central Nigeria?

**Methodology**
The study employed a descriptive survey research design. There are 12,432 N C E Home Economics students spread across in 12 Colleges of Education in North Central Nigeria. A sample of 622 N C E Home Economics students drawn from the entire population
of 12,432 students, representing 5% of the population was used due to the time frame of the research. A simple random sampling technique was used to select the sample for the study. The sampling technique was chosen to obtain a true representation of the population. The sample was divided among the 12 Colleges of Education in North Central of Nigeria giving a total of approximately 52 respondents from each school. The sampling technique was chosen to ensure that the sample was equally divided among the 12 schools since those schools did not have an equal number of students.

The instrument for data collection was a 30-item self structured questionnaire made up of four sections titled Improving Innovative Skills in Clothing and Textile among Colleges of Education Students Questionnaire (IISCTCESQ). Section 'A' was based on the demographic characteristics of the respondents, Section 'B' was based on available tools and equipment needed for teaching and learning the Clothing, Section 'C' was based on requisite skills in Clothing and Textiles while section 'D' was based on areas to improve skills acquisition in Clothing and Textiles course.

A four-point scale was used and the weightings were strongly agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, Strongly Disagree (SD) = 1. The decision was such that any mean 2.5 and above is 'Agree', while a mean below 2.5 is taken for 'Disagree'.

The researcher adopted test-retest reliability to obtain the reliability of the instrument. The instrument was administered on a group of 50 Home Economics students from neighboring NCE in Kaduna State to determine the reliability of the instrument. The data collected were analyzed using Spearman-Brown formula. A reliability coefficient of 0.75 was obtained.

Copies of the questionnaire were distributed by research assistants trained by the researcher and assigned to the Colleges of Education. The questionnaire was administered on-the-spot and collected by the research assistants. This style was chosen to ensure a 100% receipt of the questionnaire. Frequencies, mean and standard deviation were used to answer the research question while inferential statistics of Chi-square was used to test the null hypotheses at 0.05 level of significance.

Results and Discussions

Table 1: Demographic Characteristics of Respondents

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>118</td>
<td>19</td>
</tr>
<tr>
<td>Female</td>
<td>504</td>
<td>81</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>622</td>
<td>100</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-20</td>
<td>375</td>
<td>60</td>
</tr>
<tr>
<td>21-30</td>
<td>220</td>
<td>35</td>
</tr>
<tr>
<td>30 and above</td>
<td>27</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>622</td>
<td>100</td>
</tr>
<tr>
<td><strong>Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCE I</td>
<td>207</td>
<td>33.2</td>
</tr>
<tr>
<td>NCE II</td>
<td>202</td>
<td>32.5</td>
</tr>
<tr>
<td>NCE III</td>
<td>213</td>
<td>34.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>622</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field Data June 2019

Table 1 shows the demographic characteristics of the respondent. Females are more represented with (81%) and males are (19%). This result points to the fact that more females are interested in Clothing and Textiles than males. The result also points out that the majority of the respondents were in the age bracket of 15 to 20 (60%) years which belongs to the youthful category and mostly in the colleges. This is not surprising since the youth are the core group that needs to be well equipped with skills to enable them to engage in youthful employment. Besides, most respondents were students of the NCE III (34.3%) and NCE I (33.2%) and the rest are NCII students of those institutions representing (32.5%).
Table 9 shows the responses of questionnaire items 1 – 11 which sought to find out available tools and equipment needed for teaching and learning the Clothing and Textiles course in colleges of education in north-central Nigeria. The result revealed that the respondents agree that, there is a provision of tools and equipment in the clothing labs in their schools. Though some equipment and tools are not available overall tools are relevant enough for teaching and learning the Clothing and Textiles course with the mean score of .64.

Table 2: What are Available Tools and Equipment Needed for Teaching and Learning the Clothing and Textiles Course in Colleges of Education in North-Central Nigeria

<table>
<thead>
<tr>
<th>S/N</th>
<th>Tools and Equipment</th>
<th>Mean</th>
<th>SD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>There are Scissors for cutting cloths in the clothing lab</td>
<td>3.74</td>
<td>.660</td>
<td>Agree</td>
</tr>
<tr>
<td>2</td>
<td>The school provides us with enough Seam Ripper</td>
<td>3.15</td>
<td>.988</td>
<td>Agree</td>
</tr>
<tr>
<td>3</td>
<td>There are enough Tracing wheel in our clothing lab</td>
<td>2.24</td>
<td>1.03</td>
<td>Disagree</td>
</tr>
<tr>
<td>4</td>
<td>There is provision for enough Cutter in my school</td>
<td>2.29</td>
<td>.742</td>
<td>Disagree</td>
</tr>
<tr>
<td>5</td>
<td>The school made available enough Sewing Machine</td>
<td>1.33</td>
<td>.841</td>
<td>Disagree</td>
</tr>
<tr>
<td>6</td>
<td>There is availability Pressing Iron in the lab</td>
<td>2.85</td>
<td>.715</td>
<td>Agree</td>
</tr>
<tr>
<td>7</td>
<td>The Ironing board in the is good order</td>
<td>3.06</td>
<td>.862</td>
<td>Agree</td>
</tr>
<tr>
<td>8</td>
<td>There is Mirror in the clothing lab</td>
<td>3.13</td>
<td>.544</td>
<td>Agree</td>
</tr>
<tr>
<td>9</td>
<td>There is provision for Dummy in the clothing lab</td>
<td>2.33</td>
<td>.752</td>
<td>Disagree</td>
</tr>
<tr>
<td>10</td>
<td>Cutting Table is abundance in the clothing lab</td>
<td>3.00</td>
<td>.887</td>
<td>Agree</td>
</tr>
<tr>
<td>11</td>
<td>There is provision for Computer in the lab</td>
<td>1.89</td>
<td>1.10</td>
<td>Disagree</td>
</tr>
</tbody>
</table>

**Decision Mean 2.5**

Source: Field Data June 2019

Table 9 shows the responses of questionnaire items 12 – 21 which sought to find out available tools and equipment needed for teaching and learning the Clothing and Textiles course in colleges of education in north-central Nigeria. The result revealed that the respondents agree that, there is a provision of tools and equipment in the clothing labs in their schools. Though some equipment and tools are not available overall tools are relevant enough for teaching and learning the Clothing and Textiles course with the mean score of .64.

Table 4: To What Extent are Students Taught the Requisite Skills in Clothing and Textiles in Colleges of Education in North-Central Nigeria?

<table>
<thead>
<tr>
<th>Skill Component of Clothing and Textiles</th>
<th>Mean</th>
<th>SD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Stitches</td>
<td>2.14</td>
<td>.765</td>
<td>Agree</td>
</tr>
<tr>
<td>13 Seams</td>
<td>2.82</td>
<td>.592</td>
<td>Agree</td>
</tr>
<tr>
<td>14 Facing</td>
<td>2.78</td>
<td>.644</td>
<td>Agree</td>
</tr>
<tr>
<td>15 Edge Finishes and disposal of fullness</td>
<td>2.85</td>
<td>.715</td>
<td>Agree</td>
</tr>
<tr>
<td>16 Opening and Fastening</td>
<td>1.33</td>
<td>.841</td>
<td>Disagree</td>
</tr>
<tr>
<td>17 Specimen work</td>
<td>3.00</td>
<td>.887</td>
<td>Agree</td>
</tr>
<tr>
<td>18 Fixing collars sleeves/Pockets</td>
<td>2.31</td>
<td>1.34</td>
<td>Disagree</td>
</tr>
<tr>
<td>19 Pattern drafting</td>
<td>2.33</td>
<td>.752</td>
<td>Disagree</td>
</tr>
<tr>
<td>20 Use of Commercial Patterns</td>
<td>2.07</td>
<td>.517</td>
<td>Disagree</td>
</tr>
<tr>
<td>21 Cutting out skills</td>
<td>1.56</td>
<td>.891</td>
<td>Disagree</td>
</tr>
</tbody>
</table>

**Decision Mean 2.5**

Source: Field Data June 2019

Table 9 shows the responses of questionnaire items 12 – 21 which sought to find out the extent students are taught the requisite skills in Clothing and Textiles in colleges of education in north-central Nigeria. The result revealed that the respondents disagreed that, requisite skills in Clothing and Textiles are being taught. The respondents are of the view that they are mostly taught Specimen work and Edge Finishes and disposal of fullness. The result was judged based on the aggregate mean which is .31.
Table 5: What are the Areas to Improve Skills Acquisition in Clothing and Textiles Course in Colleges of Education in North-Central Nigeria?

<table>
<thead>
<tr>
<th>S/N</th>
<th>skills acquisition in Clothing and Textiles</th>
<th>Mean</th>
<th>SD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>How to handle the sewing machine</td>
<td>3.00</td>
<td>0.887</td>
<td>Agree</td>
</tr>
<tr>
<td>23</td>
<td>Pattern drafting</td>
<td>2.82</td>
<td>0.592</td>
<td>Agree</td>
</tr>
<tr>
<td>24</td>
<td>Stitching</td>
<td>2.31</td>
<td>1.34</td>
<td>Disagree</td>
</tr>
<tr>
<td>25</td>
<td>Use of Commercial Pattern</td>
<td>2.33</td>
<td>0.752</td>
<td>Disagree</td>
</tr>
<tr>
<td>26</td>
<td>Cutting out Skills</td>
<td>3.06</td>
<td>0.862</td>
<td>Agree</td>
</tr>
<tr>
<td>27</td>
<td>Drawing and illustration</td>
<td>2.85</td>
<td>0.715</td>
<td>Agree</td>
</tr>
<tr>
<td>28</td>
<td>Garment Construction</td>
<td>2.64</td>
<td>0.830</td>
<td>Agree</td>
</tr>
<tr>
<td>28</td>
<td>Good Grooming</td>
<td>2.33</td>
<td>0.752</td>
<td>Disagree</td>
</tr>
<tr>
<td>30</td>
<td>Millinery and Accessories</td>
<td>2.07</td>
<td>0.517</td>
<td>Disagree</td>
</tr>
</tbody>
</table>

**Source:** Field Data June 2019

Test of Hypotheses

**Hypothesis One:** There is no difference in the opinion of respondents on the available tools and equipment needed for teaching and learning the Clothing and Textiles course in colleges of education in north-central Nigeria?

Table 6: Summary of Chi-square (2) on the Available Tools and Equipment Needed for Teaching and Learning the Clothing and Textiles Course in Colleges of Education in North-Central Nigeria

<table>
<thead>
<tr>
<th>Number</th>
<th>( \chi^2 ) cal.</th>
<th>( \chi^2 ) crit.</th>
<th>( \alpha )</th>
<th>Df</th>
<th>P-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>622</td>
<td>23.41</td>
<td>47.94</td>
<td>0.05</td>
<td>36</td>
<td>.312</td>
<td>Retain</td>
</tr>
</tbody>
</table>

Table 12 revealed that there was no difference in the opinion of respondents on the available tools and equipment needed for teaching and learning the Clothing and Textiles course in colleges of education in north-central Nigeria. The result showed that the respondents agreed that, areas to focus on are How to handle sewing machine, Pattern drafting, Cutting out Skills, Drawing, and illustration amongst others. The result was judged based on the aggregate mean which is 60.

**Hypothesis Two:** There is no difference in the opinion of respondents on the extent students are taught the requisite skills in Clothing and Textiles in colleges of education in north-central Nigeria?

Table 7: Summary of Chi-square (2) on the Available Tools and Equipment Needed for Teaching and Learning the Clothing and Textiles Course in Colleges of Education in North-Central Nigeria

<table>
<thead>
<tr>
<th>Number</th>
<th>( \chi^2 ) cal.</th>
<th>( \chi^2 ) crit.</th>
<th>( \alpha )</th>
<th>Df</th>
<th>P-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>622</td>
<td>47.94</td>
<td>23.41</td>
<td>0.05</td>
<td>36</td>
<td>.000</td>
<td>Rejected</td>
</tr>
</tbody>
</table>
Table 12 revealed that there was no difference in the opinion of respondents on the areas to improve skills acquisition in Clothing and Textiles course in colleges of education in north-central Nigeria. The table showed the p-value of 0.77 which is greater than 0.05 alpha level of significance. This result was to retain the null hypothesis which states that there was no difference in the opinion of respondents on the areas to improve skills acquisition in Clothing and Textiles course in colleges of education in north-central Nigeria.

**Hypothesis Three:** There is no difference in the opinion of respondents on the areas to improve skills acquisition in Clothing and Textiles course in colleges of education in north-central Nigeria.

**Table 8: Summary of Chi-square (2) on the Areas to Improve Skills Acquisition in Clothing and Textiles Course in Colleges of Education in North-central Nigeria**

<table>
<thead>
<tr>
<th>Number</th>
<th>(\chi^2) cal.</th>
<th>(\chi^2) crit.</th>
<th>(\alpha)</th>
<th>Df</th>
<th>P-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>622</td>
<td>32.26</td>
<td>58.09</td>
<td>0.05</td>
<td>36</td>
<td>0.77</td>
<td>Retained</td>
</tr>
</tbody>
</table>

Table 12 revealed that there was no difference in the opinion of respondents on the areas to improve skills acquisition in Clothing and Textiles course in colleges of education in north-central Nigeria. The table showed the p-value of 0.77 which is greater than 0.05 alpha level of significance. This result was to retain the null hypothesis which states that there was no difference in the opinion of respondents on the areas to improve skills acquisition in Clothing and Textiles course in colleges of education in north-central Nigeria.

**Summary of Findings**

1. There are available tools and equipment needed for teaching and learning the Clothing and Textiles course in colleges of education in north-central Nigeria. P.312 (>0.05)
2. Most clothing and textile skills were not intensely taught in colleges of education in north-central Nigeria. P.000 (<0.05)
3. Areas to improve skills acquisition in Clothing and Textiles include how to effectively handle sewing machine, Pattern drafting, Cutting out Skills and Drawing and illustration. P.77 (<0.05)

**Discussion of Findings**

The findings of this study revealed that there is the availability of tools and equipment for teaching and learning the Clothing and Textiles course in colleges of education in north-central Nigeria. But there are other opinions that not all the necessary tools are available for effective teaching and learning of garment making. All these tools have to be available for students to learn well. This implies that colleges of education in north-central needs to provide more tools in the clothing labs. Garment making is a vocational subject that requires practical application of topics learned without these equipment vocational subjects cannot be taught effectively as supported by Olaitan (2009) who posited that skills can only be learned in vocational subjects when all requisite tools, equipment, and materials are available for the teaching and learning process. Corroborating this finding, Fajemirokun (2000) asserted that the educational materials are not completely absent, but that the enrolment of students has outnumbered the capacity of facilities available in most of the schools. He added that additional materials should be provided in the schools to commensurate with school enrolment.

Findings from Table II revealed that students of colleges of education in north central Nigeria are not been taught properly the requisite skills in Clothing and Textiles. The students also agreed that in addition to theoretical knowledge, they were not taught enough sewing skills which involve how to handle sewing machines in making the following: stitches, seams, disposal of fullness, edge finishes, fixing of sleeves, collars, pockets, working of opening and fastening. The acquisition of the skills mentioned above will surely equip students with employable skills to enable them to contribute meaningfully towards the development of the nation which are the major objectives of teaching Clothing and Textiles at the higher institution.

Findings III reveals the areas that should be focused on the development of skill in clothing and textile. This area includes the following: handling sewing machines, making stitches, seams, disposal of fullness,
edge finishes, fixing of sleeves, collars, pockets, working of opening and fastening etc. Also there should be provision for enough time for students to be able to practice what they have learned. This would allow them to carry a mastery of the methods of making good and marketable garments.

**Conclusion**

From the foregoing, it is imperative that skills in clothing and textiles are vital for sustaining national stability and emerging challenges. The importance of encouraging and building innovative skills while in school will equip them with more skills in clothing and textiles. However, innovative skills development in clothing and textile education among college of education students in north central Nigeria is still very poor because of lack of enough tools and equipment. Also major skills that would make students good in garment making are not properly taught and lastly students are not given proper time to practice what they have been taught. It is imperative that students are equipped with skills for employment both for self-employment and paid employment. This a way to sustain national stability and combat emerging challenges.

**Recommendation**

Based on the findings of this research it is recommended that:

1. Private organizations who are into fashion should partner with government in the provision of recent and necessary tools and equipment in clothing and textile.
2. Practical skills in drafting, garment construction and cutting-out components of the Clothing and Textiles syllabus should be given more priority so that students can be vast in making of garments.
3. There should be an extension of teaching hours of the components of Clothing and Textiles syllabus. This will allow the teachers have enough time to take students through practical training.

**Reference**


Abstract

This study focused on the assessment of Nutritional Preparation for ageing among retirees in Edo state. Ex-post facto design was adopted for the study and five research questions were raised to guide the study. A population of 2,300 from which a sample size of 240 was selected using multi-stage sampling technique. The instrument for data collection was a well-structured questionnaire which were personally administered to the respondents and retrieved on the spot. The instrument was validated by nutrition education experts. Cronbach alpha was used to determine the internal consistency of the instrument which yielded a coefficient of 0.86 showing its reliability. The data collected were analyzed using mean and standard deviation. Mean of 2.5 and above was considered as agreed upon while items with mean of 2.49 and below was considered as disagreed. Results from the findings of the study revealed that retirees from Edo State have knowledge of nutrition and they are aware of the effects of poor nutritional preparation for the ageing process. Conclusively, nutritional preparation for ageing among retirees is necessary to ensure that retirees age gracefully and in good health. Among recommendations made was that nutritional and life style adjustments should start early in life to prevent and manage degenerative diseases.

Keywords: Nutritional Preparation, Ageing, Retirees

Introduction

Food is essential in the day to day activities of man and it is next to the air we breathe. Food is a basic need of man's existence. Daily, we make food choices that influence our body's health positively or negatively. Each day's choice according to Whitney (2002) may benefit or harm our health a little, but when repeated over the years, the consequences become serious. Also, carelessness about our food choices from youth could be a major contribution to some prevalent chronic disease later in life which means that proper preparation has not been made for the ageing period of life.

The food we eat contains substances called nutrients and each nutrient performs at least one function in the body. The nutrients needed in the body depend on the age, sex, body size, and activity and health conditions of the person. Food and health have always been related as good eating habits results in good health. Various age brackets have their various nutritional requirements. The infants depend on breast milk for growth and development which is naturally suitable for them. The toddler needs protein, carbohydrate and vitamins. Adolescence needs more energy, vitamins, protein, mineral and fiber. The adolescent girl needs more iron, to withstand the monthly menstrual flow. The aged are often characterized by reduced physical activities resulting in a decline of energy expenditure. This implies that the quantity of energy giving food for them needs to decrease slightly. The need for protein, vitamin and minerals remains unchanged. Cooking methods that aid digestions needs to be adopted. Foods that do not digest easily such as oily and fried foods should be avoided. A good supply of vegetable and fruits is necessary to meet the needs of vitamins and roughage (Cutler, 2001). The aged also requires plenty of liquid in form of water and milk (Grosvenor &Smolin, 2002). One needs to eat well using the healthy food habits as a way of preparation for the ageing process.

People need to be healthy as they age so as to contribute productively to nation building. Good health invariably comes from good and safe nutrition, good eating habits and a healthy life style. A healthy man is one that has the capacity to apply his potentials in contributing productively to the economy of the nation. The concept of health as defined by the World Health Organization (WHO, 2001) as the state of complete, physical, mental and social well-being of a man and not merely the absence of a disease or infirmity. One has to prepare nutritionally so as to age gracefully, actively and remain healthy throughout his/her life time.

Studies on nutrition and Health by Schönfeldt and Hall (2012), have shown that for anyone to be healthy, he
must imbibe good and healthy eating habits which include a healthy dietary pattern of eating adequate balanced diet, that is, diet low in fat, sugar, high in fiber and plenty of fruits and vegetables. Careful and hygienic handling of food is also required to maintain a healthy eating pattern. In addition, healthy life style that will promote the health of the retirees must be imbibed, unhealthy life style such as drinking alcohol, smoking excessively and drug addiction should be avoided in preparation for ageing. These unhealthy habits could lead to inactivity of retirees at old age, due to lack of necessary nutrients that will keep the body strong, healthy and energetic. It is important to pay good attention to good eating habits which could yield good health benefits at present and later in life (Benjamin, 2010).

Food is eaten for a number of reasons. They include:

1. To promote growth and make do the wear and tear of the body's cells.
2. To produce heat and energy.
3. For satiety
4. To nourish the body
5. To cleanse the body organs
6. To maintain our external shell
7. To increase productivity
8. For peak performance
9. To power our continued existence
10. To save money on life insurance
11. For social situations and enjoyment
12. To regulate the health of the body, maintain normal body processes and prevent disease (Brunet, 2011).

Insel and Roth (2004) postulated that good nutrition is essential for the preparation of good and active health during the ageing process as it brings about good physical growth, body composition, good health and mental development. Good nutrition involves having a nutritious diet and knowledge of what to eat at each point in life such as making nutritional adjustments as one ages. Good nutrition is highly significant as it makes for the growth and maintenance of the tissues of the body, regulates body process, promotes physical development of the body and affects positively body composition which will in turn affect the life of the individual (Contento, 2007). Poor nutritional preparation results when the body receives either an excess or insufficient quantity of one or more of the nutrients. It is therefore advisable to imbibe the culture of good eating habits from infancy to old age so as to achieve a healthy ageing process. Poor nutrition must be avoided at all times. The key factor to promoting active ageing includes physical activity, social activity, mental activity and the prevention of diseases through good nutritional preparations which include taking adequate and nutritious diet, good eating habits and a positive attitude towards ageing (Harris, 2010).

Ageing as postulated by Deeg and Bath (2003) is an irreversible biological change that occurs in all living things with the passage of time. It is the accumulation of changes in the organism or object over time. Bass (2006) stressed that ageing in humans refers to a multi-dimensional process of physical and social changes. Ageing is an important part of all human societies not only reflecting the biological changes that occur but also reflecting culture and societal conventions. Brunet (2004) observed that if not for diseases, one might not notice age creeping in other than the changes seen in the body, like wrinkles, loss of muscle tone, hair loss or graying. The body changes associated with ageing usually makes one more vulnerable to various diseases and to side effects accompanied with the complications of medical treatment; hence the nutritional preparation is important to sustaining the complications of the ageing process (Harris, 2010) explained that the major cause of ageing is the presence of free radicals in the body. Free radicals are found in the human body, in the foods we eat and can be contacted through air pollution. Free radicals are atoms, or molecules that have lost an electron and vigorously pursue its replacement, in doing so they damage normal cells constituent (Lutz & Przytulski, 1997). Free radicals inflict damages to the cell of the body. The body cells are composed of many different types of molecules. These molecules are made up of atoms glued together by chemical bonds. When the bonds are broken, two fragments that contain one of the unpaired electrons are left. These fragments become highly reactive particles as they hate to be alone. They would fight to steal an electron from an unsuspecting molecule. The action sets up process of electron theft that causes structural damage to healthy cells thereby leading to ageing (Harris, 2010). Free radicals as postulated by Katz (2001) can be generated by our bodies own metabolism stress, and other external factors such as pesticides, exposure to ultra-violet radiation, they are also found in the food we eat. Free radicals rupture the cell membrane, making them invaluable, destroy key enzymes and cellular components. Injured cells do not function properly. When the cells of the body are destroyed and functionality declined, ageing easily sets in. Foods that yield free radicals easily on consumption are all fried foods such as akara, plantain, eggs, potatoe, yams, buns, doughnut, chin chin; others are margarine, butter, meatpie (Rob, 2011).

Naturally the body has its own scavenger that mops up these harmful free radicals but may not be able to cope with the excessive production of the free radicals in the instance of prolong stress or chronic pollution. Anti-
Nutritional Preparation for Ageing Retirees in Edo State

oxidants are needed in the body as they can fight these free radicals and bring their action to a standstill. Examples of foods that contain anti-oxidants are all brightly coloured fruits and vegetables such as watermelon, pine-apple, walnut, oranges, beetroot, cucumber, carrots, mango, pawpaw, sour-sop, tangerine, avocado pear, apple, tomatoe, strawberry, grape fruits, lemon, broccoli, cauli flower, cabbage, spinach and all green leafy vegetables (Moody, 2006).

Ageing is a natural process and as people age there seems to be a decline in the functionality of the cells and organs of the body. Worrisome is the fact that some retirees do not prepare for the aging process nutritionally and as a result do not live too long after retirement (Deeg& Bath, 2003). Some of them have visible signs of degenerative diseases and health deterioration. The decline in the functionality of the cells and organs of the body is expected to occur gradually as part of the ageing process. However if a retiree was not nutritionally health conscious in the earlier years this will accelerate cell decline and functionality resulting in rapid ageing. Poor nutritional preparations for ageing will not give room to graceful ageing and could lead to several ailments such as obesity, osteoporosis, diabetes, arthritis, xerophiltamia and high blood pressure. This study aims at accessing the level of nutritional preparation for ageing among retirees in Edo state.

Purpose of the Study

The main purpose of the study was to determine the nutritional preparation for ageing by retirees in Edo State.

Research Questions

1. What is the retirees' knowledge of nutrition?
2. How does poor nutritional preparation affect the ageing process among retirees?

Methods

The study adopted a descriptive survey research design.

The population for the study was two thousand three hundred (2,300). This comprised all retired civil servants in Edo state from 2015 to 2017 (Edo State Pensions Board, 2018).

Multi stage sampling technique was used to select 240 retirees for the study.

Stage 1: Stratified Sampling Technique was used to select the three senatorial districts in Edo state, which are: Edo North, Edo South and Edo Central.

Stage 2: Purposive Sampling was used to select one local government each from the three senatorial districts: Etsako West Local Government Area from Edo North, Oredo Local Government Area from Edo South and Esan West Local Government Area from Edo Central. These local government areas have a history of civil service and have formed retirees' association.

Stage 3: Proportionate Sampling was used to reach the desired sample size. 10.43% of the population was taken so as to have an equal representation and a manageable sample size in the three Local Government Areas.
The instrument for data collection was a structured questionnaire titled “Nutritional Preparation for Ageing among Retirees questionnaire” (NPARQ). The questionnaire drawn on a frequency of a four point rating scale items as follows: Strongly Agreed (SA) = 4, Agreed (A) = 3, Disagreed (DA) = 2, and Strongly Disagreed (SD) = 1. The instrument was validated by experts in nutrition education. Their corrections were utilized in making the final draft of the instrument.

To determine the reliability of the instrument, twenty (20) retirees in Ovia North East Local Government Area who were not part of the study were used. Theses retirees were considered appropriate as they shared similar characteristics with the study group. The instrument was administered to the retirees once. Cronbach alpha method was used in determining the internal consistency of the instrument and it yielded a coefficient of 0.86.

Method of Data Collection and Analysis
The research instrument was administered to the retirees in their various meeting places at their Local Government Areas by the researcher. Eighty (80) copies for each Local Government Area were administered. Eighty (80) copies were retrieved on the spot. The percentage retrieval was 100%.

The data collected from respondents were analyzed using means and standard deviation. Items with mean ratings of 2.50 and above were considered as agreed while items with mean rating of 2.49 and below were considered as disagreed.

Result Presentation.
The results of the data analysis are presented based on research questions.

Research question 1: What is Retirees’ Knowledge of Nutrition?

<table>
<thead>
<tr>
<th>S/N</th>
<th>Item Statements</th>
<th>Mean(X)</th>
<th>S.D</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nutrition builds and makes the body strong.</td>
<td>3.54</td>
<td>.532</td>
<td>Agreed</td>
</tr>
<tr>
<td>2</td>
<td>Nutrition keeps the body healthy.</td>
<td>3.34</td>
<td>.541</td>
<td>Agreed</td>
</tr>
<tr>
<td>3</td>
<td>Sound nutrition gives stamina to retirees’.</td>
<td>3.21</td>
<td>.658</td>
<td>Agreed</td>
</tr>
<tr>
<td>4</td>
<td>Good nutrition ensures greater and better productivity.</td>
<td>3.33</td>
<td>.644</td>
<td>Agreed</td>
</tr>
<tr>
<td>5</td>
<td>Proper nutrition eliminates age related diseases.</td>
<td>3.11</td>
<td>.726</td>
<td>Agreed</td>
</tr>
<tr>
<td>6</td>
<td>Sound nutrition maintains bone and muscle strength.</td>
<td>3.10</td>
<td>.628</td>
<td>Agreed</td>
</tr>
<tr>
<td>7</td>
<td>Proper nutrition increases body immunity.</td>
<td>3.40</td>
<td>.525</td>
<td>Agreed</td>
</tr>
<tr>
<td>8</td>
<td>Good nutrition makes retirees healthy, alert and happy.</td>
<td>3.29</td>
<td>.584</td>
<td>Agreed</td>
</tr>
<tr>
<td>9</td>
<td>Sound nutrition eliminates body toxins.</td>
<td>2.97</td>
<td>.768</td>
<td>Agreed</td>
</tr>
<tr>
<td>10</td>
<td>Proper nutrition aids memory and ability to care for self.</td>
<td>2.67</td>
<td>.706</td>
<td>Agreed</td>
</tr>
<tr>
<td></td>
<td>Grand /Cluster /aggregate</td>
<td>3.20</td>
<td>.432</td>
<td>Agreed</td>
</tr>
</tbody>
</table>

Data shown in Table 1 revealed that the mean responses of the retirees on the knowledge of nutrition range form 2.67-3.54, while the standard deviation range from .532-.768. The mean responses showed that all the 10 items on the knowledge of nutrition where agreed by the retirees. The cluster mean of 3.20 revealed that the retirees agree that they have knowledge of nutrition.

Research question 2: How will poor nutritional preparation affect the ageing process?
Table 2 above revealed the effects of poor nutritional preparations on the retirees. The respondents agreed on all the items on the effect of poor nutritional preparation except item 15. A cluster mean of 3.01 is an indication that the retirees agreed on the effect of poor nutritional preparation.

**Discussion of Findings**

Results of findings from research question 1 showed that all the items were agreed upon which meant that retirees had knowledge of nutrition which would go a long way to help them in preparing nutritionally for ageing. This is in line with the views of Benjamin (2010) when he opined that knowledge of nutrition will ensure better quality of life, higher immunity and lower mortality. Knowledge of nutrition through nutrition education will enhance independence for longer, better quality of life, lower death rate and a less need to progress to higher and more expensive forms of care. The world health organization (2001) reiterated that knowledge about nutrition in relation to ageing could make a substantial impact on the health status of retirees. This also agrees with the views of Baumgartner (2000) who asserted that the knowledge of nutrition leads to eating enough of all the kinds of food from the food groups so as to achieve maximum health. The awareness of the knowledge of nutritious meal choices should be improved as posited by Glass (2003) to have positive health effects. According to Harris (2010), nutrition plays a very important role in maintaining health and prevention of disease. A healthful diet would prevent the possibilities of age related diseases.

The results of findings in table 2 indicated that all the items were agreed upon, which meant that poor nutritional preparation affects the retirees negatively as it increased the incidence of poor health, increased the risk of age related diseases, and induced weakness among retirees. This agrees with the views of Moody (2006) that poor nutritional preparation can cause some serious health problems which can have injurious impart on retirees health status causing deficiency diseases. Poor nutritional habits should be discouraged as it reduces the chances of healthy living. This occurs when the body receives either too little or too much of the required nutrients.

Poor nutritional preparation often leads to malnutrition, which is not just an insufficient diet, but encompasses the situations resulting from over eating or excessive intake of specific nutrient. In line with Orumwense and Obasigie (2010), poor nutritional preparation is the dietary intake that does not meet a person's nutritional requirement and can lead to a lot of chronic illness. Poor nutrition should therefore be avoided at all times, however respondents disagreed with the facts that poor nutritional preparation is a major cause of death amongst retirees. They believe that death as an inevitable end can come at any time to anybody weather nutritional prepared or not. In line with O'Brien (2010) any one dies weather healthy of not, but it pays more to remain healthy while alive.

**Conclusion**

From the findings of the study it was concluded that retirees in Edo State have knowledge in nutrition as

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items Statement</th>
<th>Mean(X)</th>
<th>S. D</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Poor nutritional preparations increase the incidence of poor health among retirees.</td>
<td>3.35</td>
<td>.477</td>
<td>Agreed</td>
</tr>
<tr>
<td>12</td>
<td>Poor nutritional preparations increase the risk of age related diseases.</td>
<td>3.53</td>
<td>.500</td>
<td>Agreed</td>
</tr>
<tr>
<td>13</td>
<td>Poor nutritional preparation reduces the productive ability of retirees.</td>
<td>3.28</td>
<td>.580</td>
<td>Agreed</td>
</tr>
<tr>
<td>14</td>
<td>Poor nutritional preparations fasten the aging process of retirees.</td>
<td>3.30</td>
<td>.714</td>
<td>Agreed</td>
</tr>
<tr>
<td>15</td>
<td>Poor nutritional preparations are a major cause of death among retirees</td>
<td>1.80</td>
<td>.889</td>
<td>Disagreed</td>
</tr>
<tr>
<td>16</td>
<td>Poor nutritional preparation increases negative life styles among retirees.</td>
<td>2.52</td>
<td>1.00</td>
<td>Agreed</td>
</tr>
<tr>
<td>17</td>
<td>Poor nutritional preparations induce weakness among retirees.</td>
<td>3.06</td>
<td>.394</td>
<td>Agreed</td>
</tr>
<tr>
<td>18</td>
<td>Poor nutritional preparations hinder the health status of retirees.</td>
<td>3.21</td>
<td>.482</td>
<td>Agreed</td>
</tr>
<tr>
<td></td>
<td>Grand/Cluster/Aggregate</td>
<td>3.01</td>
<td>.401</td>
<td>Agreed.</td>
</tr>
</tbody>
</table>
they eat balance and nutritious meals, through the various sources of nutrition information. Findings further revealed that retirees have a high level of nutritional preparation for ageing process and believe that poor nutritional preparation will affect the ageing process negatively leading to increase in age related diseases such as hypertension, type II diabetes, cardiovascular diseases.

**Recommendations**

Based on the findings of the study the following were recommended:

1. More awareness should be created through nutrition education for nutritional preparation of ageing retirees.

2. Nutritional and lifestyle adjustments should start early in life among adults that are 40 years and above.

3. Recent nutritional therapy on the management of degenerative diseases should be made available to retirees by nutritionist.

4. Government should create old age social services to enable retirees afford nutritional therapeutic foods necessary for old age adjustments.

**References**


PROFESSIONAL TRANSLATION: AN EXIGENCY FOR THE PROMOTION OF HOSPITALITY AND TOURISM INDUSTRIES IN NIGERIA

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Abstract
Language as the nucleus of communication has been identified as the sustaining means of interaction among people. However, due to the plurilingual composition of the world, there are often linguistic hinges to smooth interaction and communication among humans around the world despite technological innovations. Hence, the need for translation, particularly, the professional translation. Thus, it is in the view of the aforementioned that this paper seeks to reiterate the necessity of professional translation as a melting block in human communication particularly with regards to the hospitality and tourism industries in Nigeria. Though endowed with captivating natural as well as human hospitality and tourism sites, this sector is yet to enjoy substantial patronage particularly from the international community. One of the major causes of this poor patronage is lack of consideration for professional translation as an exigency for the effective promotion of the Nigeria hospitality and tourism products to the global community. This paper therefore calls on the tourism and hospitality authorities at the various level to make conscientious effort to ensure that professional translation is given due consideration in the Nigeria hospitality and tourism industry. This way, this sector would be effectively and widely projected globally, thereby properly positioned to attract patronage which will accrue socio-economic benefits to Nigeria.

Key Words: Hospitality, Industry, Nigeria, Professional Translation, Tourism,

Introduction
Tourism in recent times has steadily grown to be one of the major global sources of export earnings. Affirming this fact, ZurabPololikashvili, the Secretary-General of the United Nations World Tourism Organization (UNWTO) stated that:

export earnings generated by tourism have grown to USD 1.7 trillion. This makes the sector a true global force for economic growth and development, driving the creation of more and better jobs and serving as catalyst for innovation and entrepreneurship. In short, tourism is helping build better lives for millions of individuals and transforming whole communities (UNWTO Tourism Highlights 2019,p.1).

From the above statement, it is obvious that the socio-economic benefits of tourism cum the hospitality industry are enormous. Thus, any nation that desires to accrue to herself such socio-economic gains through tourism and hospitality must strive to properly structure and promote her tourism and hospitality product adequately, breaking language barriers to reach the multilingual international community.

Reiterating this fact, Muñoz (2011) stressed that:

We need experts that can create effective promotional materials to achieve success in a field characterized by keen competition. At the same time, we need professional translators that can translate efficiently these tourist texts and ensure a good communication with tourists (p.39).

In Nigeria, the contrary is the case. Nigeria is yet to maximally benefit from the globally earnings accrued by hospitality and tourism despite her vast natural and human endowed tourism and hospitality products. Lack of proper packaging and translation of hospitality and tourism products among other factors is one major factor that has greatly hampered this sector of the Nigeria economy. Nigeria has not made conscientious effort to break through the world's socio-cultural barriers particularly as regards language in order to effectively market her tourism and hospitality products. The need for the translation of
tourism and hospitality products is often overlooked. Even in rare cases where translation is considered, professionalism is not given a preference in the hiring of translation personnel.

It is therefore in the light of the above that this paper seeks to reiterate the importance of professional translation in the promotion of the tourism and hospitality industries in Nigeria. In order to properly explore the subject of discussion, this paper goes in the following order: first, the fundamental terms are conceptualised; subsequently, the theoretical perspective from which the subject matter is examined is discussed; an appraisal of the tourism and hospitality industry in Nigeria is also done to give a background knowledge of the sector; the importance of professional translation in the promotion of the tourism and hospitality industries in Nigeria are put-forth; challenges of the professional translation in the Nigeria tourism and hospitality industries are also enumerated; finally, ways of improving and encouraging professional translation in the Nigeria tourism and hospitality industries are suggested.

Conceptualisation of Fundamental Terms
Before launching further, it is important we take a look at the basic concepts in this work namely: translation, professional translation, hospitality and tourism.

Translation
The notion of translation is multidimensional. It could be used to refer to a translated text (product), a domain of study or the practice of replicating a message in another language (process) (Munday, 2010, p.5). Translation could be intranslingual, interlingual or intersemiotic. It may be in the written or oral form. The oral translation is often referred to as interpretation. Munday (2010, p. 4-5). According to Nida & Tabar (2003), translation is “the closest natural equivalent of the source-language message, first in terms of meaning and secondly in terms of style” (p.12). Newmark (1981) defined translation as “a craft consisting in the attempt to replace a written message and/or statement in one language by the same message and/or statement in another language” (p.7). For Catford (1965), translation is “the replacement of textual material in one language (SL) by equivalent textual material in another language (TL)” (p.20).

It is the obvious from the above definitions that the notion of translation as regards the subject of discussion entails linguistic transcoding. Translation however, is beyond the transcoding of linguistic symbols as it also involves some cultural intricacies. Thus, Long (2013) argues that “translation is not a mere linguistic transfer but a cross-cultural activity” (p. 111). In the same vein, Gouadec(1989) cited by Novozhilova, Korolkova, Shovgenina, and Shovgenin(2018) explicitly explains that:

Translation is not just a simple transition from one language to another: It always requires the full adaptation of the source text to a different audience, which has different habits, other tastes, a different way of thinking and other behavior. The different audience should perceive the translated text as if it was originally created by the representative of its culture (p.5)

From the definition put forth by Novozhilova et al (2018), it is apparent that translation also involves some levels of targeted manipulations that requires skillfulness. This is even more exigent in the hospitality and tourism industry. Thus, Novozhilova et al (2018) further opined that “Translation in the field of tourism is a specific intellectual activity, providing positive contact between the culture of a tourist destination country and a tourist who is a product of a different culture and another language”. De Toro (2007) therefore in this light, maintained that translation is “a skill, a savoir-faire, that consists in going through the translating process, and being capable of solving the translation problems that arise in each case” (Hurtado, 2001, p. 25).

Professional Translation:
Translation is an old existing act of communication among humans owing to the plurilingual composition of the world. However, translation became recognised as a profession in the second half of twentieth century owing to the increased global correlation among people, organisations and Nation-States. (Mundy, 2010:5). Translation thus became “a professionals’ business” (Ségard, 2009, p. 28). Explaining the exigencies of Professional translation, Novozhilova et al (2018), argues that:

Professional translation skills are not equal to the simple knowledge of the language … a professional translator requires the ability to create text that meets the expectations of the foreign recipient, transforming the source text in accordance with the usage and the language norm (p. 5).

According to Sun (2014)
Professional translation pays attention to the implementation of multiple theories of translation from a variety of disciplines and discourses to better analyze the variety meanings and functions produced, and also pays attention to academic training as well as vocational training in a variety of departments of translation studies … (p.64)
In the views of Ségard (2009), professional translation, requires real linguistic and language expertise. Besides his mastery of the language, the translator must be able to face other considerations such as typography rules that vary by language, spelling and style beyond reproach, consistency, rigour, adaptability, and specialized information (p.28).

Ségard (2009) further pointed out what is expected of Professionals in translation. In her words,

"A professional translator is both a wordsmith and a language-lover. He is a stylish communicator who selects the right words to convey the initial idea with the utmost respect for the author while considering the cultural and sociolinguistic particularities of the target language. A professional translator must also be able to demonstrate he has a very sharp eye and excellent abilities of analysis and synthesis, as well as editorial and stylistic qualities, not to mention a strong taste for research (p. 26)"

Professional translation thus, like ever any other formal vocation, requires expertise that is acquired by properly structured formal training.

**Hospitality**
The act of hospitality is as old as human co-existence, necessitated by social nature of humans. However, the word “hospitality” is of Latin etymology, derived from the word “hospes” which means guest, host or stranger. According to Discover Hospitality (2015), Hospitality could be defined as “the business of helping people to feel welcome and relaxed and to enjoy themselves” (p. 3). For Germann Molz and Gibson (2007),

Hospitality has been one of the most pervasive metaphors within tourism studies, referring in one sense to the commercial project of the tourist industry (such as hotels, catering, and tour operation) and in another sense to the social interactions between local people and tourists—that is, hosts and guests (p. 6).

Brotherton, (1999) defined hospitality as “a human exchange characterized by being contemporaneous, voluntary and mutually beneficial, and by being based on specific products/services” (p. 169). Hospitality is the act of receiving, accommodating or entertaining guests for social, political or economic purposes.

**Tourism:**
Generally, the concept of tourism involves touring or travelling around. However, tourism is a multidimensional and multidisciplinary concept as its activities cuts across various sectors of human endeavours. According to United Nations World Tourism Organization (UNWTO) (2008), Tourism is a social, cultural and economic phenomenon which entails the movement of people to countries or places outside their usual environment for personal or business/professional purposes. These people are called visitors (which may be either tourists or excursionists; residents or non-residents) and tourism has to do with their activities, some of which imply tourism expenditure (UNWTO Glossary of Tourism Terms 2008).

Tourism, therefore entails movement of some person(s) for amusement, enterprise or other purposes. Traveling expeditions has been an old act. However, this experience has often been explored by the well-to-dos in the society (Westcott, 2015, p. 11).

Tourism according to The United Nations World Tourism Organization (1995) can be a domestic:

- Domestic (residents of a given country travelling only within that country)
- Inbound (non-residents travelling in a given country)
- Outbound (residents of one country travelling in another country)

The tourism as an industry covers a broad spectrum of enterprises, which are: Accommodation, Food and Beverage services (commonly known as “F & B”), Recreation and entertainment, Transportation and Travel services (Westcott, 2015, p.10). Tourism could be have economic, social or environmental effects. Those who embark on tourism are referred to as tourists.

**Theoretical Frame Work**
Owing to the diversification of the linguistic codes of human languages, translation became an inevitable means through which ideas, thoughts and information are disseminated from one language to another. Hence, some schools of thought like the of Eugene Nida, Roger Bell and J.C. Caifford assert “that due to the fact that translation is an activity involving language, there is a sense in which any and all theories of translation are linguistics” (As-Safi, 2011, p. 31, 34-35). However, over the years the theorisation of the act of translation has advanced in its scope as explained thus by Newmark (1981),translation theory is concerned mainly with determining appropriate translation methods for the widest possible range of texts or text-categories. It also provides a frame work of principles, restricted rules and hints for translating texts and
Elucidating further on the exigencies of a translation theory, Kelly (1979) stated that a “complete” theory of translation “has three components: specification of function and goal; description and analysis of operations; and critical comment on relationships between goal and operations” (Venuti, 2004, p. 4). Thus, the quest for appropriateness in translation methods gave rise to other theories one of which is the functional theories particularly the Skopos theory (Trisnawati 2014, p. 246 citing Nord, 2012, p. 34).

Functionality in translation aims at purposefulness rather than structural appropriateness. This theory tends to focus more on the appropriate delivery of content in relation to the purpose of a given text from Source Language (SL) into the Target Language (TL). Cultural equivalence is therefore sought to ensure effective communication in the TL. Hence, Nord (2007) avers that translation “is essentially a purposeful activity or behaviour aimed at ensuring properly “mediated intercultural communication” (As-Safi, 2011, p. 39). In the same vein, de Leon (2008) as cited by Trisnawati (2014) maintains that “translation is an action and goal oriented, thus any translating action needs to have a purpose” (p. 246). This purpose is what guides the act of translation. The essence of translation in the tourism and hospitality industries is to promote and expand patronage. Professionalism, therefore is a necessary matter for consideration.

However, in Nigeria, translation is rarely contemplated as an exigent instrument in the promotion of this sector. Even when considered, professionalism is often not a prerequisite for the hiring of translators in this sector. This has led to poor patronage as texts do not serve their purpose of translation in the target languages. This paper therefore reiterates the need for translation in the Nigeria tourism and hospitality industries. It particularly advocates for professionalism as a major criteria for hiring translators in this sector of the Nigerian economy. This way, Nigeria’s natural and human endowments will be better portrayed. This will help ensure that the purpose of the translation of tourism and hospitality texts is achieved in the target languages.

The Tourism and Hospitality Industry in Nigeria: An Appraisal

The tourism and hospitality industry could be referred to as the agglomerate of enterprises that offer tourism and hospitality services. According to Novozhilova et al (2018), “The tourism industry influences dramatically the interaction and convergence processes among different cultures and nations” (p. 1). The heterogeneous cultural composition of the Nigerian Nation coupled with her natural captivating ecological sites that varies from one region to another endows her with very great potentials for tourism and hospitality industries. From the precolonial times each cultural group in the country has its cultural and natural endowments that attracts neighbouring towns and even friends from far and wide. This has continued even to the colonial and post-colonial era. However, in recent times, Tourism and Hospitality has transcended the domestic bounds. People now travel thousands of miles to visit other country just for Tourism and Hospitality. Though the Nigeria tourism and hospitality industries have been witnessing domestic and international patronage, yet, this sector remains grossly underexplored considering her vast natural and human endowed tourism sites and cultural activities. This is because the Nigeria tourism and hospitality industries has often been bedevilled by a lot of problem as thus outlined by Akwara, Biu, Abutu, & Okwelume (2014): the problems of tourism development in Nigeria under study are summarized as the lack of investments in tourism projects; inadequate promotion and information; Lack of tourist destination managers (poor human resources management); negligence by the governments (federal, state and local); and other stakeholders; terrorism and insurgency; and militancy and kidnapping; and human resource management needs (p. 98).

The focus of this study is particularly on inadequate communication, promotion and information. According to Uluocha (2018), “One major factor that is responsible for the nation's current lacklustre performance of the tourism sector is the poor state of tourism packaging and promotion” (p. 163). Lack of consideration for the professional translation of hospitality and tourism promotion materials has often resulted in poor communication. For instance, on the official website of the Nigeria Tourism Development Cooperation (NTDC), one will observe that every information given on this site is merely in English language. Even at that, the packaging is not comprehensive and appealing. This goes to confirm the UNWTO report as put thus the document titled Nigeria Tourism Development Master Plan: Institutional Capacity Strengthening to the Tourism Sector in Nigeria (2006): The current marketing approach is very weak. The marketing of Nigeria as a tourist destination is underfunded and lacks a strategic marketing approach. The marketing collaterals are not up to international standards; while they are informative they are not customer friendly. A survey of tour operators in the UK, Europe and the United States of America indicated a lack of information or knowledge about Nigeria as a tourist destination (p. 142).
This raises concern, as Fourteen years after this document was published, Nigeria Tourism Development Cooperation (NTDC) and the various tourism and hospitality stakeholders are yet to improve on their marketing strategies not to talk of giving attention to the issue of translation. This is quite worrisome! Come to think of it, NTDC is the highest tourism regulatory body in Nigeria saddled with the responsibility of planning, supervision, development and marketing of tourism in Nigerian. Expressing concerned in this regard, Edung (2017) lamented thus: If general information on Nigeria as a tourism destination is scanty and actual marketing strategies on Nigeria as a tourism destination are poor in such English-speaking countries of the TGRs as the UK and the USA, then a worse situation must be expected in the non-English-speaking countries (p. 121).

Regrettably, as further observed by Edung (2017), even on the websites of non-English-Speaking Nigerian Foreign Missions abroad, information on Nigeria tourism still remains the NTDC link on tourism as written in English. Suffice to say that this attitude has greatly hampered the patronage of the Tourism and Hospitality industries in Nigeria as also observed by Umukoro (2015). Thus, resulting in this sector of the Nigerian economy contributing in very low percentage to the nation's Gross Domestic Product (GDP).

The Importance of Professional Translation in the Promotion of the Tourism and Hospitality Industries in Nigeria.

Tourism in recent times has transcended national borders to become an international phenomenon. Thus, tourism and hospitality sector has metamorphosed to a domain with very high competitiveness with each country striving to project an appealing image of their tourism and hospitality industries. Language, be it verbal or non-verbal has always remained the chief medium of communication in the promotion of human endeavours of which the tourism and hospitality sector is not an exception. However, due to the diversity of the linguistics code of human language, the need for translation becomes immanent in order to reach a wider range of clients. Howbeit, Nigeria has continued relegated the need for professional translation in her hospitality and tourism industries. This has greatly marred rather than promote this sector.

The need for professional translators in the tourism and hospitality industries cannot be downplayed. This is because according to Edung (2017), “Information given out in the tourists’ languages, on the web, in printed brochures … could be more reassuring” (p. 122). In the same vein, Sulaiman (2016) pointed out that, “to create appealing word images and emotional excitement in an attempt to persuade readers to become tourists. The effectiveness of this language depends largely on its proper use within the framework of culture” (p. 53-54). Of course, it takes professionalism in translation to do so. He further argued that: in order to fulfill the main objective of persuasion, the language used in TPMs is exploited and manipulated in such a way that suits the cultural context in which the TPMs are operating. While the cultural aspect of TPMs is something that is taken for granted in a monolingual context (e.g., in domestic tourism promotion) the intricacy of this aspect becomes immediately evident once the monolingual boundaries are transcended – that is, when tourism is promoted across languages and cultures (e.g., in international tourism promotion) (Sulaiman 2016, p. 54).

To achieve the aforementioned objective, translation becomes not just tool for transferring of message content from a source language (SL) to a target language (TL) but rather more of a means of persuasion of patronage in the target language. This makes professionalism in translation a prerequisite for the effective promotion of tourism and hospitality sector. The principle of functionalism in translation, is therefore the main criterion to be considered when handling translation matters in the tourism and hospitality sector. The impact of the translated documents or activities should be the chief purpose of the translator. Once a positive impact is achieved, it will no doubt boost patronage.

According to Sulaiman (2016,) professional translation “presents itself as one of the most practical means of communication to persuade a new audience in a different language and cultural context and convert them into actual clients” (p. 54). Reiterating the importance of professionalism in the sourcing of human resources in the tourism and hospitality sector, Nwosu (2016,), averred that “where superior knowledge and skills exist, there tends to be higher productivity and performance. As such, any organisation with a highly skilled workforce stands to achieve greater competitive advantage” (p. 127). Professionalism in translation demands that the translator possesses linguistics, cultural and artistic skills as well as in-depth understanding of the tourism product being promoted. These skills are very important in the translation of tourism promotions materials (TPMs) and activities as they afford the translator the competence of being able to create a longing in the readers of the target language to patronise the tourism and hospitality product being advertised. If the brochures, leaflets, posters, flyers, postcards and websites of the Nigerian tourism and hospitality industry are properly packaged in various targeted languages giving cognisance to the cultural norms of such countries, it will rouse the curiosity
require a lot of expertise as beyond the content translation, an artistic touch is required in order to be able to achieve the purpose of the translation in the target language which is principally persuasion. Translation at this level is thus referred to as “transcreation” (Lal 1972, p. 1).

Also, top tourism spenders of the world are largely non-Anglophone countries. These countries include: China, Germany, France, Russia, Canada (French-speaking section), Korea and Italy (UNWTO Tourism Highlights, 2019: 15). While in Africa, the francophone countries are the most patronising tourists in Nigeria (UNWTO 2020:648, Yearbook of Tourism Statistics Data 2014 –2018. The arrivals of these foreign tourists' to Nigeria makes professionals translation very expedient as it would help ease communication and project a better image of Nigeria thereby building a cordial rapport which could encourage the tourist to revisit or investment in the country as also affirmed thus by UNWTO (2006):One of the most important conditions for a sound and sustainable tourism development is the availability of an efficient Tourism Management Information System. A Tourism Management Information System that compiles information about the product available to the various types of visitors as well as detailed information on the current and potential users of the product. A system that also includes the various research methods as well as research tools and guidelines. (Nigeria Tourism Development Master Plan: Institutional Capacity Strengthening to the Tourism Sector in Nigeria, p. 13).

It is quite obvious that the professional translation is of great exigency to the promotion of the hospitality and tourism industries in Nigerian, hence, should as a matter of urgency be taken up by the various levels of the Nigeria hospitality and tourism authorities.

**Challenges of the Professional Translation in the Nigeria Tourism and Hospitality Industries.**

The challenge of the poor consideration of professionalism in the hiring of manpower in the tourism and hospitality industries has been a major problem in this sector in Nigeria. Remarkable on this observation by the Committee on Nigeria Tourism Development Master Plan in collaboration United Nations World Tourism Organization (UNWTO, 2006), Nwosu(2016), stated that though: Recruitment efforts are geared towards identifying and attracting people with a requisite mix of skills, knowledge and experience. There is a chronic shortage of terminally qualified people in the tourism and hospitality sector (THS) in Nigeria who satisfy these criteria. Presently, this skills gap pertains more to operations than to management. In a bid to address this gap, employers have had to resort to such alternatives as expatriate recruitment, poaching and cheap labour source (p. 126).

The translation domain is not spared in this quagmire. The hiring of unqualified translators as a means of saving labour cost has done more harm than good. Also some expatriates that are hired are not conversant with the tourism terrain on which they are working on, so may not be able to give an adequate description in the target language. They lack the cultural skill and knowledge of the tourism product being promoted.

Even when the need for professionalism in translation is obvious, corruption, the cancer that has eaten deeply into every system of the Nigerian State prevents the authorities from doing so. Nepotisms, tribalism, embezzlement and misappropriation of public fund are some of the corrupt factors that prevent the hiring of professionals in translation.

Lack of adequate funding is another factor that has greatly affected the effective promotion of tourism in Nigeria. Tourism authorities often find it difficult to afford the payment for professional translation hence they avoid making translations. Where it becomes exigent, they use non-professional translators. In fact, from the research carried out by the United Nations World Tourism Organization (UNWTO) in collaboration with the Nigerian government on tourism in Nigeria, it was observed that: The N.T.D.C. is currently allocated funding for marketing on a year by year basis and in an ad-hoc manner. Senior N.T.D.C. executives often do not know whether funding will be available to undertake marketing activities. This lack of budgetary planning is a major impediment and shortcoming. Funding for marketing, when forthcoming, is not allocated in a scientific manner … Within the current mix of marketing activities, there is an over-reliance on certain activities. For example, attendance at overseas fairs and exhibitions accounted for 54% of the 2004 marketing budget while less than 3% was allocated to promotional activities. (Nigeria Tourism Development Master Plan: institutional Capacity Strengthening to the Tourism Sector in Nigeria,2006, p. 37).
Another major challenge is the misconception on what translation entails. The tourism and hospitality authorities and managers often view the act of translation as a gamble-in-gamble-out thing that does not need any expertise. Hence, they do not feel compelled to consider professionalism while involving translators in the industry. Expressing concerned over this observation, (Sulaiman 2016) remarked that: even if translators are recognised as experts of the culture of the target audience, the concept of translation itself is seldom regarded as a two-way negotiation process in which changes and modifications are negotiated by the translator so as to produce functionally adequate translations. Instead it is viewed as a one-way instruction from the commissioner to the translator (p. 62).

Translation is thus “viewed as inferior to 'creative' or 'original' writing, with the translator somehow downgraded into a second-class citizen with a lesser talent (Bassnett, 2011, p. 91). This misconception about translation has often hampered the implementation of expertise in translation practices in the tourism and hospitality industries in Nigeria.

Ways of Improving and Encouraging Professional Translation in the Nigeria Tourism and Hospitality Industries.

- The Nigerian Tourism Development Cooperation (NTDC) as well as stakeholders in the tourism and hospitality industries must understand the indispensability of professional translation in the promotion of the Nigerian tourism and hospitality sector if she is to achieve the goal of boosting patronage.
- Professional translators should take a stand and insist on the exercise of professionalism in the translation of tourism and hospitality promotions materials and other translation activities within in the industry. Professional Translators as mediators must strive to defend mediated interlingual/intercultural communication as a fully-fledged profession that, at its most demanding, requires a deep specific procedural and declarative knowledge, both linguistic and communicative, as well as a tremendously diverse encyclopaedic knowledge — which in turn necessitates a degree of academic specialisation comparable to that required of the physician, the opera conductor or the historian. No one else will wage this battle for them. No one else can (Venuti, 2004, p. 15).
- Thus, all sorts of non-professionalism should be discouraged and be penalised as this has greatly rubbed off professional translation.
- In addition, translators should understand that their work is that of transcreation, hence “must not allow their thinking to be imprisoned inside the box by the source text and culture. Instead, they must think outside the box and see the bigger picture to understand what appeals to the target audience” (Sulaiman, 2016, p. 63).
- Tourism and hospitality authorities should not perceive translation as a content message transference from one language to another. Rather, it should be understood that it is an activity that requires professional skills aimed at ensuring that the purpose of the translated text is achieved in the target language particularly as regards tourism promotions materials (TPMs). Hence, the translator should be properly remunerated and also given a free hand to demonstrate the mastery of his profession without undue interference.
- The quality of a workforce in a country is the reflection of the education standard. Translation studies curriculum in Nigeria needs to be upgraded to keep abreast with the contemporary exigencies of translation. Educational institutions and the National Institute for Hospitality and Tourism (NIHOTOUR) should also upgrade her curriculum to include some courses on professional translation.
- In-service translators with the hospitality and tourism industries should be sponsored for training, workshops, conferences, seminars, etc. while the freelance translators should all seek avenues of improving themselves in order to keep abreast with the demands of professional translation.
- Provision of adequate funding for marketing of hospitality and tourism products by the Government, concerned tourism authorities and stakeholders. This will enable the hiring of professional translators.

Conclusion

Language remains the chief medium through which all human communication strives. Therefore, to have a global breakthrough in any human enterprise in this multilingual and multicultural world, the need for translation becomes immanent, particularly the professional translation. A fact which is synopsized thus: however, the importance of translation should not be underestimated, particularly in a world that has to learn to husband its resources as one world or perish in the attempt. Without translators, commerce, trade, international relations, politics, law, science, and art would be severely limited, and in some cases would wither away (Lonsdale, 1996, p. 3).

Thus, for Nigeria to effectively promote and sustain her hospitality and tourism industries, especially, in the international sphere, she needs to take the issue of professional translation more seriously. The neglect
and poor handling of the issue of translation in this sector of the Nigerian economy has greatly brought about poor patronage. This paper therefore calls for conscientious effort on the part of the hospitality and tourism authorities at various levels to ensure that tourism promotion materials and programmes are adequately translated in world languages particularly in that of those countries that are top tourism spenders. Professionalism in the act of translation within the hospitality and tourism industries should be encouraged. This way, the country will better market her heterogeneous cultural, natural and human endowments to the international community thereby bring about increment to the Nigeria Gross Domestic Product Income. (GDI).

References


EVALUATING TRADERS' PREFERENCE FOR SECOND HAND CLOTHING IN LAFIA METROPOLIS OF NASARAWA STATE, NIGERIA

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Abstract
The issue of traders' preferences for second-hand clothing (SHC) has been a major concern of every well-meaning Nigerian and Government. This has made second-hand clothing a huge business at the detriment of the locally produced ones. This study determined the reasons for trader preferences of SHC in Lafia metropolis. Simple Random Sampling technique was used to select the area for this study. Ten (10) areas were selected for the study which are Shabu, BukanSidi, Ombi I, Total filling Stations, New Modern Market, Shendam Road axis, Makurdi Road axis, MararabaAkwaiza axis and Emirs palace axis in Lafia Metropolis capital of Nasarawa State. The choice of these areas was based on the concentration of second hand clothing (Markets). One hundred (100) respondents (traders) were selected, using purposive sampling technique. Data were collected using structured and validated questionnaires and the analysis was done using descriptive statistical analysis. This study showed that majority of the respondents are between the ranges of 21-30 years, sex of the respondents revealed that (55%) were male while (45%) were female from the sample population. As regard the marital status of respondents that patronize second-hand clothing, (58%) were single while (35%) were married, and about (49%) were students and about (54%) having tertiary education up to B.sc or HND. Religiously, majority of respondents that patronize second-hand clothing were Christians and comprised (56%) the Muslim population comprised (44%). The result further revealed that (82%) with a household size of 1-5 people were dominant in second-hand clothing business. On the other income group, that is those who earned 1,000 -5,000 were (28%) while those who earned 6,000-11,000 were (42%) and those who earned 12,000 and above were (30%) of the population sample. The study further revealed that (58%) highly patronize second-hand clothing. The respondents indicated that wash fastness (67%), family life cycle style and pattern, peer group, durability, cheapness and power of choice amounts to half of the major reasons that influence their preference for second-hand clothing. The following findings also showed that the number of respondents that are aware the following diseases can be contacted through wearing second-hand clothing; Sexually transmitted disease (69%), Viral infection (79%), Parasitic infection(70%), Hepatitis (57%), Fungi Infections (54%). It is recommended that the second-hand clothing should be treated before wearing to avoid contact with disease.

Keywords: Evaluation, Traders Preferences, Second Hand Clothing

Introduction
The second-hand clothing trade has expanded hugely in both its economic power and global scope, more than doubling worldwide between 1991 and 2004, in the wake of the liberalisation of many third World economies and following the sudden rise in demand from Eastern bloc countries in the early I 990s. The countries of sub-Saharan Africa are the world's largest second-hand clothing destination. Receiving close to 26% of total world exports in 2004 (United Nations). The history of the entrance of second-hand western clothing and its supplements known as “okrika” among other names into the Nigerian market scene is traceable to the urge of becoming modern with Western education and modernity. It is also a symbol which their colonizers who were the role models in the Euro-centric setting represent. Second hand clothing trade expanded and grew in scope globally with patronage from all segments of the society except in countries that banned these imports. Haggblade (1990) reported that second hand clothing consumption practices in Africa are shaped by the politics that regulate these imports and by distinct regional conventions concerning bodies and dress. He further stated that some African countries such as Coted'Ivoire, Nigeria, Kenya and Malawi have at one point or another banned the importation of second hand clothing, while some countries like South Africa have restrictive policies by allowing import of second hand clothing only for charitable purposes and not for re-sale. However, because of the porous nature of borders of these countries especially Nigeria and difficulty in enforcing customs regulations, there is extensive illegal importation of this commodity.

Reasons abound why most Nigerians patronize bend down. These reasons border largely on economic and social variable. For some, they can't compromise quality which they believe the second-hand textiles symbolizes for anything else, while some are compelled by economic circumstances to patronize these used textiles because, to them, they come
cheaper than buying new ones. According to Aluko, (2006) also open that she prefers the used clothing because they are of a higher quality and that it can be very frustrating to pay more for new ones which are usually not as strong or good as these second hand textiles. In these days that the resources are scarce, it is a lot of prudence to buy theseused textiles because, in the long run, they are stronger and cheaper than the new ones and it is more of a bandwagon thing. The truth is that people, especially children look smarter and cute in these bend down stuffs than new ones, and since nobody wants his/her children to look misfits or second-class citizens all of us now buy these second-hand textiles (Shailong and Igbo2009, Callahan and Paoleti 1999). To some of the dealers, the boom in the industry is not only an answer to fervent prayers but an alternative to unemployment. They have bordered largely on economic and social variables. For some they can't compromise quality, which they believe the second-hand clothing symbolizes for anything else, while for others, they are compelled by economic circumstances to patronize these used clothing, to them, they come cheaper than buying the new ones. Yet others said they admire the good styles of the imported wears (Chattoe, 2013).

The name originated among the Ibo-speaking people of South-eastern Nigeria. Until recently, the name was not derogatory; it derived from the fact that “Okrika”, a coastal town of South eastern Nigeria was believed to have had the largest consignment of SHC donated by developed countries to meet the needs of victims of the Nigerian civil war. Second hand clothing was believed to have been dispersed from “Okrika” in the past to other parts of the country. The name has today received wider acceptance in Nigeria across the nation. The name is used by the sellers to call the attention of potential buyers. It is a modern day name derived from the fact that buyers had to shuffle the textile heaped on a spread polyethylene to select' their choice. While potential buyers are shuffling, the sellers continue to say come and select your own” “select-select” that is, come and have your best choice ahead of their customers. Select-select according to sellers during focus group discussion also means that consumers should select cheap, and quality clothing from the heaps on the ground. In some cities, particular days of the week are earmarked for the marketing of second hand clothing and textile supplements such as shoes, hand bags, wigs, hats, belts, draperies and lines. Soft toys such as teddy bears have found their way into the exporting clothing.

A major feature for noticing closeness of a particular area to the market for the second hand textiles or goods is the chaotic traffic problem either human or vehicular as sizeable portion of the road that runs through these areas are taken over by traders in their desperate bid to out with one another. A more worrisome situation occurs especially in the evening close to Bus stop or near fly-over fences where traders and buyers take over available space due to the erroneous belief that the law has gone to sleep.

According to Shailong and Igbo (2009), noted that the ban on used textiles in the country had been existing but the trade in the commodities, over the years have been booming so much that even, federation have markets devoted to the trade. A dealer in the wares at Ogbeogonogo market, Asaba, confirmed this when he said in Pidgin English that nobody wey no dey buy our products. All these big men wey you dey see even some honourable. na here their wives dey come buy textiles for their children.”There seem to be unspoken rule among perceived age of the materials. Fairly new used textiles, regarded as first or high grade in the market parlance attract higher prices, while the older and fading ones attract less (Adams, 2012).

According to Encarta World Heritage Dictionary (North American edition) (2005) medical experts have raised an alarm over the health hazards that used items pose. They say some fungi bacteria, parasitic and viral infections can be contracted through handling or wearing of second-hand textiles. In the views of these experts, Sexually Transmitted Disease (STDs) is not only contracted through sexual transaction with infected persons. While they held that wearing used textiles generally exposes one to inevitable health risk, the risk level is higher when the used item happens to be underwear (https://en.wikipedia.org/wiki/underwear). Some of the diseases linked to handling and or wearing of second-hand textiles, especially underwear include vaginal or skin candidiasis, scabies, tinea corporis, syphilis, gonorrhoea, chicken pox and, worse still, hepatitis A B and C. One is at the risk of contracting any of these diseases if one has the misfortune of buying or wearing any second-hand item, particularly underwear previously used by someone infected with any of these diseases.

According to Allerston (2013) confirmed that the risk of infection becomes higher where the patron (user) fails to wash, disinfect and iron the used textiles before using. There is no contesting the fact that there are great risks in using second-hand textiles. especially under wears, fungi infections like Tinea (Ring worm), and viral infection like genital warts and even parasitic infections such as scabies, body lice, etc. can be contracted, aside STDs. And the truth is that the possibilities of contracting these diseases become higher if the used textiles are not thoroughly washed.
Palmer and Clark, (2008) suggested that regular wash, sometimes, may not get rid of some of the bacteria, particularly those that come with discharge from the body of a previous user.” He, therefore, recommended that strong reagents be employed to get rid of these bacteria as well as proper ironing “before wearing these used textiles.”

According to Encarta (2009), business is an organized approach to providing customers with the goods and services they want. The word business also refers to an organization that provides these goods and services. Most businesses seek to make a profit—that is, they aim to achieve revenues that exceed the costs of operating the business. Prominent examples of for-profit businesses include Mitsubishi Group, General Motors Corporation, and Royal Dutch/Shell Group. However, some businesses only seek to earn enough to cover their operating costs. Commonly called non-profits, these organizations are primarily non-governmental service providers. Examples of non-profit businesses include such organizations as social service agencies, foundations, advocacy groups, and many hospitals.

Business plays a vital role in the life and culture of countries with industrial and post-industrial (service- and information-based) free-market economies such as the United States. In free-market systems, prices and wages are primarily determined by competition, not by governments. In Nigeria for example, many people buy and sell goods and services as their primary occupations. In Lafia metropolis, SHC have also found its way in and many traders are patronizing this business with all their zeal ignorance of health hazard associated with the business, hence the need for the study.

Statement of the Problem
This research study focuses on evaluating the reasons for trader’s preferences for Second hand clothing in Lafia metropolis. It appears that traders of these second hand clothing do not know the attendant effects of second-hand textiles on their health and that of the economy of the country. The research study is intended to investigate the level of trader’s patronage of second-hand clothing businesses, reasons (s) for traders patronizing second-hand clothing business and there level of awareness of the health hazard these second hand clothing have on them and the economy.

Objective of the Study
The main aim of this study is to Evaluate Traders Preference for Second Hand Clothing Businesses in Lafia Metropolis Nasarawa State Nigeria. The specific objectives are:

I. To evaluate their levels of patronage of second hand textiles by the respondents (traders) in the study area.

ii. To identify the reason(s) for patronizing of second hand textiles by the respondents (traders) in the study area.

iii. To determine their level of awareness of the health hazard as a result of second hand textiles patronage by the respondents (traders) in the study area.

iv. To proffer solution(s) for patronizing second hand textiles by the respondents (traders) in the study area.

Methodology
Study Area
The study was carried out in Lafia Metropolis capital of Nasarawa State. The local government is one of the thirteen (13) local government areas in the state. It is bounded by Benue, Plateau, Kogi, Taraba States and Federal Capital Territory. It has an estimated population of 1,097,49 (2006). It lies between latitude 7° and 9° north of the equator, longitude 7° and 10° Greenwich Meridian with an average rainfall distribution of between 131.73mm and 145mm. The temperature ranges between 60°F and 80°F.

The indigenes of the state belong to the Gbagyi, Rindre, Kanuri, Alago, Agatu, Migili, Eggon, Bassa, Tiv, Hausa, Fulani and Mada tribes. However, non-indigenes from all parts of Nigeria and foreigners reside in the state and live together in harmony. Hausa and English are the language used for official and business transactions. The people have a rich cultural heritage which is eloquently demonstrated in all spheres of lives. Their culture finds expression in their arts, literature, music and other social activities it is marvellous being among the Nasarawa people, savouring the beauty of their well acclaimed cultural inheritance. The Alago people constitute about 75% of the ethnic population. The Local Government comprises of neighbouring Local Governments such as Nasarawa Eggon, Kokona, Obi and Domna, Quan-Pan in Plateau State (NADP, 2003)

Research Design
The research design used in this study was survey. The aim of the study was to identify the preference of traders for second hand textiles business in Lafia, Nasarawa State, Nigeria. The researcher used purposive design as suggested by Aluko (2006) that purposive can be used to represent the entire population.
Data Analysis
The data collected were analysed using simple descriptive statistics such as frequency, count and percentage to satisfy objectives (i), (ii), (iv), while objective (iii) was satisfied using five (5) point Likert scale with strongly agree (SA). Agree (A), undecided (UD), disagree (D), strongly disagree (SD) with score of 5, 4, 3, 2, 1 respectively. Mean score for each statement were calculated to categorize respondents (traders) to accepted (A) and not accepted (NA) remarks. Hence, mean score or any item(s) below 4.0 is not accepted as reason for trader's preference for second hand textile businesses while mean scores on any item(s) above 4.0 is accepted as a reason(s) for trader preference for second hand textile businesses in the study area.

Results and Discussion
Table 1: Demographic Characteristics of Respondents

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</tr>
<tr>
<td>Student</td>
<td>49</td>
<td>49.0</td>
</tr>
<tr>
<td>Farmer</td>
<td>11</td>
<td>11.0</td>
</tr>
<tr>
<td>Artisan</td>
<td>21</td>
<td>21.0</td>
</tr>
<tr>
<td>Business</td>
<td>5</td>
<td>5.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-formal Education</td>
<td>29</td>
<td>29.0</td>
</tr>
<tr>
<td>Primary</td>
<td>6</td>
<td>6.0</td>
</tr>
<tr>
<td>JSS</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>SSCE</td>
<td>10</td>
<td>10.0</td>
</tr>
<tr>
<td>Tertiary</td>
<td>54</td>
<td>54.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christianity</td>
<td>56</td>
<td>56.0</td>
</tr>
<tr>
<td>Islam</td>
<td>44</td>
<td>44.0</td>
</tr>
<tr>
<td>Traditionalist</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Household</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5 people</td>
<td>83</td>
<td>83.0</td>
</tr>
<tr>
<td>6-11 people</td>
<td>9</td>
<td>9.0</td>
</tr>
<tr>
<td>12 above</td>
<td>8</td>
<td>8.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Evaluating Traders' Preference for Second Hand Clothing in Lafia Metropolis of Nasarawa State, Nigeria

Results in Table I reveal that majority (62%) of the respondent falls within the age bracket of 21-30 years, while 31-40 has 19%. Majority (55%) of the respondents are male while 45% are female of the same population. Those that patronise second-hand clothing were dominated by male. As regard the marital status of respondents that patronize second-hand textiles (58%) were single while (35%) were married. This indicates that second-hand textile is not only patronized by singles and about (49%) were students and about (54%) having tertiary education such as NCE/HND and B.sc respectively. For religion majority of the respondents that patronize second-hand textile were Christian which represents (56%) while the population figure of muslim that patronized second-hand textiles comprised (44%). This result showed that (82%) with a household size between 1-5 people were dominant in the patronage of second-hand clothing. On the income group, that is those who earned 1,000-5,000 were (28%) while those who earned 6,000-11,000 were (42%) and those who earned 12,000 and above were (30%) of the population sample.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly patronized</td>
<td>68</td>
<td>68.0</td>
</tr>
<tr>
<td>Patronized</td>
<td>27</td>
<td>27.0</td>
</tr>
<tr>
<td>Poorly patronized</td>
<td>3</td>
<td>3.0</td>
</tr>
<tr>
<td>Not patronized</td>
<td>2</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Source: 2017 Field Survey

The table above showed the level of patronage of second hand cloth by traders in the study area, it showed that majority (68%) of the respondents highly patronized second-hand clothing, while (27%) of the respondents patronized second-hand clothing. The table further reveal that (3%) of the respondents (traders) poorly patronized Second-hand Textiles and (2%) of the respondents (traders) do not patronized second-hand clothing.

<table>
<thead>
<tr>
<th>Reason(S)</th>
<th>SA</th>
<th>A</th>
<th>UD</th>
<th>D</th>
<th>SD</th>
<th>Mean</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Capital</td>
<td>80</td>
<td>203</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.8</td>
<td>Accepted</td>
</tr>
<tr>
<td>High Quality</td>
<td>76</td>
<td>24</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>4.76</td>
<td>Accepted</td>
</tr>
<tr>
<td>High Patronage</td>
<td>82</td>
<td>18</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>4.82</td>
<td>Accepted</td>
</tr>
<tr>
<td>Consistency in Lot or Roll quality</td>
<td>64</td>
<td>24</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>4.52</td>
<td>Accepted</td>
</tr>
<tr>
<td>Consistency in quality</td>
<td>76</td>
<td>23</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>4.75</td>
<td>Accepted</td>
</tr>
<tr>
<td>High profit margin (high return in investment)</td>
<td>96</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5.76</td>
<td>Accepted</td>
</tr>
<tr>
<td>Durability</td>
<td>46</td>
<td>44</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.06</td>
<td>Accepted</td>
</tr>
<tr>
<td>Physical properties</td>
<td>73</td>
<td>27</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>4.71</td>
<td>Accepted</td>
</tr>
<tr>
<td>Readily available</td>
<td>64</td>
<td>37</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>4.71</td>
<td>Accepted</td>
</tr>
<tr>
<td>Consistency in quality</td>
<td>60</td>
<td>40</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.6</td>
<td>Accepted</td>
</tr>
<tr>
<td>Family income</td>
<td>70</td>
<td>30</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>4.95</td>
<td>Accepted</td>
</tr>
<tr>
<td>Family clothing</td>
<td>80</td>
<td>20</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.80</td>
<td>Accepted</td>
</tr>
<tr>
<td>General facial satisfaction from consumer</td>
<td>80</td>
<td>10</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>4.70</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Source 2017 Field Survey

The Table above shows the reasons for traders preference for Second hand clothing. All the variables under the reasons gave mean score that is above 4.0, hence they are all accepted (A). From the table, high profit margin (high return on investment) had the highest mean score of 5.76 followed by the family income had the mean score of 4.95, High patronage had the score mean of 4.82 , family clothing had the mean score of 4.80. High quality had the mean score of 4.76, consistency in quality had the mean score of 4.75, physical properties and readily available had the same mean score of 4.71, General satisfaction from consumer had the mean score of 4.70 and Consistency in lot/roll quality had the mean score of 4.52 were also accepted by the traders that patronize the second-hand clothing in the study area. The result also revealed that low capital had the mean score of 4.8. Consistency in quality had the mean score of 4.6 were all accepted with by the traders that patronize second-hand clothing in the study area.
Table 4, revealed the awareness of health hazard of second-hand clothing by the respondents in the study area. The result showed that 70% agreed that Syphilis can be transmitted by wearing second-hand textile while 30% disagreed, 45% agreed, that Hepatitis can be transmitted by wearing second-hand clothing while 55% disagreed, 65% agreed that Gonorrhea can be transmitted by wearing second-hand clothing while 35 disagreed. 10% agreed that HIV can be transmitted by wearing second-hand clothing while 90% disagreed. It also reveals that 72% agreed that Genital wart can be transmitted by wearing second-hand clothing while 18% disagreed. 10% agreed that Ebola can be transmitted by wearing second-hand clothing while 90% disagreed; the result also showed that 95% agreed that Scabies can be transmitted by wearing second-hand clothing while 5% disagreed. 75% agreed that Body lice can be transmitted by wearing second-hand clothing and 25% disagreed, 85% agreed that Bedbug can be transmitted by wearing second-hand clothing while 15% disagreed, 95% of respondents agreed that Chicken pox can be transmitted by wearing second-hand clothing while 5% disagreed. It also stressed that 90% agreed that Hepatitis A can be transmitted by wearing second-hand clothing while 10% of respondents disagreed, the result further revealed that 93% agreed that Hepatitis B can be transmitted by wearing second-hand clothing while 7%

<table>
<thead>
<tr>
<th>S/N</th>
<th>Health hazards</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sexually transmitted disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Syphilis</td>
<td>70</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Hepatitis</td>
<td>45</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Gonorrhea</td>
<td>65</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>HIV</td>
<td>10</td>
<td>90</td>
</tr>
<tr>
<td>2</td>
<td>Viral infection</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Genital wart</td>
<td>72</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Ebola</td>
<td>10</td>
<td>90</td>
</tr>
<tr>
<td>3</td>
<td>Parasitic infection</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scabies</td>
<td>95</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Body lice</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Bedbug</td>
<td>85</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Chicken pox</td>
<td>95</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Hepatitis</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hepatitis A</td>
<td>90</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Hepatitis B</td>
<td>93</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Hepatitis C</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>Fungi infections</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tinea (ringworm)</td>
<td>98</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: 2017 Field Survey
disagreed, 50% agreed that Hepatitis C can be transmitted by wearing second hand clothing while 50% disagreed, 98% agreed that Tinea (ringworm) can be transmitted by wearing second-hand clothing while 2% disagreed.

**Conclusion**
This survey identifies that high profit margin (high return investment) is the major reason for their preference for second hand textiles businesses in the study area. The major significant conclusion from this survey is that, there is a high trader preference for second hand textile businesses in the study area, despite the fact that health is at risk through the usage of second hand textiles.

**Recommendations**
The following recommendation(s) are made based on the findings from this research survey:

1. The government should revive local textile industries in order to meet local demand for textiles.
2. Government should introduced policies that will discourage patronage of second hand textiles by banning importation of second hand clothing.
3. Second hand textiles should be treated before they are displayed for potential customers to avoid spread of diseases.
4. Government should ban importation of textiles to encourage the patronage of locally made textiles.

**References**


Microsoft Encarta Premium (2009). Microsoft Corporation. All rights reserved.


Shailong & Igbo (2009). Establishment of Average body measurement and Drafting of Basic Block Pattern for male pre-school Children in Enugu State. Journal of Home Economics research vol. 10 & 11 page 86.
CLIMATE CHANGE HAZARDS AND ADAPTED STRATEGIES FOR CONTROL OF ENVIRONMENTAL POLLUTION FOR SUSTAINABLE AESTHETIC DRINKING WATER IN RURAL SOUTHEAST NIGERIA

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Abstract
The study identified climate change hazards and adapted strategies for control of environmental pollution for sustainable aesthetic drinking water in rural South-East Nigeria. The study utilized a survey design. The population comprised of four hundred and fifty Health personnel, and science teachers in the Southeast. Multistage sampling technique was used in determining sample size of three hundred and fifty (350) health personnel and Science teachers in Southeast Nigeria. The instrument used for data collection was forty three (43) items questionnaire of four point rating scale of strongly Agreed (SA), Agreed (A), Disagreed (DA), Strongly Disagreed (SD) with assigned scores of 4,3,2,1. This was face validated by three experts in Science education who critically examined the items included with the specific purpose of the study and made useful suggestion that improve the quality of the instrument. Reliability of the instrument was determined by administering the questionnaire items to 20 scientists outside the south east zone. Their suggestion were subjected to reliability testing using cronbach alpha coefficient which result was 0.72 and was considered for collecting data for the study. Data collected were analyzed using frequency, and mean distribution. The findings include: Climate Change Hazards in rural Southeast Nigeria include; animal dropping infected water, water pollution from fossil fuel, atmospheric circulation among others. The Adaptation Strategies for control of environmental pollution for sustainable aesthetic drinking water in rural South-East Nigeria include; construction of water ways, treating water for odour with chlorine oxidation, control of hazard material from drinking water and among others. Recommendations were made based on the research findings.

Keywords: Climate Change, Strategies, Pollution Control, Aesthetic, Drinking Water

Introduction
Climate change is a global effect, from natural processes and human alterations of the world that cause changes. Natural processes influence climate to change; that is changes within the sun and changes in earth orbit. Consequently, Climate is the average weather over a period. It is the composite or generally prevailing weather conditions of a region, example temperature, air pressure, humidity, precipitation, cloudiness, and winds, throughout the year, most times averaged over a series of years. Intergovernmental Panel on Climate Change (IPCC (2013), also identified that climate includes precipitation, temperature, humidity, sunshine, wind, velocity, and phenomena such as fog, frost and hailstorms over a long period of time. According to NASA (2017), climate refers to the average, or typical, weather conditions observed over a long period of time for an area.

Therefore, Weather is the conditions of the atmosphere over a short period. Weather can be the description of the atmosphere; the degree of hotness and coldness, wet or dry, calm or stormy, clear or cloudy. Weather is not the same everywhere. It may be hot and sunny in one part of the world, but freezing and snowy in another part. Climate can be the average conditions of a specific place at a given time, measured over a long period. Climate differs from weather, in that weather only describes the short term conditions of these variables in a given region. According to IPCC (2013), weather are sunshine, rain, winds, hail snow, flooding, thunderstorms, excessive heat and heat wave over period.

According to Serge (2013), Climate is measured by assessing the patterns of variation in temperature, humidity, atmospheric pressure, wind, precipitation, atmospheric particle count and other meteorological variables in a given region over long periods of time. NASA (2017) identified that weather measured over a short period describes the atmospheric condition at a particular place at a specific point in time and refers to day to day temperature and precipitation activity.
Therefore, weather and climate is a measure of time. When the condition of weather in a place changes from what it used to be for a long time, can be called climate change. Climate change therefore, is the adjustment in a normal or average weather pattern of a place. It is a significant change in the measures of climate, such as temperature, rainfall, or wind, lasting for extended period decades or longer. It could be an adjustment of an area normal yearly precipitation (forms of water particles e.g. rain, snow, hail among others), or an adjustment in an area's normal temperature for a month. IPCC (2013) further illustrate that climate changes differ from weather, in that weather describes the short term conditions of these variables in a given region. Therefore it is everywhere in the atmosphere.

Okoli and Ifeakor (2010), illustrate that climate change is a global effect that is caused by natural variations (increase in the concentration of carbon dioxide and other heat trapping gases (such as methane, ozone, nitrous oxide, carbon monoxide and water vapour) as well as human activities. Okoli & Ifeakor (2010) further, stated that these heat trapping gases known as Green House Gases (GHG) and occur naturally in the troposphere. The greenhouse gases prevent the direct heat of the sun from heating the surface of the earth but allow sufficient heat to keep the earth warm enough for survival of life. This increases emission of carbon dioxide into the atmosphere resulting to the depletion of the ozone layer (poisonous and highly reactive (hazardous)) leads to increase in the earth's surface temperature due to direct heating of the earth's surface by the ultra-violet radiation of the sun.

Climate change is as a result of human activities such as large scale deforestation, wide-spread use of land, over-population, reduced reliance on organic fuels and accelerated uptake of fossil fuels. These activities lead to increased emission of Green House Gases into the atmosphere (troposphere) which in turn increases the average surface temperature of the earth. Natural changes can also influence climate change. Okolietal (2010) further explain that climate change is not just a change in the global temperature; it is also a change in the weather. NRC (2008) & NRC (2010), identify that changes occurring in the sun, can affect the intensity of the sunlight that reaches earth's surface. The intensity of the sunlight can cause either warming (period of stronger solar intensity) or cooling (periods of weaker intensity). This is caused by variables; biotic procedures, variation in sunlight based on radiation received by the earth, plate tectonics, and volcanic eruptions. Certain human activities have critical reasons for recent climate change, usually referred to as global warming. These changes is a treat to aesthetic drinking water mostly in rural areas due to environmental pollution as a result of increased emission of carbon dioxide into the atmosphere resulting in the depletion of the ozone layer and this leads to increase in the earth's surface temperature due to direct heating of the earth's surface by the ultra-violet radiation of the sun and also human activities such as large scale deforestation, wide-spread use of land, over population, reduced reliance on organic fuels and accelerated uptake of fossil fuels that causes pollution in the environment (Okoli & Ifeakor (2010)). These activities on the environment increase the average surface temperature of the earth creating poisonous natural variations known as climate change hazards.

Climate change hazards are frequencies of extreme precipitation, storms, and droughts and heat waves becoming severe as the global temperature increase, causing hazards in the societal environment such as flooding, typhoon among others. Climate change hazards are caused by unstable ice sheets, major ecosystem changes and abrupt changes in the circulation of the atmosphere or the ocean. These create environmental pollution leading to contamination of water thereby creating unsuitable water that is non aesthetic for drinking especially in the rural communities. NASA (2017) stated that understanding the problem of fresh water scarcity begins by considering the distribution of water on the planet. Approximately 98% of our water is salty and only 2% is fresh, that 2%, almost 70% is snow and ice, 30% is groundwater, less than 0.5% is surface water (lakes, rivers, etc) and less than 0.05% is in the atmosphere. Therefore there is serious lack of aesthetic drinking water because the atmosphere is polluted already affecting the water in the environment.

Climate change has several effects on a global scale (NASA 2017). Globally, there are hazards as a result of overcoming the detrimental effects of contamination in the environment (Chito, Edema, & Okiemen 2013). Chitoetal (2011) further illustrate that, Spillages of crude oil on the environment; leakages from pipelines, underground and surface fuel storage tanks; indiscriminate spillages and careless disposal and miss-management of waste constitute the major sources of water contamination in the environment. Chitoetal (2013), identify that in recent years, environmental pollution due to increased release of hazardous and toxic substances into the soil water, sediment and air has been a widespread problem. Chitoetal (2013) further stated that there are frequent soil contaminations in the environment and sediments, water and air from operations of petroleum and other extractive industries including spillages is a frequent environmental hazard in the oil rich communities which increases pollution of water with risk associated with heavy metals and petroleum hydrocarbons in the
environment. Chitoetal (2013), further identified selected heavy metals; (As, Cd, Cu, Cr, Fe, Hg, Ni, Pb, V and Zn) and Total Petroleum hydrocarbons (TPH) were considered. Chikwendu, & Orji. (2013) supported the claims of Chitoetal 2013, in their findings that contamination of sediment and water from Arunton creek and environ of the Niger Delta was investigated. Generally, the values obtained compared with World Health Organization (WHO) standards are highly suggesting pollution related to the petroleum activities.

In view of these, a remedy for aesthetic drinking water is very necessary mostly in the rural communities; it becomes imperative for the adaptation strategies, for environmental pollution control of aesthetic drinking water especially in Southeast Nigeria. The researchers observed that there lack of aesthetic drinking water quality in South East Nigeria especially in most rural communities where these water are not properly treated by the rural before drinking and this may create ill health from water borne diseases that are common in rural communities. According to U.S. Global Change Research Program (USGCRP 2014), water resources that are needed for both society and ecosystems depends on a reliable, clean supply of drinking water to sustain health, irrigation, energy production, navigation, recreation, and manufacturing. Many of these, uses pressure on water resources, stresses that are likely to be exacerbated by climate change.

Aesthetic drinking water is a high quality water taste; highly transparent and odorless. This is very important for good health condition. Most times even the treated water is not pure, because the right chemicals are not used and at times methods of purification still affects the water and remain unesthetic and needed a good safety strategy. Water Safety Plans are based on risk assessment, prioritization, and management of the water supply from catchment to consumer. Mercer & Bartram (2011) stated that a plan should be implemented to make incremental improvements over time, prioritizing public health risks by addressing them accordingly. That is part of the reason why the researchers carried out this study. There is need to educate the people to prevent health risks from drinking contaminated water. They study is important and will educate climate change hazards and adapted strategies for control of environmental pollution for sustainable aesthetic drinking water especially in rural south east Nigeria.

**Purpose of the Study**
The study climate change hazards and adapted strategies, for control of environmental pollution for sustainable aesthetic drinking water in rural South-East Nigeria:

1. Identified climate change hazards in south-east Nigeria
2. Identified climate change adaptation strategies for environmental pollution control for aesthetic drinking water in southeast Nigeria.

**Research Questions**
The following research questions guided the study.

1. What are the climate change hazards in south-East Nigeria?
2. What are the adapted strategies for environmental pollution control for aesthetic drinking water in South-East Nigeria?

**Methodology**

**Design of the study**
The study utilized survey design to collect relevant information for the study. The survey design involves assessment the people, attitudes, interest and opinions. Survey research according to Check & Schutt, (2012) defined as the collection of information from a sample of individuals through their responses to questions. Check et al (2012) further stated that this type of research allows for a variety of methods to recruit participants, collect data, and utilize various methods of instrumentation.

**Area of the Study**
The area consists of five state capitals of south east Nigeria comprising of Anambra, Abia, Enugu, Ebonyi and Imo in South-East Nigeria; since relevant information used on the analysis of the study was obtained.

**Population of the study**
The target population for the study comprised of Health Personnel and science teachers in the different state capitals. This comprised 450

**Sample and Sampling Technique**
Multi stage sampling technique was used to select respondents for the study. This technique according to Eboh (2009) involves a procedure whereby the selection of units into the sample was organized in stages. The stratified random sampling was used to select the five states and their capitals comprising Abia, Anambra, Ebonyi, Enugu and Imo state; whose capitals are Umuahia, Awka, Abakaliki, Enugu and Owerri respectively. Stage two: this was also used to select fifteen health(15) centers and twenty (20) schools in the state capitals selected; where ten (10) health personnel are selected in each health centre (150 health personnel) and ten (10) teachers were selected in each school; comprising of one hundred and fifty health personnel, and two hundred school teachers from the selected health centers and schools in the selected state capitals in southeast Nigeria. Therefore
the total sample size for the study was three hundred and fifty (350)

**Instrument for data collection**

The instrument used for data collection was a structured questionnaire. The questionnaire items were produced based on the information collected from the review of related literature. The questionnaire was made up of two sections A & B with forty three (43) items coded based on a four (4), point rating scale of Strongly Agreed (SA) = 4, Agreed (A) = 3, Disagree (D) = 2, Strongly Disagree (SD) = 1 respectively. The questionnaire was administered to all the respondents (health personnel and teachers) by the help of five (5) research assistants in each of the states. The instrument was subjected to face validation by producing draft copies of the questionnaire. This was given to three experts in the field of science education who critically examined the items included with the specific purpose of the study and made useful suggestions that improved the quality of the instrument. Their recommendations, advice, suggestions and observations were used to review the questionnaire items. To determine the reliability of the instrument, the questionnaire item was administered to twenty scientists outside South-East zone. This was to ensure that the respondents used in the reliability testing were excluded from the study sample. Their responses were subjected to reliability test using Cronbach alpha coefficient which result was 0.85 and was considered reliable for it to be used in collecting data for the study.

**Method of Data Analysis**

Three hundred and fifty (350) questionnaires were administered by hand to the respondents in each state capital and all were returned with the help of research assistants. Frequency counts and mean were used to analyze the data collected. Any item with a mean score of 2.50 and above was regarded as agreed. Similarly, any item scored 2.49 and below was regarded as disagreed.

**Results/Findings**

**Table 1: Mean Rating on Climate Change Hazards in South-East Nigeria**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Climate Change Hazards include:</th>
<th>$\bar{X}$</th>
<th>RMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Flooding/drought water condition due to over flow (rivers, lakes, washing sediments)</td>
<td>3.50</td>
<td>Agreed</td>
</tr>
<tr>
<td>2</td>
<td>Water pollution</td>
<td>3.37</td>
<td>Agreed</td>
</tr>
<tr>
<td>3</td>
<td>Animal dropping infected water</td>
<td>3.37</td>
<td>Agreed</td>
</tr>
<tr>
<td>4</td>
<td>Chemicals (e.g. pesticide, lead, Dieldrin, D.D.T, Aldrin,)</td>
<td>3.35</td>
<td>Agreed</td>
</tr>
<tr>
<td>5</td>
<td>Hydrocarbon from automobile</td>
<td>3.32</td>
<td>Agreed</td>
</tr>
<tr>
<td>6</td>
<td>Industrial pollution</td>
<td>3.34</td>
<td>Agreed</td>
</tr>
<tr>
<td>7</td>
<td>Air pollution</td>
<td>3.35</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Greenhouse gases (e.g. water vapour precipitates, carbon dioxide, methane, nitrous oxide,</td>
<td>3.31</td>
<td>Agreed</td>
</tr>
<tr>
<td>9</td>
<td>Constant rain</td>
<td>3.25</td>
<td>Agreed</td>
</tr>
<tr>
<td>10</td>
<td>Fossil fuel</td>
<td>3.28</td>
<td>Agreed</td>
</tr>
<tr>
<td>11</td>
<td>Atmospheric circulation.</td>
<td>3.32</td>
<td>Agreed</td>
</tr>
<tr>
<td>12</td>
<td>Fertilizers</td>
<td>3.35</td>
<td>Agreed</td>
</tr>
<tr>
<td>13</td>
<td>Organic waste e.g. sewage and farm waste</td>
<td>3.27</td>
<td>Agreed</td>
</tr>
<tr>
<td>14</td>
<td>Higher temperature melt inland glaciers</td>
<td>3.30</td>
<td>Agreed</td>
</tr>
<tr>
<td>15</td>
<td>Scarcity of water due to increased evaporation and demand of water</td>
<td>3.36</td>
<td>Agreed</td>
</tr>
<tr>
<td>16</td>
<td>Stream flow over time create poor water supply to green vegetables</td>
<td>3.32</td>
<td>Agreed</td>
</tr>
<tr>
<td>17</td>
<td>Outbreak of water borne diseases</td>
<td>3.36</td>
<td>Agreed</td>
</tr>
<tr>
<td>18</td>
<td>Physical injuries and destruction of properties</td>
<td>3.30</td>
<td>Agreed</td>
</tr>
<tr>
<td>19</td>
<td>Mold allergies</td>
<td>3.34</td>
<td>Agreed</td>
</tr>
<tr>
<td>20</td>
<td>Decrease and increase in population mobility</td>
<td>3.30</td>
<td>Agreed</td>
</tr>
<tr>
<td>21</td>
<td>Water tank, toilet tank and plumbing sludge presence.</td>
<td>3.27</td>
<td>Agreed</td>
</tr>
</tbody>
</table>

Table 1 above shows that all the respondents accepted all the items as climate change hazards that occur in rural south-east Nigeria.
The chat reveals table 1 above which shows that all the respondents accepted all the items as climate change hazards that occur in the rural southeast Nigeria.
Adaptation Strategies for environmental pollution control include:

1. **Desalination (or removal of salt from the water)** of some coastal freshwater.
   - Mean: 3.42
   - Agreement: Agreed

2. **Treat water for taste and odor using carbon treatment and possibly oxidation with chlorine.**
   - Mean: 3.36
   - Agreement: Agreed

3. **Organic colour in water using activated carbon to remove.**
   - Mean: 3.37
   - Agreement: Agreed

4. **Determine the cause and filter to remove turbidity**
   - Mean: 3.36
   - Agreement: Agreed

5. **Salinity: Reverse osmosis is the usual treatment for excess salinity.**
   - Mean: 3.38
   - Agreement: Agreed

6. **Hardness: Cation exchange is the common home treatment choice.**
   - Mean: 3.29
   - Agreement: Agreed

7. **Softness: Calcite filters and likely pH adjustment can harden water.**
   - Mean: 3.37
   - Agreement: Agreed

8. **Sanitation in drinking water surrounding**
   - Mean: 3.32
   - Agreement: Agreed

9. **Disinfect surrounding during water treatment**
   - Mean: 3.35
   - Agreement: Agreed

10. **Land cover modification;**
    - Mean: 3.34
    - Agreement: Agreed

11. **Extraction activities;**
    - Mean: 3.34
    - Agreement: Agreed

12. **Construction/modification of waterways;**
    - Mean: 3.28
    - Agreement: Agreed

13. **Livestock density and application of manure at drinking water destination**
    - Mean: 3.35
    - Agreement: Agreed

14. **Road construction, maintenance and use;**
    - Mean: 3.29
    - Agreement: Agreed

15. **Various forms of recreation;**
    - Mean: 3.27
    - Agreement: Agreed

16. **Urban or rural residential development, with particular attention to excreta.**
    - Mean: 3.29
    - Agreement: Agreed

17. **Other potentially polluting human activities, eg mining fought with environmental legislation.**
    - Mean: 3.26
    - Agreement: Agreed

18. **Good management of the community for drinking water area.**
    - Mean: 3.25
    - Agreement: Agreed

19. **Hygiene and health education programme**
    - Mean: 3.30
    - Agreement: Agreed

20. **Certification for good aesthetic drinking water**
    - Mean: 3.24
    - Agreement: Agreed

21. **Control of hazardous materials from drinking water**
    - Mean: 3.30
    - Agreement: Agreed

22. **Good disposal, sanitation, land fill and waste disposal**
    - Mean: 3.42
    - Agreement: Agreed

Table 2 indicates that the respondents accepted all the items as climate change adaptation strategies for environmental pollution. Control for aesthetic drinking water quality in south-east Nigeria.
Climate change is a global phenomenon from natural processes and human alterations of the world that causes change. Natural process influences climate to change; that is changes within the sun and changes in earth’s orbit. The researcher from the findings of this study observed that natural processes and human activities causes climate change that makes most available water not to have aesthetic drinking water quality in most rural South-East Nigeria and the global world. It was observed that Climate change hazards in southeast Nigeria is a threat to aesthetic drinking water quality. This is due to environmental pollution of increased emission of carbon dioxide into the atmosphere resulting in the depletion of the ozone layer causing increase in the earth’s surface temperature due to direct heating of the earth’s surface by the ultra-violet radiation of the sun and also human activity. According to Okoli and Ifeakor (2010), human activities such as large scale deforestation, widespread use of land, over-population, reduced reliance of organic fuels and accelerated uptake of fossil fuels can cause climate to change. He further stated that these activities lead to increased emission of Green House Gases into the atmosphere (troposphere) which in turn increases the average surface temperature of the earth creating poisonous natural variations that are climate change hazards. Such hazards; flooding, drought water condition due to over flow (rivers, lakes, washing sediments)s, animal dropping, chemicals like pesticides, ALdrin among others, automobile hydrocarbon, industrial pollution, fossil fuel atmospheric temperature and among others creates environmental pollution that contaminate
drinking water quality. These climate change hazard has effects to aesthetic quality. Tic drinking water NASA (2017), stated that climate change has several effects on the proportions of a global scale; for example warming causes polar ice that melts into the sea, which turns fresh water into sea water. Spillage of crude oil on the environment; leakages from pipelines of underground and surface fuel storage tanks; miss-management of waste, constitute to the major sources of contamination of water sources leading to unaesthetic drinking water quality for human survival. The researcher identified climate change adaptation strategies for environmental pollution control for aesthetic drinking water in southeast Nigeria that include: desalination, chemical water treatment, sanitation, control of hazardous materials from drinking water among others which was where the researchers anchored their study to improve water for aesthetic drinking quality in the rural communities in, south -East Nigeria. Chito et al. (2013), identified that, environmental pollution due to increasing release of hazardous and toxic substances into the soil, and air has been a widespread problem. Chito et al. (2013), further identify selected heavy metals (As, Cd, Cu, Cr, Fe, Hg, Ni,Pb, V and Zn) and Total Petroleum hydrocarbons (TPH) were considered. The study will direct and correct their wrong attitudes and other ill practices that cause climate change hazards to achieve aesthetic drinking water quality.

**Recommendations**
From the findings of this study, the recommendations made include that the government of Southeast Nigeria should:
- Create awareness programs about climate change hazards and adapted strategies, for control of environmental pollution education for sustainable aesthetic
- Drinking water should be made available to individuals, families, industries, schools among others in South-East Nigeria.

**References**

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LEARNING ENVIRONMENT AND STUDENT DELINQUENT BEHAVIOUR AMONG SECONDARY SCHOOL STUDENTS IN PORT HARCOURT METROPOLIS, RIVERS STATE

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&

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Abstract
Student delinquency is a major social problem for families and schools in Rivers State. Many children are involved in behaviours that usually would endanger their optimum development as well as become nuisance to the society. This study examined the relationship between learning environment and child delinquent behaviours amongst secondary school students in Port Harcourt, Rivers State. There were three specific objectives and one hypothesis. The researchers adopted the correlational design. The population for the study was all 1,690 secondary school teachers in the 34 public secondary schools in the Port Harcourt metropolis. The simple random sampling technique was used to select to select 200 teachers for the study. The instrument for data collection was a structured questionnaire form titled 'Learning Environment and Child Delinquent Behaviour'. The responses to the questionnaire was designed on a 4 point scale of measurement of Strongly Agree (SA) =4; Agree (A) =3; Disagree (D) =2, and Strongly Disagree (SD) =1. The researcher administered the questionnaires using the direct contact method. Mean and standard deviation were used to analyze the data from the research questions, while the Pearson correlation was used to test the hypothesis. Some of the findings are that teachers’ inability to manage personal conflicts will negatively impact on the child \( (M=3.84) \); some children are lured into crimes by their peers \( (M=3.04) \); and that school suspension will make a child resort to crimes since he/she is not in school \( (M=3.01) \). The test of hypothesis indicated there is a relationship between learning environment and student delinquent behaviours. Among the recommendations is that parents and the school system should collaborate in effectively monitoring and evaluating the peer relationships in school and at homes. This will help regulate the impacts of peer pressure on children to engage in delinquent behaviours.

Keywords: Child Delinquency, Child Behaviour, Learning Environment

Introduction
Research over the past few decades on normal child development and on development of delinquent behavior has shown that individual, social, and community conditions as well as their interactions influence behavior. There is general agreement that behavior, including antisocial and delinquent behavior, is the result of a complex interplay of individual biological and genetic factors and environmental factors, starting during fetal development and continuing throughout life (Bock &Goode, 2006). Clearly, genes affect biological development, but there is no biological development without environmental input. Thus, both biology and environment influence behavior.

Many students reach adulthood without involvement in serious delinquent behavior, even in the face of multiple risks. Although risk factors may help identify which students are most in need of preventive interventions, they cannot identify which particular student will become serious or chronic offender. It has long been known that most adult criminals were involved in delinquent behavior as children and adolescents; most delinquent children and adolescents, however, do not grow up to be adult criminals (Robins, 2008). Similarly, most serious, chronically delinquent children and adolescents experience a number of risk factors at various levels, but most children and adolescents with risk factors do not become serious, chronic delinquents.

One immeasurable issue that continues to affect our justice system seems to be inevitable among our society; juvenile delinquency is a dynamic factor in our community in which affects our everyday lifestyle. By engaging ourselves in this issue, we can familiarize what causes deviant behavior, and can put into perspective the elements of the social learning theory. This concern is highly important because if we are able to understand why juveniles decide to commit crimes, we can prevent juveniles from committing future crimes (Habu, 2007). Their act of deviance may lead to severe or heinous crimes as adults, if it is not addressed in the early stages of adolescence (Adams, 2008). One may ask, what is identified as “delinquent” behavior? A term commonly defined with several interpretations
by society. The principles of criminology defines “deviance” as a violation of society's norms, an intended non-judgmental, neutral concept encompassing behavior and characteristics of people that are subject to condemnation or stigmatization within a social system (Jenson, 2011). This is not a simple issue and may not be resolved immediately, but the effort of every agency and authorized individual should partake in this matter in order to assert a less violent society.

Review of Literature

Learning Environment: Literature on learning environment and child behaviours abound. What is significant here is to conceptualize learning environment. The term refers to an educational approach, cultural context, or physical setting in which teaching and learning occur (Simmons, 2001). The term is commonly used as a more definitive alternative to classroom (Patterson, 2001), but it typically and general refers to the context of educational philosophy or knowledge experienced by the student and may also encompass a variety of learning cultures—its presiding ethos and characteristics, how individuals interact, governing structures, and philosophy (Aday, 2001). In a societal sense, learning environment may refer to the culture of the population it serves and of their location (Simmons, 2001). In this way, learning environment encompasses the school and those who make it up—pupils (peers), teachers and the school system. Learning environments are highly diverse in use, learning styles, organization, and educational institution. The culture and context of a place or organization includes such factors as a way of thinking, behaving, or working, also known as organizational culture (Cottle, 2005).

Peer Influences: A very robust finding in the delinquency literature is that antisocial behavior is strongly related to involvement with deviant peers. One longitudinal study reported that involvement with antisocial peers (for example in a school environment) was the only variable that had a direct effect on subsequent delinquency other than prior delinquency (Elliott, 2005). Factors such as peer delinquent behavior, peer approval of deviant behavior, attachment or allegiance to peers, time spent with peers (usually higher during school hours), and peer pressure for deviance have all been associated with adolescent antisocial behavior (Hoge, 2004; Thornberry, 2004). In other words, the effects of deviant peers on delinquency are heightened if children believe that their peers approve of delinquency, if they are attached to those peers, if they spend much time with them, and if they perceive pressure from those peers to engage in delinquent acts.

There is a dramatic increase during childhood (pre-and during adolescence) in the amount of time adolescents spend with their friends, and peers become increasingly important during this developmental period. Peer influences appear to have a particularly strong relationship to delinquency in the context of family conflict (Aday, 2001). For example, children's lack of respect for their parents influenced their antisocial behavior only because it led to increases in antisocial peer affiliations (Simmons, 2001). Patterson (2001) showed that association with deviant peers in 6th grade could be predicted from poor parental monitoring and antisocial activity in 4th grade. And 6th grade association with deviant peers, in turn, predicted delinquency in 8th grade. Other research suggests that adolescents usually become involved with delinquent peers before they become delinquent themselves (Elliott, 2004b; Elliott, 2005; Simons, 2004). In those cases in which a child was delinquent prior to having delinquent friends, the delinquency was exacerbated by association with deviant peers (Elliott, 2004b; Elliott and Menard, 2006).

School Punishment: Debates have raged over how school punishment influences delinquent behaviours in children. Unlike grade retention, which is a school policy primarily for students who display academic problems, suspensions and expulsions are mainly directed toward older (secondary school) students whose school difficulties manifest themselves as behavioral problems. Both suspension and expulsion are forms of school exclusion, with the latter being presumably reserved for the most serious offenses (Aday, 2001).

Supporters of suspension for example, argue that, like any other disciplinary action, suspension reduces the likelihood of misbehavior for the period immediately after suspension and that it can serve as a deterrent to other potentially misbehaving students (Aber, Brown, Chaudry, Jones & Samples, 2006). Opponents of suspension view the consequences of this disciplinary action as far outweighing any potential benefits (Aday, 2006; Elliott, 2004b). Some of the consequences cited include loss of self-respect (Elliott, 2004b), increased chances of coming into contact with a delinquent subculture (Elliott and Menard, 2006), the vicious cyclical effects of being unable to catch up with schoolwork, and the stigma associated with suspension once the target child returns to school (Williams, 2009). Furthermore, most investigations of school punishment have found that expulsion could be more disastrous than expulsion (Elliott, 2004b; McFadden, 2002). For example, Elliott (2004b) argued that many students who witnessed expulsion suffered trauma.
In Africa, students may be punished by physical disciplinary measures such as flogging, mandatory clean-up, stressful activities in school and hard labour. Although there is not very much recent empirical research on the effects of school punishment, it appears to be especially detrimental to low-achieving students who may misbehave because they are doing poorly in school (Elliott and Menard, 2006). Nor does suspension appear to reduce the behavior it is designed to punish. For example, McFadden (2002) reported that the rate of recidivism remained extremely high across all groups of suspended students in their large study of a Florida school district. Less than 1 percent of disciplined youngsters were one-time offenders, 75 percent were cited for one to five subsequent events during the school year, and 25 percent engaged in more than five serious misbehaviors (McFadden, 2002). In summary, the literature reveals that school suspension is academically detrimental, does not contribute to a modification of misbehavior, and is disproportionately experienced by males, among students who misbehave. In recent years, expulsion has become a part of the debate on school discipline that has accompanied the rising concern about school violence, particularly that related to weapons possession and increasingly defiant, aggressive behavior by students in school.

**Teachers' influence:** Schools are institutions established to help young people realize their best potentialities and to develop into wholesome personalities and useful citizens. This implies that schools deal in education, a process by which the behavior of people is improved so that they may think, feel, and act differently than they did before. In the middle of this role of the school in the molding of the child is the teacher. Students spend numerous hours in school during a school year and their high interaction with their teachers can have an influential impact on shaping good manner and behavior in them and can be source of their educational advancement (Aday, 2001). Agnew (2009) showed when specific aspects of student-teacher relationships and interaction are respected, when teachers have an adjustable conduct and avoid rigid and inflexible methods, students accept them as a friend and companion. Anderson & Dill (2000) realized that teachers’ conditional praising is one of the effective elements in making the students interested in doing the educational activities and exercises. As well, Elliott and Menard (2006) conducted a survey on the parents and teachers attitude on their behaviors with the students and concluded that teachers had positive attitude toward responsive attitude, good leadership in the classroom, offering an effective system, and being expert in the subject area.

**Theoretical Framework**

The social learning theory by Albert Bandura in 1977 was adopted for this study. The Social Learning Theory derives from the perspective that criminal behavior is learned (Wesly & Ronald L., 2011). It is a form of social association influenced by environmental reinforcement. What is the correlation that connects social learning theory and juvenile delinquency together? According to the theories of Edwin H. Sutherland a criminologist that proclaimed, “…that opportunity consists at least in part, of learning structures. Thus ‘criminal behavior is learned’ and, furthermore it is leaned ‘in interaction with other persons in a process of communication’ ” (Cloward & Ohlin, 2004, p.112). The act of delinquency is influenced and learned by imitating or modeling deviant behavior, which in most cases are negative reinforcements.

Sutherland also presents the idea of “illegitimate opportunity” which draws attention to, “…conditions favorable to the learning of such a role (differential associations). These conditions, we suggest, depend upon certain features of the social structure of the community in which delinquency arises” (Cloward & Ohlin, 2004, p.103).

One assumption that can be made in relation to the present study is that the majority of juveniles live in broken homes and neighborhoods where crime is a common norm to society. In some instances the criminal role or behavior is accepted and reinforced. Of course this is not the issue in all cases, but Cloward and Ohlin(2004) propose that, “Only those neighborhoods in which crime flourishes as a stable, indigenous institution are fertile criminal learning environments for the young” (Cloward & Ohlin, 2004, p.100). However, while the school environment is vital to the child's development, it is important to note that it is a gathering of personalities – children and teachers – which has tremendous impact on the child. There is no solid element which enforces the product of learning.
criminal behaviors, although several factors affect the progress of a potential criminal and its learning environment, the social learning theory is one of the many explanations why young persons become delinquents. This may not be totally extricated from the impacts of the school/learning environment.

Hence, as is already pointed out, this learned behavior is something that children learn from their surroundings, such as the learning environment whether it be their parents and peers. Research (such as Robins, 2008) has revealed that a learning environment plays significant roles in the development of the student, however, no study was found by this researcher on how the learning environment can affect the students' behaviour. This was the gap filled by this study.

**Statement of the Problem**

It is common in Port Harcourt to find students who are involved in one delinquent behaviour or the other. Crimes such as school absenteeism, bullying, stealing, lying, street fighting, and generally cultism are some of the offenses children are involved in. On daily basis, parents, the school and the general society express serious concern over the rising cases of child involvement in delinquency. Earlier studies have noted delinquent behaviours amongst secondary school students in especially in their immediate environments. However, evidence suggests that there was no study found on how the learning environments can cause delinquent behaviours amongst secondary school students. This is significant especially as Port Harcourt presents a good example for students and delinquency. This has given rise to the concerns over how the school/learning environment can impact negatively on the child to engage in delinquent behaviours.

**Purpose of the Study**

The main purpose of this study was to examine the relationship between learning environment and delinquent behaviours among secondary school students in Port Harcourt metropolis, Rivers State. Specifically, the researchers determined the relationship between:

1. teacher influence and delinquent behaviours among secondary school students' in Port Harcourt, Rivers State;
2. peer influence and delinquent behaviours among secondary school students' in Port Harcourt, Rivers State; and
3. school punishment and delinquent behaviours among secondary school students' in Port Harcourt, Rivers State.

**Research Questions**

The following research questions guided the study:

1. What is the relationship between teacher influence and delinquent behaviours among secondary school students' in Port Harcourt, Rivers State?
2. What is the relationship between peer influence and delinquent behaviours among secondary school students' in Port Harcourt, Rivers State?
3. What is the relationship between school punishment and delinquent behaviours among secondary school students' in Port Harcourt, Rivers State?

**Hypothesis**

1. There is no significant relationship between learning environment and delinquent behaviours amongst secondary school students' in Port Harcourt, Rivers State.

**Methods**

**Design of the Study:** The researchers adopted the correlational design. This was because the study aimed at examining the relationship between two variables (learning environment and delinquent behaviours) amongst secondary school students.

**Population of the Study:** The population for the study was all 1,690 secondary school teachers in the 34 public secondary schools in the Port Harcourt metropolis.

**Sample and Sampling Technique:** The sample for the study was 200 secondary school teachers. The simple random sampling technique was used to select 20 schools that participated in the study. Subsequently, the stratified proportionate sampling technique was used to select 200 teachers for the study.

**Instrument for Data Collection:** The instrument for data collection was a structured questionnaire form titled 'Learning Environment and Child Delinquent Behaviour'. The responses to the questionnaire was designed on a 4 point scale of measurement of Strongly Agree (SA) =4; Agree (A) =3; Disagree (D) = 2, and Strongly Disagree (SD) = 1.

**Method of Data Collection:** The researcher administered the questionnaires using the direct contact method. Three research assistants were instructed on methods for administration of the questionnaire, especially with regards to ethical considerations.
Method of Data Analysis: Mean and standard deviation were used to analyze the data. The decision was based on the cut-off mark of 2.5 mean score. The implication was that any item with mean score lower than 2.5 indicated agreed, while items with mean scores of 2.5 and higher indicated disagreed. The Pearson Product Moment Correlation was used to test the hypothesis.

Results
The results were presented in the tables below:

Table 1: Mean and Standard Deviation on the relationship between teacher influence and delinquent behaviours among secondary school students in Port Harcourt, Rivers State

<table>
<thead>
<tr>
<th>Teacher influence</th>
<th>n=200</th>
<th>$\bar{X}$</th>
<th>SD</th>
<th>RMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Teachers who show no concern about a students’ attitudes in class will promote delinquent behaviours</td>
<td></td>
<td>3.52</td>
<td>0.86</td>
<td>A</td>
</tr>
<tr>
<td>2. Teachers’ inability to manage personal conflicts will negatively impact on the students</td>
<td></td>
<td>3.84</td>
<td>0.88</td>
<td>A</td>
</tr>
<tr>
<td>3. A violent teacher will impact negatively on the students’ emotions</td>
<td></td>
<td>3.53</td>
<td>0.77</td>
<td>A</td>
</tr>
<tr>
<td>4. Lack of discipline in class encourages cultivation of negative patterns</td>
<td></td>
<td>3.34</td>
<td>0.73</td>
<td>A</td>
</tr>
<tr>
<td>5. Students are likely to abscond from class if teachers are insensitive to their plights</td>
<td></td>
<td>3.21</td>
<td>0.72</td>
<td>A</td>
</tr>
<tr>
<td><strong>Grand Mean</strong></td>
<td></td>
<td><strong>3.48</strong></td>
<td><strong>0.79</strong></td>
<td>A</td>
</tr>
</tbody>
</table>

Key: $\bar{X}$ = Mean score; SD = Standard Deviation; A = Agree

The Table 1 above showed the mean ratings and standard deviation of the responses the relationship between teacher influence and delinquent behaviours among secondary school students in Port Harcourt, Rivers State. The data showed that all items (1-5) indicated agreed because they had grand mean scores of 2.5 and above. Also, the standard deviation ranged between 0.72 and 0.88. The highest mean scores was 3.84 (item 2) while the lowest mean score was 3.21 (item 5).
Learning Environment and Student Delinquent Behaviour among Secondary School Students in Port Harcourt Metropolis, Rivers State

Table 2: Mean and standard deviation on the relationship between peer influence and delinquent behaviours among secondary school students in Port Harcourt, Rivers State

<table>
<thead>
<tr>
<th>Peer influence</th>
<th>n=200</th>
<th>( \bar{X} )</th>
<th>SD</th>
<th>RMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Peers will influence others to smoke</td>
<td>3.74</td>
<td>0.99</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>2. Students will drink alcohol through pressure from their friends</td>
<td>3.23</td>
<td>0.76</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>3. Truancy is easily learnt through peer interactions</td>
<td>3.73</td>
<td>0.82</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>4. Some students stay away from school because their friends do the same</td>
<td>3.64</td>
<td>0.74</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>5. Some students are lured into crimes by their peers</td>
<td>3.04</td>
<td>0.82</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>6. Immoral sexual relations are the results of bad peer influence</td>
<td>3.08</td>
<td>0.71</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>7. A student will learn to disrespect elders peers interactions</td>
<td>3.12</td>
<td>0.79</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>8. Students from broken homes will negatively influence others</td>
<td>3.01</td>
<td>0.76</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Grand Mean</strong></td>
<td><strong>3.32</strong></td>
<td><strong>0.79</strong></td>
<td>A</td>
<td></td>
</tr>
</tbody>
</table>

Key: \( \bar{X} = \) Mean score; SD = Standard Deviation; HE = Accepted

The Table 2 above showed the mean ratings and standard deviation of the responses on the relationship between peer influence and delinquent behaviours among secondary school students in Port Harcourt, Rivers State. The data showed that all items (6-13) indicated agreed because they had mean scores of 2.5 and above. Also, the standard deviation ranged between 0.71 and 0.99 indicating that the respondents were not far from their opinions. The highest mean score was 3.74 (item 6), while the lowest mean score was 3.01 (item 13).

Table 3: Summary of the relationship between school punishment and delinquent behaviours among secondary school students in Port Harcourt, Rivers State

<table>
<thead>
<tr>
<th>School punishment</th>
<th>n=200</th>
<th>( \bar{X} )</th>
<th>SD</th>
<th>RMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Suspension will make a child engage with deviant peers</td>
<td>3.88</td>
<td>0.93</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>2. Suspension will make a child resort to crimes since he/she is not in school</td>
<td>3.01</td>
<td>0.89</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>3. Suspension will make children absconding from school</td>
<td>3.22</td>
<td>0.91</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>4. Suspension will be detrimental to the child’s self-esteem</td>
<td>3.05</td>
<td>0.89</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>5. Suspension will make a child engage in truancy</td>
<td>3.22</td>
<td>0.95</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Grand Mean</strong></td>
<td><strong>3.27</strong></td>
<td><strong>0.91</strong></td>
<td>A</td>
<td></td>
</tr>
</tbody>
</table>

The Table 3 above revealed the data on the relationship between school punishment and delinquent behaviours among secondary school students in Port Harcourt, Rivers State. The results showed that all the items indicated agreed because they had average mean scores of 2.5 and above. The highest mean score was 3.88 (item 14), while the lowest mean score was 3.01 (item 15). Also, the standard deviation ranged between 0.89 and 0.97. The Grand mean score was 3.27.
Table 4 shows that learning environment (LE) significantly influenced delinquent behaviours (DB). As a result, with a Pearson's correlation coefficient of $r=0.812$, the $H_0$ was rejected. The implication of this is that, there is a significant relationship between learning environment and delinquent behaviours among secondary school students in Port Harcourt, Rivers State.

### Discussion of Findings

From the research question one, the findings revealed that the respondents accepted all the items which include: teachers who show no concern about a child's attitudes in class will promote delinquent behaviours ($M=3.52$); teachers' inability to manage personal conflicts will negatively impact on the child ($M=3.84$); a violent teacher will impact negatively on the child's emotions ($M=3.53$); lack of discipline in class encourages cultivation of negative patterns ($M=3.34$); children are likely to abscond form class if teachers are insensitive to their plights ($M=3.21$). These results indicate that there is a relationship between the teacher's personality and the behaviour of the student. These findings are in agreement with Aday (2001) who noted that because the students spend numerous hours in school during, their high interaction with their teachers can have an influential impact on shaping good or bad manner and behavior in them and can be source of their developmental outcomes especially with regards to their behaviours. Also, Agnew (2009) explained that the teacher's behavior which is accompanied with feeling of hope, generosity, respect, and joy becomes effective in modifying and improving the conduct by the delinquent students who have had previous bad records. This arguably reveals that the teacher has tremendous impact on the child's behaviour.

More so, from the research question two, the findings showed that respondents accepted the items which are that: peers will influence others to smoke ($M=3.74$); children will drink alcohol through pressure from their friends ($M=3.23$); truancy is easily learnt through peer interactions ($M=3.73$); some children stay away from school because their friends do the same ($M=3.64$); some children are lured into crimes by their peers ($M=3.04$); immoral sexual relations are the results of bad peer influence ($M=3.08$); a child will learn to disrespect elders peers interactions ($M=3.12$); and children from broken homes will negatively influence others ($M=3.01$). These findings are in consonance with Hoge (2004) who observed that attachment or allegiance to peers, time spent with peers, and peer pressure for deviance have all been associated with adolescent antisocial behavior. Arguably, the effects of deviant peers on delinquency are heightened if children believe that their peers approve of delinquency, if they are attached to those peers, if they spend much time with them, and if they perceive pressure from those peers to engage in delinquent acts. Furthermore, the results from the research question three, the results showed that the respondents accepted the items which include as follows: suspension will make a child engage with deviant peers ($M=3.880$); will make a child resort to crimes since he/she is not in school ($M=3.01$); suspension will lead to children absconding from school ($M=3.22$); suspension will be detrimental to the child's self-esteem ($M=3.05$); suspension will make a child engage in truancy ($M=3.22$). These findings are in agreement
with Aday (2006) and Elliott (2004b) whose studies noted that the consequences of this disciplinary action far outweigh any potential benefits. Arguably, the finding implies that suspension subjects or exposes school children to some psychological, peer and societal pressure to engage in delinquency. Being out of school has the potential to expose a child to dangers that can affect the child's behaviour negatively.

Finally, the result from the Pearson's product moment correlation coefficient of \( r = 0.812 \), it was indicated that the \( H_0 \) was rejected. Hence, learning environment (LE) significantly influenced delinquent behaviours (DB) among secondary school students. This study is similar to Robins (2008) report on adolescent display of delinquency at home due to bad influence by peers. The school environment enables students to encounter several experiences – positive and negative – which may affect their development and social interactions. It is significant to note that many children are faced with these circumstances within schools, and they become essential in discussions on students' delinquent behaviours.

Conclusion
This study investigated the relationship between learning environment and delinquent behaviours among students in secondary schools in Port Harcourt. The rising cases of child and adolescent involvement in crimes in the city prompted this study. The study's findings revealed strong correlations between the independent variables (peer influence, school suspension and teacher influence) and student delinquent behaviours. The implication of these findings is that the each of the three variables has tremendous impacts on students' negative behaviours.

Recommendations
Based on the findings of the study, the following recommendations were made:

1. Parents and the school administrators should collaborate in effectively monitoring and evaluating the peer relationships in school and at homes. This will help regulate the impacts of peer pressure on children to engage in delinquent behaviours.
2. The school management should prioritize teaching training and re-training on the importance of teacher personality for child behaviours.
3. If school suspensions are to be adopted as a punitive measure, then it must be followed with monitoring systems that ensure the aim is not defeated when the child eventually turns to delinquency.

References


PERCEPTION OF BANKERS AND TEACHERS ON INFLUENCE OF MATERNAL EMPLOYMENT ON CHILDCARE PRACTICES OF WORKING MOTHERS IN TWO SELECTED LOCAL GOVERNMENT AREAS OF LAGOS STATE

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Abstract
The study adopted a cross-sectional survey design to investigate the perception of bankers and teachers on influence of maternal employment on childcare practices of working mothers in two selected local government areas of Lagos state. The study population was all the working mothers in the 122 banks and 134 public schools in the two LGAs. Convenience sampling technique based on proximity to the researcher was used to select a sample of 67 bankers and 81 teachers. Structured questionnaire was used for data collection. The questionnaire was validated by two experts in childcare while the Cronbach Alpha reliability co-efficient was 0.864. Means and standard deviations were used for data presentation and t-test was used to determine significant difference in the perception of teachers and bankers. The findings revealed that the working mothers perceive maternal employment as having influence on exclusive breastfeeding and early weaning of infants. The findings also showed that the respondents perceive that working mothers do not have the time to play and chat with their children which makes children confide more in other people than their mothers. There were also no significant differences in the mean responses of bankers and teachers on the influence of maternal employment on childcare practices of working mothers except in breastfeeding of infants. Maternal employment, though a necessary social change, is perceived to have some significant influence on childcare practices of working mothers irrespective of their occupation.

Keywords: Maternal, Employment, Child-Care, Perception, Mothers, Practices

Introduction
The rate of women's participation in the work force is on a steady increase globally, over the last few decades. In accordance with the National Economic Empowerment Strategy (NEEDS) programs, women are currently being enabled and encouraged to participate in the economic, social, political and cultural sectors of the country (Nigeria National Planning Commission, 2007). That means adequate representation of women all over the country in all aspects of the national economy to ensure that women represent a minimum of 30% of the workforce (Federal Ministry of Women Affairs and Social Development, 2006). This national recognition of women's capability to contribute to national development, as observed by Osiremu (2004), has led to increase in maternal employment.

Maternal employment as defined by Majak (2007) is the labour force affiliation of mothers with children 0-18 years old, in wide range of full time, part time and contract work including petty trading and farm work. In Nigeria, women are found in many professions such as teaching, banking, health care, and private proprietorships. These working mothers spend considerable amount of time daily, away from their homes and children. Various studies reported by found out that women's involvement in paid employment can have significant financial benefits to the family such as improved nutrition of children, provision of more stimulating home environment and being positive role models for the children. However, some of these benefits as observed by , come with various costs on the family such as decrease in the amount of time invested by mothers in child-care.

Child-care is the act of providing the child with warm, supportive, safe and stimulating environment that will make him/her feel secure and allow him/her to reach his/her full potentials as human being (Santrock, 2004). It involves practices that include feeding, toilet training, clothing, shelter, supervision, engaging the child in social interaction, emotional care, discipline, providing a stimulating and safe environment for play and exploration (UNICEF, 1996). Majak (2007) noted that child care practices emphasize various behaviours and actions of caregivers towards feeding a child, toilet training and settling the child to sleep. It also involves warm, loving and consistent verbal and practical interactions between caregivers and children.

Mothers all over the world have been known as the primary child caregivers, hence the influence of out-of-home employment on mothers' care practices has
become a subject of interest among scholars. According to Lamontagne, Engle and Zeitlin (2003), the effects of maternal employment on the wellbeing of the children are of enormous importance to development policy, as healthy child development and improved economic opportunity for women are two general goals of development agencies worldwide. A mother's employment can positively or negatively influence the child's development in a variety of ways which. According to Joshi and Verropoulou (2015), maternal employment could be harmful if it deprives the child of the mother's nurturing time and energy particularly during the early years; and could be beneficial on the other hand, when mothers are able to afford the provision of material resources for optimal child development.

In a research by, working mothers tend to have less time to oversee children's diet and physical activities, which in turn has been linked to childhood obesity. Various studies as reported by, found out that maternal employment during the early years of children is associated with poor cognitive abilities of children in subsequent years of life, especially for mothers who put in long hours (more than 30 hours per week) at work. The study by among adolescents, suggests that mothers' employment could have adverse effects on cognitive development, obesity and possibly risky behaviors such as smoking or drinking, while reducing behavior problems in adolescent children. Furthermore, research findings show that in low and middle income countries, working mothers spend less time on childcare, are less likely to exclusively breastfeed their babies and are more likely to purchase already cooked foods for their children due to time constraint.

In Nigeria, banking profession is associated with long hours (≥ 60 hours) of weekly work, sometimes involving week-ends, hence female bankers who are mothers are popularly considered as having little time for childcare. On the other hand, teaching, especially in the public sector is seen as affording women more time for their families and children, because they usually close for daily work much earlier than bankers. Hence this study, seeks to obtain the perception of these two groups of working mothers on various ways in which employment negatively influence their childcare practices in the selected aspects of feeding, health care, toilet training, emotional and safety care practices.

**Objectives of the study**
The main objective of this study was to investigate the perception of bankers and teachers on influence of maternal employment on childcare practices of working mothers in two selected local government areas in Lagos state. Specifically, the study identified the perception of bankers and teachers on influence of maternal employment on the following childcare practices of working mothers:
1. Feeding practices;
2. Health care practices;
3. Toilet training practices;
4. Emotional care practices and
5. Safety care practices

**Research Questions**
This study was guided by the following research questions.
1. What are the perception of bankers and teachers on the influence of maternal employment on feeding practices of working mothers in the two selected LGAs?
2. What are the perception of bankers and teachers on the influence of maternal employment on health care practices of working mothers in the two selected LGAs?
3. What are the perception of bankers and teachers on the influence of maternal employment on emotional care practices of working mothers in the two selected LGAs?
4. What are the perception of bankers and teachers on the influence of maternal employment on toilet training practices of working mothers in the two selected LGAs?
5. What are the perception of bankers and teachers on the influence of maternal employment on safety care practices of working mothers in the selected LGAs?

**Hypotheses:** This study stated and tested the following five null hypotheses.

H01: there is no significant difference in the mean responses of bankers and teachers on the perceived influence of maternal employment on feeding practices of working mothers.

H02: there is no significant difference in the mean responses of bankers and teachers on the perceived influence of maternal employment on healthcare practices of working mothers.

H03: there is no significant difference in the mean responses of bankers and teachers on the perceived influence of maternal employment on emotional care practices of working mothers.

H04: there is no significant difference in the mean responses of bankers and teachers on the perceived influence of maternal employment on toilet training practices of working mothers.

H05: there is no significant difference in the mean responses of bankers and teachers on the perceived influence of maternal employment on safety practices.
Methodology

Research design: The study employed cross-sectional survey design. Cross-sectional survey is used to obtain information about the characteristics or traits that exist in a population at a given time using instruments or techniques such as questionnaire, interview, observation, or test from a few people considered to represent an entire group (and Nworgu, 2006). The design is considered appropriate because the study was meant to elicit information from a group of caregivers who represent the larger group.

Area of the Study: The study was conducted in Mushin and Oshodi/Isolo Local Government Areas of Lagos state. Lagos state lies in Southwestern part of Nigeria. It is a huge metropolis and the most populous conurbation in Nigeria with 9,013,534 inhabitants (National Population Commission [NPC], 2006). The human population of Mushin and Oshodi/Isolo are 621,509 and 633,009 respectively (NPC, 2006). Lagos is Nigeria's most prosperous city and much of the nation's wealth and economic activity are concentrated there (Lagos State government, n.d). This has attracted many young entrepreneurs and families seeking a better life from throughout Nigeria and beyond. This has led to proliferation of banks and schools to cater for the economic and educational needs of the residents.

Population for the study: The population for the study include all married female bankers and teachers in the 122 bank branches (54 in Mushin; 68 in Oshodi/Isolo) and 134 public primary schools (78 in Mushin; 56 in Oshodi/Isolo) with a total number of 1023 teachers (514 in Mushin and 507 in Oshodi/Isolo), according to .

Sample and Sampling technique: A two-stage random sampling technique was used to select the sample. First stage involved a selection of 30% of the banks and schools. This gave a total of 36 banks (16 in Mushin and 20 in Oshodi/Isolo) and 41 schools (17 in Mushin and 23 in Oshodi/Isolo). The second stage involved a random selection of two respondents from each of the banks and schools which gave a total of 150 respondents (72 bankers and 82 teachers) who are married.

Instrument for Data Collection: Data for the study were collected using structured questionnaire developed by the researchers based on reviewed literature. The questionnaire comprised of 38 items scored on a 4-point scale that ranged from 1 (strongly disagree) to 4 (strongly agree).

Validity and Reliability of the Instrument: The instrument was validated by three child development experts to ensure that the questionnaire items are representative of all the research questions. The reliability of the instrument was established from the responses of ten respondents who were not part of the study sample. The internal consistency of the instrument was calculated using the Cronbach Alpha reliability index which yielded reliability co-efficient of 0.864.

Data collection and analysis: a total of 150 copies of the questionnaire were hand distributed by the researcher and two research assistants. This gave 72 copies for bankers and 82 copies for teachers. Only 148 copies (92.5%) were completed and returned (67 bankers and 81 teachers). These became the actual sample size for the study. A four-point scale ranging from 1 (strongly disagree) to 4 (strongly agree), was used in rating the questions and ≥ 2.5 was used as the cut-off point for acceptability. Data were presented as means and standard deviations while t-test was used to analyze the five null hypotheses at 0.05 level of significance.
Results

Table 1: Mean Responses and t-test Analysis of Teachers and Bankers on their Perception of the Influence of Maternal Employment on Feeding of Children

<table>
<thead>
<tr>
<th>S/N</th>
<th>Perceived ways maternal employment influences children's feeding</th>
<th>$\bar{X}_1$</th>
<th>SD$_1$</th>
<th>$\bar{X}_2$</th>
<th>SD$_2$</th>
<th>$\bar{X}_g$</th>
<th>Rmk</th>
<th>t</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Because of mothers’ work: mothers are unable to do exclusive breastfeeding</td>
<td>3.40</td>
<td>0.74</td>
<td>2.85</td>
<td>0.87</td>
<td>3.10</td>
<td>A</td>
<td>4.13</td>
<td>S</td>
</tr>
<tr>
<td>2</td>
<td>mothers wean their babies too early</td>
<td>2.97</td>
<td>0.87</td>
<td>2.60</td>
<td>0.97</td>
<td>2.77</td>
<td>A</td>
<td>2.45</td>
<td>S</td>
</tr>
<tr>
<td>3</td>
<td>mothers do not have time to prepare nutritious meal for their children</td>
<td>2.84</td>
<td>0.83</td>
<td>2.28</td>
<td>0.78</td>
<td>2.53</td>
<td>A</td>
<td>4.21</td>
<td>S</td>
</tr>
<tr>
<td>4</td>
<td>noodles and fast foods are the major meals for children very young children are left to feed themselves without supervision</td>
<td>2.73</td>
<td>0.91</td>
<td>2.42</td>
<td>0.99</td>
<td>2.43</td>
<td>D</td>
<td>1.99</td>
<td>S</td>
</tr>
<tr>
<td>5</td>
<td>children are given money to buy snacks when they are hungry</td>
<td>2.33</td>
<td>0.88</td>
<td>2.46</td>
<td>0.77</td>
<td>2.41</td>
<td>D</td>
<td>0.95</td>
<td>NS</td>
</tr>
<tr>
<td>6</td>
<td>children are not given meals at the appropriate time</td>
<td>2.45</td>
<td>0.91</td>
<td>2.53</td>
<td>0.82</td>
<td>2.51</td>
<td>A</td>
<td>0.56</td>
<td>NS</td>
</tr>
<tr>
<td>7</td>
<td>children are given meals as school meals left over foods are given to children</td>
<td>2.63</td>
<td>0.86</td>
<td>2.44</td>
<td>0.60</td>
<td>2.63</td>
<td>A</td>
<td>1.53</td>
<td>NS</td>
</tr>
<tr>
<td>8</td>
<td>children get their school lunch from food vendors</td>
<td>1.96</td>
<td>0.93</td>
<td>1.72</td>
<td>0.65</td>
<td>1.84</td>
<td>D</td>
<td>1.78</td>
<td>NS</td>
</tr>
<tr>
<td>9</td>
<td>children are given the same type of food everyday</td>
<td>2.60</td>
<td>1.02</td>
<td>2.63</td>
<td>0.75</td>
<td>2.61</td>
<td>A</td>
<td>0.20</td>
<td>NS</td>
</tr>
<tr>
<td>10</td>
<td>children are so hungry that they beg food from neighbors and classmates</td>
<td>2.54</td>
<td>0.94</td>
<td>2.01</td>
<td>0.83</td>
<td>2.25</td>
<td>D</td>
<td>3.58</td>
<td>S</td>
</tr>
<tr>
<td>11</td>
<td>children are so hungry that they beg food from neighbors and classmates</td>
<td>1.75</td>
<td>0.86</td>
<td>1.85</td>
<td>0.80</td>
<td>1.80</td>
<td>D</td>
<td>0.73</td>
<td>NS</td>
</tr>
</tbody>
</table>

$\bar{X}_1 =$ mean responses of bankers; $\bar{X}_2 =$ mean response of teachers; $\bar{X}_g =$ grand mean; S = significant; NS = not significant; SD$_1 =$ standard deviation responses of bankers; SD$_2 =$ standard deviation responses of teachers; t-cal. = calculated t values of each item; A = agree; D = disagree; t-tab = 1.976; Df = 146; P = 0.05

Table 1 shows that items 1, 2, 3, 6, 7 and 9 are the ways in which maternal employment influence the feeding of children, based on the grand mean ($X_g$) which ranges from 2.51 to 3.10. The table also shows that the hypothesis of no significant difference in the mean responses of dual career female bankers and teachers on the influence of maternal employment on the feeding of children was upheld in items 5, 6, 7, 8, 9 and 11 (t-test more than table t). It was rejected in items 1, 2, 3, 4 and 10 whose t-test results are less than 1.976.

160
Table 2: Mean Responses and t-test Analysis of Teachers and Bankers on their Perception of the Influence of Maternal Employment on Health Care of Children

<table>
<thead>
<tr>
<th>S/N</th>
<th>Perceived influence of maternal employment on children’s health care</th>
<th>$\bar{X}_1$</th>
<th>SD$_1$</th>
<th>$\bar{X}_2$</th>
<th>SD$_2$</th>
<th>$\bar{X}_g$</th>
<th>Rmk</th>
<th>t</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Because of mothers’ work:</strong> mothers do not have time to ensure that children’s meals and feeding items are prepared and kept hygienically</td>
<td>2.48</td>
<td>0.98</td>
<td>2.44</td>
<td>0.81</td>
<td>2.46</td>
<td>D</td>
<td>0.27</td>
<td>NS</td>
</tr>
<tr>
<td>2</td>
<td>immunization of children is not done according to schedule</td>
<td>2.15</td>
<td>0.91</td>
<td>2.10</td>
<td>0.91</td>
<td>2.21</td>
<td>D</td>
<td>0.34</td>
<td>NS</td>
</tr>
<tr>
<td>3</td>
<td>treatment of children’s ailment is not started on time</td>
<td>2.25</td>
<td>0.96</td>
<td>2.51</td>
<td>0.84</td>
<td>2.47</td>
<td>D</td>
<td>2.55</td>
<td>S</td>
</tr>
<tr>
<td>4</td>
<td>mothers are not able to take children to good hospitals when they are sick</td>
<td>1.87</td>
<td>0.90</td>
<td>2.06</td>
<td>0.89</td>
<td>1.97</td>
<td>D</td>
<td>1.28</td>
<td>NS</td>
</tr>
<tr>
<td>5</td>
<td>children’s medication are not given as when due</td>
<td>2.58</td>
<td>0.84</td>
<td>2.50</td>
<td>0.77</td>
<td>2.56</td>
<td>A</td>
<td>0.30</td>
<td>NS</td>
</tr>
<tr>
<td>6</td>
<td>children with health disorders (e.g. sicklers) are not properly looked after</td>
<td>2.36</td>
<td>0.92</td>
<td>2.50</td>
<td>0.95</td>
<td>2.44</td>
<td>D</td>
<td>0.91</td>
<td>NS</td>
</tr>
</tbody>
</table>

$\bar{X}_1$ = mean responses of bankers; $\bar{X}_2$ = mean response of teachers; $\bar{X}_g$ = grand mean; S = significant; NS = not significant; SD$_1$ = standard deviation responses of bankers; SD$_2$ = standard deviation responses of teachers; t-cal. = calculated t values of each item; A = agree; D = disagree; t-tab = 1.976; Df = 146; P = 0.05

Table 2 shows that item 5 with the grand mean of 2.56 is the way in which maternal employment influences health care of children. the table also shows that the value of calculated t for items 1, 3, 4, 5 and 6 were below the table t of 1.976, hence the null hypothesis (H$_0$) for those items were upheld. Only in item 2 was the null hypothesis rejected.
### Table 3: Mean Responses and t-test Analysis of Teachers and Bankers on their Perception of the Influence of Maternal Employment on Toilet Training of Children

<table>
<thead>
<tr>
<th>S/N</th>
<th>Perceived ways in which maternal employment influences children’s toilet training</th>
<th>( \bar{X}_1 )</th>
<th>SD(_1 )</th>
<th>( \bar{X}_2 )</th>
<th>SD(_2 )</th>
<th>( \bar{X}_g )</th>
<th>Rmk</th>
<th>t</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Because of mothers’ work; mothers do not start training children to use the toilet or potty early enough</td>
<td>2.51</td>
<td>0.88</td>
<td>2.25</td>
<td>0.90</td>
<td>2.36</td>
<td>D</td>
<td>1.77</td>
<td>NS</td>
</tr>
<tr>
<td>2</td>
<td>when they start, they do not have time to be consistent</td>
<td>2.78</td>
<td>0.81</td>
<td>2.59</td>
<td>0.72</td>
<td>2.68</td>
<td>A</td>
<td>1.49</td>
<td>NS</td>
</tr>
<tr>
<td>3</td>
<td>children are not taught words to communicate when they want to ease themselves</td>
<td>2.34</td>
<td>0.99</td>
<td>2.21</td>
<td>0.75</td>
<td>2.25</td>
<td>D</td>
<td>1.88</td>
<td>NS</td>
</tr>
<tr>
<td>4</td>
<td>mothers are not familiar with children’s signs to toilet</td>
<td>2.24</td>
<td>0.76</td>
<td>2.40</td>
<td>0.79</td>
<td>2.23</td>
<td>D</td>
<td>1.25</td>
<td>NS</td>
</tr>
<tr>
<td>5</td>
<td>mothers do not have time to ensure that children’s potty are clean</td>
<td>2.25</td>
<td>0.89</td>
<td>2.23</td>
<td>0.81</td>
<td>2.46</td>
<td>D</td>
<td>0.14</td>
<td>NS</td>
</tr>
<tr>
<td>6</td>
<td>children continue to wear diapers till age 1-4 years or more</td>
<td>2.28</td>
<td>0.93</td>
<td>2.17</td>
<td>0.85</td>
<td>2.02</td>
<td>D</td>
<td>0.74</td>
<td>NS</td>
</tr>
<tr>
<td>7</td>
<td>children mess up their clothes, the floor and the furniture</td>
<td>2.69</td>
<td>0.94</td>
<td>2.62</td>
<td>0.77</td>
<td>2.65</td>
<td>A</td>
<td>0.49</td>
<td>NS</td>
</tr>
<tr>
<td>8</td>
<td>children’s diapers are not changed when due</td>
<td>2.51</td>
<td>0.77</td>
<td>2.56</td>
<td>0.81</td>
<td>2.53</td>
<td>A</td>
<td>0.36</td>
<td>NS</td>
</tr>
</tbody>
</table>

Teachers; \( \bar{X}_g \) = grand mean; S = significant; NS = not significant; SD\(_1 \) = standard deviation responses of bankers; SD\(_2 \) = standard deviation responses of teachers; t-cal. = calculated t values of each item; A = agree; D = disagree; t-tab = 1.976; Df = 146; P = 0.05

Table 3 shows that items 2, 7 and 8 with the mean range of 2.53 to 2.68 are the ways in which maternal employment influences the toilet training of children. Items 1, 3, 4, 5 and 6 were regarded as non-factor, having their means below 2.5. The hypothesis of no significance difference was upheld in all the items with t-test value less than critical value of 1.976 at 0.05 alpha level.


Table 4: Mean Responses and t-test Analysis of Teachers and Bankers on their Perception of the Influence of Maternal Employment on Emotional Care of Children

<table>
<thead>
<tr>
<th>S/N</th>
<th>Perceived ways in which maternal employment influences children’s emotional care</th>
<th>$\bar{X}_1$</th>
<th>$SD_1$</th>
<th>$\bar{X}_2$</th>
<th>$SD_2$</th>
<th>$\bar{X}_g$</th>
<th>Rmk</th>
<th>t</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Because of mothers’ work; mothers do not have time to cuddle and carry their babies</td>
<td>2.76</td>
<td>0.86</td>
<td>2.56</td>
<td>0.80</td>
<td>2.66</td>
<td>A</td>
<td>0.41</td>
<td>NS</td>
</tr>
<tr>
<td>2</td>
<td>children prefer to be with the house help rather than with their mothers</td>
<td>2.27</td>
<td>0.83</td>
<td>2.37</td>
<td>0.97</td>
<td>2.32</td>
<td>D</td>
<td>0.68</td>
<td>NS</td>
</tr>
<tr>
<td>3</td>
<td>mothers are not familiar with their children’s non-verbal emotional communication</td>
<td>2.39</td>
<td>0.76</td>
<td>2.42</td>
<td>0.79</td>
<td>2.41</td>
<td>D</td>
<td>0.23</td>
<td>NS</td>
</tr>
<tr>
<td>4</td>
<td>mothers do not have time to play and chat with the children</td>
<td>2.28</td>
<td>0.98</td>
<td>2.57</td>
<td>0.85</td>
<td>2.64</td>
<td>A</td>
<td>1.89</td>
<td>NS</td>
</tr>
<tr>
<td>5</td>
<td>sometimes mothers are so tensed that they use bad languages on their children</td>
<td>2.42</td>
<td>0.88</td>
<td>2.77</td>
<td>0.83</td>
<td>2.59</td>
<td>A</td>
<td>2.48</td>
<td>S</td>
</tr>
<tr>
<td>6</td>
<td>mothers do not have time to listen to their children’s complaints</td>
<td>2.48</td>
<td>0.76</td>
<td>2.50</td>
<td>0.78</td>
<td>2.53</td>
<td>A</td>
<td>0.63</td>
<td>NS</td>
</tr>
<tr>
<td>7</td>
<td>children confide in other people about personal matters which their mothers are not aware</td>
<td>2.60</td>
<td>0.87</td>
<td>2.56</td>
<td>0.74</td>
<td>2.56</td>
<td>A</td>
<td>0.29</td>
<td>NS</td>
</tr>
</tbody>
</table>

Table 4 shows that items 1, 4, 5, 6, and 7 are the ways in which maternal employment influences the emotional care of their children based on the grand mean which ranges from 2.53 to 2.66. The hypothesis of no significant difference in the mean responses of dual career female bankers and teachers was rejected on in item 5 (t-test value is greater than the value of t table).

$\bar{X}_1$ = mean responses of bankers; $X_1$ = mean response of teachers; $\bar{X}_2$ = mean response of teachers; $X_2$ = grand mean; $S$ = significant; $NS$ = not significant; $SD_1$ = standard deviation responses of bankers; $SD_2$ = standard deviation responses of teachers; $t$-cal. = calculated t values of each item; $A$ = agree; $D$ = disagree; $t$-tab = 1.976; $Df$ = 146; $P$ = 0.05
Table 5: Mean Responses and t-test Analysis of Teachers and Bankers on their Perception of the Influence of Maternal Employment on Safety of Children

<table>
<thead>
<tr>
<th>S/N</th>
<th>Perceived ways in which maternal employment influences children’s safety</th>
<th>$X_1$</th>
<th>$SD_1$</th>
<th>$X_2$</th>
<th>$SD_2$</th>
<th>$X_g$</th>
<th>$t$</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>children are left alone in the house without adult supervision</td>
<td>2.34</td>
<td>0.98</td>
<td>2.33</td>
<td>0.92</td>
<td>2.34</td>
<td>D</td>
<td>0.06</td>
</tr>
<tr>
<td>2</td>
<td>faulty home appliances are not repaired and replaced on time</td>
<td>2.33</td>
<td>0.88</td>
<td>2.53</td>
<td>0.79</td>
<td>2.44</td>
<td>D</td>
<td>1.14</td>
</tr>
<tr>
<td>3</td>
<td>mothers are not able to ensure that dangerous chemicals and medicines are out of children’s reach</td>
<td>2.19</td>
<td>0.87</td>
<td>1.85</td>
<td>0.77</td>
<td>2.07</td>
<td>D</td>
<td>2.48</td>
</tr>
<tr>
<td>4</td>
<td>children’s play activities and toys are not supervised</td>
<td>2.60</td>
<td>0.71</td>
<td>2.70</td>
<td>0.74</td>
<td>2.66</td>
<td>A</td>
<td>0.37</td>
</tr>
<tr>
<td>5</td>
<td>children are left to wander about in the street when they come back from school</td>
<td>2.06</td>
<td>0.88</td>
<td>2.20</td>
<td>0.72</td>
<td>2.13</td>
<td>D</td>
<td>0.95</td>
</tr>
<tr>
<td>6</td>
<td>mothers do not have time to teach children safety precautions in the use of household gadgets</td>
<td>2.45</td>
<td>0.80</td>
<td>2.43</td>
<td>0.90</td>
<td>2.44</td>
<td>D</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Bankers; $SD_1 =$ standard deviation responses of teachers; $t$-cal. = calculated $t$ values of each item; A = agree; D = disagree; $t$-tab = 1.976; $Df = 146; P = 0.05$

Table 5 shows that only item 4 is the way in which maternal employment influences the safety of the children with mean of 2.66. This implies that the dual career women do not have time to supervise the play activities and toys of their children. The items 1, 2, 3, 5 and 6 are not accepted as factors with the mean range of 2.07 to 2.44. The hypothesis of no significant difference was upheld in all the items at 0.05 level of significance, except item 3 ($t$-test value below the $t$-table value of 1.976).

Discussion
The findings of this study showed that maternal employment mostly influences the feeding and the emotional childcare practices of working mothers, but had little influence on the health care, toilet training and safety care practices. From the study, it was observed that working mothers are not able to exclusively breast feed their children as recommended by and UNICEF (1995) that breastfeeding should be initiated within the first hour after delivery continued till six months after birth. From the findings, mothers’ work demands necessitate early weaning of babies (before 2 years of age). This study confirms the views of that working mothers are less likely to exclusively breast feed their babies. The study also confirms the report by UNICEF that exclusive breastfeeding has declined by 3% compared to the period between 1990 and 2003; and this has been attributed to the increase in maternal employment (Onifade, 2009). According to UNICEF (1995) exclusive breastfeeding of children is estimated to save 13% of the 10 million under-fives' deaths annually because breastfeeding ensures that infants and young children grow and develop healthily.

The study further showed that the working mothers are not able to regularly prepare nutritious meals for their children and in good time, as opined by the respondents. Hence children are given money to buy snacks when they are hungry or get their school lunch from food vendors. These findings agree with the report of that working mothers are more likely to purchase already cooked foods for their children due to time constraint. These findings are of serious concern.
because according to Onu (2004), good nutrition will ensure that children develop well at home and learn better at school. Moreover, getting school lunch from commercial food vendors further expose children to health hazards as observed by Okoli (2004).

Despite the fact that both bankers and teachers agree that mothers' work influence their breastfeeding practices, the hypotheses tests showed that bankers and teachers differed significantly in their perceptions but the bankers recorded higher mean scores. This could be attributed to the fact that bankers spend longer hours at work than public school teachers, so are mostly not available to breastfeed their babies during work hours. However, the two groups of respondents do not differ significantly in their perceptions that because of employment, mothers are not able to provide children's meals at the proper time, they rather give older children money to buy snacks when they are hungry, and also make the children obtain their school lunch from food vendors. These findings confirm the assertion of, that benefits of mothers being engaged in paid work come with various costs on the family such as decrease in the amount of time invested by mothers in caring for the children.

On the aspect of health care practices of working mothers, the two groups of respondents did not differ significantly in their perception that working mothers are not able to ensure that children's medications are given at the right time. This is against the recommendations of that all doses should be given as prescribed and within the specified days as inconsistency in the intake of medications could lead to resurgence of the pathogens and drug resistance.

The findings of the study further revealed that the bankers and the teachers unanimously agreed that because of work engagements, mothers do not have the time to ensure that babies' diapers are changed when due, and are not able to consistently toilet train their children, hence mature children are unable to regulate their toilet behaviors, resulting in toilet accidents. According to the respondents, children frequently mess up their clothes, the floor and the furniture as a result lack of proper supervision. Polaha, Warzak and Dittmer-Memahon (2002) noted that toilet training is not only a physical milestone for children, but also affects their social and emotional development. A child who is brought up with a good culture of toileting, develops a toilet routine and cultivates a habit of cleanliness which is next to godliness and healthy living (Majak, 2007). Furthermore, the findings showed that working mothers do not have time to sufficiently cuddle and carry their babies; no time to play and chat with them and listen to their complaints, therefore children prefer to confide in other people about their personal matters which mothers are not aware of. Bankers and teachers do not differ significantly in the mean rating of their perception of the aforementioned, as ways in which maternal employment influence mothers' emotional care practices. These findings agree with the observation of, that many parents overlook children's emotions as they tend to pay more attention to the children's behaviours rather than their feelings. Bowlby's adaptation theory holds that human babies have the natural desire to be close to their caregivers (usually the mothers) and this promotes infant-mother attachment (Dehart, Sroodie & Cooper, 2000). In addition, Santrock (2007) stated that if mothers are not consistent and responsive in the care they provide, the child becomes insecure in his attachment making him or her ambivalent towards the mother. The respondents, though they agree that the stress of work do make mothers so tensed that they sometimes use bad languages on children, they differ significantly with teachers having the higher mean score. This confirms the findings of that teachers were found to manifest stress that were far higher than the rest of the population. However, warned that children who are emotionally neglected and verbally abused become angry and sullen or become depressed, develop unhealthy relationships, demonstrate poor academic performance, and may show little respect for others or themselves.

On the safety care practices of working mothers, the bankers and teachers jointly agree that working mothers are not able to supervise children's play activities and toys. This is of grave concern because according to Berk (2004), children's play activities are the most common cause of injuries. As children explore their environment and learn new skills, they are exposed to various physical hazards therefore as recommended by Pollard (2010) careful toy selection and proper supervision of a child at play is necessary to protect him from injuries.

Conclusion

Maternal employment is a welcome social change that has come to stay. It keeps the family afloat the economic challenges and provides children with positive role models. However, it comes with various costs and sacrifices especially on child care practices as perceived by the respondents. It is noteworthy that working mothers are putting in commendable effort in sustaining their roles as mothers, nevertheless, there are still much room for improvement especially in the aspects of feeding, emotional care and toilet training of children as perceived by the bankers and teachers. This implies that the difficulties encountered by working mothers in their child care practices cuts across professions and hence requires a holistic approach in
its intervention measures, and policies. This will enable all working mothers minimize the costs of their work engagement on their child care while maximizing the benefits.

**Recommendations**

Based on the result, the following recommendations were made.

1. Employed mothers should try as much as possible to exclusively breastfeed their infants and prepare nutritious meal for family members.

2. During work hours, mothers should make appropriate arrangement for taking care of their sick children and ensuring that their drugs are administered on time.

3. Working mothers should ensure that they place their children in quality day care centers that will take care of their children's diaper need and help make toilet training consistent.

4. Irrespective of their busy schedule, mothers should ensure that they spend quality time playing and communicating with their children.

5. More child care intervention strategies, programs and policies are needed from families and government in order to ensure that children receive enough attention from parents.

**References**


Federal Ministry of Women Affairs and Social Development (2006). National Gender Policy. 4-5


STUDENTS' PREFERENCE BETWEEN SELF AND GOVERNMENT/PRIVATE EMPLOYMENT FROM SCHOOLS OF SECONDARY EDUCATION VOCATIONAL IN FEDERAL COLLEGE OF EDUCATION, KANO STATE

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Abstract
The study has as its main objective to determine the preferred type of employment i.e. between self-employment (entrepreneurship) or government/private sector employment among graduating students i.e. 300 level students of school of secondary education vocational, Federal College of Education, Kano. The population for the study was 431 out of which 179 was used as sample size. The sample consists of 82 female students and 97 male students. A questionnaire titled Preference Questionnaire (PQ) was used as the instruments for data collection, while the data collected was analyzed using simple percentage. Systematic sampling technique was used. Findings from the study show that 70.95% of the students prefer self-employment. Also, the percentage of male students 53.54% is higher than that of female students which is 46.46%. It is therefore recommended that parents, well to do community members and the government should ensure that the intension of these students have been realized and sustain.

Keywords: Self-employment, preference, government/private employment, vocational education

Introduction
The level of employment in any country is closely related with economic development of that country. Due to this reason governments including that of Nigeria try to formulate policies that will help in creating an atmosphere which will provide jobs for its people. Haruna (2015) described employment as a relationship between two parties, usually based on a contract one being the employer and the other being the employee, she further explained that an employee contributes labor and expertise to an employer and is usually hired to perform specific duties which are packaged into a job. Also employment is seen as the number of people who either work for pay in cash or kind, work on their own account or are unpaid family workers. The realization by government that it cannot provide jobs for its increasing population makes government in Nigeria to give emphasis on vocational education which has been found to be a means through which self-reliance could be achieved especially among youth.

Obadan (2001) in Dorayi (2017) observed that in the light of Nigeria's leadership concern for enhancing self-employment, scores of programmes have been initiated and implemented to generate self-employment amongst youth including Subsidy Reinvestment Programme (Sure-P), Family Support Programme (FSP), National Directorate of Employment (NDE) and so on. Also Udoh (2018) stated that government and educational stakeholders have now placed vocational education in its proper position of providing the youth with skills capable of provoking their attitudes towards self-reliance. In support of the above statement Udoh and Adamu (2012) in Udoh (2018) viewed that students who have attended vocational schools are more likely to become self-reliance by starting their own business in Nigeria. Quoting the National Policy of Education, Udoh (2018) gave as one of the objective of vocational and technical education as giving training and impacting the necessary skills to individual who shall be self-reliance economically. Based on this objectives it is expected that students who are about to graduate or have graduated especially those of schools of secondary education vocational form Colleges of education have acquired the training and attitudes that will help them become self-employed and even employ others.

Self-employment which is the state of working for one self rather than an employer. Self-employment is being considered synonymous with entrepreneurship (Isah&Garba, 2015). They went further to explain that the decision for an individual to become self-employ rather than being employed by others include attitudes i.e. whether positive or negative, their backgrounds and other traits. Self-Employment, traits and attitudes includes locus of control - controls one destiny, self-efficacy – believing in one's abilities, innovativeness – coming up with something new and propensity for risk taking – bear substantial risk. Within the content of this paper self-employment will be treated as same with entrepreneurship. Isah&Garba (2015) defined self-employment as status of an individual who rather than accepting a position as an employee of another person
chooses to go into businesses for themselves. Self-employment is the act of generating income directly from a consumer as opposed to being an employee of another person, firm or government.

Statement of the Problem
Most times when students are giving admission into tertiary institutions in Nigeria, they go in with the hope that after graduation, they will secure a job in one of the government institutions. The government on its own part realizing that it cannot provide jobs for the large population of students after graduation each year from the country’s institutions of higher learning as reported by Junaidu (2018). About 4.5 million youth enter labour market every year without any hope of getting employment for the life sustenance. Government at different levels introduce programs that assist the individuals to be self-employed, but due original intension these youth especially those graduating from tertiary institutions include schools of vocational education, many of these students lookup to government or private sector for employment. This shows that government's effort is not yielding the desired result. This view can be supported with that of Dorayi (2017) when he explained that despite the laudable programmes and in spite of the huge resources invested, self-employment generation has not been achieved or sustained, as more and more graduates are turned out yearly in search of government jobs. This necessitated the study so as to find out if there is any positive change.

Research Objectives
- To determine the most preferred type of job i.e. self-employment or government/private employment among 300 level students of school of secondary education vocational, Federal College of Education, Kano.
- To find out how the choice of vocational courses during admission has influence on the type of employment preferred.
- Find out the type of employment that is most preferred among males and females students.

Research Questions
The following research questions guided the study.
1. What is the most preferred type of employment between self-employment and government/private among 300 level students?
2. Does the choice of courses during admission influence the type of job preferred?
3. What type of employment is most preferred by males and female students?

Methods
Design of the Study
The study adopts survey. The design was adopted in order to examine the distribution of variables and make inferences.

Population for the Study
The population for the study is four hundred and thirty one (431) students, which is the total number of graduating students by the end of 2017/2018 session from the four departments that make up school secondary education vocational. Three hundred and seven (307) were students of Business Education Department, fifty nine (59) were from Agricultural Department, Thirty nine (39) from Fine and Applied Arts, while twenty six (26) were from Home Economics Department.

Sample Size
A sample size of one hundred and seventy nine (179) was chosen as sample. This constitute about one third of the population. It includes ninety six (96) from business education, thirty (30) from Agricultural education, twenty seven (27) from Fine and Applied Arts while twenty six (26) are from Home Economics Department.

Instrument for Data Collection
The instrument used for data collection was a structured questionnaire, which is referred to as preference questionnaire (PQ). It consists of eight (8) items; the first two items seek to find out the department and the gender of the respondents. The remaining six (6) are questions that seek to give answers to the research questions for the study. It was validated by experts in the field of research.

Data Collection Procedure and Data Analysis Techniques
The questionnaires were administered to the students by the researcher with the help of some staff of the school. The questionnaire was distributed to students immediately they finish writing an examination and collected at same time. Descriptive statistics such frequency and simple percentage was used to analyse the data collected.
### Results

**Table 1: Preferred Type of Job**

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self employment</td>
<td>127</td>
<td>70.95</td>
</tr>
<tr>
<td>Government/private sector</td>
<td>52</td>
<td>29.05</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>179</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Field Survey, 2019*

Table 1 shows that 127 students 71.95% preferred self-employment while 52 students representing 29.05% preferred government/private employment. Therefore, a large number of the students preferred self-employment.

**Table 2: Influence of Choice of Courses during Admission on Preferred Type of Job**

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>97</td>
<td>54.19</td>
</tr>
<tr>
<td>No</td>
<td>82</td>
<td>45.81</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>179</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Field Survey, 2019*

Table 2 shows that there is an influence of the initial choice of courses on the preferred type of job. 54.19% of the respondents' choice to study vocational courses because while choosing the course to study in school, they did that with the intention of becoming self-employed after graduation.

**Table 3: Proffered Type of Employment by Gender**

<table>
<thead>
<tr>
<th>Departments</th>
<th>Frequent</th>
<th>Female</th>
<th>Percentage (%)</th>
<th>Male</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Education</td>
<td>30</td>
<td>04(13.33)</td>
<td>26(86.67)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fine &amp; Applied Arts</td>
<td>18</td>
<td>06(33.33)</td>
<td>12(66.67)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Education</td>
<td>57</td>
<td>27(47.37)</td>
<td>30(52.63)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home Economics</td>
<td>22</td>
<td>22(100)</td>
<td>00(0.00)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>127</td>
<td>59(46.46)</td>
<td>58(53.54)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Field Survey, 2019*

Table 3 shows that 59 representing 46.46% of those who preferred self-employment are females, while 68 representing 53.54% are males. This indicates that the percentage of males is higher.

### Discussion of Findings

Finding revealed a higher percentage of the respondents preferred self-employment that is 70.95 which is a positive development and can be attributed to the realization of the importance of vocational courses as a tool for national development. This view can be supported with that of Osasuwen (2014) quoting Olawepo where he described vocational education as a type of education and training designed for preparation of individual learner to earn a living, that is self-reliant or increase his earnings in an occupation where technical information and understanding of the laws of science and technology is applicable to modern design, distribution and services that are essential for success.

Table 2 shows how initial choice of course during admission has influence on the preferred type of job. 97 (54.19%) responded positively, as their choice of courses to study in school, was done with the intention of becoming self-employed after graduation. Table 3 shows preferred type of employment by gender out of 82 females who took part in the study 59 that is 46.46% prefer self-employment while out of 97 male students who took part in the study 68 that is 53.54% prefer self-employment. It can be rightly said that students who have graduated from vocational departments in Nigeria’s higher institutions of learning have been equipped with all the competencies that are required to...
be self-employed.

**Conclusion**
The emphasis given by government to self-employment (entrepreneurship) both within and outside the schools has led to the change in orientations of students toward self-employed as suggested by the findings of the study. Continuous effort in this direction can assist toward reducing the number of unemployed graduates roaming our streets, thus leading to economic development. Based on the findings of the study it can be concluded that more youth especially those that study vocational courses at the tertiary level preferred to be self-employed. This welcome development should encourage, so as to reduce the number of unemployed youth in the country.

**Recommendations**
The paper recommended the following.

- Students who showed their preference for self-employment (entrepreneurship) should be assisted by parents, other members of the community and government to realize their dreams by supporting them with capital and expertise to operate and sustained their business.
- Parents should introduce vocational education to their children early in life, this will help children to grow up appreciating the value of vocational education, it can also serve as a foundation to become self-employed later in life.
- Orientation of the citizens especially the youth towards the benefits of vocational education as a way of reducing unemployment and ultimately poverty should be sustained.

**References**


THE ROLE OF HOME ECONOMICS IN DEVELOPING FOOD LITERACY

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Abstract
Home economics engages with food and food plays a pivotal role in our lives. It is a basic and essential aspect linked to our survival, our beliefs, and our impact on the natural environment as well as our sense of self via memories and emotions. This paper discussed on the role of home economics in developing food literacy. The paper further discussed obesity and health, literacy and Home Economics and food literacy. The connection between obesity, food choices, nutrition knowledge, and food preparation skills is well established. However, education about the concept and processes of ‘food literacy’ is relatively new. This paper further concluded that it gives home economics educators a platform to become global leaders in tackling the obesity problem that is challenging policy and to contribute to other contemporary food issues. A key strategy will involve collaboration action, and alignment with other stakeholder. It further recommended that education should be an essential component of action to promote health and to improve life quality.

Keywords: Developing, Food Literacy, Home Economics, Role

Introduction
Home economics engages with food and food plays a pivotal role in our lives. It is a basic and essential aspect linked to our survival, our beliefs, and our impact on the natural environment as well as our sense of self via memories and emotions. The sharing and providing of food is “… fundamental to human experience and human culture” and as a pedagogical tool, food literacy education is a useful way of examining the interplay between social, political, economic, and environmental aspects of many food issues (Fordyce, 2009:45).

The “evolution of human biology and human society have been intimately shaped by the types and amounts of food available” (Belasco, 2008:27). From the advent of the agricultural revolution, human civilisation has developed around sustainable food supplies, leading to settled communities, specialisation of trades, trade economies, and growth of complex political systems. When production becomes less plentiful and consumption more problematic, humankind seeks new means and systems. Analyses of current global trends illustrate that, for around the past quarter-century humans have been living beyond the environment's ability to sustain this consumption (Belasco, 2008:27).

Given this escalating impact of humankind, alongside scientific and technological developments in food production, increasing consumer expectations, a rising global population and malnutrition especially excesses of particular nutrients, a diverse range of strategies and solutions need to be dealt with. Furthermore, Caird (2011:14), discusses economic and social inequities resulting in global disparities about food access. Social fracas and discontent create global tensions. Hunger, is both a social justice and a sustainability issue. According to the European Food Framework (2011:21), around 66 million children in developing countries attend school hungry daily. The United States (US) Department of Agriculture's latest food security report (Fordyce, 2009:45) estimates that because of inadequate finances or other resources, nearly 15% of US households' had limited access to food at some time during the year. This food insecurity is the highest since statistics were first collected in 1995 (European food framework, 2011:21).

Young people need to be positioned (in terms of skills and knowledge) and 'dispositioned' (in terms of values and attitudes) to cope with change, complexity and insecurity in such food contexts. As confident consumers they will require knowledge and skills to make healthy and appropriate food choices and as responsible, critical citizens they must underpin this with an understanding of the interdependence of all living things and a global perspective including sustainability and social justice, to come to a deeper understanding of the complex environmental and social components of food in our lives. These inter-relationships have become obscured as our methods of food production and consumption have changed (Forneris, 2010:22). Such ethical engagement and emancipative action will ensure that our young people are effective contributors in the 21st century (Brown, 2009:51). Based on the above statement therefore, this paper discussed the role of home economics in developing food literacy.
Food in the curriculum

There is no question that “one of the closest relationships between us and our environment is our daily need to consume food” (Forneris, 2010:22). Food and health should not be seen as subservient to or the servant of traditional academic subjects. Food education is often disregarded or viewed as less weighty than other subject disciplines as academia’s dualism of mind over body has cultivated “disdain for something as mundane, corporeal, even ‘animalistic’ as eating” (Belasco, 2008:27).

Furthermore, the tendency is to privilege curricula which concentrate on the public sphere of men while the private, domestic sphere which has historically been associated with women becomes subsidiary. Food preparation and cooking skills and knowledge of food and nutrition and its related themes is consequently devalued, even trivialised, with stereotyped gender roles playing a part in the dynamic. Feeding the family and cooking remains a highly gendered practice (Brown, 2009:51). Debate about the state of cooking has increased in recent years with many arguing that it is being revised, routinised, deskilled and devalued, and in decline (Caird, 2011:14). However, rather than being in decline, Forneris (2010:22) Short’s interpretation suggests that cooking skills are constant and unchanging and she reveals a complexity to cooking skills and knowledge “… as incorporating more than just practical, technical ability” incorporating sophisticated abstract, conceptual and perceptual skills and understandings, as well as organisational skills and academic knowledge for example. She emphasised the importance of circumstances when preparing and cooking food – the contextual nature and linked to lifestyle.

In discussing food in the curriculum, it is necessary to look beyond cooking skills to provide a fuller contextual view. Scientific and technological developments in food production and preparation have reformulated food to the extent that in developed countries, consumers require spending less time and thought in food preparation and cooking (Belasco, 2008:27). The trend for spending less time cooking by purchasing more processed food is well documented. For example, in their study of time use in France, the United Kingdom, U.S., Norway, and Holland, found a decline in the amount of time spent cooking in all countries and a decline in the amount of time spent eating in all but France between the 1970s and the late 1990s (Butlard,2007:16). Consumers are also more distanced from the growing, killing, fortification, processing and promotion of food. It is unsurprising therefore that many young people know little about the sources of food and consider cooking to be “having to mix stuff” (Capra, 2008:18). Thus considerable change in supply, distribution and consumption of food, as well as contradictory food and diet recommendations, food scandals and in certain parts of the world, abundance of food; puts increasing pressure on consumers to make informed decisions, indeed to make decisions.

Education has been an essential component of action to promote health and to improve life quality. Home economics was introduced to the curriculum during the industrial revolution as a means to improve societal conditions such as poor diets and living conditions illustrating then as now a close association between home economics and health (Caird, 2011:14). The food and health emphasis remains in home economics curricula and several studies and projects have examined or are examining key elements of food and health programmes (Burlard, 2007:16). Currently a two year project, with five pilot projects across Europe is constructing a food framework to comprise a set of competences for young people aged 5-16 years, relating to diet (food and drink), active lifestyles and energy balance (European Food Framework, 2011:21). The framework will provide a consistent, up-to-date and accurate (evidence based) consensus, supporting all involved in food education.

Obesity and Health

There are well-documented links between obesity and cardiovascular disease, diabetes, osteoarthritis, cancer, dermatological and rheumatic diseases, asthma and other respiratory diseases (European Food Framework, 2011) thus the improvement of young people's health is a key aim of international policies. Within the school context, the importance of a health promoting environment is emphasised which stipulates that mental, emotional, social and physical wellbeing is essential for successful learning and living (European Food Framework, 2011). Impacting on all four dimensions (physical, mental, emotional and social) of wellbeing and on learning (be it relatively low), the need to reduce childhood obesity is a critical health problem and further heightened by the increasing prevalence of adult obesity in both developed and developing countries (Caraher, 2009).

Conclusively, over one in six boys aged 11-15 (17.6%), and nearly one in five girls aged 11-15 (19.0%) would be classed as obese. While from a Scottish Health Survey estimated girls and boys aged 12–15 in 2008. Furthermore, if the current childhood obesity continues, this generation could face shorter life expectancy than their parents.

Literacy

The United Nations Educational, Scientific and Cultural Organization (UNESCO) defines literacy as
the ability to identify, understand, interpret, create, communicate, compute and use printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society (UNESCO, 2003).

Food is one of many important ways in which we relate to the rest of an ecological system and the challenge for 21st century living is to integrate health of the biosphere and human health. Since healthy food choice is one key element of health, the multidisciplinary field of health literacy must also be factored into this inter-relationship. Health literacy as a social determinant of health offers many opportunities to reduce inequities in health (Belasco, 2008). The wide range of skills and competencies that people develop over their lifetimes use health information to make informed choices, reduce health risks, and increase quality of life (Brown, 2009).

Examining the concept of health literacy, Belasco (2008) identified three progressive levels of health literacy: basic/functional, communicative/interactive and critical. Functional health literacy is the use of basic literacy skills to function successfully in everyday situations, while interactive health literacy expands these handling information skills with social and personal skills applied to new and more complex situations. Critical health literacy as its name suggests, is the development of further cognitive skills for critical analysis, thus leading to self-efficacy and empowerment towards individual and collective actions. These aspects usefully classify health literacy in terms of what it enables individuals to do and how it can improve capacity for social action. Literacy is thus an enabler and a capacity (Forneris, 2010).

Home Economics and Food Literacy

Home economics has been confidently and knowledgeably dealing with health literacy and in particular the food literacy component for many years, helping to give young people the means to develop and define their future and is therefore well positioned to deal with what has become one of today’s principal, yet neglected education problems. Inclusive of social justice, the concept and processes of food literacy is a way of bringing together interconnecting elements such as food skills, food culture and global food systems, health related behaviours and environmental sustainability (Fordyce, 2009).

In supporting young people’s learning with opportunities to become literate about food in a nutritional, environmental and socio-cultural sense, it can be argued that “Home economics is situated at the crux of the solution” (Caraher, 2009). Hands-on work with food is an excellent basis for young people to develop food preparation and cooking skills and resourcing food literacy lessons to encourage healthy lifestyles should be seen as an investment in children’s futures. It is in the home economics lab that health, nutrition, diet, sustainability, animal welfare and consumer issues become sharply relevant. It must be recognized that food preparation and cooking encourages excellence, develops transferable skills such as co-ordination and psycho-motor skills, organisation and management skills, and interpretative/analytical skills and can provide a myriad of opportunities for young people to gain a sense of achievement, a personal pride in workmanship, global cultural awareness and an aesthetic sensibility. The capabilities to understand food and to create good, healthy food are life skills for independent living.

Conclusion

This paper discussed on the role of home economics in developing food literacy. The paper also discussed obesity and health, literacy and Home Economics and food literacy. The paper also looked into food in the curriculum, It further stated that young people need to be positioned (in terms of skills and knowledge) and 'dispositioned' (in terms of values and attitudes) to cope with change, complexity and insecurity in such food contexts. As confident consumers they will require knowledge and skills to make healthy and appropriate food choices with the responsibility of understanding the interdependence of all living things and a global perspective including sustainability and social justice, to come to a deeper understanding of the complex environmental and social components of food in our lives

Recommendations

Based on the conclusion, the following recommendations are given:

1. Young people should be positioned in terms of skills and knowledge as well as in terms of values and attitudes to cope with change, complexity and insecurity in such food contexts.
2. Families and households should learn on the procedures and methods of food preparation and cooking skills and knowledge of food and nutrition.
3. Education should be an essential component of action to promote health and to improve life quality.
4. The food and health emphasis should be built in home economics curricula.
5. Literacy should be an enabler and a capacity which should enable individuals to do and how it can improve capacity for social action.
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References


