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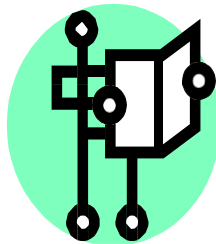
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BRIEF HISTORY OF THE JOURNAL

The Annals of Child and Youth Studies (ACYS), publication of International Research and Development Network of Children and Youth in Agriculture Programme (CYIAP-Network) was established at the 7th Annual General Meeting of CYIAP-Network in 2006 at Tai Solarin University. Prof. Dixon Olutade Torimiro was appointed the inaugural Editor-in-Chief, succeeded by Prof. Adedayo Ajayi, Prof. Banji Adisa, and Dr. Victor Okorie from Obafemi Awolowo University. Dr. Olayinka Jelili Yusuf, Associate Professor of Rural Sociology and Extension at Kwara State University now leads the editorial team with Dr. Francis Ajayi of Osun State University as Managing Editor. Foreign Editors include Prof. Festus Annor-Frempong and Dr. Nelson M. Tselaesele. The journal's evolution showcases a legacy of academic leadership in agricultural youth development. Visit www.cyiapnetwork.org for more details.

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Influence of Social Media Utilization on Learning Outcomes Among Secondary School Students in Oyo State, Nigeria

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ABSTRACT

This study delved into the influence of social media utilization on the learning outcomes in Computer studies among secondary school students in Lagelu Local Government Area of Oyo State. The study employed simple random sampling method to select 200 respondents. The findings revealed that 60.0% of the respondents had access to social media, with 85.5% primarily using it for non-educational purposes. Additionally, 32.5% of the respondents obtained fair or poor test scores, indicating a detrimental influence of social media exposure on their academic performance. The Chi-Square analysis ($X^2 = 9.47$, $P < 0.05$) confirmed a positive and significant relationship between social media utilization and learning outcomes in computer science. In light of these results, the study recommends that students strike a balance between their academic commitments and their engagement with social media.

Keywords: social media, learning outcomes, students' attitudes

INTRODUCTION

Social media has become an integral part of life in today's digital world. It serves various purposes, from maintaining connections with family and friends to staying informed about current events and trends. Social media has revolutionized the way we communicate and engage with each other. As educators and students continue to incorporate social media into education, it is crucial to explore the potential advantages and disadvantages of its integration into the learning environment. Social media as opined by Selwyn (2012) refers to applications that allow users to converse, interact, generate, modify, and share various forms of texts, images and audio content. Therefore, social media can be defined as abroad assembly of online and mobile services that links individuals together, enabling them to communicate, engage in collaborative interactions, discuss topics, and exchange ideas and information within a virtual community. Baruah (2012) similarly asserts that social media involves using web-based and mobile technologies to transform into interactive dialogues, accessible through web applications on computers and smartphones. The world has transformed into a "global village" thanks to Information and Communication Technologies (ICTs), which have expanded the reach of communication and made access to various types of information readily available; this in turn has created a conducive environment for both learning and teaching, as noted by Bamiwuye *et al*(2020). The rapid advancement of internet technology has established it as the primary medium for communication. Consequently, the global internet population frequently accesses social networking and blogging platforms for this purpose. Social networking platforms encompass platforms like Twitter, Yahoo

Messenger, Facebook Messenger, Blackberry Messenger (BBM), WhatsApp, 2go, Skype, Google Talk, and Google Messenger, which serve as means to connect with both existing and new friends, whether they are in physical proximity or part of one's virtual social circle. These online communities facilitate interactions and communications among users who share common interests, be it on a personal, business, or academic level.

Schools are established to impart knowledge and skills to people and behind all this is the idea of achieving academic performance which is the outcome of education; the level to which a student, teacher or institution attain their educational goals. Pizarro as cited by Lamar (2015) opined that academic performance assesses an individual's ability to demonstrate their learning, acquired through education or training, either through examinations or ongoing evaluations, providing an estimated measure of their knowledge and skills. Numerous students are interested in improving their academic performance because it significantly influences their placement, whether in educational institutions or the job markets. This aligns with Kyoshaba's (2009) view that academic achievement serves as a predictor of an individual's overall life success. There is a direct correlation between social media and students' academic performance in schools. However, the negative aspect of technological advancement have given rise to challenges, such as decline in the appreciation of real life values, particularly among the majority of students who heavily engage with social networking sites. According to Olubiyi (2012), today's students are so immersed in social media that they are online almost constantly, even during classes and lectures. This excessive online presence during what should be dedicated to learning, academic



research, and innovation has diminished their enthusiasm for these pursuits, as they prioritize making new online friends and engaging in trivial discussions. As a result, many students' academic performance deteriorates due to distractions caused by social media. Obi et al. (2012) observed that the use of these platforms also has an impact on students' use of proper English and grammar, as they become accustomed to using shorthand and abbreviations in chat rooms and carry these habits into the classroom. This includes using '4' instead of 'for,' 'U' instead of 'you,' and 'D' instead of 'the,' among other examples, which could negatively affect their academic assessments. While it's been suggested that students spend significant time engaged in social networking activities, with some attributing their declining grade point averages to these platforms (Kimberly, Jeong, and Lee, 2009), it's worth noting that only a minority of students recognize the academic and professional networking opportunities these sites offer. Obiageli (2021) suggests that people, including students, often use mobile phones as a means of demonstrating their status. This extends to certain social networking platforms, where students may perceive using specific sites as a way to showcase their intelligence and knowledge. The desire to impress their online friends can become a significant distraction for students, ultimately impacting their academic performance.

The Social Information Processing Theory is a communication theory that posits online interpersonal relationships may take longer to develop compared to face-to-face connections. However, once established, they can be equally influential. This implies that increased use of social media by students can impact their commitment to their studies, as friendships formed online can begin to influence each other. As a result, students' focus has shifted from real-life friends to virtual ones, affecting important pursuits such as studying, learning, and academic work. This concern is shared by many who prioritize knowledge and skill acquisition, as they view social networking sites as distractions devoid of educational benefits. Numerous students are becoming addicted to the latest online trends, with a plethora of social networking platforms vying for their attention, tempting them to neglect their homework and reading in favor of online chats. There is also the risk that users may not maintain respectful and courteous behavior, leading to the circulation of profanity, vulgarity, obscenity, or harassing language in these platforms without the oversight of teachers, school administrators, or peers. Consequently, this could weaken students' academic abilities and divert them from their primary educational goals.

The study aimed to achieve the following objectives in the study area; to determine the percentage of students in the study area who use social media platforms;

identify the social media platforms preferred by senior secondary students; determine the social media utilization among senior secondary students that have an influence on learning outcomes of students in computer study; identify the attitude of senior secondary school students towards computer study; and determine the purpose of using social media among the senior secondary school students. The study formulated two null hypotheses: 1) There is no relationship between student's use of social media platforms and their learning outcomes in computer study, and 2) There is no significant difference in the attitudes of students using social media and those who do not.

MATERIAL AND METHODS

The study was conducted in Lagelu Local Government area of Oyo State with computer students from senior secondary schools as the respondents. A purposive sampling procedure was used to select 200 computer students from senior secondary schools in Lagelu Local Government, Oyo state, ensuring the relevance of the respondents to the research objectives. Four (4) senior secondary schools were randomly chosen: Global School of science, Iyana Church, Ibadan, Exceller Comprehensive High School, Iyana Church, Ibadan, Monatan Senior School, Iyalode Ibadan, Monatan High School Iyalode, Ibadan. Fifty (50) senior secondary school students were randomly selected from each of these schools. Data collection employed a structured questionnaire to gather information on social media usage, types of social media platforms used and students' attitudes towards computer study. Additionally, a Computer Achievement Test (CAT) was utilized to collect data on students' learning outcomes in computer study.

To measure respondents' attitudes of respondents towards computer studies, a 24-item Likert scale was developed, with a 4-point scale consisting of "Strongly agreed", "Agreed", "Disagreed" and "Strongly disagreed" assigned respective scores of 4, 3, 2, and 1. A mean score of 2.5 was calculated for each item, with reverse scoring applied to negatively worded statements. Kothari's (2004) categorization was employed to determine students' overall attitudes towards computer study. Sum scores ≥ 60 were considered a "Favourable (positive) attitude", while < 60 indicated as "Unfavourable (negative) attitude".

RESULTS AND DISCUSSIONS

Social Media platforms used among senior secondary school students

As shown in Table 1 below, 10.8% of the respondents used 2go 37.5% of them uses Twitter, all the students

have WhatsApp account, 14.2% were using Badoo, 89.2% were using Facebook, 12.5% were Tinder users, 55.0% were using Imo, 7.5% were Telegram users, 54.2% had SnapChat account and 75.0% were using Instagram. By implication WhatsApp platform had the highest users among the senior secondary

school students in the study area, followed by Facebook, and Instagram while Telegram platform had the least number of users in the study area. This could be because of user the friendliness and popularity of these social media platforms among the senior secondary school students in the study area.

Table 1: Distribution of Respondents according to Types of Social Media Platform Used

Social Media Platforms Used*	Frequency	Percentage
2go	13	10.8
Twitter	45	37.5
Whatsapp	120	100
Badoo	17	14.2
Facebook	107	89.2
Tinder	15	12.5
Imo	66	55.0
Telegram	09	7.5
SnapChat	65	54.2
Instagram	90	75.0

*multiple answers

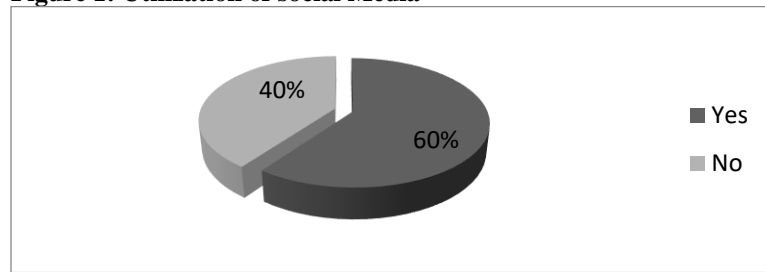
Source: Field survey, 2022

Percentage of students in the study area using Social media platforms

Figure 1 revealed that 60% of the students made use of social media while 40% do not. This agrees with a

survey carried out by Deloitte (2023) that younger generations gravitate towards more interactive and social experience: places and spaces where they can find escape into other worlds.

Figure 1: Utilization of social Media



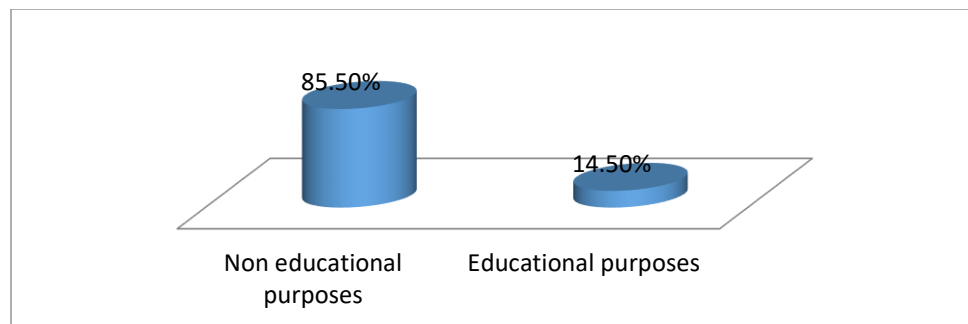
Source: Field survey, 2022

Purpose for using social media among students

Figure 2 revealed that 85.5% of the respondent consented that the purpose of using social media is not for education while 14.5% maintained that the purpose of using social media in the study area is for educational purpose. This could mean that students in the study area largely use social media for social

networking among their peers rather than academic purposes. This however agrees with the uses and gratifications theory which postulates that audience members use the media to satisfy various purposes in line with the perceived need at that moment.

Figure2: Distribution of Respondents according to Purpose of using Social media



Source: Field survey, 2022

Influence of social media utilization on learning outcomes of Students in computer study

Table 2 shows the result of the computer achievement test of the respondents; 7.5% scored 20 (Excellent) which is the highest possible score in the computer achievement test, 12.5% scored between 18 - 19 (very

good), 15.0% scored between 14 - 17 (Good), more student 32.5% scored between 10 – 13 (Fair) and less than 10 (Failed) respectively. It can be deduced that more student passed the computer achievement test than those that failed it.

Table 2: Distribution of Respondents according to Influence of Social Media Utilization on Learning Outcomes of Students in Computer Study

Results of computer achievement Test	Frequency	Percentage
20	15	7.5
18 – 19	25	12.5
14 – 17	30	15.0
10 – 13	65	32.5
< 10	65	32.5

Source: Field survey, 2022

Attitudinal Index towards the use of social media platforms

Table 3 revealed the attitude of senior secondary school students in Lagelu local government towards computer studies as presented in the table shows that student had minimum score of 28, mean score of 63.38, and maximum score of 93. Majority (75%) had

favourable while 25% had unfavourable attitude towards computer studies. This implies that there were more students with favourable attitude towards computer studies in the study area and this could be of advantage to them developing interest in computer study and also utilization computer related devices.

Table 3: Attitudinal Index towards the use of social media platforms (n=200)

Category	Frequency	Percentage
Favourable	150	75.0
Unfavourable	50	25.0
Total	200	100

Maximum score= 93; Mean score= 63.38; Minimum score=28

Source: Computed from data, 2022

Test of association between social media utilization and learning outcomes

The result of chi-square analysis indicate a notable association between social media usage ($\chi^2 = 9.47$, $p < 0.05$) and learning outcomes in computer science. This suggests that as the number of students who do not use social media increases, there is an improvement in learning outcomes in computer science. This could be attributed to the fact that social media tend to divert students' attention away from their academic pursuits. As a result, the null

hypothesis is dismissed. This signifies that students' attitude towards computer science are not significantly influenced by their use of socialmedia, especially since those who abstain from social media foreducational purposes still rely on traditional sources such like school libraries and textbooks for completing assignments and homework. This finding contradicts the assertion made by Asemah and Edegoh (2013) that students, due to their engagement with social media, are less inclined to utilize school libraries for their academic tasks.

Table 4: Chi-square Result of Relationships between utilization of social media and learning outcomes in computer studies

Variable	χ^2	Df	P-value	Decision
Utilization of social media	9.47	4	0.01	Significant

df= degree of freedom [(r-1)(c-1)], P<0.05

Attitude of Student using social media and those who do not

As presented in Table 5 below, there is no statistically significant difference between attitude of students who utilize social media (t=38.141, mean difference=46.10, P=0.881) and those who do not (t=38.954, mean difference=46.62, P=0.845) towards computer science at 0.1% level of significance.

Consequently, the null hypothesis is supported, indicating that social media usage does not seem to exert a substantial impact on students’ attitudes. This suggests that there may be other factors that wield more influence over students’ attitudes, subsequently affecting their learning outcomes in the field of computer science.

Table 5: T-test result for differences between attitudes of student using social media and those who do not towards computer studies

Variable	T	Mean difference	P-value
Attitude of students using social media	38.141	46.10	0.881
Attitude of students not using social media	38.954	46.62	0.845

0.1% level of significance

CONCLUSION

This research finding suggests that secondary school students in Lagelu Local Government Area, Oyo state have a significant level of exposure to social media, and this exposure tends to adversely affect their academic performance. The primary use of social media among students in this area is for non-academic purposes, which frequently serves as a distraction from their core academic/educational objectives. Consequently, this distraction has detrimental impact on their overall academic achievements.

RECOMMENDATIONS

To achieve academic excellence and foster healthy social connections, it’s essential to strike a harmonious balance between academic and non-academic pursuits. Therefore, students should receive education about how social media impacts their academic performance and learn to maintain a healthy equilibrium between their studies and other activities. It’s important for teachers and parents to provide guidance and supervision in the responsible use of these online platforms. Additionally, educators should harness the potential of social media as a tool to enhance students’ academic achievements within the school environment.

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Rural Women Perception of Sexual and Reproductive Health in Odeda Local Government Area, Ogun State, Nigeria: Implications for Policy Implementation

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ABSTRACT

This study was conducted to determine rural women perception of sexual and reproductive health (SRH) in Odeda Local Government Area, Ogun State, Nigeria. Three-stage sampling procedures were used to select 150 rural women. Data was collected with the aid of structured questionnaire. Data was analyzed using frequency counts, percentages, mean, standard deviation and Pearson Product Moment Correlation. The study reveals that 72.8% of rural women were married and 60.0% were Christians, 43.3% had secondary education and 26.7% had mean household size of 5 persons. The sexual and reproductive health issues discussed by the rural women with their daughters were menstruation (74.7%), pregnancy (77.3%) and abortion (68.7%). About 64.7% of the rural women had low communication with their daughters on SRH Rural women perception of sexual and reproductive health were “girl should access development opportunities and benefit (\bar{x} =4.21)” and “it is the responsibility of mother to protect their girl child from violence, sexual exploitation and abuse (\bar{x} = 4.15)” while 94.0% of mothers had favorable perception on SRH. Findings showed that there is a significant relationship ($p \leq 0.05$) between mothers-to-child communication on sexual and reproductive health ($r=1.171$). The study concluded that majority of the rural women had favourable perception on communicating SRH with their daughters. The study recommended that policy makers and stakeholders should prioritize the development and implementation of community-based interventions that promote mother-to-daughter communication on in rural communities.

Keywords: SRH, policy, mother-to-daughter, communication

INTRODUCTION

Sexual and reproductive health (SRH) education is important for adolescents, particularly those in rural communities who face unique challenges in accessing SRH services and information (Kahabuka *et al.*, 2019; WHO, 2018). Despite efforts to promote SRH education and services in rural areas, adolescent girls continue to experience negative SRH outcomes such as unintended pregnancies, sexually transmitted infections, and unsafe abortions (Kahabuka *et al.*, 2019; WHO, 2018). Research has shown that mothers play a crucial role in the communication of SRH information to their daughters (Abajobir *et al.*, 2014; Okigbo *et al.*, 2015). However, the communication of SRH information from mothers to their daughters in rural communities is often limited and inadequate (Abajobir *et al.*, 2014; Okigbo *et al.*, 2015).

Previous studies have explored the barriers to effective communication of SRH information between parents and adolescents in various settings, including rural communities. However, there is a dearth of research on the perceptions of mothers in rural communities regarding the communication of SRH to their daughters (Abajobir *et al.*, 2014; Okigbo *et al.*, 2015). Understanding the perceptions of mothers is crucial in developing effective strategies to improve communication and ultimately promote positive SRH outcomes for adolescent girls in rural communities. Several factors may influence the communication of SRH information between mothers and their daughters, including cultural and religious beliefs,

socio-economic status, and education level (Ali *et al.*, 2021; Habtamu *et al.*, 2020; Tesso and Fantahun, 2014). For instance, a study found that cultural and religious beliefs were significant barriers to the communication of SRH information between mothers and their daughters (Habtamu *et al.*, 2020). Another study found that adolescent girls from low socioeconomic backgrounds were less likely to receive SRH information from their mothers (Tesso and Fantahun, 2014). In contrast, a study found that higher maternal education was associated with improved communication of SRH information between mothers and their daughters (Ali *et al.*, 2021). Therefore, this study examined the perceptions of mothers in rural communities regarding the communication of SRH to their daughters. The study focused on understanding the types of SRH discussed between the women and their daughters and identified the facilitators that support effective communication.

The study built on previous research to provide a deeper understanding of better ways to effective communication of SRH information between mothers and their daughters in rural communities. The findings from this study can inform the development of interventions that address the unique challenges of promoting SRH education in rural communities and promote positive SRH outcomes for adolescent girls. The study addressed the following objectives: describe the socio-economic characteristics of the women; identify SRH issues discussed between the women and

their daughters and determine the perception of mothers on SRH. The hypothesis of the study was stated in null form below:

Ho1: There is no significant relationship between mother-to-child communication on sexual reproductive health and their perception on SRH.

METHODOLOGY

Study Area-The study was conducted in Odeda Local Government Area in Ogun State which is located in the South-Western part of Nigeria.

Study Population-The population of the study constitutes mothers in rural communities of Odeda Local Government Area, Ogun State.

Sampling Procedure and Sampling Size-Three - stage-sampling procedures was used to select the women for the study. The selection procedures were as follow:

Stage 1: Random selection of 5 political wards out of the 10 political wards in Odeda Local Government Area. The selected wards were Olodo, Odeda, Ilugun, Alabata and Osiele.

Stage 2: Convenient sampling of two communities from each of the selected political wards.

Stage 3: Convenient sampling of 15 respondents from each of the selected communities. Therefore, a total of 150 rural women were sampled for this study.

DATA COLLECTION PROCEDURE

Data was collected with the aid of structured questionnaire.

Validity of the Research Instrument

Face validity was used to determine the validity of the research instrument. The research instrument was subjected to face validity by consulting experts in the fields of Agricultural Extension and Rural Development, Home Science and Management and Counseling unit in Federal University of Agriculture, Abeokuta. This was done to ensure that the variables are captured and guided in line with the stated objectives.

Reliability of the Research Instrument

Test-re-test reliability method was used to determine the reliability of the research instrument.

Measurement of Variables

Rural women perception on SRH: This was measured using ten (10) items Likert typed scale of Strongly agree (5), Agree (4), Undecided (3), Disagree (2), Strongly disagree (1). The perception of the rural women on sexual and reproductive health was categorise as favourable and unfavourable perception. The categorization calculated as follows:

Minimum score was 10 i.e $1 \times 10 = 10$ ----- (1)

Maximum score was i.e $5 \times 10 = 50$ ----- (2)

The resultant score = The sum of the minimum and maximum score was 60 i.e (minimum + maximum) score = $10 + 50 = 60$ ----- (3)

The average score = resultant score/2, that is, $60/2 = 30$ ----- (4)

Unfavourable perception = scores less than average score, that is 10- 29

Favourable perception = scores from average score to maximum score, that is 30- 50

Mother to Daughter Communication on sexual and reproductive health was measured on two points rating scale of; Discussed (D) =2, Not Discussed (ND) =1.

The mean scores for the variables were calculated using the formula:

$$\frac{\sum FX}{\sum F}$$

Data Analysis

The descriptive statistics such as frequency counts, percentages, mean, standard deviation were used to analyze the objectives. Inferential statistics (Pearson Products moment correlation PPMC) was used to test the hypothesis.

RESULTS AND DISCUSSION

Socio-economics characteristics of the mothers.

Age: Table 1 shows that the mean age of the respondents was 40 years. This implies that most of the women were still in their active age brackets and productive year. This is in line with Hsieh and Pugh (2018) who emphasizes the importance of women being able to participate in all aspect of life, including the workforce. He stated that women in that age are closely linked to their ability to be productive member of the society.

Marital status: The results shows that 72.8% were married, 24.5% were widowed, and 14.7% were divorced. This showed that majority of the women were married. This is in consonance with Bergerson, (2019) who posited that married mothers who had positive attitudes towards sexual communication were more likely to have open and supportive communication with their daughters about sexual and reproductive health.

Religion: The results on religious revealed than more than half (60%) of the respondents were Christian, 37.3% were adherent Islam and 2.7% were Traditionalist. Religious practices may prevent the

mothers from communicating with their daughter on the best way to reduce sexual and reproductive health risk. As posited by Bartkowski (2020), religion emphasizes moral codes designed to instill values such as self-control and self-competence.

Educational status: Findings showed that one quarter of the respondents had secondary education while 26.7% had primary education, 17.3% had tertiary education and 12.7% had no formal education. This implies that educated parents are able to communicate with their daughter patiently both orally and face to face as compared to parent less or without education. This is in line with Adebowale (2016) that higher level of education position one to better knowledge.

Occupation: The results revealed that 42.0% of the women were traders, 26.7% were farmers, 22.7% were artisans and 8.7% were civil servants. Mothers with occupation of higher status due to their education status have access to more information. This agree with Kabiru *et al.* (2017) who indicated that mothers with higher occupational status may have access and resources to more information and equipped them to communicate accurate with their daughters.

Household size: The table showed that mean household size of the respondents was 5 persons. This shows that the women had relatively small household size.

Table 1: Socio-Economics Characteristics of mothers

Variables	F (%)	Mean	SD
Actual age (years)			
≤ 40	40(26.7)	40	10.550
41 – 50	54(36)		
51 – 60	31(20.7)		
61 – 70	22(14.6)		
≥ 71	3(2)		
Marital status			
Married	107(72.8)		
Widow	36(24.5)		
Divorced	7(4.7)		
Religion			
Christianity	90(60.0)		
Islam	56(37.3)		
Traditional	4(2.7)		
Educational			
Non-formal	19(12.7)		
Primary	40(26.7)		
Secondary	65(43.3)		
Tertiary	26(17.3)		
Occupation			
Civil servant	13(8.7)		
Trading	63(42.0)		
Artisan	34(22.7)		
Farming	40(26.7)		
Household size (persons)			
≤2-4	75(50.0)	5	1.273
5-7	70(46.7)		
≥8	5(3.3)		

*SD = Standard deviation, % = Percentage, F = Frequency

Mother to Daughter Communication on SRH:

Results in Table 2 revealed topics covered in communication on SRH between mother and daughter. Findings revealed that mother communication were directed towards menstruation (74.7%), pregnancy (77.3%), abortion (68.7%) and fertility test (49.3%). This implies that conversation can provide young girls with essential knowledge and

the confidence they need to navigate these aspects of reproductive health. This is in line with Miller *et al.* (2015) found out that mother to daughter communication helps to reduce the likelihood of teenage pregnancy and abortion. Also, Mahon *et al.* (2018); Upadhyay (2016) independently stated that mother to daughter communication helps young girls to make informed decisions about sexual health, by

having open honest discussions, mothers can help safeguard their daughter’s health, reduce stigma and shame and promote a healthy understanding of reproductive health. When it comes to some topics mothers should approach the topic with sensitivity and understanding.

Also, the results revealed that use of contraceptives (68.0%), and cervical screening test (92.0%) were not discussed by the mothers to daughters. This means that lack of discussion about contraceptives and cervical screening tests between mothers and daughters can have significant implications on sexual and reproductive health. It may lead to increased risk of unintended pregnancies. This is in line with Lindberg,

(2016) who opined that daughters whose mothers communicated and discussed on contraceptive were have high tendency to use contraception correctly, and were less likely to experience unintended pregnancies compared to those who did not have these discussion which may lead to increased risk of unintended pregnancies without proper knowledge about contraceptive methods and lack of education about safe sex practices and condom use may increase the risks of STIs among adolescents. Also, Marlow *et al.* (2017) reported that mothers who discussed cervical screening with their daughters had a positive impact on their daughter’s intention to attend screening in the future.

Table 2: Mother to Daughter Communication on SRH

S/N	Variables	Discussed F (%)	Not discussed F (%)	IF	Occasionally F (%)	Rarely F (%)
				Discussed, how often, Always F (%)		
1.	Menstruation	112(74.7)	38(25.3)	48(32.0)	60(40)	4(2.7)
2.	Fertility	74(49.3)	76(50.7)	31(20.7)	35(23.3)	8(5.3)
3.	Contraceptive	48(32.0)	102(68.0)	14(9.4)	30(20)	4(2.7)
4.	HIV infection	63(42.0)	87(58.0)	23(15.3)	30(20.0)	10(6.7)
5.	Depressive disorder	20(13.3)	130(86.7)	5(3.3)	11(7.3)	4(2.67)
6.	Sexually Transmitted Diseases	64(42.7)	86(57.3)	24(16.0)	32(31.3)	8(5.3)
7.	Pregnancy	116(77.3)	34(22.7)	57(38.0)	57(38.0)	2(1.3)
8.	Menopause	26(17.3)	124(82.7)	6(4.0)	19(12.7)	1(0.7)
9.	Cervical screening	12(8.0)	138(92.0)	4(2.7)	4(2.7)	4(2.7)
10.	Abortion	103(68.7)	47(31.3)	48(32.0)	52(34.7)	3(2)

Perception of Respondents on SRH: The perception of the respondents on sexual and reproductive health was ranked using the mean value as follows; no female child should be put at risk by reason of gender or lack of access to health information and services (\bar{x} =4.13) ranked 1st. This is concurrent with of Oyedokun, (2021) who postulated that female children have enough information and services as their male counterpart. Girl child should have right to equality and be free from all of discrimination (\bar{x} =4.04) ranked 2nd. This is in line with Adalakun-Odewale, (2015) that affirms the right to education, work, and protection from discrimination and talking about elimination of all forms of discrimination and violence against girl child. Sexual and reproductive health talk should be confidential between mother and daughter (\bar{x} =4.08) ranked 3rd. This implies that most of the women agreed about

confidentially about sexual matter with their daughters, mother can provide accurate information about contraception, safe sex practice and it can help daughter make informed decisions and promote healthy behaviors. This corroborates Smith and Nsiah-Jefferson, (2015) who stated that mother-daughter communication about sex improve understanding through a culturally sensitive approach. Responsibility of mother to protect their girl child from violence, sexual exploitation and abuse (\bar{x} =4.15) ranked 4th. This implies that communicating SRH between mothers and daughters help to break the cycle of violence and promote gender equality. This agrees with Chesler (2015) who opined that communication of sexual and reproductive health protect the girl child from sexual abuse. Mothers should discuss sexual life with their daughters (\bar{x} =3.87) ranked 5th. This is in agreement with Widman (2016) who stated that

daughters whose mothers talk to them about sexuality generally exhibit safer sexual behaviors

Table 3: Perception of Respondents on SRH

S/N	Variables	SA F (%)	A F (%)	U F (%)	D F (%)	SD F (%)	MEAN	STANDARD DEVIATION	RANK
	Girl child should access development opportunities and benefits	64(36.0)	80(53.3)	10(6.7)	5(3.3)	1(0.7)	4.21	0.762	1 ST
	It is the responsibility of mother to protect their girl child from violence, sexual exploitation and abuse	53(35.3)	74(49.3)	16(10.7)	7(4.7)	0	4.15	0.792	2 ND
	No female child should be put at risk by reason of gender or lack of access to health information and services	70(46.7)	54(36.0)	4(2.7)	19(12.7)	3(2.0))	4.13	1.082	3 RD
	It is the right of girl child to have access to specific educational information	52(34.7)	73(48.7)	12(8.0)	12(8.0)	1(0.7)	4.09	0.897	4 TH
	Sexual and reproductive health talk should be confidential between mother and daughter	50(33.3)	76(50.7)	12(8.0)	10(6.7)	2(1.3)	4.08	0.894	5 TH
	Girl child should have right to equality and be free from all of discrimination	36(24.0)	95(63.3)	8(5.3)	11(7.3)	0	4.04	0.767	6 TH
	Mothers should discuss sexual life with their daughters	40(26.7)	69(46.0)	24(16.0)	16(10.7)	1(0.7)	3.87	0.950	7 TH
	My religion does not permit me to discuss sexual issues with my daughters	5(3.3)	11(7.3)	35(23.3)	66(44.0)	33(22.0)	2.26	0.993	8 TH
	Girl child should be subjected to forced pregnancy, forced sterilization or abortion	7(4.7)	9(6.0)	13(8.7)	61(40.7)	60(40.0)	1.95	1.073	9 TH
	It is not good for mothers to discuss sexual issues with their daughter	3(2.0)	5(3.3)	14(9.3)	81(54.0)	47(31.3)	1.91	0.846	10 TH

Note: S.A = Strongly Agreed, A=Agreed, U=Undecided, D=Disagreed, S.D = Strongly Disagreed, F = Frequency, % = Percentage

Extent of Perception of Respondents on SRH: The result shows that 94.0% of the respondents had favorable perception on sexual and reproductive health while 6.0% of the respondents had unfavorable perception on SRH. A pleasant relationship with the

mother encourages the daughter to be honest with her mother and to address any problems freely. This agrees with Dessie and Yadeta (2015) who found a clear connection between mother-daughter amity and their puberty interactio

Table 4 : Extent of Perception of Respondents on SRH

Variable	Status	Score range	Frequency (%)
Perception of respondents on SRH	Unfavorable	10-14	9(6.0)
	Favorable	15-20	141(94.0)

Source: Field Survey 2022

Test for hypothesis

The results showed that there is significant relationship ($p \leq 0.05$) between SRH discussed and

perception on sexual and reproductive health ($r=1.171$)

Table 5: Test of relationship between SRH discussed and their perception on SRH

Variable	r - value	P - value	Decision
Relationship between SRH discussed and perception on SRH	1.171	0.036	Significant

Source: Field Survey 2022

CONCLUSION

The study concluded that majority of the rural women were still in their productive and reproductive age, about one third of them had secondary education. The study revealed that SRH topics discussed between the women and their daughters were how to prevent unwanted pregnancy, use of contraceptives, prevention of sexually transmitted diseases (STDs) among others. Finally, the study concluded that the rural women had favourable disposition in discussing issues with their daughters.

RECOMMENDATIONS

The study recommended that policy makers and stakeholders should prioritize the development and implementation of community-based interventions that promote mother to daughter communication on SRH in rural communities and health education programs should be designed to provide mothers with accurate and up-to-date information on SRH to improve their knowledge and skills in communicating with their daughters.

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Analysis of Agricultural Extension Services in Developing Young Rural Dwellers Capacity in Ogun State, Nigeria

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ABSTRACT

The goal of the investigation was to evaluate agricultural extension services in developing young rural dwellers capacity in Ogun State, Nigeria. Two hundred and forty (240) respondents were chosen via a two-stages sampling process. Frequency counts, percentages, bar chart and means as well as Chi-square, Linear Multiple Regression and Spearman rho correlation were used to analyse the data collected. According to the study, many (51.7%) of the young rural residents were married, and 26.6% of them were between the ages of 31 and 40. The findings showed that training on latest technologies ($\bar{X} = 2.11$) was the major identified agricultural extension services. The major effectiveness capacity building outcomes revealed increase in technical knowledge ($\bar{X} = 2.71$). The major benefit of agricultural extension services was access to useful information ($\bar{X} = 2.83$). Educational level was significantly related ($\chi^2 = 26.267$, $p = 0.003$) to benefits of agricultural extension services. However, the results of Spearman's rho analysis revealed a favorable and significant link ($r = 0.557$, $P < 0.05$) between agricultural extension services and the development of young rural people' capacity. It was concluded that development of young rural dwellers was mainly influenced through access to educational institution, social interaction and primary healthcare factors. It was recommended that agricultural extension services should initiate capacity building among young rural dwellers for optimum activities to reduce level of illiteracy, change obsolete farming practices and increase conflict resolution knowledge.

Keywords: Agricultural extension services, Benefits, Capacity building, Young rural dwellers

INTRODUCTION

Individuals, organizations, and communities usually develop abilities to execute tasks, address challenges, set and accomplish goals through the process of human capacity for growth. Building human capability is discussed by Smit and Watkins (2012) as the development of human resources and the strengthening of management systems, as well as structural development that includes rural dwellers participation in the creation of a supportive atmosphere. Through a number of programmes, the Nigerian government has shown that it is passionate about enhancing the development of human potential and human ability among its citizens. From 1986 to 2014, the government established a number of programmes aimed at achieving long-term growth such as National Directorate of Employment (NDE), National Poverty Eradication Programme (NAPEP), National Economic Empowerment and Development (NEED), National Orientation Agency (NOA), Directorate of Food, Roads and Rural Infrastructure (DIFRRI), and National Accelerated Food Production Programme (NAFPP) (Ayoade, 2016; Wali and Sanusi, 2017; Ogunlusi *et al.*, 2018; Oseafiana *et al.*, 2020). The ultimate objective of increasing the capacity of young rural residents is to enhance the abilities and potentials of farming family members to influence their welfare and quality of life by

optimizing resource usage to help them either socially and economically. According to Nason and Nyakiba (2018), capacity building will only be accomplished by proactive management of young rural dweller's planning programmes and the presence of highly dedicated and well-trained experts who specialized in young rural dwellers capacity-building disciplines. As a result, extension work in all socio-economic components is needed for long-term survival and sustainable growth. Furthermore, the young rural dwellers' measurable characteristics are self-reliance, decision-making, trust, openness, organization, cooperation, and influence, in whatever way it manifested. Learning, equity, engagement, teamwork, and social justice are all ideals that are closely linked to turning young rural dwellers building values into reality (Abdulaheem *et al.*, 2012). Extension, in its broadest definition, relates to a sort of informal education that involves any organization distributing knowledge and ideas to encourage learning, while it is typically connected to agriculture and rural development as a whole (Takahashi, 2020).

In many industrialized nations, "extension" serves as the driving factor behind yield improvements (Wossen, 2017). However, the effectiveness of the extension system in promoting capacity building, technological acceptance, and eventually enhancing agricultural outcomes relies on important factors like



the methods used to deliver extension services, the extension system's governance, capacity, and management structures, as well as underneath contextual factors like the policy environment, market access, beneficiary characteristics, and the weather (Feder *et al.*, 2011; Hellin, 2012; Deichmann, 2016; Ojetayo *et al.*, 2020). Additionally, it is believed that agricultural extension is one of the most crucial factors in fostering innovation and growth in rural regions (Klerkx, 2016). The extension workers are better equipped as a result of this arrangement, and when adopted by farmers, they contribute significantly to their well-being and social and economic development. Furthermore, agricultural extension provides a channel by which the research and development of agricultural policies for rural communities can identify farmers' problems (Takahashi, 2020; Le, 2020).

A rural dweller is termed as a person living in a community outside cities, by various names, some refer to rural areas as the backland, back woodland, rough countryside, remote areas or underdeveloped areas (Desai and Subramanian, 2017; Gusmanovet *et al.*, 2020). Due to the lack of public services, rural people have a very different way of life from metropolitan people. According to Babarinde and Adeshina (2019), a trip to a rural Nigerian settlement can reveal debris and impassable roads, women and children strolling barefoot and trekking great distances to obtain water and firewood, students learning under trees, a dilapidated and under-equipped health centers, and a number of poverty-driven issues. Young rural dwellers in Nigeria suffer on many fronts and are unable to improve their situation because of illness, their absence of access to several opportunities open to them, insufficient basic amenities, insufficient education, and other factors that differ based on their geographical region. Most prevalent across them is an elevated degree of illiteracy (Agbodike, 2010).

Young rural residents' capacity building primarily aims to increase members' abilities and potentials as a way to enhance their standard of life and well-being by making the best use of resources for both economic and social gain. Young rural dwellers development process is an evolutionary process. To obtain successful outcomes, the procedure must be prepared. It is important to make an effort in this process (Feldman *et al.*, 2016; Jovovic *et al.*, 2017).

In order to "improve the standard of living of the low-income population living in rural areas and make the process of their development self-sustaining," young rural people should aim their development efforts in this direction (Okeke and Nwankwo, 2017). Due to a lack of background research to understand the social and demographic

characteristics of their target communities and groups, literacy rates, the pervasive poverty present in those communities, hunger, and disease, to name a few, the majority of young rural dwellers initiatives to promote development were unsuccessful to accomplish the desired results (Courtin and Knapp, 2017).

Therefore, there is a need to focus on human capacity building. Agricultural extension agencies, both public and private, still play an important role in rural people's capacity building (Takahashi, 2020). In the field of rural development, enhancing capacity building of individuals, associations, and communities is important.

Objectives of the Research

In light of this, the study addressed agricultural extension services on building young rural dwellers capacity in Ogun State, Nigeria. This research particularly also:

- i. described the socioeconomic traits of the research area's youthful rural dwellers;
- ii. determined agricultural extension services towards enhancing the development of young rural dwellers capacity in the study environment;
- iii. determined the perceived effectiveness of human capacity building outcomes on young rural dwellers in the study environment; and
- iv. examined the benefits of agricultural extension services on young rural dwellers capacity building in the study environment.

d

Hypotheses of the Study

The hypotheses for the research were written in null forms;

H₀₁: There is no significant relationship between the selected socio-economic characteristics and benefits of agricultural extension services on young rural dwellers capacity building.

H₀₂: There is no significant relationship between the activities of agricultural extension services and its benefits on young rural dwellers capacity building.

METHODOLOGY

The study area

The study was carried out in Ogun State. Southwest Nigerian state of Ogun State. Ogun State, which was formed in February 1976 from the former Western State, is bordered to the south by Lagos State, the north by Oyo and Osun States, the north by Ondo State, and the west by the Republic of Benin. Ogun state, which comprises twenty local government areas, has a population of 3,751,140 and a land area of



16,980.55 km² (6,556.23 sq mi) (Britannica, 2022). There are a lot of small-scale farmers in rural communities in Ogun State, and their main crops are cassava, kolanut, yam, cocoyam, plantain, maize, and vegetables. Some communities also fish in riverine areas, but they also work in non-farming industries like food processing, trading, and artisanal crafts (Abiona and Adeniyi, 2018).

Sampling Techniques and Sample Size

The youthful rural dwellers of Ogun State who are the subject of this study make up the population. In Ogun State, there is no complete list of young rural dwellers. Two stages of sampling procedure were used in this regard. First, two local governments were chosen through purposive selection out of the 20 local governments that make up Ogun State. Because the National Poverty Eradication Programme (NAPEP), Directorate of Food, Roads and Rural Infrastructure (DIFRRI), National Accelerated Food Production Programme (NAFPP), Good Agricultural Practices (GAP), United Nations Development Programme (UNDP) and International Fund for Agriculture Development (IFAD) were fully established in these areas, these are Obafemi Owode and Odeda.

Secondly, proportional random sampling was used to draw 157 young rural dwellers from Obafemi Owode (70%) and 83 from Odeda (35%), according to the number of those participated in the recognized extension service programmes and lists of participation were obtained from Ogun State Agricultural Development Projects (OGADEP)' headquarters to get a total of 240 respondents.

Data Collection Technique and Instrument for Data Collection

The study relied on primary data, and to obtain relevant information from the respondents, a structured interview schedule and questionnaire were used.

Measurement of Variables

Socio-economic characteristics of the respondents:

Variables such as age, household size, farm size and annual income were measured at interval level. Educational level was measured at ordinal level while sex, marital status, religion and occupation were measured at nominal level. Other variables such as:

Agricultural extension services' measure enhancing the capacity of the young rural dwellers:

This was measured using 3- point Likert type responses at ordinal level as; Not available (1), Neutral (2) and Available (3). According to this measurement, "high-capacity building" is defined as having a mean value that is equal to or higher than the grand mean (1.97), whereas "low-capacity building" is the opposite.

The perceived effectiveness of human capacity building outcomes on respondents:

This was measured at 4- point Likert type responses of No Effect (1), Minor Effect (2), Moderate Effect (3) and Major Effect (4). Grand mean is 2.55, hence outcomes that have a mean value that is greater than or equal to that number are referred to as "high effectiveness outcomes" and those that don't are referred to as "low effectiveness outcomes".

Benefits of agricultural extension service in building the capacity of young rural dwellers:

This was measured at 4- point Likert type responses of Not at All (1), Slightly Benefitted (2), Benefitted (3) and Extremely Benefitted (4). Grand mean is 2.65, the respondents' mean values that are equal to or higher than the grand mean are referred to as "favourable benefits," while those that are lower or lower are referred to as "unfavourable benefits".

Data analyses technique

Frequency counting, percentages, bar charts, means, standard deviations, chi-square tests, linear multiple regression, and Spearman Rho correlation were used to examine the data obtained.

Results and Discussion

Socio-economic characteristics of the respondents

The results from the study, according to Table 1, indicated that few (26.6%) of the young rural dwellers were between 31 and 40 years old with mean age of 32.5 years and standard deviation of 1.335. This supports Ajayi *et al.* (2020) who cited Nigeria National Youth Policy (2009) based on the definition of a youngster as someone between the ages of 18 and 35; the majority of the responses were young people. This implies that they are still actively involved in community developments in the study area. Also, more than average (53.3%) were male and many (51.7%) was married. According to the result, this implies that male received more of extension services' capacity building than female in the study area. The majority of responders (80.3%) have formal education, from primary school to tertiary levels. This conclusion was reinforced by Miruka (2016), who found that in a study of a similar nature, the majority (80.0%) of respondents with higher levels of education had a superior grasp of the knowledge that resulted from activities involving the development of human potential. Christianity religion is the most practiced religion in the study area with about 53.3 percent while

Islamic religion was 39.2 percent. It demonstrates that the young people living in rural areas practice a variety of religions, and that each religious believer has the power to persuade other believers to engage in capacity building activities. Thus, the results revealed that some (30.8%) respondents mainly engaged in farming as their primary occupation. The results also revealed that just a small percentage (29.2%) of young rural dwellers made a monthly salary between ₦100,000 and ₦200,000. This shows that they earn more than Nigeria's national minimum monthly wage of ₦33,000 compared to the average monthly income of ₦164,127.1, and with this, they can afford to pay their counterpart monies for capacity-building initiatives that call for counterpart contributions. However, the results showed that many (53.3%) of the young rural dwellers cultivated farm lands on less than one hectare. Additionally, the results showed that the average household size of the respondents was 4 people, with a standard deviation of 1.67. This suggests that the household size is not reasonably large, which may not be enough to provide the community with the workforce it needs for any particular community development projects. Thus, in the study area, roughly 66.0 percent had no a link to general agricultural extension services, which may have limited how much the young rural dwellers' potential could be developed through extension services.

Table 1: Respondents' socioeconomic characteristics (n=240)

Variable	Frequency	Percentage (%)	Mean	Standard deviation
Age (Years)				
Less than 30	60	25.0		
31- 40	64	26.6	32.5	1.335
41-50	52	21.7		
51-60	24	10.0		
Above 60	40	16.7		
Sex				
Female	128	53.3		
Male	112	47.7		
Marital Status				
Single	86	35.8		
Married	124	51.7		
Widowed	5	2.1		
Separated	20	8.3		
Divorced	5	2.1		
Educational level				
No formal education	26	10.8		
Primary level	32	13.3		

Secondary level	92	38.4		
Tertiary level	90	37.5		
Religion				
Christianity	128	53.3		
Islam	94	39.2		
Traditionalist	14	5.8		
Others	4	1.7		
Occupation				
Farming	74	30.8		
Trading	62	25.8		
Arts/Handcrafting	64	26.7		
Civil service	40	16.7		
Average annual income (₦)				
Less than 100000	68	28.3		
100001-200000	70	29.2	₦164,127.1	53,023
200001-300000	54	22.5		
300001-400000	24	10.0		
Above 400000	24	10.0		
Farm size (Hectare)				
Less than 1	128	53.3	0.8	0.22
1.1-2.0	60	25.0		
2.1-3.0	38	15.8		
Above 3	14	5.8		
Household number(No.)				
1-5	120	50.0	4	1.67
6-10	106	44.2		
11-15	12	5.0		
Above 15	2	0.8		
General extension service				
Access	82	34.2		
No Access	158	65.8		

Source: Field survey, 2021.

Agricultural extension services' measures enhancing the capacity of the young rural dwellers

Results in Figure 1 stressed how young rural dwellers responded to a package of agricultural extension services that helped them gain capacity building. The study area's agricultural extension programmes that were regarded to be high-capacity building programmes included: provision of trainings on latest technologies (\bar{X} = 2.11), introduction of new and helpful innovations (\bar{X} = 2.09), provision of information on latest technologies (\bar{X} = 2.08) and organization of young rural dwellers into functional groups to access markets (\bar{X} = 2.06). This research

backed the findings of Pollyn *et al.* (2016), DeCorby-Watson *et al.* (2018), and Ogunjemilua *et al.* (2020) that human capacity development - the process of giving people the knowledge, abilities, and access to resources they need to do their jobs well - is crucial to the development of human capital in the fields of science and technology. On the other hand, those agricultural extension activities that were considered with the low-capacity building were: helping in changing obsolete farming practices (\bar{X} = 1.88), teaching youths on record keeping (\bar{X} = 1.91) and provision of information on government development programmes (\bar{X} = 1.92).

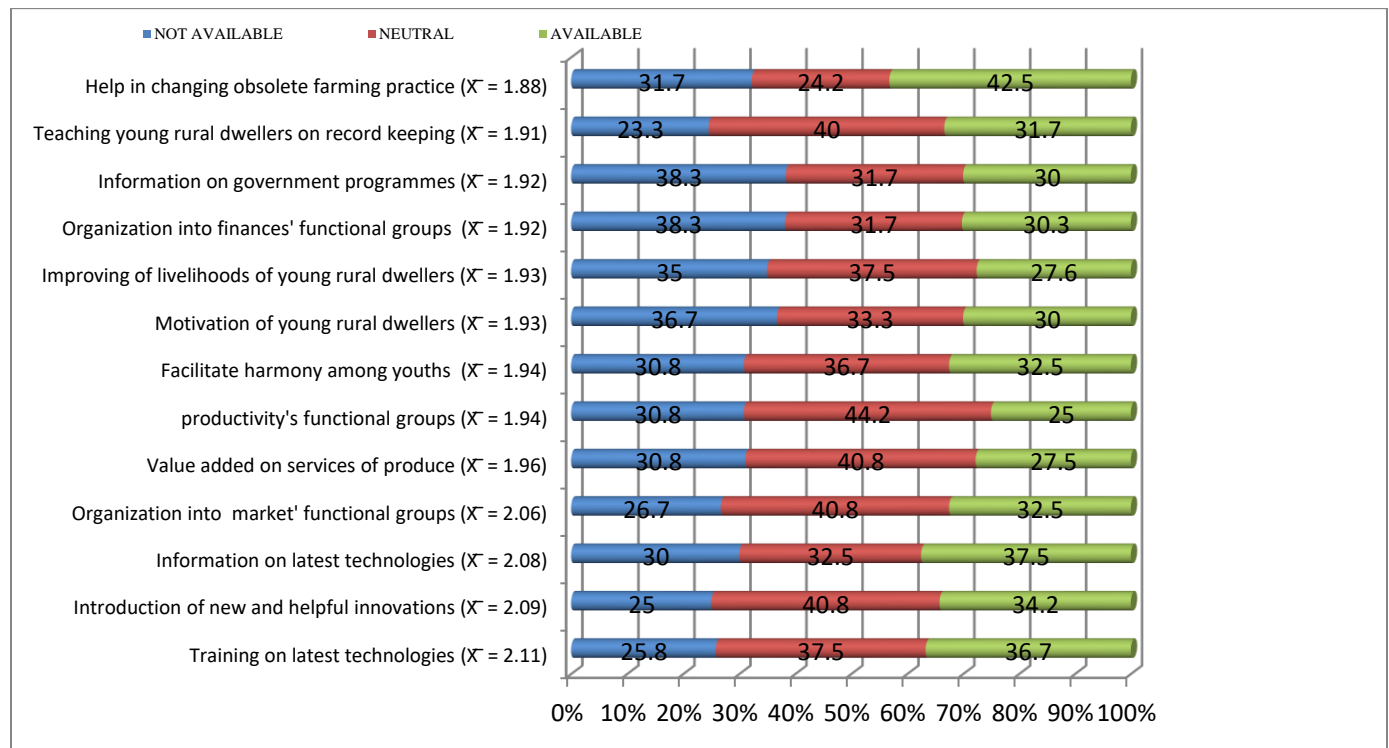


Figure 1: Agricultural extension services' enhancing the capacity building (n=240).

Source: Field survey, 2021. Grand mean = 1.97

The perceived effectiveness of human capacity building outcomes on respondents

Results in Figure 2 showed a set of perceived effectiveness of human capacity building outcomes on young rural dwellers. Those outcomes that were considered with high perceived effectiveness were: increase in technical knowledge (\bar{X} = 2.71), improvement of general community development (\bar{X} = 2.65), increase in standard of living (\bar{X} = 2.63), accessibility to drinkable water (\bar{X} = 2.63), accessibility to good educational systems (\bar{X} = 2.61), increase in income (\bar{X} = 2.60) and accessibility to viable information (\bar{X} = 2.56) of the respondents, respectively. These findings imply therefore that high perceived effectiveness outcomes are the systematic use of human capacities in bringing about scientific

and technical know-how, economic and social transformation that is based on a web of cultural and environmental factors and their interactions. This study corroborated the findings of Pollyn *et al.* (2016), who revealed different agencies that utilized extension services with their outcomes on capacity building of rural dwellers in the areas of entrepreneurship, human capital, and all-round development of people, community health, education, economic empowerment and environmental issues.

On the other hand, those outcomes that were considered with low effectiveness were: inadequate internet accessibility (\bar{X} = 2.43), inadequate knowledge on conflict resolution (\bar{X} = 2.45), low standard health care (\bar{X} = 2.45) and decrease in personal productivity (\bar{X} = 2.46) of the respondents.

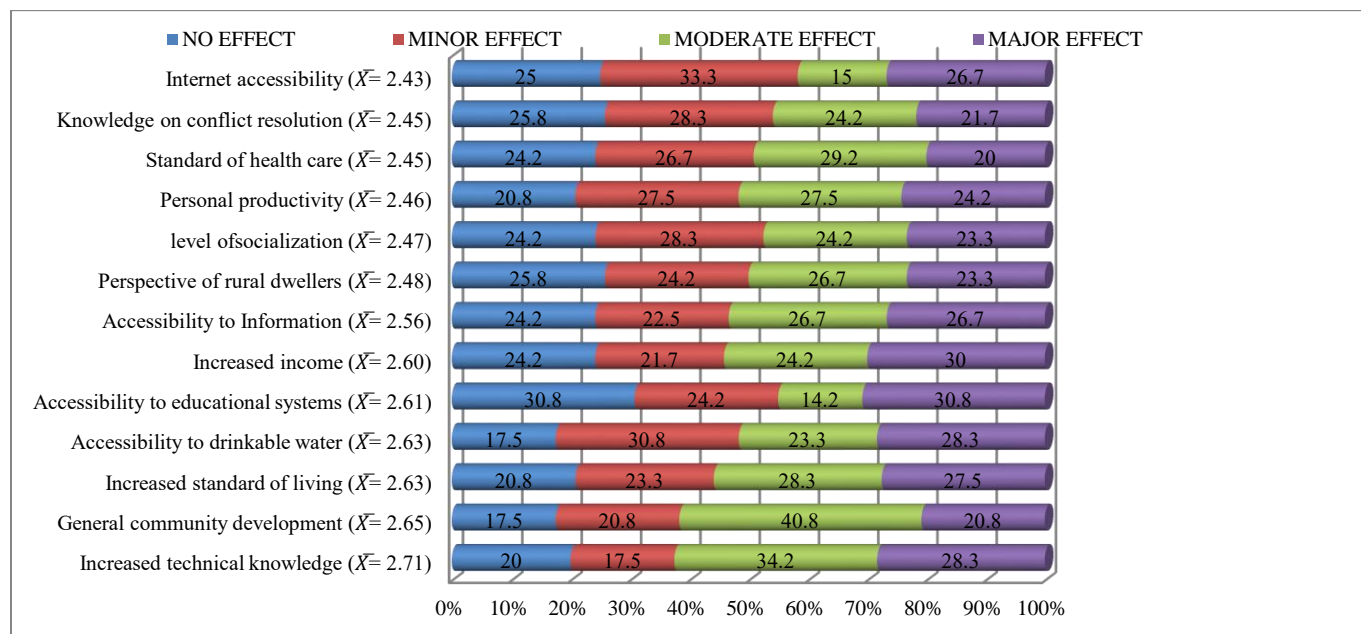


Figure 2: Distribution of respondents on effectiveness of human capacity building outcomes. Source: Field survey, 2021. Grand mean = 2.55

Benefits of agricultural extension service in building the capacity of young rural dwellers

Young rural dwellers were given a list of several beneficial assertions, and they were requested to say whether or not they had benefited from any of them. This information was utilized for evaluating the level of benefits of agricultural extension service in strengthening the capacity of the young rural dwellers. The results in Figure 3 show that 28.3% and 33.3% of the respondents with the mean value of (\bar{X} = 2.83) benefitted and extremely benefitted, respectively in having access to viable and useful information that boosted their capacity in the study area. This implies that they could utilize the information that enhances their entrepreneurship, human capital, and all-round development of people and communities. Also, another favourable benefit indicated that 28.3% and 30.0% of the respondents with the mean value of (\bar{X} = 2.68) benefitted and extremely benefitted, respectively in receiving technical knowledge that boosted their capacity. This signifies that the rate of using technical knowledge would influence the level of adoption and utilization of improved technologies in the study area. However, 34.2% and 25.0% of the respondents with

the mean value of (\bar{X} = 2.67) benefitted and extremely benefitted, respectively in accessing innovations that enhanced their capacity building. The effectiveness of the extension system in promoting capacity building, technological implementation, and subsequently enhancing agricultural outcomes depends on important factors like the methods used to deliver extension services, the governance, capacity, and administrative structures of the extension system, as well as basic contextual factors like the policy environment, market access, beneficiary characteristics, and the environment (Waddington *et al.*, 2015). The development of scientific understanding on new technologies and manufacturing efficiency also makes these necessary (Okoedo-Okojie and Edobor, 2013; Egziabher *et al.*, 2013; Waddington *et al.*, 2015). In other way round, access to capital (\bar{X} = 2.53), family and household management (\bar{X} = 2.58) and development of livelihoods (\bar{X} = 2.62) were considered as unfavourable benefits towards agricultural extension service in building capacity of the young rural dwellers in the study environment.

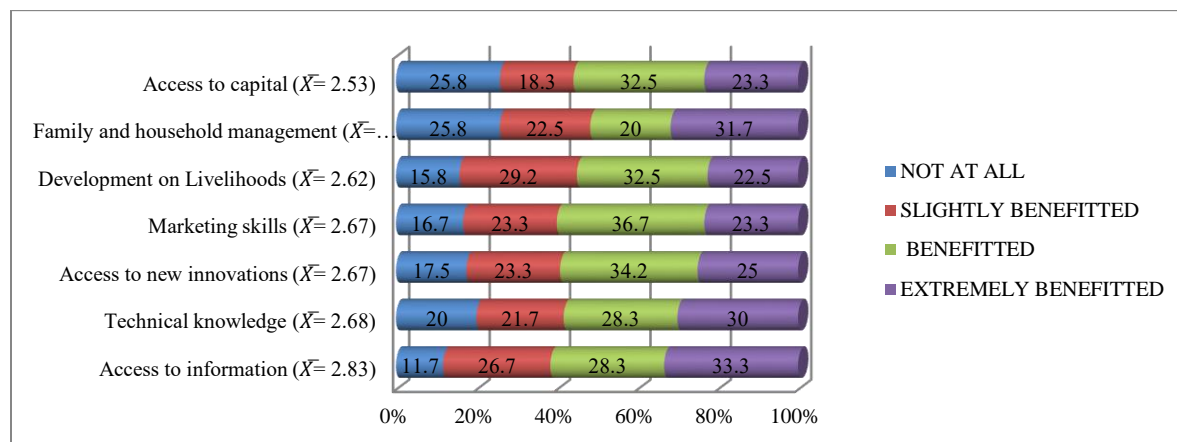


Figure 3: Benefits of agricultural extension services in developing human capacity building. Source: Field survey, 2021. Grand mean = 2.65

Selected socio- economic characteristics and benefits of extension services in building capacity of young rural dwellers

The chi-square test results in Table 2 reveal the association between the socioeconomic characteristics of the respondents and the benefits of extension services in enhancing the capacity of young rural dwellers. The result shows that only education ($\chi^2=26.267$, $P<0.05$) of the respondents was significantly related to the benefits of extension services in capacity building. This signifies that with

better educational level of the young rural dwellers, they would have better understandings of information that emerged from extension activities that concerned capacity building that would invariably benefit them. However, the sex ($\chi^2 = 22.372$, $P>0.05$), marital status ($\chi^2 = 80.601$, $P>0.05$), religion ($\chi^2 = 66.172$, $P>0.05$) and occupation ($\chi^2 = 56.669$, $P>0.05$) of the respondents were not significantly related to the benefits of extension services in capacity building.

Table 2: Relationship between selected socio-economic characteristics and benefits of extension services in building capacity of young rural dwellers

Tested Variables	χ^2	Df	P-value	Decision
Sex	22.372	1	0.266	NS
Marital status	80.601	4	0.337	NS
Education	26.267	3	0.003**	S
Religion	66.172	2	0.190	NS
Occupation	56.669	3	0.487	NS

Source: Field survey, 2021. Where: χ^2 = Chi square value, Df = degree of freedom, P-value = **Significant at 0.05.

Linear Multiple Regression showing the relationship between the selected socio- economic characteristics and benefits of extension activities in capacity building of young rural dwellers

The positive regression coefficient of income ($\beta = 1.085$) that significant at 0.05 in Table 3 shows that any increase in income of the young rural dwellers would increase their level of benefits of capacity building they would realize from extension activities in the study area. This implies that as income of individual young rural dweller increases, the more, he or she would benefit from extension services that

would enhance his or her capacity building. The T-value (3.90) shows that this explanatory variable (income) contributes significantly to the benefits of extension activities in building capacity of young rural dwellers they would realize. R^2 value of 0.666 shows that the selected socio economics characteristics considered as regression inputs in study can only explain 66.6 percent of the variation found in benefits of extension activities in building capacity of young rural dwellers.

Table 3: Linear Multiple Regression showing the relationship between selected socio- economic characteristics and benefits of extension activities in building capacity of young rural dwellers

Variables	(β) Coefficient	Standard Error	t-values	Significant
Constant	26.380	1.481	17.818	0.000
Age (X_1)	-0.181	0.416	-0.44	0.664
Income (X_2)	1.085**	0.463	3.90	0.000
Farm Size (X_3)	-0.495	0.608	-0.81	0.417
Household Size (X_4)	1.301	0.810	1.61	0.111

$R^2 = 0.666$, Adjusted $R^2 = 0.540$, **Significant at the 5% level. Source: Field Survey, 2021

Spearman rho correlation between extension activities and benefits of extension services in developing capacity building on young rural dwellers

The results in Table 4 showed that there was a significant relationship ($r = 0.557$, $p < 0.000$) between extension activities and its benefits in building

capacity of young rural dwellers. This implies that the extension activities especially those that were considered “high-capacity building measures” would yield benefits that would develop young rural dwellers rapidly. Therefore, the hypothesis which was stated in null was rejected.

Table 4: Spearman’s rho test showing the relationship between extension activities and benefits of extension services in building capacity of young rural dwellers

Tested Variable	r-value	p-value	Decision
Extension activities & Benefits of extension activities.	0.557	0.000***	Significant

Source: Field survey, 2021. Where: r = correlation coefficient, P-value = ***significant at 0.01 level

CONCLUSION AND RECOMMENDATIONS

The study found that more than two-thirds of respondents lacked a link to general extension services in the study region, which would restrict how much extension services might help young rural dwellers increase their capacity. Moreover, provision of trainings on latest technologies, introduction of helpful innovations and provision of information on latest technologies were the major extension services’ measures that influenced capacity building of the young rural dwellers. Thus, the finding revealed that inadequate internet accessibility, inadequate knowledge on conflict resolution and low standard health care were the outcomes considered with low effectiveness of capacity building to the young rural dwellers in the study area. Still, having access to viable and useful information, receiving technical knowledge and accessing innovations by the young rural dwellers showed favourable benefits of extension services delivering system on capacity building. The chi-square results showed that only education of the respondents was significantly related to the benefits of extension services incapacity building of the young rural dweller. Also, linear multiple regression results showed that income of the respondents was positively significant to the benefits of extension services in capacity building. And, Spearman’s rho results

showed that there was a significant relationship between extension activities and its benefits in capacity building of the young rural dwellers.

Based on the study's findings, it is recommended that:

- i. The agricultural extension services should make an effort to re-lunch awareness of current capacity-building strategies among young rural people in the research region for optimal utilization.
- ii. The low perceived effectiveness of capacity building outcomes of young rural dwellers in the areas of inadequate internet accessibility, inadequate knowledge on conflict resolution, low standard health care and decrease in personal productivity should be enhanced and developed.
- iii. Efforts should be on a top gear by the young rural dwellers and human capacity building stakeholders (government and NGOs inclusive) to sustain the favourable benefits of extension services in building youths’ capacity.



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Workplace Digital Skills and Training Needs Assessment Among Final Year Agricultural Students in Ogun State, Nigeria

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ABSTRACT

The study examined workplace digital skills training needs assessment of final-year students in Ogun State, Nigeria. A purposive sampling procedure was used in selecting 153 respondents. Data were collected on access to computer use, efficiency level in the use of computers, and digital skills training needs. Data were analyzed using frequency counts, percentages, and Weight Mean Scores (WMS). Results show that 55.5% were male, 96.1% were single with mean age and monthly allowances of 24.4 years and ₦17,879 respectively. About 56.9% operate a computer very well. About 79.1% indicate a good use of the internet, 39.2% use MTN network service provider, and 28.8% use an average of 5GB of data on monthly bases. Many (60.8%) reported they are highly efficient in using the computer for downloading, while 52.3% use a computer for sending and receiving emails. In addition, 51.0% and 50.3% indicated graphic design and Java as the foremost digital skill they needed training on. The study concluded that digital skill training is highly needed in areas such as graphics design, java scripts, and logo design. The study recommends that educational institutions should incorporate needed workplace skills as compulsory elective courses in schools' curricula and schemes of work.

Keywords: Workplace, digital skills, employability, Agric students

INTRODUCTION

The recent wave of Coronavirus Disease (COVID-19) has brought about a shift in the way, and manner organizations operate (Oose, *et al.*, 2021). One of these paradigm shifts is the use of digital skills in the workplace. Digital skills are increasingly important for the success of any organization and its transformation pervaded practically all organizations (Desai, 2020). This transformation has led to explosive growth and the spread of digital technologies in the workplace and this has brought about transformational change to the working world. Also, it is well established both in principle and practice that digital technology is reshaping workplaces, increasing demands for employees with digital skills and competencies while reducing the demand for employees who perform routine manual jobs that are amenable to automation (Rastogi, 2020 and Moot, 2021). In addition, digital technology such as mobile phones and Geographical Positioning Systems (GPS) has revolutionized the communication process and have become all-in-one magical devices in the workplace (Oose, *et al.*, 2018).

Over the years, the steady increase in the demand for digital skills grew most in the workplace hit hardest by the pandemic. However, there is a lack of clarity regarding which digital skills are required for the 21st century (Palvia *et al.*, 2018). According to Lycos *et al.*, (2019), he noted that the future of work is threatened by gaps between the curriculum taught in

institutions and what is needed in the workplace and this may have a ripple effect on graduates not having the necessary digital literacy to compete successfully for future employment. This traditional and developing learning deficiencies can place Nigerian graduates at higher socioeconomic risk as technologies advance, it worsening inequalities and their career prospects. Therefore, policymakers, National University Commission, and relevant stakeholders should review and integrate the acquisition of digital skills into the curriculum.

More significantly, institutions and policymakers should be encouraged to conduct a need assessment and x-ray the gap between workplace digital requirements and employees' competency (Lee, 2020) and advise policymakers to develop digital competencies actively. Pettersson (2018) accentuates that an active role in designing innovative methods for fostering digital competency is imperative and it should be part of the institutional education agenda, hence the need for workplace digital skills assessment. A need assessment is a formal process that determines the gap between the current output and the desired output. The assessment places this lacuna in order of importance and selects the ascertainments that are deemed the most important to solve through priority setting (Oose, *et al.*, 2020 & Semblante and Amparado, 2020). In the paper, the need assessment focused on the following workplace digital skills: logo design, C++, web development, software

development, and artificial intelligence. Others are content Python program language, amazon web services, and project management among others.

Few authors (Wayo *et al.*, 2020; Panto 2020) reiterate that digital literacy is an essential skill for students to learn and it helps them to develop the required skills, knowledge, and understanding needed in the workplace. Also, in almost all tertiary institutions in Nigeria today, entrepreneurship education, soft skills, and related courses are taken as compulsory courses (Olaniyi, Ogunkunle and Oladipo, 2020). It is also important for improving the efficiency of the learning process as well as the adaptation of the ever-changing labor market. It is therefore pertinent that this paper examined the current and expected level of the workplace digital skills required by graduating students in Nigeria Universities. It is also expected that the acquisition of workplace digital skills promises higher productivity by the to-be employees but comes with its challenges, as digital skills threaten many jobs, it also transforms traditional practices in the entire workplace. Therefore, it is evidence that digital skills and literacy such as machine learning, mobile applications, software development, and artificial intelligence among others are now essential and employees with higher skills benefit more. Also, employees with only basic skills would be in much lower demand than those with advanced skills.

Objectives of the Study

The essence of this study is to examine the landscape of future jobs by triangulating skills (labour supply and labour demand), credentials (qualification, certification, and emerging jobs). It discusses key trends in emerging workplaces, credentials and qualifications in demand and skills that graduates are expected to have. The papers also answered questions such as; as digital skills accelerate, what are the skills required by graduates for emerging jobs? What types of credentials will become more needed and useful? Therefore, the specific objectives of this study; examined final year's agro-trainees' accessibility to computer and internet use; assessed respondents' efficient use of computer and internet use and examined respondents' training needs on digital skills.

METHODOLOGY

The study was conducted at the Federal University of Agriculture, Abeokuta, (FUNAAB) Ogun State. The institution was established on January 1, 1988 by the Federal Government when four Universities of Technology, earlier merged in 1984, were demerged. This led to the creation of the first two Universities of Agriculture in Abeokuta and Makurdi. Currently, the University have ten Colleges

namely, the College of Agricultural Management and Rural Development (COLAMRUD), College of Animal Science and Livestock Production (COLANIM), College of Environmental Resources Management (COLERM), College of Biosciences (COLBIOS) and College of Physical Sciences (COLPHYS). Other Colleges are, College of Engineering (COLENG), College of Veterinary Medicine (COLVET), College of Food Science and Human Ecology (COLPHEC) and College of Entrepreneurial Studies (COLEND). The population of the study consists of final year agriculture students in the three colleges of agriculture (that is, COLAMRUD, COLANIM and COLPLANT). A purposive and proportionate sampling were used to select 153 respondents. Purposive sampling was used to select COLAMRUD, COLANIM and COPLANT and this was added to the fact that these were the colleges where agricultural related courses are offered. A proportionate sampling was used to select 15% of the final year students to give 39 students from COLAMRUD, 61 from COLANIM and 53 from COLPANT. This gave a sample size of 153 final students used for the study.

Primary data used for the study was collected through the administration a pre-tested questionnaire designed towards realizing the objectives of the study. Efficiency on the use of computer and internet by the respondents was measured on a 4-point rating scale of highly efficient', 'moderately efficient', 'fairly efficient' and 'not efficient' with score of 4, 3, 2 and 1 assigned respectively. The weighted mean score was generated and used to rank their responses to determine level of efficiency to use of computer and internet use. The digital skill training need was measured by a list of fourteen areas of digital skills with the response options of highly needed, moderately needed and not needed with score of 3, 2 and 1 assigned respectively. The weighted mean score was calculated and was used to rank their responses to determine the most highly needed digital skill.

RESULTS AND DISCUSSION

Personal characteristics of final-year students

Findings as indicated in Table 1 showed that the mean and the standard deviation of the respondents was 24.49 ± 2.30 years with 48.3% of the respondents between the ages of 24 and 27 years. This suggests that the respondents were old enough to be in their final year and prepared to join the workforce. Many (55.6%) of the respondents were male while the majority (96.1%) were single with 75.8 percent affiliated to the Christian religion. Available data further showed that the average monthly allowance given to the respondents by their parents or sponsors

was ₦17, 879 with 77.7 percent of them collecting less than ₦20,000 allowance on a monthly basis. Findings imply that there are more male students in final year than their female counterparts in the study area. It is also expected that majority of students in the final year should be single except for very few of them who were

married. The implication of this to extension management and administration is that the earlier agricultural graduates from the University the better their involvement in administration of agriculture. Such final year students also stand the chance of increasing the workforce of the nation.

Table 1: Personal characteristics of final-year students (n=153)

Variable	Frequency	Percentage	Mean(sd)
Sex			
Male	85	55.6	24.49(2.30)
Female	68	44.4	
Age (Years)			
20 – 23	60	39.2	
24 – 27	74	48.3	
28 & above	14	12.4	
Marital status			
Single	147	96.1	
Married	06	3.90	
Religion			
Christianity	116	75.8	
Islam	36	23.5	
Traditional	01	0.70	
Monthly allowance (naira)			
≤ 20,000	119	77.7	17,879(19.8)
21,000 – 40,000	28	18.3	
41, 000 – 60, 000	05	3.26	
61, 000 & above	01	0.67	

Source: Field survey, 2022; standard deviation (sd)

Access to computer and internet use

As shown in Table 2, most (56.9%) of the final-year agricultural students indicated that they operated computer very well, 42.5 percent used keyboard unaided while 26.1 percent and 20.3 percent used computer for word processing and research work respectively. In addition, majority (79.1%) used internet facilities very well with 56.8 percent noting that they used the internet whenever there is a notification. Available data further showed that most (39.2%) of the respondents used MTN network with 30.7 percent of them using about 2.0 - 5.0 GB data on monthly basis. The high level at which final-year

agriculture students operate computer usually for word processing and research work might be due to their positive disposition to and flare for the acquisition of digital skills as well as the need to use such skills for their final year projects. For example, final-year agricultural students with basic digital skills would be in much higher demand in the workplace. This observation is in consonance with the opinion of Wayo *et al.*, (2020; Al-Seghayer, 2020) who maintained that digital literacy is an essential skill for students, particularly those in final year to learn as this would help them develop the required skills needed in the workplace.

Table 2: Access to computer and internet use (n=153)

Variable	Frequency	Percentage
To what extent do you operate a computer		
Very well	87	56.9
Slightly well	66	43.1
Hardware used unaided		
Keyboard	65	42.5
Mouse	27	17.6
Scanner	02	1.30

Printer	03	2.00
Hard disc	08	5.20
Flash drive	48	31.4
Activities computers are used for		
Word processing	40	26.1
Research work	31	20.3
Programming	12	7.80
PowerPoint presentation	15	9.80
Data entry	12	7.80
Gaming	17	11.1
Watching video	26	17.0
To what extent to you use the internet		
Very well	121	79.1
Slightly well	32	20.9
Frequency of using the internet		
Once daily	14	9.2
Once every hour	16	10.5
Three times daily	16	10.5
Once every three hours	20	13.1
Whenever there is a notification	87	56.8
Service provider/network used		
9mobile	10	6.50
Glo	29	19.0
Airtel	54	35.3
MTN	60	39.2
Amount of data used on monthly basis		
>5GB	44	28.8
500MB – 1GB	17	11.1
2GB – 5GB	47	30.7
200MB – 500MB	13	8.50
1GB – 2GB	30	19.6
<200MB	02	1.30

Source: Field survey, 2022

Efficiency in the use of computer and internet use

Final-year agricultural students in the study area were highly efficient in the use of computer and internet facilities. This was attested to by the available data on the efficient use of computers and internet as indicated in Table 3. Findings showed that many (60.8%) of the respondents were highly efficient in using computer and the internet for downloads, saving and sharing of files, 52.3 percent noted their high efficiency of computer/internet for sending and receiving emails while 41.2 percent of them were moderately efficient in using computer/internet for

creating online visibility and uploading curriculum vitae. This result justifies the findings of Oose *et al.*, (2020) who opined that at the Federal University of Agriculture, Abeokuta, administrative assistants reported that their work efficiency depends on how skillful they can operate a computer, use internet facilities and software applications. Justifying this further, Panto (2020) asserts that acquisition of digital skills by students improves their chances of placement in the workplace.

Table 3: Efficiency in the use of computer and internet use (n=153)

Statement	HE	ME	FE	NE	WMS
Creating and maintaining good online profile	49.0	43.1	7.20	0.70	340.4
Networking with professional and students	45.1	44.4	10.5	0.00	334.6
Creating online visibility and uploading CVs	47.1	41.2	11.1	0.70	334.9
Sending and receiving academic emails	52.3	36.6	9.80	1.30	339.6
Reading online resources	44.4	41.2	13.1	1.30	328.7
Taking online digital and professional courses	37.3	41.8	20.3	0.70	315.9

Downloading, saving and sharing files	60.8	33.3	5.90	0.00	354.9
Uploading and downloading assignments	47.7	36.6	13.1	2.60	329.4

Source: Field survey, 2022 Highly Efficient (HE), Moderately Efficient (HE), Fairly Efficient (HE), Not Efficient (HE), Weighted Mean Score (WMS)

Digital skill training needs

In Table 4, a little above half (51.0%) of the final-year students indicated graphic design as the foremost digital skill they needed training on, the java script (50.3%) was ranked the second digital skill where training was needed while C++ was ranked third (49.0%). Other identified areas where training digital skills was needed by the final-year students were; python programming language (43.8%), logo design (45.8%), agile methodologies (49.0%) and artificial intelligence (41.2%). This connotes that out of the

fourteen major digital skills wherein training needs assessment was carried out among the final-year students, less than 7 of the digital skills; graphic design, java script, logo design, and agile methodologies were highly needed by the graduating students. The implication of this to agricultural administration and development is that educational and training institutions need to become more agile and adopt a mix of skill development approaches in spurring the acquisition of digital skills by job seekers and those already employed.

Table 4: Digital skill training needs n=153)

Variables	HN	MN	NN	WMS	Rank
Graphic Design	51.0	43.1	5.90	145.1	1 st
Java Scripts	50.3	41.2	8.50	141.8	2 nd
C++	49.0	43.1	7.80	141.1	3 rd
Python Programming Language	43.8	49.7	6.50	137.3	4 th
Logo Design	45.8	43.8	10.5	135.4	5 th
Agile Methodologies	49.0	39.2	11.8	132.2	6 th
Artificial Intelligence	41.2	48.4	10.5	130.8	7 th
Web Development	46.4	37.9	15.7	130.7	8 th
Software Development	41.8	43.8	14.4	127.4	9 th
HTML and MySQL	37.3	49.0	13.7	123.6	10 th
Mobile App Development	41.2	39.9	19.0	122.3	11 th
Machine Learning	37.3	45.1	17.6	119.7	12 th
Amazon Web Services	39.9	38.6	21.6	118.4	13 th
Oracle	32.0	46.4	21.6	110.4	14 th

Source: Field survey, 2022 Highly Needed (HN), Moderately Needed (MN), Not Needed (NN) Weighted Mean Score (WMS)

CONCLUSION AND RECOMMENDATION

The study examined the workplace digital skills and their training need assessment among final-year agricultural students. It was established that final-year students had access to computer and internet facilities and this enhanced their efficiency in word processing, and research activities such as downloads, saving, and sharing of files. Digital skill training is highly needed in areas such as graphics design, java scripts, and logo design. The study, therefore, recommends that educational and training institutions should incorporate digital skills as compulsory elective courses in schools’ curricula and schemes of work.

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Socio-Economic Determinants of Mother-Daughter Communication on Sexual and Reproductive Health in Odeda Local Government Area, Ogun State, Nigeria

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ABSTRACT

This study was conducted to determine the socio-economic determinants of mother to daughter communication about sexual and reproductive health (SRH) in Odeda Local Government Area, Ogun State, Nigeria. Three stage sampling procedure was used to select 150 mothers. Data was collected with the aid of interview schedule. Data was analyzed using frequency counts, percentages, mean, standard deviation and Logistics regression. The study reveals that 72.8% of mother were married and 60.0% are Christians and 43.3% had secondary school education. The mean household size was 5 ± 1.273 persons. The SRH issues discussed by the mothers with their daughters were menstruation (74.7%), pregnancy (77.3%) and abortion (68.7%). The extent of communication on sexual and reproductive health between the mothers and their daughter was low (64.7%). Communication barriers in SRH between the mothers and their daughter were education level of the mothers ($\bar{x} = 2.01$) and stigma in the community ($\bar{x} = 1.93$). The result of the hypothesis showed that there is significant relationship ($p \leq 0.05$) between the age of the mother ($\beta = 0.043$); education ($\beta = 0.119$) and mother-daughter communication about SRH. The study concluded that socio-economic determinants of mothers-daughter communication on SRH were educational level of the mothers and stigma of communicating SRH in the community. It was therefore recommended that Ministry of Health in collaboration with media houses should promote and support programmes that encourage positive attitudes towards mother-daughter communication on SRH.

Keywords: Adolescents, Communication, SRH, Mother

INTRODUCTION

Sexual and reproductive health (SRH) is a crucial aspect of overall health and well-being, particularly for women and girls. It encompasses a range of issues related to sexuality, including safe and consensual sexual activity, family planning, and access to healthcare services (United Nations Population Fund, 2019). Effective communication between mothers and daughters about SRH is essential, as it can provide girls with the knowledge and skills necessary to make informed decisions about their bodies and futures (World Health Organization, 2010). However, in rural communities, this communication can be challenging due to various factors such as cultural and traditional beliefs, limited access to healthcare services, and lack of education (World Health Organization, 2010).

The quality of mother to daughter communication on SRH has been shown to have a significant impact on adolescent sexual behavior and outcomes. Research indicates that girls who have open communication with their mothers about SRH are more likely to delay sexual activity, use contraception, and engage in safer sexual practices (Markham *et al.*, 2010). Conversely, girls who do not receive guidance from their mothers on SRH may be at higher risk for unintended pregnancy, sexually transmitted infections (STIs), and other negative outcomes.

The determinants of mother to daughter communication on SRH in rural communities are

complex and multifaceted. Factors such as cultural and traditional beliefs, limited access to healthcare services, and lack of education can impact the willingness and ability of mothers to discuss SRH with their daughters (Bajracharya *et al.*, 2016). For example, in many rural communities, discussing sex and sexuality is considered taboo and is not openly discussed. Additionally, limited access to healthcare services can make it difficult for mothers to access information and resources related to SRH, which can hinder their ability to communicate effectively with their daughters. Furthermore, maternal education has been identified as a crucial determinant of mother to daughter communication on SRH. Studies have shown that mothers with higher levels of education are more likely to discuss SRH with their daughters (Kumi-Kyereme *et al.*, 2007). Education can provide mothers with the knowledge and skills necessary to communicate effectively about SRH, as well as access to resources and information.

Effective communication between mothers and daughters about SRH is crucial in promoting healthy sexual behavior and outcomes among girls. However, in rural communities, several factors can hinder mother to daughter communication on SRH, including cultural and traditional beliefs, limited access to healthcare services, and lack of education. Addressing these determinants is essential in promoting open and effective communication about SRH in rural communities. This can include providing

education and resources to mothers and daughters, promoting cultural sensitivity and awareness, and improving access to healthcare services. By addressing these determinants, we can improve the health and well-being of girls in rural communities and promote positive sexual and reproductive health outcomes.

Statement of the Problem

Determinants of mother to daughter communication on SRH in rural communities are complex and multifaceted, and little research has been conducted on how to address these determinants to improve communication. While some studies have examined the factors that contribute to successful communication about SRH between mothers and daughters in urban settings, few have explored these determinants in rural areas (Desta *et al.*, 2019). Furthermore, few studies have examined interventions aimed at improving mother-daughter communication on SRH in rural communities, making it difficult to develop effective strategies to address this problem (Adeleye and Ofili, 2019). Based on the aforementioned, the study will consider the following objectives: describe the socio-economic characteristics of the respondents; identify SRH issues discussed between mothers and daughters and determine the frequency of communication between mothers and daughters on sexual reproductive health. The hypothesis of the study was stated in null form as:

Ho1: There is no significant relationship between socio economic characteristics and mother to daughter communication about SRH.

METHODOLOGY

The study was conducted in Odeda Local Government Area in Ogun State which is located in the south-western part of Nigeria. The population of the study constitutes mothers in rural communities of Odeda Local Government Area, Ogun State. Three-stage sampling procedure was used to select the respondents for this study. The selection procedure was as follows:

Stage 1: Random selection of 5 political wards out of the 10 political wards in Odeda Local Government Area. The selected wards were Olodo, Odeda, Ilugun, Alabata and Osiele.

Stage 2: Convenient sampling of two communities from each of the selected political wards.

Stage 3: Convenient sampling of 15 respondents from each of the selected communities.

Data was collected with the aid of structured questionnaire. The research instrument was subjected to face and content validity by consulting experts in the fields of Agricultural Extension and Rural Development, counseling and Home Science and Management. This was done to ensure that the variable is captured and guided in line with the stated objectives.

Mother to Daughter Communication on SRH was measured on two points rating scale of; Discussed (D) = 1, Not Discussed (ND) = 0

Extent of mother to daughter communication on SRH was calculated as follows:

The minimum score = $0 \times 10 = 10$

The maximum score = $1 \times 10 = 10$

The resultant score = (minimum + maximum) scores = $0 + 10 = 10$

The average score = resultant score/2 = $10/2 = 5$

Low communication = 0-4

High communication = 5-10

Descriptive and inferential statistical tools were used to analysis the data. Frequency counts, percentages, mean and standard deviation were used to analysed the objectives while Logistic regression was used to analysed the hypothesis.

RESULTS AND DISCUSSION

Socio-economics Characteristics of the mothers.

Results in Table 1 shows that the mean age of the respondents was 40 years. This implies that most of the women were still in their active age brackets and productive year. This is in line with Hsieh and Pugh (2018) who emphasizes the importance of women being able to participate in all aspect of life, including the workforce. The results show that 72.8% were married, 24.5% were widowed, and 14.7% were divorced. This showed that majority of the women were married. This is in consonance with Bergerson, (2019) who posited that married mothers who had positive attitudes towards sexual communication were more likely to have open and supportive communication with their daughters about sexual and reproductive health.

The results on religious revealed than more than half (60%) of the respondents were Christian, 37.3% were Islam and 2.7% were Traditionalist. Religious practices may prevent the mothers from communicating with their daughter on the best way to reduce sexual and reproductive health risk as the religion preach total abstain from sexual and reproductive act. As posited by Bartkowski (2020), religion emphasizes moral codes designed to instill values such as self-control and self-competence.

Findings shows that one quarter of the respondents had secondary education while 26.7% had primary education, 17.3% had tertiary education and 12.7% had no formal education. This implies that educated parents are able to communicate with their daughter patiently both orally and face to face as compared to parent less or without education. This is in line with Adebowale (2016) that women with higher level of education had better knowledge on reproductive health.

The results reveal that 42.0% of the women were traders, 26.7% were farmers, 22.7% were

artisans and 8.7% were civil servants. Mothers with occupation of higher status due to their education status have access to information about sexual and reproductive health than of the lower occupational status. This agree with Kabiru *etal.* (2017) who indicated that mothers with higher occupational status may have access and resources to information and services related to SRH, and may be better equipped to communicate accurate with their daughters. The table shows that mean of the respondents was 5 persons. This shows that the women had relatively small household size.

Table 1: Socio-Economics Characteristics

Variables	F (%)	Mean	SD
Actual age (years)			
≤ 40	40(26.7)	40	10.550
41 – 50	54(36)		
51 – 60	31(20.7)		
61 – 70	22(14.6)		
≥ 71	3(2)		
Marital status			
Married	107(72.8)		
Widow	36(24.5)		
Divorced	7(4.7)		
Religion			
Christianity	90(60.0)		
Islam	56(37.3)		
Traditional	4(2.7)		
Educational qualification			
No formal education	19(12.7)		
Primary school	40(26.7)		
Secondary school	65(43.3)		
Tertiary education	26(17.3)		
Occupation			
Civil servant	13(8.7)		
Trading	63(42.0)		
Artisan	34(22.7)		
Farming	40(26.7)		
Household size (persons)			
≤2-4	75(50.0)	5	1.273
5-7	70(46.7)		
≥8	5(3.3)		

*SD = Standard deviation, % = Percentage, F = Frequency

Mother to Daughter Communication on SRH

Results in Table 2 revealed topics covered in communication on SRH by mothers with their daughters. It was revealed that mothers’ communications were directed towards menstruation (74.7%), pregnancy (77.3%), abortion (68.7%) and fertility test (49.3%). This implies that frequent communication of SRH between the mothers and their

daughters can provide young girls with essential knowledge of SRH. This is in line with Miller, (2015) who found out that mother to daughter communication helps to reduce the likelihood of teenage pregnancy and abortion. Also, Mahon (2018); Upadhyay (2016) independently stated that mother to daughter communication helps young girls to make informed decisions about sexual health.

Also, the results revealed that use of contraceptives (68.0%), and cervical screening test (92.0%) were not discussed by the mothers to daughters. Lack of discussion about contraceptives and cervical screening tests between mothers and daughters may have significant implications on sexual and reproductive health. It may lead to increased risk of unintended pregnancies without proper knowledge about contraceptive methods and lack of education about safe sex practices and condom use may increase the risks of STIs among adolescents. This is in line with

Lindberg, (2016) who opined that daughters whose mothers communicated and discussed on contraceptive were more likely to use contraception correctly, and were less likely to experience unintended pregnancies compared to those who did not have discussion with their daughters. Also, Marlow, (2017) reported that mothers who discussed cervical screening with their daughters had a positive impact on their daughter’s intention to attend screening in the future.

Table 2: Mother to Daughter Communication on Sexual and Reproductive Health

S/N	Variable	Discussed F (%)	Not Discussed F (%)	IF Discussed, how often, Always F (%)	Occasionally F (%)	Rarely F (%)
1.	Menstruation	112(74.7)	38(25.3)	48(32.0)	60(40)	4(2.7)
2.	Fertility	74(49.3)	76(50.7)	31(20.7)	35(23.3)	8(5.3)
3.	Contraceptive	48(32.0)	102(68.0)	14(9.4)	30(20)	4(2.7)
4.	HIV infection	63(42.0)	87(58.0)	23(15.3)	30(20.0)	10(6.7)
5.	Depressive disorder	20(13.3)	130(86.7)	5(3.3)	11(7.3)	4(2.67)
6.	Sexually Transmitted Diseases	64(42.7)	86(57.3)	24(16.0)	32(31.3)	8(5.3)
7.	Pregnancy	116(77.3)	34(22.7)	57(38.0)	57(38.0)	2(1.3)
8.	Menopause	26(17.3)	124(82.7)	6(4.0)	19(12.7)	1(0.7)
9.	Cervical screening	12(8.0)	138(92.0)	4(2.7)	4(2.7)	4(2.7)
10.	Abortion	103(68.7)	47(31.3)	48(32.0)	52(34.7)	3(2)

Extent of Mother to Daughter Communication SRH

The results revealed that 64.7% of the respondents had low communication on SRH and 35.3% of the respondents had high communication on sexual and reproductive health. The implication of low communication on sexual and reproductive health between mother and daughter is that the daughters

could lack correct understanding of most SRH issues. This can make them vulnerable to unsafe sex and abortion. This is in line with Zakaria *et al.*, (2019); Nu Noe *et al.*, (2018) whose research agreed that the overall communication on reproductive health between adolescent daughters and their mothers was low.

Table 3: Extent of mother to daughter communication on SRH

Variables	Status	Score range	F (%)
Categorization of mother to daughter communication on SRH	Low	0-4	97(64.7)
	High	5-10	53(35.3)

Barriers to Sexual and Reproductive Health

Table 4 shows communication barriers on disseminating sexual reproductive health. This was ranked using the mean value. Challenges in accessing health care workers (\bar{x} =2.11) ranked 1st. According to Warren, (2019) the cost of healthcare can be a significant barrier to accessing care, particularly for those without insurance. Cultural norms and tradition

(\bar{x} =2.09) ranked 2nd. This indicated that the tradition and belief of the mothers on SRH may make it hard for them to discuss sexuality with their daughters. In view of this Rashid, (2021) opined that addressing cultural taboos and stigmas can help improve communication and access to information and services related to SRH. Gender differences (\bar{x} =2.06) ranked 4th. This implies that there is gender imbalance in communicating

sexual and reproductive health services. This is in line with Ramathal (2018) who stated that mothers were more likely than fathers to communicate with their daughters about sexuality.

Educational level of parent (\bar{x} =2.01) ranked 6th. This implies that educated mothers are able to communicate with their daughters patiently both orally and face to face as compared to parent less or without education. This is in line with Nwachukwu, (2016) who stated that parents with higher level of education may be knowledgeable about sexual and

reproductive health and better equipped to communicate accurate and helpful information to their children. Religion (\bar{x} =1.96) ranked 8th. From the findings religious practices have prevented the mothers from communicating with their daughter on the best way to reduce sexual and reproductive health risk as the religion preach total abstain from sexual and reproductive act. As posited by Bartkowski, (2020) religion emphasizes moral codes designed to instill values such as self-control and self-competence.

Table 3: Barriers to sexual and reproductive health

S/N	Variables	Major F (%)	Minor F (%)	Not a barrier F (%)	Mean	SD	RANK
1.	Challenges in accessing health workers	48(32.0)	63(46.7)	32(21.3)	2.11	0.725	1 st
2.	Cultural norms and tradition	51(34.2)	60(40.3)	38(25.5)	2.09	0.771	2 ND
3.	Fear of stigma	48(32.0)	67(44.7)	35(23.3)	2.09	0.741	2 ND
4.	Gender differences	48(32.0)	63(42.0)	39(26.0)	2.06	0.762	4 th
5.	Loss of social status	38(25.3)	78(52.0)	39(22.7)	2.03	0.695	5 TH
6.	Educational level of parent	73(48.7)	39(26.0)	38(25.3)	2.01	0.71	6 TH
7.	Disrespectful providers	41(27.3)	65(43.3)	44(29.3)	1.98	0.755	7 TH
8.	Religion	47(31.3)	50(33.3)	53(35.3)	1.96	0.818	8 TH
9.	Shame	44(29.5)	53(35.6)	52(34.9)	1.95	0.804	9 TH
10.	Stigma in the community	34(22.7)	71(47.3)	45(30.0)	1.93	0.724	10 TH
11.	Lack of privacy	34(22.7)	65(43.3)	51(34.0)	1.89	0.747	11 TH

Test for Hypothesis

The hypothesis was tested using Logistics Regression presented in Table 5. The socio-economic variables considered were age, marital status, educational status, occupation, religion, household size and number of daughters. The result of the hypothesis showed that there is significant relationship ($p \leq 0.05$) between the age ($\beta = 0.043$); education ($\beta = 0.119$) and mother to daughter communication about SRH. Age and educational status are indicated as

important factors that can impact on communication about SRH. This agree with Adebowale, (2016); Girma (2019) who stated that women with higher level of education tend to have better access to health information, as well as greater knowledge about reproductive health and their daughters were more likely to use contraception. This can result in better reproductive health outcomes, such as lower rates of unintended pregnancies.

Table 6: Relationship between socio economic characteristics and mothers to daughter communication.

S/N	Variables	β	S. E	Wald	d.f	P. value	Decision
1.	Actual age	0.043	0.021	4.254	1	0.039	S
2.	Marital status	0.618	0.388	2.541	1	0.111	NS
3.	Religion	0.104	0.341	0.094	1	0.760	NS
4.	Educational status	0.119	0.219	0.294	1	0.000	S
5.	Occupation	-0.040	0.212	0.035	1	0.852	NS
6.	Household size	0.056	0.177	0.100	1	0.752	NS
7.	Number of daughters	-0.460	0.325	2.004	1	0.157	NS
8.	Constant	-4.046	1.944	4.332	1	0.37	NS

*Significant at 0.05 level

CONCLUSIONS

Mother to daughter communication on SRH is a crucial determinant of sexual and reproductive health outcomes among adolescent girls in rural communities. The socio-economic factors that influence mother to daughter communication on SRH in rural communities include age and education status of the mothers. Effective communication strategies that can improve mother to daughter communication on SRH include providing accurate and age-appropriate information, creating a safe and supportive environment, and using culturally appropriate and gender-sensitive approaches.

RECOMMENDATIONS

Programs that provide adolescent girls with access to SRH services should also integrate strategies that encourage mother to daughter communication on sexual and reproductive health to improve health outcomes among adolescent girls. Community-based interventions that involve mothers, adolescent girls, and other stakeholders can enhance mother to daughter communication on SRH in rural communities.

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Work-Skill Modules Needed in Cassava Production in Agricultural Education Curriculum for Students of Colleges of Education in South-West, Nigeria

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ABSTRACT

This study identified works skill modules needed in in cassava production enterprise by students of colleges of education in South-western, Nigeria. The study engaged descriptive survey research design. Three objectives guided the researcher. This study was carried out in South-western states of Nigeria. Three states were (Lagos, Ondo and Oyo) randomly selected for the study. Total population and stratified sampling technique were used to select 66 agricultural education lecturers and 302 agricultural extension officers respectively making a sample size of a total of three hundred and sixty-eight (368) respondents. A structured Questionnaire was used as Instrument for data collection. The Cronbach Alpha Model was used to determine the internal consistency of the instrument which was 0.99. The research questions were answered with descriptive; mean and standard deviation while the null hypotheses were tested with inferential statistics; the t-test at 0.05 level of probability. The study findings revealed that Nigerian Certificate in Education (N.C.E) students required 5 items on work-skills were needed pre-planting operations for site selection and land preparation, 12 on planting of cassava and 17 on post planting operations of cassava respectively. It was recommended by the researchers that work-skills identified should be integrated into the agricultural education curriculum and also the government of south-western states should develop training skills modules with these identified work-skills to be used in training youths in the different skills acquisition centres, innovative vocational centres etc. Among others which are located within and outside their geographical region.

KEYWORDS: Work-skills, Cassava Production, Agricultural Education, Curriculum

INTRODUCTION

Cassava is one of the crops that nearly all human beings including animals worldwide cannot do without due to its importance in ameliorating hunger and being a staple food that cannot be negotiated (Adekunle O.A, 2023). The crop originated from the Amazon Basin of tropical Brazil before its production spread to other parts of the world and Nigeria was not left out. The tuber crop belongs to the *Euphorbiaceae* family and is in the genus and specie of *Manihot esculenta*.

The demand for cassava growing rapidly because of its consumption as a staple food by most household and as a source of income by rural farmers. Despite the growing demand for food in Africa, current food production is not sufficient to meet the needs of the rapidly growing population (Poverty, Oxford and Human Development Initiative, 2017; and FAO, 2018). Though many staple foods are grown in Nigeria, cassava is one of the important staple crops recognised as a 21st century crop mostly for small-holder farmers (Droppelmann, Günther, Kamm, Rippke, & Voigt, 2018).

Cassava is a widely cultivated root crop that plays a vital role in food security in the tropical region, due to its long shelf life and ability to provide a reliable source of nutrition even in times of drought or famine.

It is the sixth most important crop in the world, after wheat, rice, maize, potato, and barley. (Saranraj, Sudhansh, & Ramesh, 2019). According to the Food and Agriculture Organization of the United Nations (FAO)2019), cassava is a drought-tolerant crop that can be grown in areas with uncertain rainfall patterns which usually results in unsuccessful cultivation of many other crops.

Nigeria is a major producer of cassava, with the crop being grown in virtually all states. However, the majority of cassava production is concentrated in the states of Benue, Kogi, Enugu, Imo, Cross-River, Ondo, Ogun, Delta, Anambra, Edo, and Taraba. (Wossen, Girma, Tessema, Abdoulaye Rabbi, Olanrewaji, Alene, Feleke, Kulakow, Asumugha, Adebayo, & Manyon, 2017). Cassava as a staple food could be transformed into a variety of food products such as garri, fufu, cassava flour and starch (Waisundara, 2018).

The versatility of cassava makes it a highly valuable crop with vast majority of the crop being used for human consumption also in addition to its use as a staple food, a substantial amount of cassava has the potential to meet the industrial demand for raw materials and semi-finished products, which could reduce the need for import. High-quality cassava flour has a wide range of potential uses, including as a



10% inclusion in bread flour (Lateef, 2021). This makes it a highly sought-after product

It is quite ironical that despite fluctuations in the global economy, cassava has consistently experienced annual growth rates of more than 3%. (FAO, 2018). In 2018, the world's total cassava production was estimated at around 278 million tonnes, of which approximately 170 million tonnes were produced in Africa (representing about 56% of the global total) (FAO (2018), FAOSTAT, (2019). During this time period, Nigeria's total production of cassava was approximately 60 million tonnes (FAOSTAT, 2019). However, despite being a major cassava producer, the country continues to import products such as starch, flour, and sweeteners that can be derived from cassava.

In Nigeria, our rural farmers play cardinal roles in the production of cassava. They are responsible for its processing and marketing as means of additional income-earning opportunities as well as enhancing their ability to contribute to household food security. This is because cassava is often viewed by small-holder farmers as a reserve crop and as a source of staple foods across many countries (Food and Agriculture Organization (FAO), 2018). Hence, a large portion of the total production and processing of cassava are left in the hands of the rural farmers who continually use traditional techniques in both production and processing of the crop thereby leading to wastage and inadequate supply for the teeming population that depend on the food.

Therefore, if the agricultural education students of colleges of education have the opportunity to gain exposure to the required skills needed, they might graduate with the capability to start cultivating cassava in commercial quantities as agropreneurs and be self-reliant rather than starts to seek for white collar jobs which are not even readily available and this consequently decreases the unemployment rate of graduates of Agricultural education in the South-western states of Nigeria.

In order to fill these skill gaps amongst the NCE students, the work skills modules when identified in this study may serve as template for the work skills required in the cassava enterprise for inclusion into agricultural education curriculum the National commission for Colleges of Education. This work-skills module may also be useful to agricultural education learners in other tertiary institutions as well as skill acquisition centres, Innovative Vocational Centres, Agro-Entrepreneurial centres where learners can be taught these identified work skills.

Objectives of the Study

This study aimed to identify the work skills needed by college of education students to successfully participate in cassava production and processing enterprises in South-western, Nigeria.

Precisely, the study aimed to;

- i. Examine work-skill needed in pre-planting operation in cassava production and processing enterprise in the agricultural education curriculum for college of education students in south-western, Nigeria.
- ii. examine the work-skill needed in planting operation in cassava production and processing enterprise in the agricultural education curriculum for college of education students in South-western, Nigeria.
- iii. examine the work-skill needed in post-planting operations in cassava production and processing enterprise in the agricultural education curriculum for college of education students in south-western, Nigeria.

METHODOLOGY

The study was conducted in the South-West region of Nigeria, which includes the states of Lagos, Ogun, Ondo, Oyo, Osun, and Ekiti. This is a predominantly agrarian region of the country and thus many of the inhabitants are farmers as the geographical region has a naturally favourable agrarian environment. The research work employed descriptive survey research design. Three states were (Lagos, Ondo and Oyo) randomly selected for the study. Total population and stratified sampling technique was used to select 66 lecturers was used to select 302 Agricultural extension officers. A structured questionnaire tagged "WMRFPPAGEC" was used as the instrument for data collection. The Cronbach Alpha Model was used to determine the internal consistency of the instrument which was 0.99. The research questions were answered with descriptive; mean and standard deviation while the null hypotheses were tested with inferential statistics; the t-test at 0.05 level of probability.

RESULT AND DISCUSSION

As shown in Table 1 below, 5 items on work-skills needed by NCE students for choosing a suitable site and preparing the land for cassava farming had their mean scores ranging from 3.50 to 3.55 which indicates that they are within the acceptable range of Highly required (HR) and Averagely Required (AR). These findings suggest that all of the skills are necessary for choosing a suitable site and preparing the land for cassava farming.

Table 1: Mean ratings of respondents on the work-skills in pre-planting operations in cassava production enterprise

Work-skills	N	Mean	Standard. Deviation	Remarks
Selection of area with heavy rainfall or greater part of the year.	368	3.55	0.71	HR
Selection of a site with sandy loamy soil and well drained.	368	3.52	0.68	HR
Clearing of selected site manually with the use of cutlass or mechanically with plough and harrow.	368	3.51	0.68	HR
Preparation of ridges of 1.8 metres apart with 40-50cm high with spacing of 60cm-120cm.	368	3.52	0.7	HR
Apply organic manure on the ridges before planting.	358	3.52	0.7	HR

Source: Field Survey (2022)

Bench Mark of X- 2.5 above as Highly Required (HR)

The results of the study on the work-skill needs of NCE students in choosing a suitable site and preparing the land for cassava farming indicated that choosing a suitable site, choosing an area with abundant rainfall, clearing and gathering vegetation remnants for composting, marking out the land, digging holes, applying organic manure in the holes, and placing stick markers in the middle of the holes were the required work-skills. This finding is in conformity with the study of Ogba, Okafor and Mousie (2019) whose study revealed that all of the statements in their study were considered required by the respondents. These include; supply fertilizer to the cassava farm, supply manure to the soil, choose soil with good

textures, choose loam soil, choose clay loam soil. This finding is consistent with the work of Ogba (2014), who emphasized the importance of selecting suitable land for cassava production.

As shown in Table 2 below, 12 items on work-skills needed by college of education students in planting of cassava had mean scores ranging from 3.52 -3.85 which indicates that they fall within the response of highly required (HR) and Averagely required (AR). These findings suggest that all of the skills are necessary for choosing a suitable site and preparing the land for cassava farming.

Table 2: Mean ratings of respondents on the work-skills needed in planting operations in cassava production and processing enterprise.

WORK-SKILLS	N	Mean	Standard. Deviation	Remarks
Cutting stem from healthy mature stem.	368	3.56	0.74	HR
Cutting stem cutting at 15-30cm.	368	3.52	0.75	HR
Cutting stem with 4-6 viable buds.	368	3.69	0.65	HR
Cutting stem with sharp tools such as secateurs and cutlass.	368	3.71	0.60	HR
Planting in slanting or angular position of angle 45°degree	368	3.71	0.64	HR
Planting 2/3 of cutting buried into the soil.	368	3.85	0.42	HR

Planting the stem cutting at spacing of 1m x 1m.	368	3.77	0.53	HR
Burying the stem cutting at 8cm-12cm deep.	368	3.83	0.43	HR
Pressing down the soil firmly at base after planting.	368	3.82	0.45	HR
Plant at the optimum time to ensure healthy sprouting and good crop establishment.	368	3.85	0.42	HR
Handle the stems with care to avoid damaging the nodes.	368	3.85	0.41	HR
Treat the stem cuttings with insecticides or fungicides, using the recommended rates	368	3.79	0.46	HR

Source: Field Survey (2022)

Bench Mark of X- 2.5 above as Highly Required (HR)

The results of the study on the work-skill needs of college of education students in planting operations of cassava. These work skills include the following: cutting stem from healthy mature stem, cutting stem cutting at 15-30cm, cutting stem with 4-6 viable buds, cutting stem with sharp tools such as secateurs and cutlass, planting in slanting or angular position of angle 45° degree, planting 2/3 of cutting buried into the soil, planting the stem cutting at spacing of 60cm-120cm 1m x 1m. Other planting skills required include; burying the stem cutting at 8cm-12cm deep, pressing down the soil firmly at base after planting, plant at the optimal time to ensure healthy sprouting and good crop establishment, and handle the stems with care to avoid brushing or damaging the nodes that produce the stems and treating the stem cutting with apply recommended

rates of insecticides and fungicides to prevent pests and diseases. The results are consistent with the work of Ajibola (2014), who found that selecting high-quality varieties is an important skill for achieving high yields in cassava production. Farmers who possess such skills are more likely to select varieties that are suitable for consumption and high-yield production.

The result in table 3 showed that 17 items on work-skills needed of NCE students in post-planting operations of cassava had their mean scores ranging from 3.52 to 3.84 which indicates that they are within the acceptable range of Highly Required (HR) and Averagely Required (AR). These findings suggest that all of the skills are necessary for post-planting operations in cassava enterprise.

Table 3: Mean ratings of respondents on the work-skills in post-planting operations in cassava production and processing enterprise.

WORK-SKILLS	N	Mean	Standard. Deviation	Remarks
Mulching the cassava seed beds with good mulching material (E.g. planting Mucuna).	368	3.58	0.82	HR
Apply lime (500-100kg/hg) if soil is acidic.	368	3.56	0.74	HR
Apply fertilizer at 4-8 weeks after planting.	368	3.55	0.71	HR
Apply fertilizers in in a ring or band around the cassava plants	368	3.51	0.68	HR
Alternatively, add organic matter (manure) to the soil at a rate of 8-10 t/ha.	368	3.85	0.42	HR
If planting in the early rainy season, weed at 4, 8, or 12 weeks after planting.	368	3.78	0.50	HR
Apply pre-emergence herbicide such as Atrazine mixed with metalochor at 4 L/ha for effective weed control	368	3.77	0.47	HR

Apply post-emergence herbicide such as Fusilade Forte 150EC at a rate of 5-6L/ha 12 weeks after planting.	368	3.56	0.74	HR
Harvest when the roots have reached a maturity stage where they have accumulated sufficient starch.	368	3.90	0.36	HR
Harvest cassava at an optimum period of 6month and above after planting depending on cultivars.	368	3.67	0.68	HR
Cut the plants when they are about 30-50cm above the level of the ground.	368	3.52	0.75	HR
If the soil is compact, loosen the soil first carefully by digging around the roots.	368	3.52	0.68	HR
Harvest matured cassava manually by pulling the stem to lift the roots	368	3.79	0.46	HR
Cut the roots away from the stems using a sharp cutlass or machete.	368	3.56	0.74	HR
Cut each root near to the stem when separating.	368	3.85	0.42	HR
Collect the harvested tubers and load them carefully into an open truck, being careful to avoid bruising, cutting, or breaking the tubers during transportation to the processing center	368	3.83	0.43	HR

Source: Field Survey (2022)

Bench Mark of X- 2.5 above as Highly Required (HR)

The results of the study on the work-skill needs of NCE students required work skills in post-planting operations of cassava is shown in Table 3 above. These work skills include the following: Mulching the cassava seed beds with good mulching material (E.g. planting *Mucuna*), apply lime (500-100kg/hg) if soil is acidic, apply fertilizer at 4-8 weeks after planting, apply fertilizer in a ring or band around the cassava plants on both sides, Alternatively, add organic matter (manure) to the soil at a rate of 8-10 t/ha, weed the cassava plants at 4, 8, or 12 weeks after planting, if planting in early rainy season, apply pre-emergence herbicide such as Atrazine mixed with metalochor at 4 L/ha for effective weed control, apply post-emergence herbicide such as Fusilade Forte 150EC at a rate of 5-6L/ha 12 weeks after planting.

The findings on cassava harvesting was in agreement with the opinion of Emone (2003) who said that traditional harvesting of cassava involved from cutting and digging up the mature cassava tubers, to gathering and handling them until they are finally removed from the field.

CONCLUSION

The demand for cassava as a root crop and its products is increasing rapidly day by day as it remains one of the staple foods in Nigeria. The increase in demand is not only because of the increasing population of the consumers but the fact that the

supply is not proportionate to the demand as its production is mostly controlled by the vulnerable and peasant older farmers who use traditional methods in the processing of the various cassava products.

On yearly bases, Agricultural Education graduates enter into the labour market in search of teaching jobs only, when they can actually go into cassava production to become agropreneurs; only if they have been equipped with the skills required. Thus, this study was necessitated by the high demand for cassava products and need to graduate Agricultural education students equipped with the required skills in cassava farming.

This study found out that cassava production and processing skills are required by students of College of education for attainment of self-reliance in cassava enterprise in South western Nigeria and that the variable under investigation contributes significantly to the increase in cassava production for stable supply of cassava products, cassava exportation and as raw materials for domestic industries as a way of alleviating the problem of food insufficiency in Nigeria.

RECOMMENDATIONS

The authors, based on findings of this study, recommended the following

1. The work-skills in the modules identified by this study can be



- incorporated into the curriculum of the Agricultural education programme as well as other institutions like vocational/skills acquisition centers where it could be used to train unemployed youths in cassava enterprise.
2. Agricultural education lecturers should incorporate these identified work-skills into their modules to train learners in the best practices for cassava farming and processing.
 3. Government should package the identified work-skills into cassava farming and processing training modules, and make them available in different skill acquisition centers, innovative vocational centers, and agro-entrepreneurial centers in the region.

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Analysis of Usage of Child Labour Among Rural Farming Households in Kwara State, Nigeria

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ABSTRACT

The study analyzes the usage of child labour among crop farmers in Kwara North rural communities of Kwara State. It identified the socioeconomic characteristics of the respondents; farming activities done by children in the study area; the level of child labour usage in the study area; the factors influencing child labour usage in the study area; and the possible hazards encountered by children in the study area. A four-stage sampling technique was adopted in selecting ninety (90) rural households. A well-structured questionnaire was the instrument for data collection. Findings reveal that socioeconomic characteristics (Income, year of formal education, and contact with extension agents) have direct or inverse relationship with level of usage of child labour. The study therefore recommends that Governmental, non-governmental organization, literate individuals and corporate bodies should help alleviate the sufferings of low-income rural communities by providing them with social security schemes, economic opportunities and activities that would engage the children in self-development, empowerment and discovery.

Keywords: Child labour, Income, Soil fertility, Extension agents

INTRODUCTION

Agriculture has a significant role in the economy of Nigeria. It is the primary source of food security for people and a means of livelihood for the most vulnerable citizens (Adepoju, 2014; Pawlak, and Kołodziejczak, 2020). Majority of agricultural activities is carried out in the country's rural areas, where rural farming households depend on all available agricultural input they can readily access, of which labour is a prominent part. In these areas, family labour is the most conventional type of labour, in which child labour is of significant constituent.

A child means sundry things to various people in different places (Olaitan et al., 2014). Age, for instance, in the west, is used to determine who a child is, but in many societies, cultural and social factors come to the fore. A child is somebody who is under age 18, and who lacks the mental or physical ability to provide for him/herself or guard him/herself against neglect, abuse, discrimination, or maltreatment. The term "child labor" is often used to cover a multitude of situations: from bonded labor to part-time work on the family farm (Edmonds, 2007). Although considered bad, it is a common practice to subject children to harmful working conditions, such as exposing them to the use of dangerous machinery, making them spray pesticides and chemicals, or engaging the children in mining activities.

According to Guarcello, Lyon and Valdivia (2006), child labour keeps children out of school, hinders effective learning and denies children the opportunity to acquire knowledge and skills they need to escape poverty, which will also drive inclusive growth and human development in the society. Besides its tendency of exposing children to injuries, child labour has other negative consequences such as rendering children vulnerable, depriving them of

freedom, constraining their chances of learning, and violating the fundamental rights.

The world's population of children in child labour has been estimated around 246 million children. More than 70% (172 million) of these children work in hazardous conditions, including working in mines, chemicals and pesticides in the agricultural sector or dangerous machinery (UNICEF, 2016). They are also employed as domestic servants in homes, hired farm labour, debt bondage, bus conductors and begging. While sub-Saharan Africa's population of child workers is estimated around 48 million, it is worthy of note that the agriculture sector accounts for more than 70% of the overall population of child workers. (United Nations International Children's Emergency Fund, UNICEF, 2016).

It was estimated according to International Labour Organization (2015) that in Africa, Asia and the Pacific regions, nine out of every ten children in child labour were in absolute numbers: 72 million in Africa, 62 million in Asia and the Pacific, 11 million in the Americas, 6 million in Europe and Central Asia and 1 million in the Arab States. Although statistics indicate that between 2012 and 2016, the number of children in child labour has reduced, a significant number of adolescents are still in child labour: these adolescents are regarded as 36.5 million of 15–17-year-old children, and 42.5 million of 12-15-year children.

In Nigeria, child labour may be defined as the act of employing individuals below age 18, thereby restricting or preventing them from primary education and development. The International Labour Organization (ILO, 2013) estimates that about 25% of Nigeria's 80 million children under the age of fourteen are involved in child labour, hence, child labour among crop farmers in the study area are rampant.

Agricultural child labourers work on all types of undertakings including; family farms (small, medium and large-sized), corporate-run farms, plantations, and agro-industrial complexes (ILO, 2006). While agriculture has a very high incidence of child labour, it should be noted that the use of child workers in agriculture is a common practice across the world, including in Nigeria. An estimated 246 million children (ILO, 2015) around the world carry out work that harms their well-being, hinders their educational progression, development and future livelihoods. Child labour has, over many years, remained a matter of global concern, and it is commonly characterized by poverty, gender inequality, and educational inequality. Child labour is a complex issue, and various factors behind labouring predominate in different contexts.

Agriculture employs 70% of the children exposed to child labour, with many of the child workers found in agricultural enterprises owned by family members. While there also exist children who serve as migrant farm workers, a significant population of children have been found working in large-scale commercial plantations. Agriculture is very common in rural areas, and nine out of every 10 rural child workers are estimated to be in agriculture. On the basis of that, child labour is considered one of the outcomes of poverty and failure of social and economic institutions. Agriculture is the largest global employer of child workers.

According to ILO (2006) and ILO (2015), more than 129 million girls and boys aged 5 to 17 years old work in crop and livestock production, fisheries, aquaculture, and forestry, helping supply some of the food and drink we consume and the fibres and raw materials we use to make other products.

Agriculture is more predominant in rural areas, but it is also done in urban areas, with urban agriculture a common practice in both developed and developing countries. Urban agriculture has been estimated to account for 200 million part-time farmers. Thus, agricultural child labourers may also be found in urban areas (ILO, 2006).

Conceptual Framework

In ordinary parlance, child labour may be defined as the act of exposing children to activities which either negatively affect their social, mental, moral or physical well-being, or which deprive them of childhood or educational rights. International Labour Office reports (2013) also opined that child labour excludes work-related activities which neither endangers children's mental and physical well-being, nor prevent the children from schooling. Such activities, which do not count as child labour, may include looking after siblings at home, working to earn pocket money on holidays or after school hours, and

assisting parents at home. Therefore, child work is considered a part of children's training to be responsible adults, child labour is exploitative (ILO reports, 2013).

According to recent estimates by the International Labour Organization, child labour affected more than 150 million children aged 5–17 around the world in 2016, mostly in developing countries and primarily in agricultural activities (ILO, 2017). Most of these child workers are employed by their parents on the family farm or within the family enterprise (Edmonds, 2007)

Measurements of child labour in the empirical literature are often heterogeneous. It is hard to present a single and generally applicable statistical measure for child labour, as the legal definitions provided by the national authorities of different countries are at most discretionary. This remains the statistical situation of child labour despite the official definition in ILO and UN conventions (ILO Convention No 138 on the legal minimum age, the ILO Convention No 182 on the worst forms of child labour, and the UN Convention on the Rights of the Child).

Child labour poses risk to children's academic, social, and cognitive well-being. Poverty is one of the situations that condition children (persons below age 18) to enter the labour market. It is also worth noting that it is detrimental for such "under age" persons to be thrown into the labour market, as it may leave a negative impact on their formative stages of development, thereby hampering their social development.

Many research studies contend that child labour, especially as spelt out in the preceding context, is common in rural areas, where both male and female children are subjected to labour. While the female children are subjected to domestic work, the male children are subjected to laborious tasks associated with the household economy. It should be noted that the fundamental point in this case is that the children –both male and female –are unskilled and vulnerable persons who are tasked by their parents or relatives to engage in risky work such as spraying agrochemicals, pesticides, fertilizers, etc.

Research has also suggested that particularly in rural areas, child labour persists due to the failure to clearly distinguish reproductive labour from productive labour. This further births a situation that blends work and education in such a manner that children are inevitably exposed to agricultural production and housework even when it's certain that they are relatively too young for such roles.

Poverty is the major cause of child labor in agriculture, together with limited access to education, inadequate agricultural technology and traditional attitudes toward children's participation in agriculture

and poor access to adult labor (ILO, 2015). However, some farming operations do not seem hazardous, so it can be argued that certain forms of agricultural labour do not expose children to hazards. Such activities have positive consequences since it enhances inter-generational transfer of technical and social skill and children's food security (ILO, 2015).

Children's future should not be handled with levity. Much attention has been given to the need to study the level and nature of children's involvement in agricultural work to determine the types of activity that place them at risk (Adeoti et al., 2013). There is a sort of relationship between schooling status and child labour, and in recent times, a good deal of attention has been devoted to this. Previous child labor studies in agriculture (Adeoti et al., 2013) depict long hours of work, dangerous conditions in which children work, meagre wages, and poor school attendance.

According to the International Institute of Tropical Agriculture (IITA, 2002), farmers rarely employ children from outside their families. These farmers instead subject their own children to farm operations which ultimately cause the children (mostly in the age bracket of 7-15 years old) to labour at farms during hours they are supposed to spend at school.

Child labour has been found to serve as a way out of poverty, especially for many poor families as children contribute as much as one-third of household income in poor families (Ogwumike and Ozughalu, 2018). Other researchers like Oluyemi (2018), have established that most cases child labour is determined by the poverty status of the family and level of parental education. In Nigeria, child labour is prevalent in urban centers because a large number of people move from the rural areas to urban areas (Oluyemi, 2018).

About six million children are equally split between boys and girls who work in Nigeria, while one million children are forced to drop out due to poverty (UNICEF, 2006). In some locations in the country, families send children from rural to urban areas where they are often forced to beg on the streets while some other locations are said to be a major human trafficking hub where children in Nigeria are trafficked internally and are subjected to forced labour (Khanam, 2014).

Unfortunately, forcing children to work at an early age in life and subjecting them to long hours of work daily may deny them access to education, which is imperative to breaking the cycle of poverty and illiteracy (Oluyemi, 2018). Awosusi and Adebayo (2012) have argued that many children who engage in child activities in Nigeria are abused physically, mentally, sexually and psychologically. They are also expected to work hard and are sometimes subjected to sexual exploitation in the household while they receive

harsh treatment with life-threatening injuries (UNICEF, 2006).

METHODOLOGY

The study was conducted in Kwara State. The target population for this study was all children involved in labour farming activities in Kwara state.

The sampling technique involves a multi-stage sampling technique. The first stage was the purposive selection of two ADP zones which are; Zone A and Zone B because child labour is well pronounced in the Areas. The second stage was the purposive selection of one local government area from each ADP zones (Zone A; Kaima Local Government Area, and Zone B; Edu Local Government Area). The third stage was the random selection of the rural communities, each from each local government area selected. The last stage was the random selection of fifteen households respondents from each rural community selected. A total of ninety rural children was used in the study. The data collection for this study was done with the aid of a well-structured questionnaire interview schedule. The instrument was sectioned from A-F based on the research objectives. The level of child labour among the rural households known to engage in farming within the study area. It will be measured on a four-point likert type scale of; Used very often (4), Used often (3), Often (2), Not used at all (1).

RESULTS and DISCUSSIONS

Socio-economic characteristics of the children

Results in Table 1 shows that the mean of age of the respondents is 15.3 years. This is an implication that child labour is evident in the study area even children at age 10 is seen on the farm. This agrees with the findings of Bassey et al., (2012). About 57.7% of respondents were males with 42.3% female. This implies that male children are perceived as being more strengthful as compared to female children. Most of the children are drop out from secondary school. Household size is an important factor in agriculture, given the relevance of labour in the agricultural activities. This result is in relation to the findings of Adeoti et al. (2013). Fifty percent of the household had children between 2-3. According to Norberg (2017), increased household population swallows up increased output. This makes the farming households conscript his or her children into farming operations to save money for hired labor.

The majority of the respondents (53.1%) spend 9-11 hours per day on the farm. The implication of this result is children have less time to spend in school, in contrast to the number of hours they spend on farm engaging in farming activities. This result is in accordance with ILO Reports (2010) and Adeoti et al., (2013). The majority of the households (83.8%)

had no access to extension agents, 16.2% of the households had access to Extension contact. The implication of this finding is that children in the households does not have access to crude information from the government and other sources through the extension agents.

Farming Activities engaged in by Children-

As shown on Table 2, results on farming activities engaged in by Children includes; Land clearing (92.3%), Weeding (89.2%), Mulching (73.1%), Staking (47.7%), Harvesting (79.2%), Winnowing (19.2%), and Ridging (30.7%) respectively. This result indicates that children participate effectively in almost all activities. This is in line with the findings of Lana (2014), who found that poor households are unable to meet their basic needs and the household heads are unable to meet up with their obligation.

Levels of Child labour usage - The mean score of the levels of child labour usage was found to be on the high side (2.37), 48.5% of the respondents were on the High levels of Child labour usage, while 36.2% of the respondents were on Low levels and 15.3% were on Very high levels of Child labour usage. Child labour usage was found to be predominant across the study area, and its level was also found to be on appallingly high levels. These findings agree with that of Lawal et al. (2007) who reported that about 80% of children in Oyo State are exposed to hazards resulting from their involvement in farm activities and even hawking leading to their lateness or absence from school.

Hazards Encountered by Children Involved in Farm Labour - The hazards encountered by children involved in Child labour according to the results of the study include; Exposure to Chemicals (2.36), Working in air-tight spaces (2.10), Operating machinery and farm equipment (2.15), Exposure to noise (from Machines and other farm equipment) (2.20), Working under bad weather conditions (1.87), Animal attacks (1.75), Fall from heights (1.94), Cuts and bruises from farm operation (1.89). This implies that children involved in child labour are exposed to various hazards while working on the farm.

Factors Influencing Child Labour Usage in Kwara State - The factors include; Low income of parents (2.29), Inflation (2.19), Literacy rate of parents (2.11), Agricultural economy (2.10), Fertility rate (2.05), Children attendance in school (2.02), and gender of the child (1.46) were found to be salient factors responsible for influencing Child labour usage in the study area.

Multiple Regression Analysis of the Determinants of the Use of Child Labour - Income was found to be negatively significant in relation to the dependent variable ($\beta = -0.122$, $p = 0.05$). This depicts that a unit increase in household income will lead to a 0.122 decrease in the use of child for labour in farming

activities. This corroborates with the claims of Adewuyi and Ogundairo, (2015).

In addition, contact with extension agents was also found to be significant ($\beta = -0.053$, $p = 0.05$) but, negative. That is, the absence of extension agents contributed negatively to alleviating child labour levels, depicting that a unit increase in the availability of extension agents leads to a 0.053 decrease in the usage of children in carrying out farming activities among households. However, a high frequency of extension agents among farming households would positively increase the children's knowledge of agriculture and the use of technological devices in their practices. This is supported by the findings of Ogunremi, et al. (2013) who opined that access to extension efforts improves agriculture, providing the required understanding of existing farming systems along with how resources and technology (local and foreign) can help overcome farmers' production problems

Correlation Analysis between Use of Child Labour and Level of Hazards encountered by Children -

The results of the analysis depicted that use of child labour is perfectly correlated with the level of hazards encountered by children involved. The implication of this result is that an increase the level of child labour will lead to an increase in level of hazards encountered by children involved. Which spells considerable amount of risk for the children involved both in short and long term respectively. This agrees with the submission of ILO, (2015).

CONCLUSION AND RECOMMENDATIONS

Based on the findings, the study concludes that child labour usage is predominant across the study area, and its level was also found to be appallingly high levels due to low income and inflation; and contact with extension agent was found to be negatively significant as a determinant of child labour usage. It was therefore recommended that The Government should ensure adequate provision of social security schemes; as well as economic opportunities and activities; Literate individuals could educate the rural communities on the menace of and sanctions against child labour; Corporate bodies are also implored to facilitate supervision of the availability of extension agents who will serve as aids for the rural households; and Non-Governmental bodies should carry out sensitization on the need to avoid engaging children in child labour to avoid several risk factors that affect their mental development, wellbeing and causes physical impairments.

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Assessment of Digital Technologies' Awareness among Rural Youth Farmers in Oyo State, Nigeria

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ABSTRACT

The study determined the socio-economic characteristics of youths that participate in farming activities in Oyo State, determined the level of awareness of digital technologies among the rural youth farmers, and examined the constraints militating against the awareness of digital technologies among the rural youth farmers in the study area. A multistage sampling procedure was used for the study. First, random sampling procedure was used to select 50 percent of the agricultural zones in the study area translating to two zones (Oyo and Ibadan). In the second stage, there was a purposive selection of 2 LGAs from Ibadan (Akinyele and Afijio) and 1 LGAs from Oyo (Oyo West) based on the preponderance of rural areas in the zones. At the third stage, there was a purposive selection of four youth associations from each of the LGAs so as to have access to youth farmers among them, making a total of 12 youth associations in all. At the final stage, 10 youth farmers were randomly selected from each of the associations making 120 sample size for the study. Validated questionnaires were used to elicit information. The data collected were analyzed and summarized by using descriptive statistical tools such as frequency distribution, percentage and mean. Inferential statistics such as chi-square and Pearson Product Moment Correlation were used to test the hypotheses of the study. The results show that the majority (80.9%) of the respondents had a low level of awareness. Also, the results of the research indicated that Sex ($\chi^2 = 10.84$), Ethnicity ($\chi^2 = 25.49$) and religion ($\chi^2 = 18.79$) are significantly associated at 0.05 confidence level with the awareness of digital technologies by the rural youth farmers. It was concluded that the level of awareness of the technologies in the study area is low and it will affect the usage of the technologies. It is therefore recommended that extension agents should intensify and endeavor to train rural youth with these technologies in order to enhance its usage.

Keywords: *Digital technologies, awareness, rural youth farmers*

INTRODUCTION

Digital technology is also known as ICTs which are used for better and faster advisory services where the extension agent is not interacting face to face with the farmer. Examples of ICTs used include; Radio, mobile phones, computers, internet and social media. Research institutes such as IITA, IFPRI, NIHORT and many others have tailored ICTs for crop management advisory service delivery to farmers and farmer organizations, and extension agents in government and non-governmental organizations through smart. Combining the use of ICTs with mass Media or traditional media, such as radio/Internet radio, videos, and mobile projectors further expands their reach. Improved availability of, and access to, information and communication technologies (ICTs) – especially mobile phones, computers, radio, internet, and social media – has provided many more opportunities for collection, processing, storage, retrieval, managing, and sharing of information in multiple formats. Some of these applications, such as telecommunication centre web portals, call centers, mobile apps, community radio, digital videos, audio and video conferencing, and e-learning platforms, have the potential to provide a wide range of services (information, awareness, promotional, advisory, knowledge, technology transfer, training, education, and much more) to farmers and another agricultural innovation system (AIS) actors in a timely,

comprehensive, cost-effective, and interactive manner. E-agriculture is currently attracting youths to agriculture and some have started creating opportunities for income generation through enterprises that deliver ICT-empowered services both to farmers and also to other actors in agriculture. The invention of ICT in the agricultural sector is now forming part of what is attracting young people into the sector and is improving Africa's agriculture.

In order to foster a country's economic development, the agriculture sector must be viable and youths should be encouraged to effectively participate. Many criteria are used in deciding the age bracket of youth among which are the level of dependency, age bracket, ability to demonstrate some of the youth characteristics as highlighted by being young, greater physical strength, greater knowledge acquisition propensity, faster rate of learning, faster reaction time, love for adventure and preference for boldness, minimal risk aversion, energetic, dynamic, eager to learn, boundless spirit, optimistic for future, receptive to new ideas and searching for avenue to direct their energies (Ayinde *et al.*, 2020).

Moreover, with dynamism and flexibility, extraordinary resilience and ability to cope even in most adverse and risky situations, youths have the potential to foster enhanced agricultural productivity

(Naamwintome and Bagson, 2013). Consequently, nurturing youth involvement in agriculture through digital technology awareness and usage is worthwhile especially in this era of agricultural digitalization (Ahaibwe, *et al.*, 2018). However, while youth involvement in agriculture is fundamental for economic development and poverty reduction, the significance and constraints associated with rural youth involvement in digitalized agriculture remains poor in most developing countries. Apparently, one of the greatest failures of traditional extension models is the number of farmers per extension officer. In

METHODOLOGY

The study was carried out in, Oyo state, Nigeria. Oyo State to distinguish it from the city of Oyo, is an inland state in southwestern Nigeria. Its capital is Ibadan, the third most populous city in the country and formerly the second most populous city in Africa. Oyo State is bordered to the north by Kwara State, to the east by Osun State, and to the southwest by Ogun State and the Republic of Benin. Oyo state has four Agricultural zones of Ibadan, Ibarapa, Saki and Ogbomoso. Oyo State covers approximately an area of 28,454 square kilometers and is ranked 14th by size. The landscape consists of old hard rocks dome-shaped hills, which rise gently from about 500 meters in the southern part and reach a height of about 1,200 meters above sea level in the northern part. Average daily temperature ranges between 25 °C (77.0 °F) and 35 °C (95.0 °F), almost throughout the year. Total annual rainfall is about 1,363mm per year. Agriculture is the main occupation of the people of Oyo State. The

RESULTS AND DISCUSSION

Socio-economic characteristics of youth

The mean age of the respondents was 23 ± 5 years, majority (89.2%) of the respondents were male. about two-thirds (60.3%) of the respondents indicated Christianity, 30.8percent indicated Islam while very few (5.8%) were affiliated with traditional religion. About two-third (63.3%) of the respondents were single while 35.8percent were married. More than half

Nigeria, the ratio of extension worker to farmers is 1:3000 (Ogbe 2016). This ratio of extension worker to farmers is grossly inadequate and alarming when compared with the World Bank's standard of 1:500, with the current trend of digital technologies, the use of ICT potentially allows extension workers to contact more farmers with appropriate and up-to-date information in a timely manner. However, this study was conducted because the digital technologies awareness among rural youth farmers has not been sufficiently explored in Oyo state. Hence, this study.

climate in the state favours the cultivation of crops like maize, yam, cassava, millet, rice, plantains, cocoa, palm produce, cashew among others. A multistage sampling procedure was used for the sample selection. At the first stage, 50% of the agricultural zones were randomly selected translating to 2 zones (Oyo and Ibadan). At the second stage, there was a purposive selection of 2 LGAs from Ibadan (Akinyele and Afijio) and 1 LGA from Oyo (Oyo West) based on the preponderance of rural areas in the zones, making a total of 3 LGAs in all. At the third stage, there was a purposive selection of four youth associations from each of the LGAs so as to have access to youth farmers among them, making a total of 12 youth associations in all. In the final stage, 10 youth farmers were randomly selected from each of the associations making 120 sample sizes for the study. A validated interview schedule was used to collect quantitative data which were summarised with percentages, means and standard deviation while chi-square and correlation were used to draw inferences.

(62.5%) had monogamy as their family type while 37.5percent were adherents to polygamy. Majority (94.2%) of the respondents belonged to the Yoruba ethnic group, 5.0percent indicated Hausa while very few (0.8%) belonged to Igbo ethnic group. 46percent of the respondents had secondary level of education, 26.7 percent had primary, 13.3percent had OND, 8.3percent had B.sc while very few (0.8%) had M.Sc. as their educational level.

Table 1: Distribution of respondents by Personal Characteristics

Variables	Frequency	n= 120	
		Percentage	Mean ±S.D
Age (yrs)			
15-22	68	56.7	23.20±4.627
23-29	32	26.7	
30-35	20	16.7	
Sex			
Male	107	89.2	
Female	13	10.8	
Religion			
Christian	76	60.3	
Islam	37	30.8	
Traditional	7	5.8	
Marital status			
Single	76	63.3	
Married	43	35.8	
Family type			
Monogamy	75	62.5	
Polygamy	45	37.5	
Ethnicity			
Yoruba	113	94.2	
Hausa	6	5.0	
Igbo	1	0.8	
Level of education attained			
Primary	32	26.7	
Secondary	56	46.7	
OND	16	13.3	
HND	5	4.2	
B.SC	10	8.3	
M.SC	1	0.8	

Source: field survey, 2021

Estimated monthly Income from Agricultural activities

Result in Figure 1 show that the mean monthly income from farming activities was ₦17,575±5,469. 43.3percent of the respondents earned less than ₦15000 per month in farming activities, 27.5percent earned between ₦15,000-20,000 per month while 29.2percent earned above ₦20,000

per month from farming activities. The low income may be connected to lack of proper and adequate resources. This is in agreement with the findings of Ogunsunmi (2011) that small scale farmer earn low in farming. This implies that the respondents earned less than the monthly minimum wage of federal republic of Nigeria.

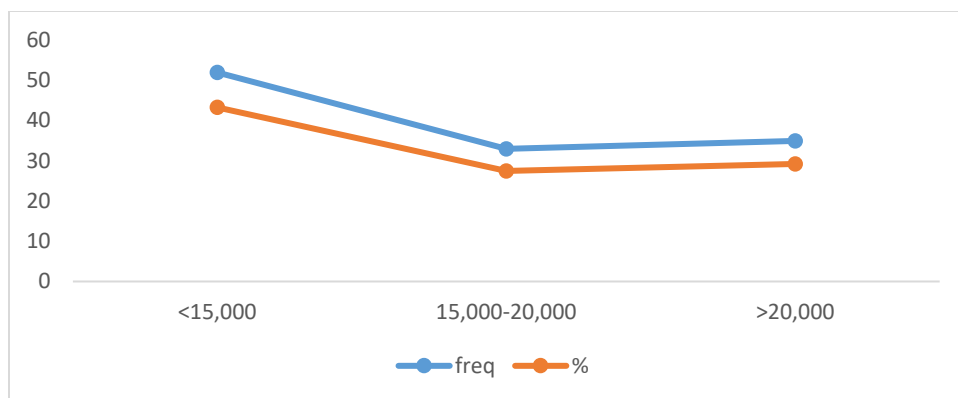


Figure 1: Distribution of respondents based on their average income per month from farming activities

Mean Score = ₦17, 575

Standard deviation= ₦5,469

Source: Field Survey, 2021.

Awareness of Digital Technologies

Table 2 shows the awareness of the available digital technologies to the rural youth in the study areas. The technologies of focus that were available include: Akilimo, cassava seed tracker, Go seed tracker, IITA herbicide calculator, IITA Radio, IITA News app. The results show that 10.8percent of the respondents were only aware of go seed tracker and

8.3percent were aware of IITA News App digital technologies in the study area. This implies that few of the digital technologies were aware by the respondents in the study area. This corroborates the findings of Muhammad *et al.* (2019) that lack of awareness about ICTs and digital tools are constraints facing the usage and effectiveness of ICTs and digital tools.

Table 2: Awareness of Various Digital Technologies by Rural Youth

Technologies	Frequency of awareness	Percentage of awareness
Cassava seed tracker	0	0
IITA Herbicide calculator	0	0
IITA News app	10	8.3
Go seed tracker	13	10.8
Akilimo	0	0
IITA Radio	0	0

Source: Field survey, 2021

Level of Awareness of Various Digital Technologies by Rural Youth

Results in Figure 2 show the level of awareness of the available digital technologies available to the rural youth in the study areas. The results show that very

few (19.1%) of the respondents were highly aware of the various digital technologies, while the majority (80.9%) of the respondent were not aware of the digital technologies in the study area.

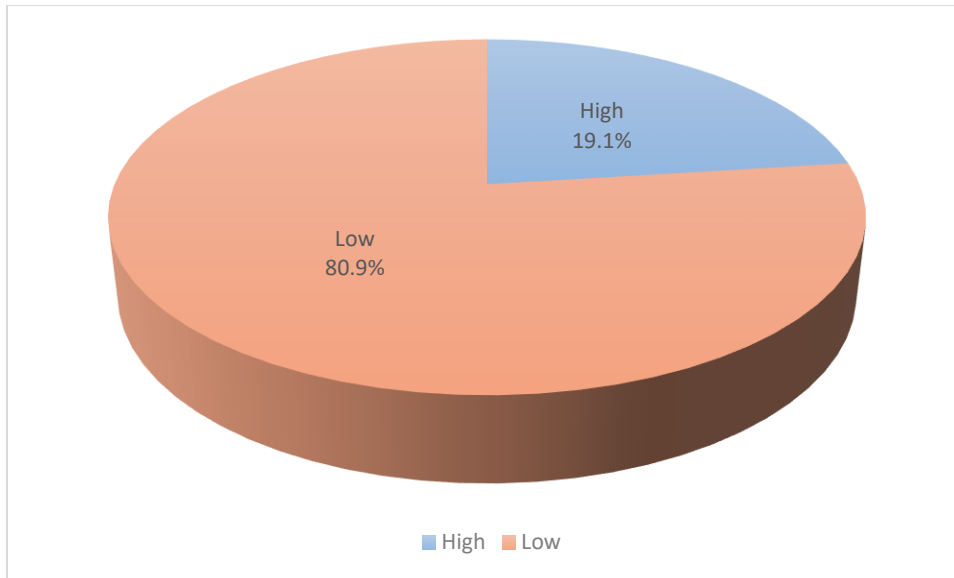


Figure 2: Level of Awareness of Various Digital Technologies by the respondents
Source: Field Survey, 2021.

Constraints militating against the awareness of digital technologies

Results in Table 3 show that inadequate extension services (mean = 1.66) ranked the highest constraints to digital technology awareness identified by the

respondents while Poor Telecommunication Network (mean=0.64) ranked the least of all the constraints. This implies that more extension agents are needed to get the rural youth aware of the available technologies in the study area.

Table 3: Constraints

Constraints	Mean
Poor extension services	1.66
Poor accessibility to the technology	1.46
Financial Constraint	1.43
Illiteracy on the part of the rural youth	1.38
Lack of Electricity	1.31
Lack of awareness	1.33
Lack of skill and Training	0.65
Poor Telecommunication Network	0.64

Source: field survey, 2021.

Hypothesis Testing

H₀₁: There is no significant relationship between the socio-economic characteristics of the respondents and their awareness of digital technologies.

Results of Chi-square Analysis

Results of the Chi-square analysis in Table 4 show that there was a significant association between the awareness and sex ($\chi^2= 10.83$), religion ($\chi^2 = 18.79$) and ethnicity ($\chi^2 = 25.496$) of the respondents at P both

≤ 0.01 & 0.05 . This implies that sex can influence digital technology awareness among rural youth in the study area. For religion, it may be inferred that the use of various technologies for religious activities may influence the respondents' awareness.

Table 4: Chi-square analysis showing association between selected socio-economic characteristics of respondents and level of awareness

Variables	χ^2	D.f	C	P-value	Decision
Sex	10.835*	2	0.316	0.031	S
Religion	18.797**	2	0.235	0.010	S
Marital status	5.302	1	0.010	0.085	NS
Ethnicity	25.496**	2	0.423	0.000	S

**Significant at $P \leq 0.01$;

* Significant at $P \leq 0.05$;

C = Contingency coefficient,

D.f = Degree of freedom

Number of respondents = 120

χ^2 = Chi-square value

Source: Field survey, 2021.

Results of Correlation Analysis

Result of correlation analysis in Table 5 show that age ($r = 0.589^{**}$) and years spent in formal education ($r = 0.469^{**}$) had a positive and significant relationship

with the awareness at $p \leq 0.01$. This implies that formal education is a by the respondents, and age will enhance the awareness of digital technologies.

Table 5: Correlation analysis showing the relationship between some selected socio-economic characteristics and the awareness of digital technologies

Variable	r-value	p-value	Decision
Age	0.589**	0.000	S
Years of formal education	0.489**	0.001	S

**Significant at $P \leq 0.01$;

S = Significant

Number of respondents = 120

r = correlation co-efficient

p = probability value

Source: Computed from field survey, 2021.

CONCLUSION AND RECOMMENDATIONS

Based on the findings of the study, the majority of the rural youth indicated low awareness of the digital technologies.

Poor extension services were the major constraints to awareness of digital technologies.

Extension agents should be more equipped so as to discharge their duty effectively.

Extension agents should learn about these new technologies from the research institutes so that they can understand the technologies and be able to get the farmers acquainted about the technologies.

Research institutes should provide trainings, workshop and seminars for youth farmers especially those in the rural area so that they will be aware of the technologies and they can easily access these new technologies.

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Analysis of Youths' Involvement in Rice Value Addition Activities in Kebbi State, Nigeria

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ABSTRACT

The study explored youth involvement in rice value-adding activities in Nigeria's Kebbi State. Specifically, the socioeconomic characteristics of the respondents were described, the rice value addition activities in which the respondents are involved and the level of their involvement were examined, and the respondents' attitudes towards rice value addition activities were examined. Three hundred and twelve respondents were selected using a multistage sampling procedure. Analyses were conducted using descriptive statistics such as frequency counts, percentages, charts, means, and standard deviations. The mean age of the respondents was 27.49 ± 4.53 years, and the majority (61.4%) were males. The majority (67.3%) were married, with mean years of experience of 14.67 ± 2.53 years. Almost all (90.9%) were literate in Western and Quranic education. The mean household size is 6.33 ± 2.20 persons, and the annual income is $\text{₦}20666.50 \pm 1336333.00$. Almost all (90.2%) per cent of the respondents have a favourable attitude toward rice value addition activities, and the majority (68.0%) of the respondents were highly involved in rice value addition activities. Conclusively, youth were highly involved in rice value addition activities. For Nigeria to attain self-sufficiency in rice, it was recommended that youths be encouraged and supported with subsidised farm inputs, information on modern rice production technologies, and access to local and international markets.

Keywords: Youth, Involvement, Rice, Value addition, Activities

INTRODUCTION

Young people are essential players in the agricultural sector because they participate in nearly all activities throughout the farming value chain. The fact that young people are the primary drivers of the labour market is supported by their role as rural workers. Due to their high energy levels, youth have a significant role in agriculture and the activities that make up its value chain (International Fund for Agricultural Development (IFAD), 2018). Youth from all over the world participate in a variety of activities. The International Labour Organization (ILO) 2020 reports that 200 million people, or more than 20% of the continent's population, are between 15 and 24. African youth make up 65% of the labour force in agriculture, and 70% live in rural areas (Francis, William, and Mathenge, 2015). If the proper steps are made to invest in human capital, Nigeria's significant youth population should be considered a resource for the nation's growth.

Rice, also known as *Oryza sativa* (Asian rice) or *Oryza glaberrima* (African rice), is one of the world's most essential grains and a staple meal for more than half of the world's population (Merem, Twumasi, Wesley, Isokpehi, Shenge, Fageir, and Crisler, 2017). Rice is critical to the plan for SSA's food security since it meets 27 per cent of the calorie and 20 per cent of the protein demands of third-world countries, notably African countries (Arumugam, Tomokazu, and Yusuke, 2020). West Africa produces and consumes the most rice in Sub-Saharan Africa, accounting for 64.2 per cent and 61.9 per cent of total production and consumption in the region, respectively (Arumugam *et al.*, 2020). Sub-Saharan Africa is the world's largest importer (by volume), with an average yearly import volume of more than 7.4 million tonnes United States Department of Agriculture (USDA) 2022).

According to Alex and Chimdi (2021), Nigeria's per capita rice consumption increased to 22 kg between 1995 and 2000 from an estimated 18 kilograms in the 1980s (Ogundele and Okoruwa, 2017). In 2018, Nigeria produced 48% of all the rice consumed in West Africa. 5.4 million tons of rice are consumed worldwide yearly, whereas 3.8 million tonnes are produced. To close the gap between domestic demand and supply, a significant amount of milled rice is imported to compensate for the output shortage. Nigeria has an annual capacity to process 2.8 million tons of rice. Nigeria is one of the biggest rice importers in the world (Akinbile, 2018). Importing foreign rice to complement locally produced rice was the solution to bridging the national demand/supply gap. Rice importation increased over the years from 600,000 tons to over 1 million tons between 1981 and 2016, and in 2011, Nigeria was the largest rice importer in the world with an estimate of 3.4 million tons (Bamiro and Aloro 2013; Ogunya, Bamire, and Ogunleye 2017). One definite way to close the domestic supply gap is to increase local production through holistic youth engagement, such as capacity-building programs. According to estimates from the USDA/FAS (2014), Nigeria imported roughly 3.4 million tonnes of rice in 2011 and 2012, making it the highest importer in the world.

The value chain describes the full range of activities required to bring a good or service from conception through various stages of production (with a combination of physical transformation and the use of different manufacturing services) to delivery to the end user and finally to subsequent disposal Usage (Kaplinsky and Morris, 2017). Value creation begins with providing inputs and continues through production, processing, and selling. Farmers utilize diverse production systems during

the production phase for various reasons to maximize income (Bell, 2013). Sub-suppliers, manufacturers, processors, distributors, and retailers manufacture, transform, store, transmit, or advertise the product, increasing its value at each process stage (Campbell, 2016). Increased earnings, more stable market circumstances, job creation, development, market diversification, and downstream economic advantages from industry-supporting sectors are some reasons for promoting value-added production. Value chain analysis (VCA) is concerned with efficiently using resources to gain a competitive edge, reduce costs, and increase profit margins. The number of participants and their conduct along the value chain influence the efficiency, pricing, and revenues that flow to each participant at each step (Global Value Chain Initiative (GVCI), 2017). From the foregone, youth are essential to performing value chain activities. So far, the research on this topic focuses on the involvement of youth in rice value-addition activities. The inclusiveness of youth in rice value-addition activities has the potential to mitigate unemployment or under-employment. There have been few or no studies on youth participation in rice value-added activities in Kebbi State. The majority of the literature is based on opinion rather than empirical evidence. According to Kebbi Agricultural and Rural Development Authority (KARDA) studies, the sector is dominated by the less educated, and farmers have limited access to technology, loans, and extension services (Kebbi Agricultural and Rural Development Authority (KARDA), 2022). Such studies are conducted at an aggregate level and conceal policy-relevant information. For example, it was difficult to determine if young individuals working in

METHODOLOGY

This study's population covers all youths involved in rice value-addition activities who live in Kebbi State, Northwest Nigeria. Argungu Zone, Bunza Zone, Zuru Zone, and Yauri Zone are the four (4) Agricultural Extension Zones in Kebbi State. A sample was picked utilizing a multistage sampling procedure to achieve the study's aims. In the first phase, all agricultural extension zones were chosen: Argungu Zone, Bunza Zone, Yauri Zone, and Zuru Zone. In the second phase, two local government areas (LGAs) were selected from each specified agricultural extension zone based on large-scale rice production for eight (8) LGAs. In the third phase, three (3) rural communities were chosen randomly from each LGA for twenty-four (24) rural communities. In the last stage, thirteen respondents were purposefully chosen based on their involvement in rice value addition activities, totaling three hundred and twelve (312).

To summarize the results, descriptive statistics such as tables, charts, and averages were

agriculture are disadvantaged compared to their adult counterparts and where they are clustered throughout the agricultural value chain in such an analysis. This research focuses on youth participation in informal rice value-addition operations to fill this void. Against this background, this study attempted to identify the value addition activities in which the youth are involved and their level of involvement. The paper notes whether their attitudes have any relationship with involvement. The postulated causes of youth involvement in the rice value addition activities are analyzed to support the formulation of sound youth employment policies and programmes. The paper further examines several individuals and household characteristics that determine the likelihood of young people's involvement in rice value-added activities. The paper's findings would contribute to the government's current efforts to increase rice production and create decent youth jobs, particularly by influencing the design of targeted interventions for more effective youth involvement in value-added activities for rice and the agricultural sector in general.

The study's primary goal is to analyse youth involvement in rice value addition activities, with specific goals:

1. describing the respondents' socioeconomic characteristics;
2. identifying the rice value addition activities in which the respondents are involved and
3. examining their attitude toward involvement in rice value-addition activities.

The Study's Hypothesis

Ho1: No statistically significant link exists between respondents' participation in rice value addition activities and certain socioeconomic variables.

used. The dependent variable for this was involvement in rice value-addition activities. It was scored on a 4-point Likert scale ranging from 0 to 3. Each respondent's overall minimum/maximum score was 0 and 30, respectively. The equal interval was used to classify respondent involvement as low, medium, or high. In addition, attitude was measured on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." The minimum/maximum scores obtained by each respondent were 1 and 50, respectively, and composite scores were used to test the study's hypothesis. Later, equal intervals were used to categorise respondents' attitudes into unfavorable, indifferent, and positive.

RESULTS AND DISCUSSION

Socioeconomic characteristics of respondents

The result in Table 1 shows the distribution of respondents by their age. The majority (38.6%) of the youth was youthful, which is 27 years. While 27.5 per cent were between the ages of 28-31 years,

21.4 per cent of the respondents were also above 31 years old, respectively. Only about 10.5 per cent of the respondents were between 19-22 years of age. Also, only a few respondents, 2.0 per cent, were within 18 years which was the minimum to partake in this study. The respondents' average age was 27.494.53 years. The average age of the respondents corroborates the findings of Ibrahim, Adamu, Torimiro, Okorie, and Ojo (2020). It implies that the population is youthful, agile, willing to learn, and can take risks. Also, the result in Table 1 showed that the majority (61.4%) of the respondents are males, and only 38.6% are females. It suggests that men dominated rice value-addition activities in the research area. According to Ibrahim (2018), males have dominated cattle-rearing activities, indicating that males have more dominance in agriculture. (Torimiro and Oluborode, 2006) This may result from the fact that farming is still considered an occupation for men in rural areas as a livelihood. The study also gives credence to Agboola *et al.* (2015) on vegetable farming, who submitted that more males were involved in vegetable farming than their female counterparts because it requires time and high energy. Rice value-addition activities also share similar characteristics. According to Mohammad and Abdulquadri (2012), there is a gender imbalance in the Nigerian agricultural industry, which is a crucial obstacle to agricultural growth and sustainable lives in rural regions.

Table 1 also revealed that most respondents (67.3%) were married. In comparison (19.6%) of the respondents are widows/widowers, 7.8%) of the respondents are divorced, and only a few (5.2%) of the respondents are single. It implied that married youths are more involved in rice value-addition activities. These findings also agree with Kimaro and Towo (2015), who posited that married farmers are likely to be pressured to produce more farm

produce for family consumption and commercialization. It is also in tandem with the findings of Ibrahim (2018) that farm succession planning and retirement are easier among married farmers.

Consequently, Table 1 shows that the vast majority (68.6%) of respondents have equal to or greater than 14 years of farming experience, while (30.7%) of respondents have between 6-13 years of farming experience, and only a few (0.7%) of the respondents have less than or equal to 5 years of farming experience. With a mean of 14.67 ± 2.53 years of farming experience. The implication is that the youth have more experience in rice value addition activities, which could be a driving force behind their involvement in rice value addition activities in the study area. The findings gave credence to Ibrahim (2018), who contended that farming experience influences farm succession planning. The results are also in tandem with Ani (2002), who posited that farming experience predominantly affects farmers' managerial know-how and decision-making. Results in Table 1 revealed that the majority (73.2%) of the respondents have 2 -7 members in their households, while (26.1%) of respondents have 7-14 members in their households, and only a few (0.7%) of the respondents have less than or equal to 1 member in their household. The result is consistent with Ibrahim (2018), who claimed that the reason for the enormous household is children's esteem and that the greater the household, the higher their social standing. It contrasts with reports from the National Household Survey (2016), which state that the average household size in rural areas is 5.9. It is also consistent with Glover's (2013) hypothesis that there is a direct relationship between agricultural production and household size. The larger the household size, the greater the agricultural output.

Table 1: Distribution of respondents by personal and socioeconomic characteristics

Variables	Frequency	Percentage	Mean	Std. deviation
Age			27.49	4.53
≤18.0	3	2.0		
19.00- 22.50	16	10.5		
22.51- 27.00	59	38.6		
28.00- 31.50	42	27.5		
≥31.51	33	21.4		
Sex				
Male	94	61.4		
Female	59	38.6		
Marital status				
Married	103	67.3		
Single	8	5.2		
Widow/widower	30	19.6		
Divorced	12	7.9		
Years of experience			14.67	2.53
≤5.0	1	0.7		
6.00- 13.00	47	30.7		

≥14.00	105	68.6		
Household size			6.33	2.20
≤1.00	1	0.7		
2.00- 7	112	73.2		
≥8- 14.00	40	26.1		

Source: Field survey, 2021

Furthermore, the results in Fig. 1 revealed that the majority (38.6%) of the respondents have attained up to the post-secondary level of education. In comparison, 28.1% of the respondents have education up to secondary school level. Also, 13.1% of the respondents have Quranic education, and 11.1% have up to primary school level of education. At the same time, 9.1% of the respondents have no formal education. These findings agree with the results of Ibrahim (2018), who argued that

possession of education is the reason why cattle farmers had identified a successor for their farms and are also in agreement with Wilson (1997), who asserted that the degree of education of responders has a substantial impact on a farm succession plan. It also confirms the findings of Adelokun and Adeniyi (2018) and Adejoh and Adah (2015), who posit that education makes farmers better managers of resources and more receptive to innovations offered by extension agents.

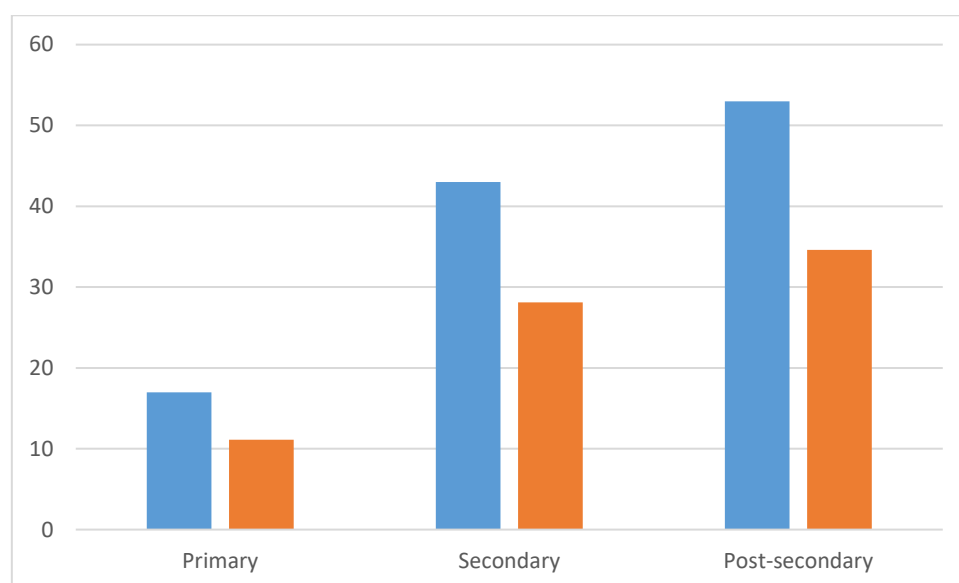


Figure 1: Distribution of respondents according to their level of education

The results in Fig. 2 showed that most respondents (78.4%) fall between incomes of ₦20666.50-1336333.00. In comparison (20.9%) of the respondents fall within incomes equal to or greater than ₦1336334.00, and only a few (0.7%) fall within the income of less or equal to ₦20666.00.

The implication is that most of the youths are low-income earners. The result follows the findings of Posner and Vandell (1999), who asserted that most rural farmers are low-income earners.

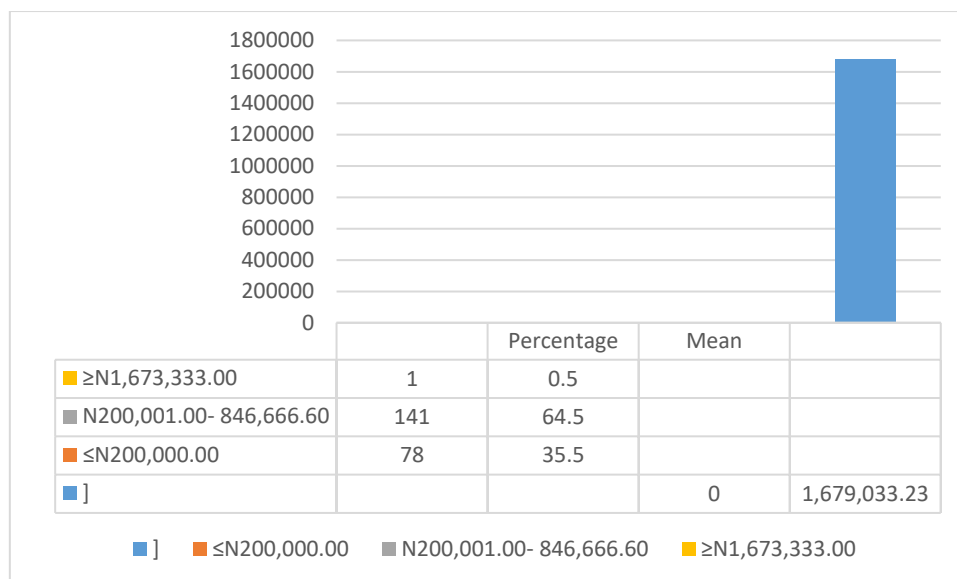


Figure 2: Distribution of respondents according to their annual income (N)

Identification of rice value addition activities of respondents and their level of involvement - Tables 2 and 3 show the outcomes of rice value addition initiatives in which the youths are involved and their level of involvement. Table 2 shows the ranked distribution of respondents' involvement in rice value-addition activities. The grand mean for involvement in rice value addition activities is 3.4563. The findings revealed that the youths were actively participating in 6 out of 10 rice value addition activities, and these activities were evaluated above the grand mean for involvement in rice value addition activities. This finding disagrees with Hussaini *et al.* (2021), who pointed out that

many (76.3%) farmers were not involved in rice value addition in Kebbi State. According to the rankings, the youths were involved in the following activities: Winnowing ranked 1st (mean=3.784); Milling/threshing ranked 2nd (mean=3.758); Parboiling ranked 3rd (mean=3.614); Transportation ranked 4th (mean=3.607); making of beds/ ridges ranked 5th (mean=3.542); bagging ranked 6th (mean=3.462); sorting/grading ranked 7th (mean=3.281); de-stoning ranked 8th (mean=3.209); land preparation ranked 9th (3.189), and marketing of rice ranked 10th (3.117). It implies that the youth are involved in almost all rice value-addition activities in the study area.

Table 2: Distribution and ranking of respondents according to their involvement in rice value-addition activities

S/No	Activities	Mean score	Ranking
1	Winnowing	3.784	1 st
2	Milling/threshing	3.758	2 nd
3	Parboiling	3.614	3 rd
4.	Transportation	3.607	4 th
5.	Making of beds/ ridges	3.542	5 th
6.	Bagging	3.462	6 th
7.	Sorting/ grading	3.281	7 th
8.	De-stoning	3.209	8 th
9.	Land preparation	3.189	9 th
10.	Marketing of rice	3.117	10 th

Source: Field survey, 2021

Grand mean: 3.4

Consequently, Table 3 further demonstrated that most respondents (68.0%) were involved in rice value-addition activities. In comparison, 30.7 per cent of the respondents were moderately involved in rice value addition activities,

and only a few (1.3%) had low involvement in rice value addition activities. It indicates that respondents are determined despite these constraints, which can be attributed to the youthfulness of the respondents.

Table 3: The overall level of youths' involvement in rice value-addition activities

Total involvement score	Frequency	Percentage	Decision
≤10.1- 14.75	2	1.3	Low
18.76- 20.75	47	30.7	Moderate
≥22.77	104	68.0	High

Source: Field survey, 2021

Attitude of youth towards involvement in rice value addition activities in Kebbi State - More so, the results of youth attitudes towards involvement in rice value addition activities in Kebbi state are presented in Table 4. Results in Table 4 show respondents' responses: "Youth are actively engaged in rice value addition activities" (mean=4.333), "I see those involved in rice value addition activities as illiterates" (mean=4.320), "I see rice value addition activities as a low-status business opportunity" (mean 4.300), "Youth is not involved in rice value addition activities because it's capital intensive" (mean=4.268), "Youth aspire for a career in rice value addition activities" (mean=4.169), "Youth appreciate rice value addition activities as a source of employment" (mean=4.085), "Youth perceive rice value addition activities as profitable business" (mean=4.058), "More income is generated by youths

that are engaged in rice value addition activities" (mean=3.954), "Youth are not interested in rice value addition activities"(mean=3.764), "Youth sees rice value addition activities as energy-sapping activities" (mean=3.535). It demonstrates that youth in the study area have favourable attitudes toward involvement in rice value-addition activities, which would invariably increase their involvement in rice value-addition activities. However, the findings agree with Anonymous (N.D.) that attitude influences social behaviour, and generally, people act in ways consistent with their attitudes. Also, attitude may strongly influence intention than those attitudes per se. For instance, a youth may have a negative attitude towards involvement in rice value addition activities. It may create a solid intention to be involved in rice value addition activities because of the benefits driven.

Table 4: Mean and standard deviation respondents' attitudinal statement of rice value addition activities.

Attitude statements	Mean	S. D
Youth are actively engaged in rice value-addition activities	4.333	0.952
I see those involved in rice value-addition activities as illiterates	4.320	0.832
I see rice value-addition activities as a low-status business opportunity	4.300	0.689
Youth are not involved in rice value addition activities because they are intensive	4.268	0.910
Youth aspires to a career in rice value-addition activities	4.169	1.031
Youth appreciate rice value addition activities as a source of employment	4.085	0.873
Youth perceive rice value-addition activities as a profitable business	4.058	0.974
More income is generated by youths who are engaged in rice value-addition activities	3.954	0.955
Youth are not interested in rice value-addition activities	3.764	1.185
Youth see rice value-addition activities as energy-sapping activities	3.535	1.070

Source: Field survey, 2021

However, Table 5 further showed that most respondents (90.2%) have a favourable attitude toward involvement in rice value-addition activities in the study area. In contrast, 6.5 per cent of the respondents have a moderate attitude toward rice value addition activities. Only a few (3.5%) have an unfavourable attitude toward rice value-addition activities. The implication is that youth have a

favourable attitude towards involvement in rice value addition activities because of the benefits it promises them. It is an indication that the youth have a high entrepreneurial spirit. Suppose these favourable attitudes of the respondents could be harnessed. In that case, the country will attain self-sufficiency in rice, and through this, billions of dollars could be saved from rice importation.

Table 5: Distribution of respondents according to their attitudes in rice value addition activities

Total attitude score	Frequency	Percentage	Decision
≤10	5	3.5	unfavourable
19.75- 29.76	10	6.5	Moderate
≥38.77	138	90.2	Favourable

Source: Field survey, 2021



Correlation analysis showing the relationship between respondents' involvement in rice value addition activities and some selected socioeconomic characteristics

The result in Table 6 shows that at $p \leq 0.01$, there was a positive and significant relationship between respondents' years of farming experience and involvement in rice value addition activities ($r=0.200$). As respondents' years of farming experience increase, they tend to be more involved in rice value-addition activities. However, there was no significant relationship between their level of involvement in rice value addition activities and age ($r=0.014$), household size ($r=0.075$), number of wives ($r=0.069$), farm size ($r=0.055$), annual income ($r=-0.158$), years spent in the community ($r=-0.013$); and age of the farm ($r=-0.00$).

Table 6: Correlation analysis showing the relationship between respondents' involvement and their socioeconomic characteristics

Socioeconomic variable	r = value	r ²	p=value	Decision
Age	0.014	0.028	0.865	NS
Years of experience	0.200	0.400	0.013	S
Household size	0.075	0.150	0.385	NS
Number of wives	0.069	0.138	0.274	NS
Farm size	0.055	0.110	0.501	NS
Annual income	-0.158	-0.316	0.051	NS
Years spent in the community	-0.013	-0.026	0.869	NS
Age of the farm	-0.007	-0.014	0.932	NS

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

Source: Field survey, 2021

CONCLUSION AND RECOMMENDATION

The study results showed that most respondents were in their active years and were heavily involved in rice value-addition activities. Also, they had a favourable attitude towards involvement in rice value-addition activities. For Nigeria to attain self-sufficiency in rice, the youth must be encouraged and supported with subsidised farm inputs, information on modern rice production technologies, and access to local and international markets.

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Factors Associated with Capacity Development in Fish management operations among Young Fish Farmers in Southwest Nigeria

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ABSTRACT

This study identified the motivating factors responsible for capacity development in Fish farming among the youth in Southwestern states of Nigeria. A multi-stage sampling procedure was employed to sample 355 youths, using an interview schedule. Data on factors motivating youth capacity development, the extent of personal capacity development, and benefits derived from fish farming were collected using an interview schedule. Percentages, mean, standard deviation, and Analysis of variance (ANOVA) at 0.05 were used to analyse the data. The results showed that most of the respondents had formal education (97.6%) and earthen ponds (73.0%) with the mean number of production cycles per annum being 2.9 ± 2.3 cycles. The motivating factors for fish farming were the respondents' interest ($\bar{X}=2.80$) and profitability of the enterprise ($\bar{X}=2.40$) with mean capacity development in production, pre-production, and post-production activities being 14.67, 4.09, and 7.15 respectively for 59.7% of the respondents. Self-dependency (1.92 ± 1.07) and improved food security (1.90 ± 1.06) were the benefits enjoyed by 68.2% of the respondents. There was no significant difference in the level of capacity building ($p=0.115$) of the respondents across the states of the study. However, respondents' interest, profitability, and benefits derived encouraged youth capacity development in fish farming; hence these propelling drives should be sustained by the aquaculture stakeholders for enhanced capacity development.

Keywords: Youth fish farming, capacity development, fish profitability

INTRODUCTION

Motivation has been a positive reinforcement and a factor that can enhance the sustainability of an enterprise, especially among the youth that has developed a capacity for a specific job. Youths' strength for economic and social development is driven by some inner and outer enablement in developing nations like Nigeria. The significance of youth in a nation cannot be overemphasized as it is popularly said that youths are tomorrow's leaders being the pillar and the strength of a nation. In Nigeria, youth is said to be an individual aged 18–35 years (National Youth Policy, 2019). Nigeria is blessed with a youth population of (33.652 million) among the world's countries (Daniels, 2022). Hence, Youth entrepreneurship and empowerment are needed for the attainment of sustainable development goals that will enhance the economic stability and progress of a given society. Therefore, all efforts towards youth development must be put in place and given the needed attention for greater productivity and higher capacity development for an enhanced economy, especially in the agricultural sector (Samuel, 2021 & Daniel, 2022).

However, the Agricultural sector has employed about 70% of the Nigerian populace of which about 21.5% are youth, hence, youths' engagement and encouragement in agricultural entrepreneurship in the areas of crop production, animal husbandry, and aquaculture is a necessity for sustainability and growth of the sector (FAO, 2023b, Nigerian Tribune, 2022). Globally, the consumption of

fish was 13.3kg in 2017; instead of the expected 21kg in 2015 meaning the production of fish is just coming up (Aquaculture in Nigeria Fact sheet, 2022; Idris-Adeniyi, Busari, Badmus & Adeniyi, 2018). Furthermore, fish was said to be responsible for 17% of the animal protein available for man as of 2015. In the same vein, aquaculture which is one of the staple foods in Nigeria, contributes 2.09% to Nigeria's economy, whereas, Nigeria's environmental conditions have been so friendly and supportive of tropical fresh and marine fish rearing due to the high-quality ground and water resources with enabling climate for all year-round production (IFAD, 2019 & FAO, 2023a). However, fish farming is a big sector that could gainfully employ Nigerian youth (self-employment) as the sector can curb youths' migration and enhance their self-dependency (Nwuba, Ude and Ogbonnaya, 2022). Hence, massive capacity development of youths in fish farming will be beneficial to Nigeria's economy by creating more jobs in areas of input supplying, marketing of fish and its products, fish-related food processing, production, distribution and administration of fish farm, availability of a good source of animal protein, income provision, enhanced household food security and creation of innovative goods and services among others (Samuel, 2021 and Aquaculture in Nigeria: Fact Sheet, 2022)

Hence, there is a compelling necessity to boost and sustain the youth's interest and participation in fish farming activities to meet the continuous expected rate of fish in Nigeria (Daniels, 2022 &



Nigerian Tribune, August 23, 2022). Youths enhanced capacity development in aquaculture activities like pre-production, production, and post-production activities and opening of opportunities of being gainfully engaged in the supply of aquaculture inputs such as; water testing and treatment kits, culturing and holding tanks, fish seeds, weighing scales, fish feeds, harvesting nets, medication including vaccines. In the aspect of production, youths could equally develop a capacity to be an expert in producing consumable and non-consumable foods. Furthermore, the post-harvest operations where the youth's capacity could be developed maximally are post-harvest handling and operations like harvesting, transportation services, food processing, harvesting, and marketing (Ayinde, Filusi, Sangodeyi, and Akinbote, 2022). According to Prachi, (2023), two factors could be responsible for individual motivation, especially for the youth that will engage in aquaculture as propounded by Frederick Hertzberg (1959). The stated motivating factor includes the *motivator factors* (Advancement, growth opportunities, sense of achievement, recognition, job satisfaction, job security, and responsibility); and *hygiene factors* (working conditions, peer relationship, leadership quality, job security, interpersonal relationship, compensation, and status), these factors do help to inform the youth decision in whether to quit or continue in building the capacity that will enhance the scale of their production and in measuring fish farming satisfaction of the youths. However, one of the dimensions of capacity development is knowledge, productive capacity, and developing and strengthening of the skill displayed in the course of production which could affect efficiency and performance in an enterprise. Hence, this study tends to investigate the factors associated with self or personal capacity development of young fish farmers in the management operations in southwestern, Nigeria. The study as well described the socioeconomic characteristics, assess the self-capacity development of youths in fish management operations, identified the benefits derived from fish farming, and examined the significant difference in the level of self-capacity development among the respondents across the states of study.

METHODOLOGY

Southwest Nigeria (latitude of $6^{\circ} 30'N$ to $9^{\circ}N$ degrees and longitude of $3^{\circ}0'E$ to $5^{\circ}30'E$ degrees) was the study area, which comprises six states (Ondo, Osun, Oyo, Ekiti, Lagos, and Ogun). The multi-stage sampling procedure was used to select 355 youths who engaged in fish farming using an interview schedule. The first stage involved the purposive selection of 50% of the states with a high concentration of fish

farms and a high number of youths involved in fish farming in Southwestern Nigeria (Aquaculture in Nigeria, Fact sheet, 2019). Thus, Oyo, Ogun, and Lagos States were purposively selected. At stage two, the stratification of the LGAs of the selected states into prominent and non-prominent areas of fish production was done, after which the 30% of the LGAs identified as a prominent area of fish farming were randomly selected given three LGAs per state with 9 LGAs for the study. In the third stage, simple random sampling of one community per LGAs was done resulting in 9 communities for the study. The fourth stage involved the stratification of the fish farmers in each of the communities into young (≤ 35 years) and adult (>35 years) using the Fish Farmers Associations' membership register and ADP offices (National Youth Policy, 2019). In the fifth stage, proportionate sampling was employed to select 40% of the registered young fish farmers resulting in 112, 101, and 142 respondents in Oyo, Ogun, and Lagos States respectively giving a total number of 355 respondents for the study.

Respondents' extent of motivation was captured with the list of eleven (11) possible motivating items for capacity building using Hertzberg's two-factor theory of motivation and Maslow's hierarchy of needs. The selected items included peer pressure, family background, and opportunity for self-employment among others. The response option of "to a large extent" (2) "to a lesser extent" (1) and "to no extent" (0) was used with maximum, minimum, and mean scores obtained being 0, 22, and 11.9 respectively. Motivation factors of youths involved in fish farming were ranked using weighted mean scores in descending order. A list of eighteen self-capacity development items in fish farming was generated from the literature on all fish farm production operations and was classified into pre-production, production, and post-production activities. The extent of self or personal capacity development of respondents in the fish farming operations was captured on a scale of "to a large extent" (2) "to a lesser extent" (1) and "to no extent" (0). The minimum, maximum, and mean scores obtained were 18, 36, and 22.58 respectively. Respondents' level of personal capacity development in fish production was measured using above and below the mean (22.8) criterion to categorise the respondents as low and high capacity development. The respondents' benefits derived from fish farming were measured with 15 possible derivable benefits, these include meeting daily needs and reduced dependency on parents among others. The response option of strong benefit (2) benefit (1) and not a benefit (0) was used with maximum, minimum, and mean

scores obtained been 30, 15, and 17.2 respectively. Respondents' level of benefits derived in fish production was measured using above and below the mean (17.2) criterion to classify the respondents into those with high and low benefits. The differences in the capacity development of the respondents across the accordingly.

RESULTS AND DISCUSSION

Socioeconomic characteristics of the respondents -

The result in Table 1 shows that most of the respondents had former education (97.6%) and earthen ponds (73.0%) with the number of production cycles per annum being 2.9±2.3 cycles per annum. Table 1 further shows that most of the respondents (68.9%) had qualifications above secondary education which was in line with the study of Idris-Adeniyi, et al (2018) & Ibidapo, Owombo and Sunday (2018) in which most of the fish farmers were literate. This implies that youths in fish farming are well-educated and might be

states of study were measured using Annalysis of Variance (ANOVA) at 0.05 level of degree of confidence. Respondents' socioeconomic characteristics like education, type of fish pond, and number of fish production cycles per year were captured and measured able to benefit from the technical and scientific knowledge available for successful fish management and in turn could motivate the respondents (IFAD, 2019). However, the reason for more respondents using earthen ponds might be attributed to their easy construction, ability to accommodate more fish, better growth (natural habitat), and low cost compared to concrete and fish cage which might motivate the young fish farmers for continuous production of fish (Samuel, 2021). The mean number of fish cycles per annum suggests that the respondents might have been a source of motivation with the experience gained experiences for the success of their fishing enterprises and hence maximise the fish cycles possible per year.

Table 1: Socio-economic characteristics of the respondents

Variable	Frequency	Percentages	Mean
Education			
Non formal	08	2.4	
Primary	26	7.3	
Secondary	76	21.4	
OND	107	30.1	
HND	96	27.0	
Postgraduate	42	11.8	
Number of fish production cycle per annum			2.9±2.3 cycles per annum
1-4	324	91.3	
5-8	16	4.5	
>8	15	4.2	
Type of fish pond			
Earthen pond	259	73.0	
Concrete pond	85	23.9	
Fish cage	11	3.1	

Source: Field Survey, (2017)

Factors motivating respondents' capacity development in fish farming

The result in Table 2 shows that the most motivating factor for respondents' capacity development was genuine interest (\bar{X} =2.80) and was followed by the profitability of fish farming (\bar{X} =2.40) with the least being the ability to gain access to free resources (\bar{X} =1.67). This is expected because, naturally, it would seem that profitability or means of livelihood would

be the highest motivating factor for youth to embark on agricultural enterprise including aquaculture (Nwuba *et al*, 2022 and Samuel, 2021). However, the genuine interest that motivates the respondents into fish farming is worth applauding as interest is said to be the principal pillar that upholds enterprises; and was described as a strong element of capacity development (Prachi, 2023) .

Table 2: Distribution of respondents’ factors motivating capability development in fish farming

Motivating factors	Mean	Rank
Genuine interest	2.80	1 st
Learned it is profitable	2.40	2 nd
Alternative income	2.30	3 rd
Self-employment opportunity	2.29	4 th
Lingering unemployment	2.21	5 th
Influence of relatives	2.12	6 th
Graduate of fish farming	2.03	7 th
Easy to start	1.76	8 th
Self-respect	1.68	9 th
Access to free resources	1.67	10 th

Source: Field survey, 2017.

Capacity development of respondents in fish farm management operations

Table 3 reveals that the pre-production, production, and post-production activities with the highest personal capacity development were input purchase (\bar{X} =1.60), medication (\bar{X} =1.68), and weighing (\bar{X} =1.61) respectively. However, the most self-developed capacity for fish management among the respondents was towards production activities (\bar{X} =14.67) and was followed by post-production tasks flow (\bar{X} =7.15) and pre-production processes (\bar{X} =4.09). Table 3 further reveals that the most production activities engaged in by the young fish farmers were the medication management (\bar{X} =1.68), followed by the proper management of the pond (\bar{X} =1.58) and capacity development in fish feeding (\bar{X} =1.57). This implies that the interest developed by the young fish farmers might have contributed to the

respondents’ capacity developed in the production activities of fish health, pond management and fish’s feed consumption. However, the result of the pre-production aspect of the fish management suggests the importance of input purchase (\bar{X} =1.60) and fish species selection in fish management practices (\bar{X} =1.26). The post-production activities with the highest developed capacity were in weighing (\bar{X} =1.61) followed by selling (\bar{X} =1.58) and grading (\bar{X} =1.57); the post-production activities are needed for respondents to have revenue for the fish enterprises. However, Table 3 further shows the level of youth’s capacity development in all the fish farm operations as it was high for more than half of the youths (59.7%) showing a high-capacity development (Ayinde *et al*, 2022).

Table 3: Distribution of respondents based on capacity development in fish farming procedures

Capability development variables	Mean
Pre-production	4.09
Input purchases	1.60
Specie selection	1.25
Liming of pond	1.24
Production	14.67
Fish stocking	1.26
Pond Management	1.58
Feed production	1.48
Feed purchasing	1.43

Feeding	1.57
Medication	1.68
Spawning	1.47
Test cropping	1.50
Cropping	1.40
Post Production	7.15
Prospecting for market	1.30
Grading	1.57
Packaging	1.39
Selling	1.58
Weighing	1.61
Level of capability development	22.58
	%
High	59.7
Low	40.3

Source: Field Survey, (2017)

Benefits derived from building capacity in fish farming

Table 4 shows that self-dependency ($\bar{X} = 1.92$) was the most benefits accrue to fish farmer capacity development with the least being access to health care ($\bar{X}=1.50$). This implies that capacity development in fish farming can make youths to be self-dependent through the self-employment it could offer. It further implies that fish farming has a positive

effect on reducing the youth dependency ratio in Nigeria as indicated by 68.2% of the respondents with high benefits; which was in line with the assertion of Aquaculture in Nigeria Fact Sheet (2022) that capacity building in aquaculture enhances youth self-employment. This implies that fish farming has benefited respondents and could help them improve their self-confidence and self-dependency, especially when embarking on fish value addition (IFAD, 2019).

Table 4: Distribution of respondents based on benefits derived from involvement in fish Farming

Benefits derived	Mean	Rank
Self-dependency	1.92	1 st
An alternative source of income	1.90	2 nd
Improved skill	1.87	3 rd
Improved confidence	1.81	3 rd
Improved individual food security	1.72	5 th
Access to market	1.62	6 th
Improved housing condition	1.59	7 th
Improved savings	1.59	7 th
Financial freedom	1.57	9 th
Access to healthcare	1.50	10 th
Level of Benefits	17.12	%
High		68.2
Low		31.8

Source: Field survey, (2017)



Differences in the capacity development of respondents across areas of study (Oyo, Ogun, and Lagos state)

The result in Table 5 shows that there is no significant difference in the level of personal capacity

development of youths across the three sampled states (F = 2.177, p > 0.05). This indicates that the level of personal capacity development of youths in fish farming does not differ significantly across Oyo, Ogun, and Lagos states which might be due to the same geographical region and the same trend of motivating factors. Youths had similar access to financial resources, manpower, land and other resources that enable their personal capacity development (Ayinde et al, 2022).

Table 5: ANOVA table showing the differences in the capability development of fish farmers across areas of study (Oyo, Ogun, and Lagos state)

	Sum of squares	Df	Mean sq	F	Sig
Between groups	7.402	2	3.701	2.177	*0.115
Within groups	598.348	352	1.700		
Total	605.750	354			

Source: Field Survey, (2017) * Not significant p>0.05

CONCLUSION AND RECOMMENDATION

The study concludes that the youths’ high self-capacity development in fish farming was motivated by a genuine interest and the profitability of the enterprise. Also, the proportion of youths’ self-capacity development is directly proportional to the benefits derived from fish farming. The self-dependency of the youth was brought about by the annual multiple cycles on the earthen pond and their capacity development in fish production. The youth in the Southwestern states of Nigeria has the same self-capacity development in the fish farming enterprise across the states. The study recommends that the motivating factors keeping the youth in aquaculture should be sustained by the stakeholders across the fish value chain for sustainable fish production, sustainable benefits from fish farming, and diversification of the economy to motivate and retain youth in aquaculture.

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Youth Awareness and Participation in Socioeconomic Development Activities in Rural Communities of Kwara State, Nigeria.

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ABSTRACT

The study investigated youth participation in socioeconomic development activities in rural communities of Kwara State, Nigeria. A three-stage sampling technique was used to select 120 respondents for the study. Data was collected through the use of structured questionnaire and analyzed with both descriptive and inferential statistics. Findings revealed that 57.5% of the respondents were males while 42.5% were females. The average age of respondents was 26 years, 56.7% of them were single while 47.5% of the respondents had tertiary education. Furthermore, the research revealed that 83.3% were involved in social activities while 54.2 were involved in political activities. The highest on the scale of awareness of youths towards socio economic development activities was that youths are aware of the meaning of socio-economic development projects with a mean score of 2.78. Youths were also more involved in religious activities with a mean score (MS) of 2.77, recreational activities such as sports (MS = 2.50), music and entertainment (MS = 2.49). Hypothesis testing between level of awareness and youths' participation in socio economic development projects reveals a positive significant correlation coefficient ($r=0.288$, $p=0.001$). The study concluded that youths in the study area were aware of their importance in socio economic development activities and they engage in social activities, sports activities, and educational activities. It was therefore recommended that youths should get better education so as to increase their chances of awareness and participation in socio economic development activities.

Keywords: *Participation, youth, development, socioeconomic, socioeconomic development, awareness.*

INTRODUCTION

Rural community developments (RCD) are actions that empower rural residents to realize their capacity to identify their problems and make the most of their resources to improve their quality of life. Community development places an emphasis on self-help, mutual assistance, neighborhood construction, integration, and the development of political decision-makers. (Smith, 2019). The concept of youth has been defined as the period in an individual life, which according to United Nations (2020) and World Bank (2020) about 50% of the developing world population are youths estimated at about 1.2 billion of age between 15 and 24 years. They have assumed wider community development roles through formation of youth associations (Egboniyi, 2018).

Youth have taken part in development efforts in one way or the other. These initiatives are anticipated to result in community development. Youths are crucial to the development of the country, the numerous government programs aimed at them at various points in time provide evidence of the youths' significance to national development. (Onoja & Agumagu 2017). Youths typically require sufficient training in order to maintain a trustworthy status quo in their community. Bringing them together makes it easier for them to communicate as a group.

Several African nations, including Nigeria, still have not been able to develop comprehensive and effective policies to address the issues facing this significant

and expanding segment of the African population, or to have in place a way to assess the progress made, despite the increased awareness of the challenges facing Nigerian and African youths reported by previous studies. (Gyimah-Brempong and Kimenyi, 2013). One of the biggest concerns facing governments and policymakers in Africa today is how to give opportunities to the more than 200 million youths on the continent so they can live decent lives and support the economic development of their nations.

Youth participation is an essential strategy for ensuring young people's optimal socio-economic development and for achieving wider socio economic development goals for it society (Bello, 2022). The vast potential of human capital would be lost if youngsters were not given the chance to develop their capacity to engage in socioeconomic development. This would have significant negative effects on economic, cultural, political, and social ramifications. Socioeconomic activities usually engaged in by youths include; Social activities such as music, entertainment and religious activities, traditional activities, political, sport and educational activities. This research is designed to assess the awareness and participation of youths in socio economic development activities in rural communities of Kwara State, Nigeria.

Research Questions

- i. What are the socio economic characteristics of youths in rural communities of Kwara State?

- ii. What type of socio-economic development activities do youths usually engage in, in rural communities?
- iii. What is the level of awareness of youths towards participation in socio economic activities in the study area?

Objectives of the Study

The main objective of this study is to assess the level of awareness and participation of youths in socio economic development activities in rural communities of Kwara State, Nigeria.

The specific objectives are to:

- i. Describe the socio economic characteristics of youths in rural communities of Kwara State;
- ii. Identify the types of socio economic development activities youths usually engage in, in rural communities of Kwara State
- iii. Determine the level of awareness and participation of youths in socio economic development activities in the study area;

Hypothesis of the Study

There is no significant relationship between awareness of youths and their participation in socio economic development activities in the study area.

METHODOLOGY

The study was carried out in Kwara State, Nigeria. The population of the study involves all youths in rural communities in Kwara state. A three stage sampling technique was used to select respondents for the study. The first stage involved the random selection of one LGA each from the three geopolitical zones in Kwara State. In the second stage, two communities with active youth engagement in socioeconomic development activities were identified in each of the selected LGA. The third stage involved selection of youths based on their participation in community youth activities as respondents for the study. A total of one hundred and twenty youths were selected for the research. Data was collected through the use of a structured questionnaire. The questionnaire comprised of various questions use to elicit information from respondents based on the objectives of the study.

Table 1: Selected communities and sampled respondents

Selected LGAs	Selected communities	Sampled respondents
Irepodun	Oro	28
	Agbamu	23
Asa	Eyenkorin	18
	Otte	22
Moro	Olooru	15
	Elemere	14
Total		120

RESULTS AND DISCUSSION

Socio economic characteristics of Respondents

The socioeconomic characteristics of respondents are as shown in Table 1 above. More than half (57.5%) of the respondents were males while 42.5% were females. This suggests that in the study area, male youths participate in socioeconomic development activities at a higher rate than female youths. This is in line with the work of Olujide (2008) which claimed that when it came to taking part in activities for socioeconomic development, male youths were more active than females. Also, Mukasa Bbaale (2022), in a study in Uganda found out that women are still lagging behind in the participation of economic activities.

More than half of the respondents (62.5%) were between the ages of 31-40. The average age is 26 years which indicates that most of the respondents are in their youthful age. This is in line with the work of Iwuchukwu *et al.* (2015) which asserted that young adults in their mid-20s are always active and engage in activities that advance socioeconomic development. This is also similar to the findings Adelaye *et al.* (2021) who found the mean age of youth participating

in an empowerment programme to be 20.61 years. This suggests that they were in their prime, a time when they are active and productive working to raise their socioeconomic status.

More than half (63.3%) of the respondents were single while 36.7% were married. This is in line with the work of Angba *et al* (2009) and Girls not Brides (2017) which stated that most of the youths do not marry early and this could enable them become agents of change in their communities through increased participation in socioeconomic development projects. Less than half (20%) of the respondents were civil servants while 16.7% were petty traders and 13.3% were engaged in crafts work. These shows that youth are engaged in various income generating activities to enhance their livelihoods.

Almost half of the respondents (47.5%) had tertiary education while 45.85% and 3% had secondary and primary education respectively. Only 3.3% of the respondents had no education at all. This suggests that the majority of the young people were educated, which would have improved their

understanding of the roles that young people play in community development. The result corroborates the findings of Ayinde *et al.* (2020) that on average, youth who involve in fish farming enterprise are relatively educated at least with secondary school equivalent certificates. According to reports, education tends to

steer attitude, knowledge, and behavior in a positive direction. This agrees with the work of Mbagwu *et al* (2016) which asserted that the majority of young people had some kind of education and their literacy affected their awareness and participation in socioeconomic development processes.

Table 2: Socioeconomic characteristics of respondents

Variables	group	frequency	percentage	Mean/ Std dev.
1 Gender	Male	69	57.5	26±7.64
	female	51	42.5	
2 Age	21-30	23	19.2	
	31-40	75	62.5	
	41-50	22	17.4	
3 Marital status	Single	76	63.3	
	Married	44	36.7	
4 Occupation	Civil servant	24	20	
	Farmer	24	20	
	Petty trader	20	16.7	
	Crafting	16	13.3	
	Artisan	36	30	
5 Education	Primary	4	3.3	
	Secondary	55	45.8	
	Tertiary	57	47.5	
	No education	4	3.3	

Types of socioeconomic activities youths engage in

The type of socio-economic activities involved in by the respondents includes social activities (83.3%). This corroborates the work of Mbagwu *et al* (2016) which stated that youths of nowadays are more active in social activities therefore their performance in social development activities cannot be overemphasized. About 60% of them were involved in traditional activities, 54.2% and 67.5% of them were involved in political activities and sports activities

respectively while 75% and 65.8% were involved in educational activities and development activities. In a study on students' involvement in young farmers' club (YFC), Ayanda et al (2020) found that participation in the YFC activities influenced the attitude of the students and expose them to the profitability of agricultural enterprises. When youths participate in these activities, their career aspirations are recognized and encouraged which may be a means of academic achievement for them.

Table 3: Types of socioeconomic activities youths engage in

Types of activities	Yes (%)	No (%)
1 Social activities	83.3	16.7
2 Traditional activities	56.7	43.3
3 Political activities	54.2	45.8
4 Sports activities	67.5	32.5
5 Educational activities	75	25
6 Development projects	65.8	34.2

Level of awareness of youths towards participating in the socio-economic development activities in the study area

The level of awareness of youths towards participating in socioeconomic development activities is shown in Table 3. A 3-point type likert type scale was used to

measure the awareness of youths on the need towards participating in socioeconomic development activities. The highest on the scale was “I am aware of the meaning of socio-economic development projects” with a mean score (MS) of 2.78. This implies that most of the youths are aware of the meaning of socioeconomic developments and fully know what is expected of them in socio economic development projects. This is as a result of most of the youths being educated and learning their roles in subjects such as social studies civic education and so on. This collaborates the work of Mbagwu *et al.* (2016) which stated that most of the youths were educated thereby fostering their awareness on their roles in socio economic development.

This was closely followed by the youths being aware that “Non-involvement of youth in community development activities results to redundancy” with a mean score of 2.73. This implied that most of the youths are aware that if they are not involved in socio economic development, they could be redundant and useless to the economy. This

confirmed the work of Iwuchukwu *et al* (2015) which suggested that the youths being aware that if they do not participate in socio economic development activities, they might end up being redundant in the society.

Most of the youths are also aware that “Socio economic development projects can be driven by individuals too” with a mean score of 2.67. This implied that majority of youths understands that they can single handedly help and influence socioeconomic developments activities in the study area. This is in line with the work of Olujide (2008) which reported that young people are aware that even one person can influence socioeconomic development activities and have a big impact on the community.

Youths are also aware that “Socio economic development projects reduces rural-urban migration” (MS=2.63), “Socio economic development helps cash flow in the area” (MS=2.60) and “Youths can contribute meaningfully to the development of their communities” with mean score of 2.59.

Table 4: Level of Awareness of Youths towards participating in socio economic developments activities

Projects	Yes it is true	I am not sure	I don't know	mean	Std dev	Rank
I am aware of the meaning of socio economic development projects	104(86.7)	6(5)	10(8.3)	2.78	0.58	1 st
Non-involvement of youth in community development activities results to redundancy	100(83.3)	8(6.7)	12(10)	2.73	0.63	2 nd
Socio economic development projects can be driven by individuals too	90(75)	20(16.7)	10(8.3)	2.67	0.62	3 rd
Youth engagement in socioeconomic development activities can have positive impact	90(75.0)	20(16.7)	10(8.3)	2.67	0.62	3 rd
Socio economic development projects reduces rural-urban migration	87(72.5)	21(17.5)	12(10)	2.63	0.66	5 th
Participation in socioeconomic activities can help youth develop leadership skills	86(71.7)	24(20)	10(8.3)	2.63	0.63	5 th
Socio economic development helps cash flow in the area	92(76.7)	8(6.7)	20(16.7)	2.60	0.76	7 th
Youths can contribute meaningfully to the development of their communities	85(70.8)	21(17.5)	14(11.7)	2.59	0.69	8 th
Participation in socioeconomic activities can enhance capacity building among youths	86(71.7)	18(15)	16(13.3)	2.59	0.71	8 th
The project(s) embarked upon by government in my area has greatly improved my way of life	70(58.3)	38(31.7)	12(10)	2.48	0.67	11 th
Socio economic development project is not all about funds	55(45.8)	34(28.3)	31(25.8)	2.20	0.82	12 th

The government has undertaken youths empowerment project(s) with great impact to youths in the community	55(45.8)	33(27.5)	32(26.7)	2.19	0.83	13 th
The government has undertaken socioeconomic project(s) in my area in the last five years	56(46.7)	27(22.5)	37(30.8)	2.16	0.87	14 th
Participation in socioeconomic activities can result to corrupt practices among youths	34(28.3)	26(21.7)	60(50)	1.78	0.86	15 th

Hypothesis testing

There is no significant relationship between level of awareness of youths and their participation in socio economic development activities of the rural community

Table 5: Pearson product moment correlation Analysis between participation of youths in project and level of awareness

		Participation in projects	Level of awareness
Participation in project	Pearson Correlation	1	.288**
	Sig. (2-tailed)		.001
	N	120	120
Level of awareness	Pearson Correlation	.288**	1
	Sig. (2-tailed)	.001	
	N	120	120

$r = 0.288, p = 0.001$

The result of the Pearson Product Moment Correlation showing the relationship between level of awareness and youths participation in socio economic development projects reveals a positive correlation coefficient ($r=0.288, p=0.001$) and significant at 1% level of probability. This implies that the higher the level of awareness of youths on socio economic development projects, the higher the chances of participation.

CONCLUSION AND RECOMMENDATIONS

From the findings of this research it was concluded that youths participate in socioeconomic development activities in their communities. Male respondents are more active in their involvement in socioeconomic development activities. Most of the respondents were

educated with primary, secondary and tertiary qualification. It was also concluded that respondents were involved in social activities, traditional activities, sports activities, educational activities and political activities.

Based on the results of the research, the following recommendations were made

1. Youths should be empowered and given more prominent roles of leadership to enhance their decision making abilities and participation in development activities.
2. Youths should also be encouraged to get better education so as to increase their chances of awareness and participation in socio economic development activities.

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Effects of Farm Practical Year Programme of Federal University of Agriculture Abeokuta on Employability Competencies of Final Year Agriculture Students

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ABSTRACT

Farm Practical Year (FPY) is an agricultural education programme that exposes agriculture students to practical skills in agriculture. The study assessed the effects of the programme on employability competencies of final year agriculture students. Data were collected using a pretested instrument administered on 197 final year students selected through purposive and simple random sampling techniques. The data were analyzed using descriptive (percentage and mean) and inferential (Chi-square and regression) statistics. Results showed that majority (92.4%) of the students were below 28 years with mean age of 24.75 years while slightly more than half (53.8%) were female and 96.54% were single. Findings revealed that pasture and range management ($\bar{x}=3.67$), arable crop production and organic farming ($\bar{x}=3.67$) were the most preferred enterprises while 86.8% indicated low level enterprises ($r=0.37$; $p\leq 0.05$) and employability competencies. Based on the findings, FPY programme has proved useful in experimental learning but the students had moderate efficiency in the agricultural-based skills learnt. Therefore, the study recommended that efforts should be made to enhance efficiency of agricultural-based skills to boost employability competencies of the students of efficiency in agricultural-based skills. Furthermore, majority (89.3%) of the participants had positive perception on FPY programme on employability. there is a significant relationship between enterprise preferred ($r=0.373$, $p\leq 0.05$) and employability competencies. Based on the findings, FPY programme has proved useful in experimental learning but the students had low efficiency in the agricultural-based skills learnt. Therefore, the study recommended that efforts should be made to enhance agricultural-based skills to boost employability competencies of the students.

Keywords: Efficiency, FPY, Employability, Competencies, Agricultural Enterprises

INTRODUCTION

Specialized agriculture Universities in Nigeria are saddled with the responsibility of training and churning out competent graduates in several disciplines. Agriculture Research-based institutions prepare students for careers in agricultural related field and help to bridge the gap between theory and practical. According to Johnson *et al.* (2021); Pawlak and Kołodziejczak (2020), agricultural institutions are vital to the development of sustainable agriculture, food security and rural development. Likewise, Food and Agriculture Organization, (2019) reported that Universities of Agriculture contributes significantly to employability and demand for skilled professionals with solid agricultural foundation, as well as hands-on experience through internship and field work.

National Universities Commission (NUC) policy designed Farm Practical Year (FPY) as a mandatory programme for agricultural undergraduate in the fourth year of the five-year degree for an experiential learning that complements theoretical classroom teaching, this is to improve the technical knowledge of agricultural university graduates (Oloruntoba, 2008; Ayanda, 2013; Yusuf *et al.*, 2019). According to Adeyanju *et al.* 2021, farm practical programme makes significant and positive contribution to agricultural production through

adequate training of agricultural students (youths), farm practical programme prepare agricultural graduates to have higher tendency to get secured job opportunities either in agriculture or agribusiness enterprises outside white collar jobs.

NUC policy brought out FPY programme to equip agricultural students with basic employability elements to reduce unemployment rate in the country. Tan and Arnold (2012) described employability as a wide range of attributes and competencies that assist job seekers to secure and maintain employment. Such skills include, but not limited to communication, logical, analytical and problem solving, positive personality, team spirit, good values, confidence and integrity, flexibility and adaptability, innovation and creativity skills.

Statement of the Problem

Nigeria's Tertiary Institutions push out an average of 600,000 graduates yearly who are unemployed, underemployed or incompetent for the work roles in their professions. Studies reported that Nigerian youth unemployment rate increased from 7.9 million in 2017 to 23.2 million in 2020, where 61.6% of the unemployed youth were graduates (Akinsulu *et al.*, 2020; National Bureau of Statistics -NBS, 2021). High-Level Panel of Experts -HLPE (2021) noted that the increase of Nigerian unemployment rates

especially among for fresh graduates. There are some factors that affect effective training of agricultural undergraduate in the higher institutions. These includes: inadequate interdisciplinary experts, availability of resources, availability of fund, technological equipment, infrastructural facilities, communication between the parties and the enterprises involved in farm practical year. Despite the opportunities of farm practical year, which exposes agricultural undergraduate students to become self-reliant, independent, opportunity to have higher tendency of employability, promoting food security and agricultural sustainability, most agricultural graduate still seeks their livelihood activities outside agrarian activities, which results to food insecurity.

In addition, FUNAAB farm practical year is one of the strategies in promoting agricultural sustainability in Nigeria, where the participants have a variety of interests in different agricultural enterprises, but rigorous activities with lack or low technological resources, ineffective professional management strategies and low profit could also contribute to non-farm livelihood activities among agricultural graduate, while some are yet to be employed. This could result to increase crime rates, suicide, frustration and illegal financial deals.

This study therefore assessed the effects of farm practical year programme on the employability competencies of final year agriculture students in Federal University of Agriculture, Abeokuta. The specific objectives were to: describe the demographic characteristics of the final year agriculture students; ascertain the FPY Enterprise preference; examine the

respondent's efficiency in the use of agricultural based skills learnt, determine the respondent's perceived effects of Farm Practical Year on their employability competencies and ascertain the respondent's employability competencies. The null hypothesis tested in this study stated that, there is no significant relationship between the FPY-Enterprise preferred and employability competencies of the agriculture students.

Theoretical Issues Underpinning Agricultural Training

Transfer learning theory.

Training is an integral part of the learning-teaching process (Nonaka *et al.*, 2001). Baldwin and Ford (1988) reported transfer of learning theory as a process of smoothing efforts with diverse strategies to improve the existing professional skills of an individual resulting to better livelihood outcomes. This study suggested that transferring of knowledge (information, training and skills) from farm instructors or managers boost individuals' performance on the specific field of interest and increase the capacity of employability competencies. Learning is the process that stimulates progress of the individual attitude or behaviours through the interaction between teachers and learners. There are some factors that influences the learning rate such as environment, teaching materials, curriculum contents, nature of students, trained teachers or tutors, teaching techniques and duration (time) available. The main objectives of this theory are that an individual acquires knowledge or skills and possess the ability to implement the knowledge or skills to real life situation.



Transfer of Learning theory, Hajian, (2019)

METHODOLOGY

The study was conducted in the Federal University of Agriculture, Abeokuta, (FUNAAB) Ogun State located in Odeda Local Government Area and borders Lagos to the South, Oyo and Osun state to the North, Ondo to the East and Republic of Benin to the West. FUNAAB currently has ten colleges which

include three agricultural colleges: College of Agricultural Management and Rural Development (COLAMRUD), College of Animal Science and Livestock Production (COLANIM), College of Plant Science and Crop Production (COLPLANT).

Random sampling technique was to select 5 Departments from 13 Departments in all Agricultural



colleges using 40% selection of the study area in accordance with Brown *et al.* (2006). Systematic sampling technique was used to select 197 respondents using Taro Yamane formula at 0.05. Primary data were collected from the selected respondents with the aid of a pre- tested structured questionnaire. FPY-preferred enterprise was measured at ordinal level on a 5-point rating scale as: most preferred (5), more preferred (4), and preferred (3), least preferred (2) and not preferred (1). Efficiency in agricultural-based skills learnt was measured at ordinal level on a four-point rating scale of very efficient (4), efficient (3), least efficient (2), not efficient (1). Perceived effect of

farm practical year programme on employability competencies was measured at ordinal level on a 5 points Likert type scale of strongly agree (5), agree (4), undecided (3), disagree (2) and strongly disagree (1). Perceived level of employability competencies was measured on a 3-points rating scale of basic (1), intermediate (2) and advanced (3). Descriptive statistics (percentages, mean and frequency counts) were used to analyze the objectives of the study. Logistics regression analysis was used to test the relationship between the FPY preferred enterprise and employability competencies.

RESULTS AND DISCUSSION

Demographic characteristics of the respondents

Result in table 1 showed the mean age of the respondents as 24.75 years. This implies that undergraduate students were young, active and have the ability to participate in FPY enterprises. This finding was corroborated with Osahon and Ighodalo (2021) that Nigeria undergraduate students’ age falls between of 16-26 years. More than half (53.8%) of the respondents were females, while 46.2% were males, this indicated that more female students pursue agricultural degrees to promote agricultural sustainability, gender equity and economic empowerment. This study is in conformity with the findings of Antwi-Agyei *et al.* (2019) and Kidanemariam *et al.* (2021) that women in agricultural colleges contribute to sustainable development, generate diverse livelihood agricultural activities and promote food security. Furthermore, the findings showed that 50.8 percent of the respondents indicated that they did not have prior agricultural background,

this implies that student parent or guardian may not be involved in agricultural related activities and students could possess unique skills and perspectives to propagate agricultural development such as expertise in technology. This result is similar to the observation of Ward *et al.* (2020) and Sulewski *et al* (2020) that at this present day, parent or guardian are not involve in agrarian activities and they resides in urban area.. Most (69.0%) of the students had second class upper, this revealed that they had good academic performance indicating their competent, capacity and potential of employability in agricultural related activities. This finding is line with Armoogum *et al.* (2019) who noted that brilliant or good agricultural students have high tendency of employability due to the utilization of skills and knowledge learnt. Majority (96.4%) of the respondents were single while very few (3.6%) were married. This implies that their attention are more on their academic studies with less family or social responsibilities. This result is in agreement with Sulaiman *et al* (2018) who noted that being single influences better academic performance.

Table 1: Demographic characteristics of respondents (n=197)

Variables	Frequency	Percentage (%)
Age (Mean = 24.75)		
≤ 20	88	44.7
21-29	94	47.7
≥ 29	15	7.6
Sex		
Male	91	46.2
Female	106	53.8
Prior agricultural background		
Yes	97	49.2
No	100	50.8
Agricultural enterprise		



Crop/plant	45	22.8
Animal/livestock	40	20.3
Agro-services	9	4.6
Marital Status		
Single	190	96.4
Married	7	3.6
CGPA		
First class	25	12.7
Second class upper	136	69.0
Second class lower	35	17.8
Third class	1	0.5

Source: Field survey 2023

FPY-Enterprise preference

In other to ascertain the enterprise preferred by the students, the study used grand mean ($\bar{x} = 3.31$) to categorized the enterprise preference to high and low preference, any enterprise mean score above grand mean was considered as high preference, while mean score below the grand mean was considered as low preference. Therefore, out of the 23 FPY enterprises, 12 FPY enterprises recorded high preference; these includes: Pasture and range management ($\bar{x} = 3.77$), post-harvest processing ($\bar{x} = 3.67$), Hatchery ($\bar{x} = 3.61$), Organic farming and arable crop farming ($\bar{x} = 3.60$), Interview ($\bar{x} = 3.54$), Poultry brooding ($\bar{x} = 3.52$), Agricultural drama

($\bar{x} = 3.49$), Radio program ($\bar{x} = 3.47$), Ruminant management ($\bar{x} = 3.46$), Fishery ($\bar{x} = 3.38$), Jingle making ($\bar{x} = 3.37$), as reported in Table 2, were among high preferred enterprises that influence employability competency, this implies that these enterprises could have higher tendency and potential to reduce unemployment, poverty, promote food-security and promote economic growth. Furthermore, these enterprises involve problem- solving skills, and promote participation. This corroborates Okiror and Otabong (2015) and Olatunji and Adeoye (2021) reported that post-harvest processing enterprise enhances employability competency of agriculture graduates.

Table 2: FPY Enterprise preference that influenced respondent's employability

FPY-Enterprise	MSP	MRP	PF	LP	NP	Mean(\bar{x})
Farm record keeping	53(26.9)	57(28.9)	62(31.5)	19(9.6)	6(3.0)	2.39
Palm oil processing	61(31.0)	47(23.9)	55(27.9)	20(10.2)	14(7.1)	2.97
Livestock unit	64(32.5)	46(23.4)	52(26.4)	16(8.1)	19(9.6)	2.63
Poultry brooding	59(29.9)	48(24.4)	52(26.4)	28(14.2)	10(5.1)	3.52
Tractor driving	67(34.0)	42(21.3)	49(24.9)	17(8.6)	22(11.2)	3.18
Post-harvest processing	41(20.8)	58(29.4)	71(36.0)	22(11.2)	5(2.5)	3.77
Organic farming	45(22.8)	54(27.4)	67(34.0)	21(10.7)	10(5.1)	3.60
Interview	51(25.9)	50(25.4)	57(28.9)	24(12.2)	15(7.6)	3.54
Use of audiovisual	57(28.9)	40(20.3)	57(28.9)	26(13.2)	17(8.6)	3.29
Fishery	51(25.9)	51(25.9)	54(27.4)	20(10.2)	21(10.7)	3.38
Hatchery	44(22.3)	46(23.4)	61(31.0)	34(17.3)	12(6.1)	3.61
Radio programs	54(27.4)	39(19.8)	53(26.9)	29(14.7)	22(11.2)	3.47
Feed mill	38(19.3)	40(20.3)	75(38.1)	31(15.7)	13(6.6)	3.20
Vox-pop	54(27.4)	32(16.2)	50(25.4)	38(19.3)	23(11.7)	3.21
Jingle making	52(26.4)	27(13.7)	58(29.4)	32(16.2)	28(14.2)	3.37
Rabbitry	42(21.3)	43(21.8)	55(27.9)	29(14.7)	28(14.2)	3.27
Agricultural drama	50(25.4)	31(15.7)	49(24.9)	43(21.8)	24(12.2)	3.49
Pasture and range management	42(21.3)	41(20.8)	57(28.9)	26(13.2)	31(15.7)	3.67
Arable crop production	34(17.3)	44(22.3)	61(31.0)	38(19.3)	20(10.2)	3.60
Ruminant management	39(19.8)	39(19.8)	53(26.9)	33(16.8)	33(16.8)	3.46



Agricultural engineering workshop	21(10.7)	42(21.3)	67(34.0)	45(22.8)	22(11.2)	3.09
Agro meteorology	5(2.5)	34(17.3)	75(38.1)	50(25.4)	33(16.8)	3.21
Piggery	22(11.2)	14(7.1)	50(25.4)	45(22.8)	66(33.5)	3.17

Source: Field survey 2023

Grand Mean: 3.31

Note: MSP: Most preferred, MRP: More preferred, PF: Preferred, LP: Least preferred, NP: Not preferred

Respondent's Level of efficiency in Agricultural-based skills

The results in table 3 showed the level of efficiency of students in Agricultural-based skills. The skills that had scores greater than the grand mean score of 2.77 is considered as more efficient and skills that has scores lesser than the grand mean score is considered as less efficient. Out of the 21 enlisted agricultural-based skills in the FPY program in FUNAAB, 12 agricultural-based skills were more efficient. They are: control of parasite (\bar{x} =3.16), implementation of land preparation for different crops (\bar{x} =3.07), Handling of technological equipment (\bar{x} =2.98), designing and construction of livestock housing (\bar{x} =2.95), fumigation of livestock house (\bar{x} =2.94), accessing the operation and establishment of irrigation scheme (\bar{x} =2.90), agricultural value chain involvement (\bar{x} =2.89), setting of eggs in incubator (\bar{x} =2.83), use of tractors (\bar{x} =2.83), vaccination and medication of livestock (\bar{x} =2.81),

technological dissemination (\bar{x} =2.79) planning and usage of survey equipment (\bar{x} =2.78). However, based on this result in table 3b, the students had showed low level of efficiency in these agricultural-based skills learnt. This implies that respondents might not be able to handle the equipment because of their low level of competencies, it may require expertise, poor technical know-how, inadequate resources and time constraints to effective teaching and learning process. There are other factors to be considered like quality of the training program, inadequate available resources (fund, input, technological equipment), insufficient trained instructors or farm managers, poor methods of teaching or training, poor environment, inadequate infrastructural facilities (poor transportation network, storage facilities, market linkage) and individual student's engagement. This result is in agreement with Palacios- Rojas and Groote (2017); Nagarajan and Meyer (2019) who indicated some factors that contributed to low efficiency in agricultural-based skills.

Table 3a: Efficiency in agricultural based skills learnt (n = 197)

Skills	VE	EF	LE	NE	Mean(\bar{x})
Feeding and watering routine of livestock	81(41.1)	81(41.1)	22(11.2)	13(6.6)	2.60
Keeping of farm records	63(32.0)	93(47.2)	34(17.3)	7(3.6)	2.58
Implementation of land preparation procedure for different crops.	59(29.9)	84(42.6)	45(22.8)	9(4.6)	3.07
Cleaning of livestock houses	61(31.0)	84(42.6)	34(17.3)	18(9.1)	2.63
Technological dissemination	58(29.4)	82(41.6)	45(22.8)	12(6.1)	2.79
Weeding and post planting processes	60(30.5)	80(40.6)	39(19.8)	18(9.1)	2.56
Gained insight into investment opportunity in agricultural sector	43(21.8)	102(51.8)	40(20.3)	12(6.1)	2.62
Content creating for radio programs, jingles, interview etc.	60(30.5)	63(32.0)	56(28.4)	18(9.1)	2.55
Vaccination and medication of livestock	59(29.9)	67(34.0)	50(25.4)	21(10.7)	2.81
Fumigation of livestock housing	49(24.9)	77(39.1)	57(28.9)	14(7.1)	2.94
Agricultural value chain involvement	40(20.3)	93(47.2)	48(24.4)	16(8.1)	2.89
Handling of technological equipment	52(26.4)	72(36.5)	51(25.9)	22(11.2)	2.98
Setting of eggs in incubator	46(23.4)	67(34.0)	58(29.4)	26(13.2)	2.83



Designing and construction of livestock housing	39(19.8)	75(38.1)	55(27.9)	28(14.2)	2.95
Control of parasite	32(16.2)	78(39.6)	68(34.5)	19(9.6)	3.16
Operating and maintaining a tractor	42(21.3)	72(36.5)	46(23.4)	37(18.8)	2.67
Control of erosion on farmland	25(12.7)	85(43.1)	68(34.5)	19(9.6)	2.47
Planning and usage of survey equipment	27(13.7)	80(40.6)	68(34.5)	22(11.2)	2.78
Accessing the operation and establishment of irrigation scheme	30(15.2)	73(37.1)	70(35.5)	24(12.2)	2.92
Use of tractor-coupled equipment for farm mechanization	37(18.8)	65(33.0)	62(31.5)	33(16.8)	2.83
Correct use and measurement of weather instruments in agrometeorology station	35(17.8)	62(31.5)	62(31.5)	38(19.3)	2.53

Source: Field survey 2023. Grand mean: 2.77

Note: VE: Very efficient, EF: Efficient, LE: Least Efficient, NE: Not Efficient

Table 3b: Categorization of efficiency in agricultural based skills learnt

Level of efficiency	Frequency	Percentage (%)
High efficiency	21	10.7
Moderate efficiency	171	86.8
Low efficiency	5	2.5

Perceived effect of FPY Programme on Employability Competencies

Table 4a showed that timing for experiential learning (\bar{x} =4.20), money, time and resources consumption (\bar{x} =4.17), excitement to full time agricultural venture (\bar{x} =4.16), FPY is another means of being independent (\bar{x} =4.13), confident to set up their own agribusiness (\bar{x} =4.07), Farm activities is a livelihood activities that can generate income (\bar{x} =4.01), production activities and sale of any agricultural product(\bar{x} =4.00) were among the perceptual statements that contributed positively to employability competencies. Furthermore, Table 4b

revealed that majority (94.9%) of the respondents perceived that the FPY programme had a positive effect on their employability competencies. This implies that practical knowledge learnt from the training has positive effect on employability competencies of the final year agriculture students. In-addition, students could have better understanding on the theoretical knowledge and ability to apply it to agribusiness ventures, problem-solving abilities and boosting entrepreneurial mindset to increase employability. This finding corroborates with Crawford and Wendy, (2019); Parrella *et al.* (2023) that Farm Practical Year activities contribute positively to employability of agriculture graduates.

Table 4a: Perceived effects of FPY programme on employability competencies (n = 197)

Statements	Mean(\bar{x})
Agriculture can be pursued as a means of livelihood compared to initial impression	3.04
FPY activities are strenuous, thereby affect participants health	3.58
I think FPY has been an eye opener in agricultural career	4.36
Farm activities is a livelihood activities that can generate income	4.01
FPY was tedious in land preparation and planting	3.92
FPY consumes money, time and resources	4.17
Curriculum in FPY would contribute to my success in agribusiness	3.86
FPY is another means of contributing to food security	3.21
The farm and enterprise activities should be enough for grading	3.23
I am exposed to different types of harmful insects and rodents and the harsh sun	3.66
I can seek employment in an agricultural organization	3.76
FPY is a worthwhile venture	3.48
FPY has increased my agribusiness development potentials	3.80
FPY is a total shift in mindset towards agriculture	3.96



The activities I undertook in the program was capable of developing my skills.	3.61
FPY has been a source of inspiration in agricultural ambition	3.76
FPY is another means of being independent	4.13
I understand the theories better after the FPY experience	3.74
I am confident enough to set up my own agribusiness	4.07
The timing of the program was appropriate for experiential learning	4.20
The duration of the program always coincides with personal activities	3.93
I'm confident that FPY experience has enhanced my employability competencies	3.88
I would go into production and sell any agricultural products	4.00
FPY occupied much time and affect my academics	3.11
I can get an agricultural job without the FPY experience	2.82
I would like to be a farm manager	3.86
I'm excited to venture into agriculture full time because of FPY	4.16
Going through the FPY program sharpened my dream come	3.95
FPY made me start a side hustle in agriculture	3.59
FPY would have no effect on my employment after graduation	3.97
I would not be involved in anything agriculture related after graduation	3.90

Source: Field survey 2023, Grand mean: 3.89

SA: Strongly agree, A: Agree, UD: Undecided, D: Disagree, SD: Strongly disagree

Table 4b: Categorization of perceived effects of FPY programme on employability competencies

Perceived effect	Frequency	Percentage (%)
Positive effect	187	94.9
Negative effect	10	5.1

Perceived level of employability competencies

The elements of employability competencies among the FPY students, is reported in Table 5a, out of the 21 elements of employability competencies enlisted, 12 elements were considered outstanding elements. Score above the grand mean score (2.07) was regarded as very outstanding elements, some includes: supervising (\bar{x} =2.29), Verbal reasoning (\bar{x} =2.23), higher personal and career aspirations (\bar{x} =2.21), ability to work under pressure (\bar{x} =2.19), basic interpersonal communication skills (\bar{x} =2.15), problem solving (\bar{x} =2.14), time-keeping/ reliability (\bar{x} =2.11), relationship with peers and authority (\bar{x} =2.10). This indicates that FPY program may boost the students reasoning skills, effective communication and ability to be a team work player. The program could motivate the students' commitment and decision towards agricultural or professional development. The

skills acquired from the training could be fundamental or pillar for effective relationship between the employee and employer. Also, this may assist the students to identify, analyze and seek sustainable solution to overcome any obstacle they may come across on the job. Furthermore, table 5b showed that most (60.9%) of the students had high perception on employability competencies. This finding pointed out the relevance of practical knowledge, communication skills, team work skills, punctuality of FPY students are significant and valuable in the agricultural sector. This is in agreement with the International Fund for Agricultural Development (IFAD) (2019) and Christiaensen *et al.* (2021) that agricultural students could have higher tendency to be employed in any agricultural Industry because of the practical knowledge and diverse professional skills developed.



Table 5a: Perceived level of employability competencies (n = 197)

Employability Elements	Mean(\bar{x})
Team working	1.88
Confidence	2.06
Basic interpersonal and communication skills	2.15
Verbal reasoning	2.23
Higher personal and career aspirations	2.21
Supervising	2.29
Ability to manage money (numerical skills)	2.06
Budgeting	2.10
Timekeeping/ reliability	2.11
Planning	2.01
Ability to manage emergency situations or havoc	1.89
Prioritizing	1.89
Increased feelings of responsibility/ motivation	2.10
Presentation	2.08
Ability to work under pressure	2.19
Problem solving	2.14
Report writing	2.10
Content creating	1.94
Use of editing software	2.04
ICT	2.00
Relationship with peers and authority	2.10

Source: Field survey 2023
Grand mean: 2.07

Table 5b: Categorization of Perceived Level of employability competencies of the respondents

Perceived Level of employability	Frequency	Percentage (%)
High level of employability	120	60.9
Low level of employability	77	39.0

Test of Hypothesis

Table 6 presented the test of relationship between FPY preferred enterprise and employability competencies. Result indicates that there is a significant relationship between enterprise preferred ($r=0.373$, $p\leq 0.05$) and employability competencies,

therefore the null hypothesis is rejected. The finding is in agreement with Smith and Johnson (2022) who noted the importance of farm practical year to develop agricultural skills in agriculture graduates to improve their level of employability.

Table 6: Test of relationship between FPY-enterprise preferred and employability competencies using simple linear multiple regression analysis

FPY-ENTERPRISES	Coefficient	Std. Error	t-value	P-value
Farm record keeping	-0.273	0.605	-0.451	0.652
Palm oil processing	-0.444	0.705	-0.629	0.530
Livestock unit	-0.209	0.812	-0.257	0.798
Poultry brooding	-0.939	0.830	-1.131	0.260
Tractor driving	0.772	0.627	1.231	0.220
Post-harvest processing	-0.553**	0.237	-2.335	0.021



Organic farming	-0.129	0.687	-0.188	0.851
Interview	-0.301	0.887	-0.339	0.735
Use of audiovisual	-1.030	0.790	-1.304	0.194
Fishery	-0.864	0.790	-1.094	0.275
Hatchery	0.309	0.719	0.430	0.668
Radio programs	0.762	0.731	1.043	0.298
Feed mill	-1.070	0.899	-1.190	0.236
Vox-pop	-0.723	0.923	-0.783	0.435
Jingle making	-0.399	0.964	-0.414	0.679
Rabbitry	0.883	0.880	1.004	0.317
Agricultural drama	0.792	0.940	0.843	0.401
Pasture and range management	1.445	0.830	1.741	0.083
Arable crop production	-0.391	0.744	-0.525	0.600
Ruminant management	0.048	0.727	0.066	0.948
Agricultural engineering workshop	-0.362	0.784	-0.462	0.645
Agro meteorology	0.052	0.777	0.067	0.947
Piggery	0.580	0.705	0.823	0.412
Constant	49.688***	4.020	12.359	0.000

R²-value = 0.373

Source: Field survey 2023

Significant at * 0.05 level;

CONCLUSION AND RECOMMENDATION

The study concluded that FPY programme has proven useful in experiential learning, exposing the students to opportunities in agricultural sector. Although the results indicated that 12 FPY enterprises were preferred, they also had moderate level of efficiency in the agricultural-based skills learnt in the FPY programme. The study also concluded that FPY programme had perceived positive effects on their employability competencies. There is significant relationship between enterprise preferred and employability competencies, this study therefore recommended the following:

1. FPY programme quality should be strengthened by providing students with more trained, professional personnel and mentorship on agricultural skills to enhance student efficiency on employability competency
2. Stakeholders should provide adequate infrastructural facilities and modern equipment to all enterprises to promote their efficiency

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Constraints Associated with Utilization of Provitamin A Bio-Fortified Maize for Complementary Weaning Foods among Nursing Mothers in Rural Households of Ife Area, Osun State, Nigeria

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ABSTRACT

Adequate Complementary Foods (CFs) rich in Vitamin A and other micronutrients are important during the period of child weaning. Provitamin A biofortified maize provides affordable opportunity for mothers to prevent vitamin A deficiency in children. This study identified the constraints associated with the utilization of vitamin A bio-fortified maize for making CFs among nursing mothers in rural households of Ife area, Osun State, Nigeria. It identified the different types of CFs mothers used for child weaning; mothers utilisation of vitamin A bio-fortified maize for CFs; and examined mothers' perception towards utilization of vitamin A bio-fortified maize for CFs. A-multistage sampling procedure was used to select 50 nursing mothers having children of ages six months to two years. Pretested interview schedule was used for data collection. Data collected were described using appropriate statistics. Results showed that the mean age of mothers was 28 ± 5.64 years while the mean household size was 4 persons. Majority (84%) used *amala* with *ewedu*; and *eko* with *moinmoin* as CFs during child weaning. Mothers knew how to use vitamin A bio-fortified maize to prepare pap (64%) and solid gel (34%). More than half (54%) had positive perception towards the use of vitamin A bio-fortified maize for CFs. Inadequate awareness (mean = 2.48) and inadequate availability of the maize (mean = 2.24) were the leading constraints affecting utilisation. The study concluded that the identified constraints would limit the utilisation of vitamin A bio-fortified maize for CFs preparation if not addressed by extension workers and other relevant stakeholders.

Keywords: Vitamin A bio-fortified maize, complementary foods, nursing mothers

INTRODUCTION

To ensure optimal childhood development, the World Health Organization (WHO) (2009) recommended the practice Exclusive Breast Feeding (EBF) by mothers during the first six months of an infant's life which should be followed by timely introduction of Complementary Foods (CFs) while the breastfeeding continues until two years of age. Complementary foods are foods (liquids, semisolids, or solids) other than human milk or infant formula provided to an infant or young child to provide nutrients and energy (Dwyer, 2019). They are formulated food mixtures meant to be fed along with breast milk for infants from 6 months until they are completely weaned off breast milk (FAO/WHO, 2002). CFs are necessary because the requirements of infants for energy and nutrients start to exceed what the breast milk can provide as from the age of 6 months (WHO, 2022). The process of gradual withdrawal of breast-milk and introduction of soft, semisolid and solid foods to complement the breast milk is referred to as weaning (Zelege *et al.*, 2017) which may last for several months until the infant is finally introduced to the family diet.

During the weaning period, adequate nutrition is essential for the well-being of the children. Deficiencies in micro-nutrients has constituted a major nutritional concern among children worldwide but particularly in the poor communities of the developing countries (Bhutta *et al.*, 2013) like Nigeria. Vitamin A is one of the micro-nutrients and generally, infants are born with low vitamin A store (Maia *et al.*, 2019). Vitamin A is important in immune function while its

deficiency is a major contributor to the morbidity and mortality of under-five children (WHO, 2009). Gilbert (2013) ascertained that the children with Vitamin A Deficiency (VAD) who show clinical signs are 3-12 times more likely to die than their non-deficient counterparts.

Food fortification has been recognized as one of the most cost-effective methods for lowering the incidence of micro-nutrient deficiencies (Darnton-Hill and Nalubola, 2002). Food fortification as defined by Olson *et al.* (2021) is the practice of deliberate addition of vitamins and minerals to commonly consumed foods to increase their nutritional quality. It can be in form of large scale/ industrial fortification, point of use/home fortification or biofortification. Biofortification is the focus of this study and it has been defined by Olson *et al.* (2021) as the process by which food crops are grown to improve their nutritional value. However, the choice of the food vehicle for fortification is very important because the food vehicle must be such that is well consumed by most of the population that is at risk (Sandesh, 2019). Maize is a major staple food crop grown in sub-Saharan Africa and consumed by people in many forms including infant foods (Harold, 2015; Ekpa *et al.*, 2018).

It has been well documented in literature that the most common and first CFs given to children in West African countries are maize porridges (Ukegbu and Anyika, 2012) often called *Koko* or "Pap", which are usually starchy foods, gelatinous with a low nutrient content (Olaitan *et al.*, 2014), nutritionally



poor (Issaka *et al.*, 2015) and containing 80-90% water (WHO, 2009). In other words, these foods often lack protein and appropriate micro-nutrients such as iron, vitamin A, zinc and iodine (Ogbo *et al.*, 2015) which expose children to the risk of micro-nutrients deficiencies during the complementary feeding period. Specifically, in Nigeria, Okonkwo and Agharandu (2017) have shown that maize is the most widely used for preparing weaning foods compared to other cereals while Okereke *et al.*, (2015) also reiterated that watery maize is the common complementary food used for weaning by both urban and rural mothers in Nigeria.

ProVA bio-fortified maize has been identified as an efficacious source of vitamin A (Gannon *et al.*, 2014) that can significantly improve visual function in marginally vitamin A deficient children (Palmer *et al.*, 2016). However, despite the nutritional and health benefits of vitamin A bio-fortified maize, there is inadequate information on its utilisation for preparation of CFs and the associated constraints among nursing mothers in the study area; hence, this study. It specifically described the personal and socio-economic characteristics of the respondents; identified the types of complimentary foods they used for weaning their children, the CFs they knew how to use vitamin A bio-fortified maize to prepare and their perception towards utilization of vitamin A bio-fortified maize for preparation of complimentary weaning foods.

METHODOLOGY

The study was conducted in Osun State, Nigeria. The population of the study was the nursing mothers with children within 6 months and 2 years of age, from rural households in Ife area of the State. Multi-stage sampling procedure was used to select the respondents for the study. At the first stage, Ife area of the State comprising four Local Government Areas (LGAs) was purposively selected because the agricultural extension outreach programme of the Obafemi Awolowo University, Ile-Ife has disseminated the production technology of provitamin A maize among rural households in the area. At the second stage, three out of the four LGAs in the area were randomly selected namely: Ife east, Ife central and Ife north. At the third stage, one community health centre with high patronage of nursing mothers from rural communities was purposively selected from each of the selected LGAs. These are: Oke-Otubu health centre in Ife east, Aderemi health centre in Ife central and Moro health centre in Ife north LGAs. The last stage involved proportionate selection of 20, 20, 10 nursing mothers from Oke-Otubu, Aderemi, and Moro health centres respectively to give a total of 50 respondents. The selection was based on the average patronage of nursing mothers at the clinics according to the health

centres' records. Well structured and pretested interview schedule was used to collect data on respondents' personal and socio-economic characteristics, types of CFs they used for weaning, the utilisation of vitamin A bio-fortified maize for CFs preparation, their perception and constraints associated with its utilisation.

Measurement of variables - To identify the types of complimentary weaning foods used by the nursing mothers, respondents were asked to indicate the foods they commonly used for weaning their children. Utilisation of vitamin A bio-fortified maize for CFs was measured by asking mothers to indicate the types of CFs they used vitamin A bio-fortified maize to prepare. Respondents' perception was examined using a combination of positive and negative perception statements related to utilization of vitamin A bio-fortified maize, measured on a 5-points Likert scale: Strongly Agree (5 points), Agree (4 points), Undecided (3), Disagree (2points), and Strongly Disagree (1point) for positive statements and vice versa for the negative statements. The maximum and minimum attainable perception scores were 60 and 12 respectively. Overall perception score was generated and equal interval was used to categorize respondents into 3 groups namely: negative, indifferent and positive perception. Respondents were also asked to identify the constraints affecting their utilization of vitamin A bio-fortified maize for CFs preparation and the extent to which the constraints affected them whether Very Much (3), Much (2), A little (1), and Not at all (0). The total maximum and minimum obtainable scores were 30 and 0 respectively. Cut-off point of 1.5 (i.e. $3+2+1+0 \div 4=1.5$) was used to categorise the constraints to most serious and less serious.

RESULTS AND DISCUSSION

Personal and socio-economic characteristics of the respondents - Table 1 reveals that majority (72.0%) of the respondents were within the age of 21 and 30 years with a mean age of 28years \pm 5.64. This implies that the respondents were in their active age usually characterised with curiosity to try new ideas like utilisation of vitamin A bio-fortified maize for CFs. The finding agrees with Okereke *et al.* (2015) which indicated that highest percentage of the nursing mothers in Imo and Abia States of Nigeria were between the ages of 25 and 30 years. More than half (52.0%) of the respondents had household size of between 4 to 5 people, with a mean household size of 4 people. This shows moderate household size which could enhance the caregiver's ability to feed members based on their nutritional requirements and especially the infants with CF from vitamin A bio-fortified maize to meet their micronutrient needs. Majority (94%) of the respondents belongs to the Yoruba ethnic group



which was expected since the study area is Yoruba dominated. The mean year of formal education was 11.46 ± 4.17 years. This implies that respondents had some level of education which could enhance their enlightenment about the benefits of using vitamin A bio-fortified maize for CFs. This is in contrast to Chatterjee (2007) findings in a study conducted among nursing mothers in Ibadan, Nigeria where majority of the respondents (70%) had no formal education. Respondents were primarily traders (48%) and artisans (like tailoring, hair dressing, etc.) (42%) but engaged in farming as secondary occupation with only few (10%) engaging in full time farming. This implies that respondents had their means of livelihood and were mainly self-employed. Being self-employed could be an added advantage for nursing mothers as they could have enough time to try new CFs introduced to them, unlike their counterparts who are employees in private or government establishment that may face with time constraints. The mean monthly income of the

respondents was $\text{₦}25,740 \pm \text{₦}17,866.63$. This implies that respondents can afford expenses that may come with utilisation of provitamin A maize. The major source of information for mothers on different CFs that they had been using was the clinic (74%), followed by friends (44%), television (12%), radio (10%), extension agents (6%), religious centre (2%), and newspaper (2%). This implies that involvement of health workers in the clinics is germane to popularising the use of provitamin A for CFs among the mothers. This finding agrees with that of Shirley (1998) that more (55%) of women in Glasgow-based research revealed that they received formal information about weaning from health workers. The fact that extension agents ranked among the least sources of information on weaning foods shows inadequate availability of home economics extension agents in the study area and the need for relevant government and non-governmental agencies to address this shortcoming.

Table 1: Distribution of respondents based on their personal and socio-economic characteristics

Variables	Frequency	%	Mean	Std. Dev
(n=50)				
Age (Years)				
≤ 20.00	1	2.0		
21.00 -30.00	36	72.0	28.44	5.64
31.00+	13	26.0		
Household size (Persons)				
≤ 3.00	19	38.0		
4.00 – 5.00	26	52.0	4.00	1.03
6.00+	5	10.0		
Ethnicity				
Yoruba	47	94.0		
Igbo	3	6.0		
Years of formal education				
≤ 4.00	4	8.0		
5.00 – 8.00	3	6.0		
9.00 – 12.00	30	60.0	11.46	4.17
13.00+	13	26.0		
Primary occupation				
Trading	24	48.0		
Artisans	21	42.0		
Farming	5	10.0		
Monthly income (₦)				
≤ 10000.00	12	24.0		
10001.00 – 28000.00	18	36.0		
28001.00 – 46000.00	13	26.0		
46001.00 – 64000.00	6	12.0	25740.00	17866.63
82001.00+	1	2.0		
*Sources of information on CFs				
Clinic	37	74.0		
Friends	22	44.0		
Television	6	12.0		
Radio	5	10.0		



Extension agent	3	6.0
Religious institution	1	2.0
Newspaper	1	2.0

Source: Field survey, 2019 *Multiple responses

Types of complementary foods used for weaning by the nursing mothers

Results in Table 2 show that the CFs commonly used for weaning by mothers in the study area include yam flour dough prepared with hot water (*amala*) eaten with jute leaves soup (*ewedu*) (84%), maize solid gel (*eko*) with beans pudding (*moinmoin*) (84%), followed by maize pap (*akamu*) (72%), maize pap with milk (70%), mashed beans (66%), rice (62%), industrialized CFs (56%), bread and tea (54%), herbal tea (34%), yam/cocoyam porridge (34%), wheat/semovita pap (34%) and cassava granulated product (*garri*) (26%). This shows that most of the respondents weaned their children on locally available foods. This could also be

the reflection of the information gotten from health workers during the clinic period on CFs since the clinic was their major source of information. This finding agrees with Onofiok and Nnayelugo (2004) that the general weaning foods in West Africa were locally prepared. It is also in line with Okonkwo and Agharandu (2017), who ascertained that maize is widely used for preparing weaning foods in Nigeria. However, replacement of common maize with biofortified maize for CFs preparation will enhance the wellbeing of little children by minimising their vulnerability to micronutrients deficiency especially vitamin A.

Table 2: Distribution of respondents based on the types of complementary weaning foods they were using

*Complementary weaning food used	F	%
Yam flour (<i>Amala</i>) with <i>ewedu</i>	42	84.0
Solid gel (<i>Eko</i>) with beans pudding (<i>moinmoin</i>)	42	84.0
Maize pap (<i>akamu</i>) alone	36	72.0
Maize pap with milk	35	70.0
Mashed beans	33	66.0
Rice	31	62.0
Industrialized CFs e.g. golden morn	28	56.0
Bread and tea	27	54.0
Herbal tea (<i>agbo</i>)	17	34.0
Yam/cocoyam porridge	17	34.0
Wheat/semovita pap	17	34.0
Cassava granulated product (<i>garri</i>)	13	26.0

Source: Field survey, 2019 *Multiple responses

Respondents utilisation of vitamin A bio-fortified maize for making CFs

Results in Table 3 show that respondents utilised vitamin A bio-fortified maize for making two major CFs namely: pap (64%) and solid gel (34%). This observation might be due to mothers' ignorance of processing techniques required for making other forms

of CFs from the maize. However, the finding agrees with Ukegbu and Anyika (2012), that maize pap is the most common and first CF given to children in West Africa but differs from Talsma *et al.* (2013) which reported that none of their respondents had fed provitamin A rich cassava to their children as at the time of their survey.

Table 3: Distribution of respondents based on their utilization of vitamin A bio-fortified maize for making CFs

*Form of utilisation	F	%
Pap making	32	64.0
Solid gel (<i>eko</i>) making	17	34.0
Processing to flour	5	10.0
Processing to maize drink (<i>pito</i>)	0	0.0
Processing to maize custard	0	0.0
Processing to maize buns (<i>mosa</i>)	0	0.0
Processing to maize cake (<i>lapata</i>)	0	0.0



Processing to maize pudding (<i>abari</i>)	0	0.0
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Source: Field survey, 2019

Perception of nursing mothers on utilization of vitamin A bio fortified maize for preparation of complementary weaning food

Results in Table 4 reveal that when the scale of measurements is compared with each of the perception statement mean scores, it shows that the nursing mothers strongly agreed to the positive statement that the use of vitamin A bio-fortified maize for complementary weaning food can reduce the risk of illness and death in infants (mean = 4.56); they also agreed that the use of vitamin A bio-fortified maize for complementary weaning food can eliminate the cost of treating vitamin A deficiency related problems in children (mean = 4.48), improved processing techniques of vitamin A bio-fortified maize for complementary weaning food is necessary to retain nutrients (mean = 4.36), the use of vitamin A bio-fortified maize for complementary weaning food can prevent the problem of eye defects among children (mean = 4.34), the use of vitamin A bio-fortified maize for complementary weaning food is a remedy to prevent vitamin A deficiency (mean = 4.24), and using vitamin A bio-fortified maize for complementary weaning food is cheaper than industrialized weaning foods (mean = 4.14). The finding is similar to Alabi (2016) that feeding children with pap and solid gel made from quality protein maize could enhance eradication of malnutrition among babies mostly fed on pap thereby saving the cost of treating nutrition-related health challenges among the low-income households who dominated the rural communities of

Nigeria. It is also in line with the finding of Talsma *et al.* (2013) where most of their respondents agreed that lack of vitamin A make a child susceptible to disease (89%), slowed the growth rate (87%) and associated with (night) blindness (69%). On the other hand, the respondents disagreed with the negative statements that using vitamin A bio-fortified maize for complementary weaning food cannot be as hygienic as industrial weaning food (mean = 3.74) and that vitamin A bio-fortified maize is not natural and can have side effects on children (mean = 3.68). They were undecided about the negative statement that vitamin A drugs can substitute for vitamin A bio-fortified maize in children (mean = 3.36) while they agreed to the negative statements that vitamin A bio-fortified maize is more expensive than the common maize (mean = 2.42), is not readily available (mean = 1.84), and that improved processing techniques could be time consuming (mean = 1.72).

The results in Table 5 show further that on the overall, more than half (54%) of the respondents had positive perception about using vitamin A bio-fortified maize for complementary weaning foods, 44% were indifferent while only 2% had negative perception. This observation may be due to the fact that many of the respondents spent some years in school and might have had prior knowledge about the importance of vitamin A. The finding implies that respondents have the tendency to replace the common maize they have been using for making CFs with the vitamin A bio-fortified maize.

Table 4: Perception of the nursing mothers towards using vitamin A bio-fortified maize for complementary weaning food (n= 50)

Variables	Mean	S.D
The use of vitamin A bio-fortified maize for complementary weaning food can reduce risk of illness and death in infants	4.56	0.54
The use of vitamin A bio-fortified maize for complementary weaning food can eliminate the cost of treating VAD related problems in children	4.48	0.71
Improved processing techniques of vitamin A bio-fortified maize for complementary weaning food is necessary to retain the nutrients	4.36	0.63
The use of vitamin A bio-fortified maize for complementary weaning food can prevent the problem of eye defects among children	4.34	0.65
The use of vitamin A bio-fortified maize for complementary weaning food is a remedy to prevent occurrence of VAD in children	4.24	0.92
Using vitamin A bio-fortified maize for complementary weaning food is cheaper than industrial weaning food	4.14	1.07
Using vitamin A bio-fortified maize for complementary weaning food cannot be as hygienic as industrial weaning food	3.74	1.19
Vitamin A bio-fortified maize is not natural and can have side effects on children	3.68	1.22
Vitamin A drugs can substitute for using vitamin A bio-fortified maize in children	3.36	1.08
Vitamin A bio-fortified maize is more expensive than the common maize	2.42	0.88

Vitamin A bio-fortified maize is not readily available	1.84	1.02
Improved processing techniques could be time consuming	1.72	0.95

Source: Field survey, 2019

Table 5: Overall perception of the nursing mothers about using vitamin A bio-fortified maize for complementary weaning food (n=50)

Total perception score	Frequency	Percentage	Decision
≤ 21	1	2.0	Negative
22 – 42	22	44.0	Indifferent
43+	27	54.0	Positive

Grand mean = 42.88, S.D = 3.71

Source: Field survey, 2019

Constraints affecting nursing mothers’ utilization of vitamin A bio-fortified maize for making complementary weaning food

Results in Table 6 show that with the cut-off point of 1.5, constraints such as inadequate awareness of vitamin A bio-fortified maize (mean = 2.48), inadequate availability of vitamin A bio-fortified maize (mean = 2.24) and difficulty in differentiating bio-fortified maize from other yellow maize varieties (mean = 1.86) were the most serious constraints affecting the nursing mother’s utilisation of the maize for CFs. On the other hand, constraints such as longer processing time (mean = 1.38), lack of training on nutritional importance of vitamin A (mean = 1.26),

inadequate extension contact (mean =0.94), inadequate income (mean = 0.92), lack of processing equipment (mean = 0.74), preference for industrial complementary weaning food (mean = 0.56) and lack of infrastructural facilities like electricity and pipe borne water (mean = 0.46) were less serious. The finding agrees with Talsma *et al.* (2017) where their respondents identified unavailability of yellow maize as the main obstacle for its consumption. It implies that female extension agents should create more awareness about the maize among the nursing mothers in rural households and more farmers should be encouraged to produce the maize in sufficient quantity.

Table 6: Constraints associated with the utilization of vitamin A bio-fortified maize for complementary weaning food (n= 50)

Constraints	Mean	S.D	Rank
Inadequate awareness about vitamin A bio-fortified maize	2.48	0.74	1 st
Inadequate availability of vitamin A bio-fortified maize in the market	2.24	0.92	2 nd
Difficulty in differentiating bio-fortified maize from other yellow maize varieties	2.00	1.07	3 rd
Longer processing time	1.38	0.95	4 th
Lack of training on nutritional importance of vitamin A bio-fortified maize	1.26	1.03	5 th
Inadequate contact with extension agents	0.94	0. majority91	6 th
Inadequate income	0.92	1.08	7 th
Lack of processing equipment	0.74	0.94	8 th
Preference for industrial complementary weaning food	0.56	0.70	9 th
Lack of infrastructural facilities like electricity and pipe borne water	0.46	0.71	10 th

Scale of measurement: Very Much (3), Much (2), A little (1), and Not at all (0); Cut-off point = 1.5;

Source: Field survey, 2019

CONCLUSION

The study revealed that the most commonly used CFs during weaning period among nursing mothers in the

study area were made from locally available food materials like yam flour and maize. The major CFs that mothers used vitamin A bio-fortified maize to prepare



were pap and solid gel, although, majority of them had favourable perception towards its utilisation for making CFs. Inadequate awareness, inadequate availability of the maize and difficulty in differentiating the maize from other yellow maize varieties were the most serious constraints affecting nursing mothers' utilisation of vitamin A bio-fortified maize for the preparation of complementary weaning foods. The study concluded that the identified constraints should be addressed by relevant agencies in order to promote the utilisation of vitamin A bio-fortified maize among nursing mothers in the study area. It is therefore recommended that agricultural and home economics extension workers should embark on advocacy for the popularisation of the maize to enhance adequate nutrition and overall wellbeing of rural children. Also, health workers in primary health centres should be adequately involved in promoting the utilisation of pro-vitamin A rich maize among mothers, since they serve as an important medium of communicating information on nutrition and health benefits of foods to mothers during their regular clinic procedures. More farmers should also be encouraged to engage in the production of vitamin A bio-fortified maize so as to increase its availability, while both the farmers and marketers should do proper packaging and labelling to minimise the problem of difficulty in differentiating the maize from other yellow maize varieties.

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Evaluation Of Youth Empowerment in Agriculture Programme (YEAP) in South-West Nigeria

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ABSTRACT

This paper examined the impact of youth empowerment in agriculture programme in South-West Nigeria. The study purposively selected Ondo, Ogun, Lagos, Oyo, Osun and Ekiti. The research design for the study was descriptive survey. Fifty participants of Youth in Agriculture Programme were randomly selected from each state making up a total of three hundred participants. The results showed that 60 – 90% of the respondents agreed that the youth empowerment on agricultural programme can reduce unemployment rate, humanitarian disasters, strengthens and stimulates encourage youth participation in agriculture, serve as better alternative to white collar jobs, solve food insecurity, guarantee professional competence in agriculture and guarantee replacement of ageing farmers with young vibrant youths. It is recommended that more graduate youths should be targeted in concrete terms in the agricultural policy framework to replace ageing farmers with educated youths who are energetic, young and vibrant. The research showed that majority of the participants that there are numerous challenges facing the YEAP in Southwestern Nigeria. It is recommended that evolving plans and actions should be put in place to ameliorate the challenges pointed out by the participants in order to attract the graduate youths into farming practices. It is further recommended that critical stakeholders should provide workable logistics to transform agricultural sector for economic growth and empowerment.

Keywords: Youth, Empowerment, Agriculture, Programme, Graduates.

INTRODUCTION

In Nigeria, observed that over 740,000 qualified school graduates are unemployed (Ahmed 2016). According to Ahmed (2016), Youth Empowerment in Agriculture Programme (YEAP) should be able to absorb these youths in order to reduce unemployment rate in Nigeria. In addition, among these certified graduates, there are majority that have unsuccessfully searched for white collar jobs. They are challenged by myriads of factors in the labour market such as changes in the world of work, globalization, increased competition and economic pressures worldwide, technological innovations, socio-political factors, shifts due to merges and downsizing; these unsuccessful job seekers form the crater in the labour stream that has given rise to the emptiness and near stagnant nature of the labour market. As prospective entrants seek to find a place in the labour market, the question is where is certainty when millions who had been there are yet to find their place (Sanginga, 2016).

According to Adesina (2012), the Ministry of Agriculture Oyo state and other South-Western States rolled out plans, vision and mission to restore, transform and reposition agriculture as the foremost industry that positively drives the state economy, provides food security and provides sustainable platform for wealth creation for the people.

Setshwaelo (2016) calls for the implementation of Youth Empowerment of Agricultural Programme in order to reduce

unemployment rate in Nigeria. Yami, et al. (2019) stated that concerted efforts have been made for several decades to engage youths in agribusiness. There is dearth of evidence on what worked and what did not work well. This has made it difficult to inform evidence - based policy making and design of interventions targeting youths in agribusiness. Yami, et al. (2019) further reiterate that non-engagement of youths in agribusiness could be “the ticking time bomb” of youth unemployment in developing countries and serious threat that can cause humanitarian disasters which may require global efforts to eradicate the scourge. Hence, there is a need to create agricultural investment and entrepreneurship in form of youth cooperatives and youth groups societies to encourage youth participation in agricultural businesses.

International Fund for Agricultural Development (IFAD) (2012), reported that the bulk of rural population has high rate of illiterates and unemployment and they are generally poor. They also lack all it takes in terms of infrastructure to make life comfortable and raise standard of living of people living in them. It was further reported that the rural youths require re-orientation workshops on regular basis to educate them on agricultural businesses to enhance critical role in agriculture.

Oyekale (2011) also declared that rural youths have great roles to play in agricultural



development in Nigeria as they are considered to be the active working group through young farmers club and farm settlement that are no longer functioning and effective. Aphunu and Atoma (2010) reiterated that in Nigeria, farming population is ageing. It is practically impossible for the aged generation dominating agricultural sector to deliver the expected productivity to meet food needs of the ever- growing population. Agriculture has huge and diverse opportunities potentials that can only transform the national economy and also tremendously impact the personal lives of the farmers particularly the youths. Youth unemployment in Nigeria has led to some social menace such as robbery, kidnapping, oil bunkering, and vandalization of public properties leading to economic, technological and social retrogression in the country. Introduction and proper implementation of YEAP would ameliorate these myriads of problems Nigeria is currently facing and facilitates economic and technological development. Hence, the objectives of this study were to assess the effect of YEAP in reducing unemployment rates in southwestern Nigeria, determine the impact of YEAP in empowering youth to fully accept agriculture as a business and examine the challenges confronting the implementation of the programme in south western Nigeria

Research Questions

- 1.Can the youth empowerment in agricultural programme reduce unemployment rates ?
2. Is the training received by the participants adequate for them to be self-reliant?
3. What are the challenges affecting sustainability of YEAP?

METHODOLOGY

The method adopted by the researchers to obtain information from the participants was the focus Group Discussion where the participants were invited to the meeting through with the help of their supervisors, State and Block Extension Officers of each state. Questionnaires were also distributed to the participants to fill. Discussion and oral interview were made in order to obtain vital information from the YEAP participants. The six states comprising Lagos, Ogun, Ondo, Oyo, Osun and Ekiti were purposively selected for the study. Fifty participants of YEAP were randomly selected from each state and invited to the group discussion making up a total of 300 participants. The questionnaire was divided into two parts (A and B). Part A consists of two options Yes and No while part B was a 5-point likert rating scale. Statistical Analysis

The data collected were subjected to descriptive analysis

Results and Discussion Table 1 above shows the effect of YEAP in reducing unemployment rates in southwestern Nigeria. The table shows that in Item 1, 271 of the respondents which constitute 90% agreed that youth empowerment programme can reduce humanitarian disasters such as hunger, diseases and poverty as it could give rise to cheap agricultural commodities which will fall within the affordability of the common masses to reduce hunger, malnutrition, diseases and poverty. `This is in line with Yami, et al. (2019) which reported that youth empowerment in agriculture is a concerted effort to eradicate disease, hunger, and humanitarian disasters which is currently a global phenomenon

Table 1 : Effect of YEAP in reducing unemployment rates in southwestern Nigeria

ITEMS	Yes	%	No	%
Can the youth initiative on agricultural programme reduce unemployment humanitarian disaster such as hunger, diseases and poverty?	271	90	29	10
Does the youth empowerment in agricultural programme encourage the youth to stay in Agriculture?	280	93.3	20	6.7
Can youth empowerment programme make the youth self-reliance and independent?	211	70	89	30
Is the youth empowerment in agricultural programme capable of replacing the ageing farmers with younger, vibrant and energetic generation?	24	80	60	20



Can the youth empowerment in agriculture reduce rural-urban migration to create room for the development of rural communities?	180	60	120	40
Will the youths' participation in agricultural empowerment programme curb idleness, violence and restiveness?	241	80	59	20
Can the youths' participation in agricultural empowerment programme assist in solving food insecurity in the society?	260	86.6	40	3.4
Can the induction training in youth agricultural programme enough for the youth to effectively practice agriculture?	250	83.3	50	6.7
Can the youth empowerment in agricultural programme stimulate and attract the interest of out-of-school youths and graduates to key into farming profession instead of white collar jobs?	220	73.3	80	6.7
Can the youth empowerment in agricultural programme assist in resolving the prevalent hostility and banditry in agricultural sector?	230	76.6	70	3.4
Will the youth empowerment in agricultural programme guarantee adequate supply of farm inputs and modern farming equipment to stimulate the interest of youth in farming and give comfort in practicing agriculture profession	240	80	60	20
Can the youth empowerment in agricultural programme reduce laziness and serve as driving force to inculcate the spirit of handiwork among the youths?	270	90	30	10

In Item 2 on table 1, the result reveals that 280 respondents which represents 93.3% agreed that YEAP encouraged the youth to stay in agriculture or take agriculture as a profession. In the focus group discussion, majority of the youth were of the opinion that collaboration of YEAP organisers with agricultural organisations in providing them with agricultural innovations, inputs and services that could not be provided by the YEAP organisers. Agricultural institutes like Agriculture and Rural Management Institute (ARMI), National Centre for Agricultural Mechanisation (NACM), International Institute of Tropical Agriculture (IITA), Generation Farmers (NGF), Creation Agency (WECA), New and Agriculture Extension Services units in states across the country can collaborate with YEAP in the development of agriculture through researches, supervision, monitoring and supply of farming equipment, facilities and inputs to turn agriculture sector around to attract the youths into farming. This result agrees with Adesina and Favour (2012) which declared that if agriculture is to be repositioned for effective agriculture economic development, there is a need to identify predictors participation in order to increase youth participation in agriculture programme.

It was reiterated that WECA, NGF and other extension services can encourage youth participation in agriculture thereby solving the problem of unemployment among the youth. The result is also in line with Yami et al research report which claimed that African Development Bank with technical support of the International Institute of Tropical Agriculture (IITA) serve a mobilising force towards youth involvement in Agribusiness.

The result in Item 3 table 1 revealed that 211 which represent 70% of the respondents agreed that youth empowerment in agriculture can serve as eye-opener for the youth to engage in productive ventures and agricultural business for self-reliance and independency. This result is in agreement with Akpan, Patrick, Janes and Agun (2015) which stated that Nigerian wellbeing was better when majority of the populace were engaged in agriculture before oil exploitation when compared with available statistics now. Therefore, any attempt to revitalize agriculture sector is a direct effort to improve Nigerian wellbeing. It is seen as reliable tool to rejuvenate agricultural sector to involve the youths who are highly resilience and energetic to key into agricultural sector for self-reliance.



Ekong and Ekong (2010) also reported that a predominantly youth society like Nigeria with high rate of unemployment of the youths requires training of the youths in entrepreneurial and vocational skills to enable the youths create job for themselves in order to be independent. Agriculture as a vocational skill can guarantee self-reliance to reduce the high rate of unemployment among the youths.

The result in Item 4 revealed that 80% of the respondents shows that youth empowerment in agriculture is capable of changing agricultural practices from traditional to modern to replace the aged farmers with young generation. This agrees with Aphunu and Atoma (2012) which reported that in Nigeria, farming population is ageing. It is practically impossible for this aged generation dominating agricultural sector to deliver the expected productivity to meet food needs for the ever growing population. Agriculture has huge and diverse opportunistic potentials that can not only transform the national economy but also tremendously impact the personal lives of the farmers particularly the youth if younger generations are engaged in farming practices.

In Item 5 the result further revealed that 180 of respondents 60% agreed that the agricultural initiative can reduce rural-urban migration of the youths since it can create and facilitate the development of rural communities through the supply and provision of social amenities in the country-side and rural areas. The youths are attracted from rural areas to urban centers because of the absence of social amenities that give comfort to people. With the empowerment of youths in the rural communities through agriculture, rural areas will attract the attention of the political class in their developmental efforts.

The result is in line with Akpan, et al. (2015) which stated that despite several constraints confronting agricultural activities in rural areas such as insufficient initial capital, inadequate credit facilities, poor storage facilities, insufficient access to tractors, and other farm input, absence of agricultural insurance. The youth empowerment in agriculture in rural areas, increase acquisition of requisite skills to practice agriculture better, increase access to agricultural credit, increase farm income and increase self-curved farm land among the youths in rural areas thereby reducing the drift and movement of youths from rural areas to urban centres since all the expectations for meaningful livelihood can be gotten in rural areas.

In Item 6 of the result, 241 of the respondents which represent 80% showed that youth participation in agricultural empowerment programme is capable of curbing idleness, violence and restiveness among the

youths. The engagement of the youth in empowerment agriculture programme will keep the busy in productive ventures thereby creating future hope and at the same time serve as viable source of economic resources to meet their immediate needs. This result agrees with Chigunta (2002) which stated that evidences abound that young people in Africa are exposed to crime, militancy, sexual abuses, youth restiveness, political thuggery among other social vices. It also supports Anyadike et al., (2012) which declared that youth involvement in vices has been recently attributed to the high rate of unemployment resulting from inability of most African economies to generate sufficient job opportunities which can keep them of idleness, misuse of leisure time, drug intake and alcohol consumption that can cause emotional instability and mental health challenges.

The result in Item 7 revealed that 260 of the respondents which represent 86.6% agreed that youth participation in agriculture empowerment can assist in solving food insecurity for domestic consumption and foreign exchange earnings. This shows that the agricultural initiative will encourage high volume of food production domestically by farmers to boost market supply of agricultural commodities to satisfy domestic consumption and aid exportation of food items to guarantee food security and better economy in Nigeria.

The result is in line with Ajaegbu (2012) report and CBN (2014) statistical report and assessment of agricultural production in Nigeria which jointly stated that between 2007 and 2010, Nigeria food import bill was ₦98 trillion or \$628 billion. The claim further stated that if these trends continue in the nearest future, the availability of food, certain economic activities and even economic development will be depending on exogenous factors outside the nation's control. In order to forestall total dependent in imported food in future, the young people are the ideal agents for anticipated change given their greater propensity and willingness to explore new ideas, concept and technology which are all critical to changing the perception and practice of agriculture in Nigeria. Further, the result on Item 8 showed that 250 of the respondents which represents 83.3% agreed that the induction training in agriculture programme given to the youth at the initial stage can engender professional competences to guarantee adequate acquisition of entrepreneurial ideas to adequately engage in farming activities. The young graduates who engage in agriculture empowerment programme are taken through initial training in agricultural practices to expose them to basic and fundamental knowledge and skills to serve as induction course for them. Some of the graduates are non-agricultural experts as such,



it is expedient to give initial professional training for them.

On agricultural induction training for the YEAP participants, 83.3% agreed that the training could enhance the performance of the participants in agriculture. Ekong (2016) observed that high rate of poverty/unemployment among Nigeria farmers is due to lack of training before engaging in agriculture. Akpan (2010) also emphasises the youth initiative in agriculture programmes are re-orientation workshop to educate Nigerian youths that agriculture is plural business that plays a critical role in National Food Security. Umeh and Odo (2002) also noted that various states in Nigeria have designed and executed self-employment agricultural training programme to enhance economic empowerment of youth to transmit knowledge and skills in agriculture into the youth for their empowerment.

The result on Item 9 revealed that 220 respondents which represent 73.3% agreed that youth empowerment in agriculture programme can stimulate and attract the interest of both out-of-school and graduate youths to key into farming profession instead of engaging in other menial jobs if adequate infrastructure is provided for the participants in their respective farm settlement. The out-of-school youths and graduates youths nowadays have preference for bike riding and other menial jobs in the cities. This is in line with Yami et al. (2019) which observed that the youths have untapped potentials to transform the agriculture sector through innovation and entrepreneurship accessible in the youth empowerment in agriculture programme but they are not ready to stay in remote areas where there are no social amenities.

The youth empowerment in agriculture programme can facilitate skills development, access to resources and use of technologies in agribusiness which can stimulate and attract both out-of-school and graduate youths. Yami et al. (2019) in the study conducted in Morocco, Senegal and Zambia reported that agriculture empowerment programmes are interventions to draw the participation of the youths into agricultural profession. It was further reported that agriculture holds considerable potential to provide gainful employment opportunities to a large number of youths if it is supported with increased investment and conducive legal and policy framework. Ajani, Mgbenka and Onah (2015) opined that empowerment of youths in agriculture programme is expected to be integrated in the primary and secondary curricula to key the youths outside the tertiary education system to encourage them to take up agriculture as a business. This may be done through national out-of-school

livelihoods project to meet the needs and expectation of today's youths (Suriname Undated).

On Item 10, the result revealed that 230 respondents which represent 76.6% agreed that youth empowerment in agriculture can assist in resolving the prevailing clashes, hostility and banditry between herdsmen and farmers in the agricultural sector. This shows that the empowerment of the youths among the herdsmen and crop farmers can bring peace to the warring groups since they will be engaged in productive ventures in their areas of specialty to practice their professions better. This is in line with Ajere (2018) which reported that there is a need to priorities poverty reduction in government circle through social security allowance, employment creation and provision of social amenities in the nooks and cranes of the nation to make life meaningful for average Nigerians. It was further revealed that to resolve ethnic conflicts, a well-directed, well-coordinated plans and actions on basic necessities of life for average Nigerians could prevent selfish leaders from using Nigerian youths to participate in meaningless and avoidable ethnic conflicts that have claimed several lives of innocent children, mothers, fathers and adults.

The result on Item 11 further revealed that 240 respondents which represent 80% agreed that adequate supply of facilities for storage of farm products, farming equipment and fund will stimulate youths' interest and give them comfort in practicing agricultural profession. This shows that the youth empowerment in agricultural programme desire adequate supply of farming facilities, equipment and funds to support the farmers in their farming activities and meeting their basic necessities of life. This is in line with Imonikebe (2010) which reported in a research finding on constraints to rural women farmers' involvement in food production in Nigeria that lack of appropriate farming technology, facilities and fund are serious obstacle to farming practices in Nigeria. These constraints discourage farmers and eventually lead to food insecurity.

Finally, the result on Item 12 showed that 270 respondents which represent 90% agreed that youth empowerment in agriculture programme can reduce laziness and idleness and serve as driving force to inculcate the spirit of hard work among the youths. This shows that the engagement of youths in agricultural programme prevent the youth from roaming the streets aimlessly with their engagement in productive ventures. It can discourage the youths from seeking for white collar jobs that are non-existence. This is in agreement with Ajere (2017) which stated that several developed countries of the world embarked on agricultural revolution to salvage her



economy and prevent economic-recession through engagement of youths in agricultural productivity. Ajere (2017) declared that in Tanzania in 1967, Arousal Declaration provided anchor on which agricultural revolution was based to eliminate all forms of laziness and exploitation in agriculture to inculcate the spirit of hard work in every Tanzanian. Cuba in 1959, Fidel Castrot and Allis staged agricultural and industrial revolution to reform agricultural sector and make Cuba to become agrarian society through the youths' participation in

agriculture. The youth empowerment in agricultural programme in Nigeria if it is pursued with vigours, it is capable of eliminating laziness among the youths and inculcate the spirit of hard work.

Research Question: What are the challenges affecting sustainability of YEAP?

Table 2: Challenges affecting the optimum performance of YEAP participants

Items	SD	D	U	A	SA	Mean	SD	Decision
1. Provision of better condition of service for the participants by the government	8(2.6)	13(4.3)	-	131(42)	148(50.6)	4.27	0.88	A
2 There is source and stability of power in the participants primary assignment	231(78.3)	11(3.5)	9(2.9)	35(11.3)	11(4.5)	3.63	0.91	A
3. There is timely provision of Agricultural inputs for the participants	247(79.4)	32(10.3)	3(1)	17(5.5)	3(3.4)	3.97	0.61	A
4. The participants are insured against unforeseen circumstance	-	179(57.6)	-	48(15.4)	73(23.5)	3.54	1.80	A
5. The avenue for study is conducive for the participants	300(100)	-	-	-	-	4.00	0.00	A
6. The community is hostile to the participants	122(39.2)	1(3)	-	128(41.2)	33(1-0.8)	2.78	1.11	U
7. The programme is sustainable	7(2.3)	-	-	98(31.5)	195(62.7)	4.58	0.72	SA

Source: Field survey; 2022

Values in parenthesis are percentages Decision 0-1.49 =SD (Strongly Disagreed), 1.50 -2.49 = D (Disagreed), 2.50 -3.49 = U (Undecided), 3.50 – 4.49 =A (Agreed), 4.5 - 5.0 =SA (Strongly Agreed)

Table 2 above shows the response of the participants in relation to the challenges affecting the optimum performance of YEAP. Majority of the participants strongly disagreed that government provided better condition of service for the participants. Poor condition of service such as timely payment of remuneration, motivation, good accommodation etc might lead to poor performance of the participants and failure of the programme. Table 2 also showed that there was no source of power supply and the when available was usually epileptic in nature. The study showed that the timely provision of agricultural inputs was grossly inefficient and delay. Agricultural work is seasonal and farmers must carry out farming activities as at when due in order to obtain bountiful yield.

Highest percent of the respondents were of the opinion that there was no insurance that covers them against unforeseen circumstances. Lack of insurance might create fear of unknown in the mind of the participants and thereby reduces their morale to perform. The avenue for study in most of the YEAP study stations were not conducive for learning. Some of the communities in which the YEAP was domiciled were believed to be hostile to the participants. Most of the participants were of the opinion that the YEAP is feasible and sustainable provided all the problems identified were rectified.

CONCLUSION and RECOMMENDATIONS



The study focused mainly on the impact of youth empowerment in reducing the rate of unemployment in South-West Nigeria. Agricultural empowerment programme for graduate youths in South West Nigeria can have great impact on the lives of the youths. Rural-urban migration among the youths can be curtailed to attract the youths into the rural communities to create room for the development of rural communities through the youth empowerment programme. The induction training at the initial stage of the programme and the supervisory and monitoring roles of the extension workers have impact as it could guarantee acquisition of knowledge and skills to engender professional competence to engage effectively in farming activities. Agricultural empowerment programme can serve as driving force to inculcate the spirit of hard work to reduce laziness among the

youths who roam the street seeking for non-existent white-collar jobs. The graduate youths who are not agriculture experts should have open opportunities to acquire broad-based knowledge in agricultural business and practices for professional competence and expertise to become self-reliance and independent in agric-business. The graduate youths should be encouraged to key into farming, youth entrepreneurship groups for the expansion of agrobusinesses to solve restiveness, hostilities, laziness, idleness, banditry and poverty which are scourges bedeviling the youth groups across the nation. More graduate youths should be targeted in concrete terms in the agricultural policy framework to replace ageing farmers with educated youths who are energetic, young and vibrant.

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Willingness of Neighborhood Urchins in Oyo State to Engage in Farm Estate Agricultural Initiative Adelakun O.E. and Adebayo I. A.

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ABSTRACT

Neighbourhood urchins are generally considered deviant youths who use extortion, exploitation, petty crimes and sometimes violent means to earn income. Unfortunately, they pose huge threats to societal peace. However, engaging them in empowerment programme such as Farm estate agricultural initiative can curb their atrocities and enhance communal peace. This study therefore explored the willingness of neighbourhood urchins to engage in farm estate agricultural initiative for self-empowerment. Using a multi-stage sampling procedure, 113 neighbourhood urchins were sampled and data obtained with the aid of questionnaire and interview scheduled. Data were collected on respondents' socioeconomic characteristics, awareness, perception, preferred interest, willingness and perceived constraints. Data were analysed using descriptive statistics, chi-square, spearman rho and PPMC. Neighbourhood urchins were mostly male (97.3%), had secondary education (47.8%), unemployed (58.4%) with average age of 23 years. Most (62.8%) of the neighbourhood urchins were not aware of the farm estate agricultural initiatives, had unfavourable perception (61.1%), were unwilling to be engaged (67%) and had low preference in farm estate activities (100%). Also, level of education (69%), level of exposure (59.3%), poverty (68.1%) and fear of adapting to new way of life (71.7%) were considered as severe constraints to participating in farm estate agricultural initiative. Age ($r=-0.298$, $p\leq 0.001$), household size ($r=-0.184$, $p\leq 0.051$), marital status ($\chi^2=15.875$, $p\leq 0.000$), educational background ($\chi^2=10.387$, $p\leq 0.016$), Awareness level ($\chi^2=7.480$, $p\leq 0.006$), poverty ($r=-0.307$, $p\leq 0.001$), Lack of parental care ($r=-0.462$, $p\leq 0.000$) and Peer pressure ($r=0.385$, $p\leq 0.000$), Lack of motivation of any kind ($r=-0.305$, $p\leq 0.001$) had significant relationship with respondents willingness to engage in farm estate agricultural initiative for self-empowerment. Neighbourhood urchins are unwilling to engage in farm estate agricultural initiatives for self-empowerment. Motivational incentives, adequate education and awareness can assist them in bringing about favourable perception and attitudinal change towards active participation.

Key words: Neighbourhood urchins, Agricultural initiative, Motivational incentives, Farm estate.

INTRODUCTION

In Nigeria, the nomenclature of neighborhood urchins is also known as area boys and can also mean Touts, *Alaayes*, *Agberos*, *Omo onile*. They are generally considered as deviant youths who use extortion, exploitation, petty crimes and sometimes violent means to earn income. They are loosely organized **gangs** of **street children** and **teenagers**, composed mostly of male, who operate on the streets of major cities of the country, including **Lagos, Ibadan, Onitsha, Aba, Umuahia, Akure, Ado-Ekiti** and **Enugu** (Ikuomola et al 2009). These group grew along with the emergence of a growing informal economy of street trading. Their activities range from persuasive request, extortion, drug abuse, violence and petty crime and have expanded into acting as security for businessmen and politicians, bouncers, or means to harass tenants, loan defaulters, or influence the electoral process. Drug abuse among them has been variously reported as the cause of delinquent behaviour and crime. All the atrocities have been attached with higher poverty level within the country. Thus, it has become a necessity to sensitize and engage them by empowering them with various means possible in order to enhance communal peace and national development. (Ikuomola et al 2009)

Empowerment with emphasis on the youth is a process where children and young people are encouraged to take charge of their lives. It helps them to address their situation and then take action in order to improve their access to resources and transform their consciousness through their beliefs, values, and attitudes. Youth empowerment aims to improve quality of life and is achieved through participation in youth empowerment programs and implementation of youth's rights should go beyond learning about formal rights and procedures to give birth to a concrete experience of rights. Over the years, Agricultural empowerment programmes is one of the most rampant and invested programmes to engage youth in livelihood activities that will help them take charge of their own life, contribute to food security and economic growth. (Golay et al, 2014).

Farm estate agricultural initiative remains one of the most powerful tools to end poverty, boost shared prosperity and enhance food security. Growth in the agriculture sector is **two to four times more effective** in raising incomes among the poorest compared to other sectors (World Bank, 2021). Analyses in 2016 found that **65 percent of poor working adults** made a living through agriculture (World Bank, 2021). Agriculture is also crucial to economic growth: in 2018, it accounted for 4 percent of global gross domestic product (GDP) and in some developing countries, **it can account for more than 25% of GDP** (World Bank, 2021).

Farm estate agricultural initiative has just been resuscitated under National Agricultural Land Development Authority (NALDA) to tackle unemployment and boost the national GDPs. by President Muhammadu Buhari resuscitated NALDA in June 2020. He amended the Act establishing it through the National Assembly to deliver on its mandate of developing the rural communities through agriculture, recover all its lands and farm estates across the country. harnessing the full potentials of the vast arable lands in Nigeria, empowering small holder and large-scale farmers and mechanize, support the drive for food and fiber security while assisting in diversifying the nation's economy, improving household incomes and enhancing revenue mobilization and generation nationwide (Nnabuife, 2021). NALDA kick-started its activities with animal husbandry programme, which included rabbitry and goat rearing in some pilot states. The Authority identified and recovered NALDA farm estates in Gombe, Borno, Adamawa, Taraba, Niger, Kebbi, Oyo, Imo, Katsina, Lagos, Ekiti, Delta, Bauchi, Yobe, Kaduna, Benue, Kogi, Osun, Anambra, Akwa Ibom and Abia States. NALDA also engaged in dry season farming of rice in some pilot States of Adamawa, Niger, Yobe, Taraba and Bauchi where farmers were trained on dry season farming which they were not used to. They also provided all the inputs required for farming ranging from tractors, boreholes, pumping machines, planters and transplanters, fertilizer and seeds. (Nnabuife, 2021).

The NALDA Integrated Farm Estate is designed with a complete production chain for food and livestock, an irrigation system so that farmers will have three production cycles in a year. The farm is divided into 80 hectares for crop production and 20 hectares for animal production, processing and packaging, with growing of feeds, which include recycling animal wastes as fertilizer for plants, and growing plants to feed the animals. The Governor of Central Bank of Nigeria (CBN) said the Bank would work with NALDA to explore the potential of providing affordable and accessible finance to the beneficiaries under the agricultural scheme to scale up productivity. (Nnabuife, 2021).

The general objective of this study was to examine the willingness of Ibadan Neighbourhood urchins to take farm estate agricultural initiative for self-empowerment. The specific objectives however, were to: describe the socioeconomic characteristics of the Neighbourhood urchins,

ascertain the awareness of neighbourhood urchins about Farm Estate Agricultural Initiative, examine the willingness of the neighbourhood urchins to engage in Farm Estate Agricultural Initiative and identify the perceived constraints of the neighbourhood urchins to engaging in Farm Estate Agricultural Initiative in the study area.

The hypotheses of the study were stated in null form as follows:

H₀ 1: There is no significant relationship between neighbourhood urchins' social economic characteristics and their willingness to engage in farm estate agricultural initiative for self-empowerment

H₀ 2: There is no significant relationship between awareness of the neighbourhood urchins and their willingness to engage in farm estate agricultural initiative for self-empowerment.

H₀ 3: There is no significant relationship between perceived constraints of neighbourhood urchins and their willingness to engage in farm estate agricultural initiative for self-empowerment.

METHODOLOGY

The target population of this study comprised the neighbourhood urchins in Oyo State. Multi-stage random sampling techniques was used to select the neighbourhood urchins for the study. Oyo state has 33 Local governments, and Local governments in Ibadan was purposefully selected due to the prominence of neighborhood urchins. Ibadan Metropolis has 11 Local Government areas consisting of five urban local governments in the city and six semi-urban local governments in the less-city. The first stage involved purposive selection of five (5) Local Governments involving **Ibadan North, Ibadan North-East, Ibadan South-West, Egbeda** and **Ona Ara** due to the prominence of the neighbourhood urchins in those Local Governments. The second stage also include the purposive selection of some strategic locations of neighbourhood urchins within the selected Local Government which includes Corner Agbadagbudu, Oje (Ibadan North), Iyana Idi-Obi, Idi-Iroko (Ibadan North-East), Beere, Molete (Ibadan South-West), Oremeji Agugu, Idi-Osan (Egbeda), Babanla and Idi-Oro (Ona-Ara). This study randomly sampled one hundred and thirteen (113) Neighbourhood urchins.

The willingness of the neighbourhood urchins to engage in Farm estate agricultural initiative.

This was measured on a five-point scale of Strongly (SA), Agree (A), Undecided (U), Disagree (D), Strongly Disagree (SD). by assigning score of 5,4,3,2,1 for positive statements, and 1,2,3,4,5 for negative statement respectively. Furthermore, mean of computed scores (40) was generated, then score equal and above mean was used to categorized the willing and score below mean was used to

categorized unwilling neighbourhood urchins. Data were analysed using descriptive statistics, chi-square, spearman rho and PPMC

RESULTS AND DISCUSSION

Socio-economic characteristics of the neighbourhood urchins

Sex: Result on sex in Table 1 reveals that majority (97.3%) of the neighbourhood urchins were males. This implies that there were more males' neighbourhood urchins than females in the study area. Although, there are unusual involvement of female. However, the high proportion of males among area boys could be attributed to factors such as gender socialization, where males are taught to be aggressive and violent by their parent or by societal influence, as well as the cultural expectation that men are supposed to be providers for their families. The lack of employment opportunities and poverty in Nigeria could also contribute to the phenomenon of area boys, as young men may resort to crime and violence in order to make a living. (Adeyemi et al., 2022). Many neighbourhood urchins are pushed into the streets due to poverty and lack of employment opportunities in their families (Adeyemi T.O., 2022). In societies where men are expected to be the primary breadwinners, boys may be more likely to be sent to work or engage in street activities to support their families financially.

Age: Result on age in Table 1 reveals that about 45.1% of neighbourhood urchins fell between 21-30 years with average age of 23 ± 5.9 years. This study has some similarity with the findings of Ayodele et al, (2015) who reported that the age range of area boys was between 15-30 years old, with the majority falling between the ages of 20-25 years old. Although, it is expected that neighbourhood urchins will be majorly youth. Result obtained however, has revealed a worrisome trend as majority of the neighbourhood urchins were teenagers and young adults who are at their active and productive age full of vigour. This may imply that the community may be sitting on time bomb by neglecting the neighbourhood urchins as communal peace may be threatened at the long run.

Marital status: Results on marital status in Table 1 reveals that about 45.1% of the neighbourhood

urchins were single, 38.1% were married and 16.9% were separated. One of the most significant implications of having majority as single (marital status) among them is the lack of responsibility that comes with being a family man. In many Nigerian cultures, marriage is seen as a crucial step towards responsible adulthood, and men are expected to provide for their families and contribute to their communities. In line with the findings of Ezeilo (2015) however, area boys who remain unmarried often do not have these obligations and may instead prioritize their involvement in criminal activities or other forms of antisocial behaviour.

Religion status: The results in Table 1 shows that almost half (48.7%) of the neighbourhood urchins were Muslims, 32.7% were Christians, while only 18.6% engaged in traditional religion. Religion can influence a change of heart and can encourage the neighbourhood urchins to be meaningfully engaged. This revealed that no religion was exempted in these antisocial behaviour and thus religious organisation need to step up their persuasion to a changed lifestyle among the youths.

Educational background: Results on educational background in Table 1 shows that almost half (47.8%) of the neighbourhood urchins had secondary education, 37.2% had primary education and 15% had no formal education. In other words, 85% had formal education, which shows that they have potential to access information. This is expected to influence their perception and willingness to engage in farm estate agricultural initiative. This is contrary to apriori expectations that such categories of persons will be uneducated

Employment status: Result on employment status in Table 1 indicates that more than half (58.4%) of the neighbourhood urchins were unemployed and 41.6% were employed. It is a known fact having majority of our vibrant youth unemployed pose threat on our societal peace and national development. To earn income, the unemployed youths move outwards towards a junction or intersection where they either don on outfits as union members of a road transport or engage in security related commerce that verges on extortion. (Olawale, 2008).

Table 1: Distribution of Neighborhood urchins Based on their Socio-economic characteristics

Variables	Frequency	Percentage	Mean
Sex			
Male	110	97.3	
Female	3	2.7	
Age			
≤20 years	34	30	
20-30 years	60	53.1	23±5.9 years
>30 years	19	16.8	
Marital Status			
Single	51	45.1	
Married	43	38.1	
Seperated	19	16.8	

Educational background		
No formal education	17	15
Primary education	42	37.2
Secondary education	54	47.8
Employment Status		
Unemployed	66	58.4
Employed	47	41.6
<i>Total</i>	<i>113</i>	<i>100.0</i>

Source: Field survey 2023

Awareness of Neighbourhood urchins on farm estate agricultural initiative for self-empowerment

Table 2 shows awareness of neighbourhood urchins on farm estate agricultural initiative. The result shows that majority (78.7%) of the neighbourhood urchins were aware of farm estate as a means that provide job opportunity, 89.4% were aware that one can earn a lot of money on the long run and 73.4% were aware that farm estate would increase food production and security. This reveals the fact that every aspect of agriculture

is a means that provide job opportunity and earn money, with proper planning and execution. Also, majority (55.8%) were not aware of farm estate as an ongoing programme, as a youth inclusive programme (59.3%) and that it is fully sponsored by government (80.5%). This finding has some similarities with the findings of Adesoji and Olugbire (2021) who examined the level of awareness among vulnerable youth in Ibadan and found that a significant portion of neighbourhood urchins lacked information about farm agricultural initiatives.

Table 2: Distribution of neighbourhood urchins based on their awareness on farm estate agricultural initiative for self-empowerment in the study area

Awareness	Aware		Not sure		Not Aware		Mean
	F	%	F	%	F	%	
Farm estate is an Agricultural Initiative programme	0	0.0	71	62.8	42	37.2	0.6283
Farm estate is an ongoing programme	0	0.0	50	44.2	63	55.8	0.4425
Farm estate is a youth inclusive programme	18	15.9	28	24.8	67	59.3	0.5664
Farm estate is an empowerment programme	0	0.0	59	52.2	54	47.8	0.5221
Farm estate is a self-sufficient programme	0	0.0	67	59.3	46	40.7	0.5929
Farm estate is a means that provide job opportunity	51	45.1	38	33.6	24	21.2	1.2389
Farm estate can earn you a lot of money on the long run	56	49.6	45	39.8	12	10.6	1.3894
Farm estate is a livelihood improvement programme	16	14.2	60	53.1	37	32.7	0.8142
Farm estate is fully sponsored by government	0	0.0	22	19.5	91	80.5	0.8142
Farm estate would increase agricultural investment	0	0.0	73	64.6	40	35.4	0.1947
Farm estate would Increase food production and ensure food security	65	57.5	18	15.9	30	26.5	1.3097
Farm estate do not require any fee for participation	0	0.0	54	47.8	59	42.42	0.4779

Source: Field survey 2023

Level of awareness of neighbourhood urchins on farm estate agricultural initiative for self-empowerment

Table 3 shows that majority (62.8%) of the neighbourhood urchins were not aware of farm

estate agricultural initiative. This implies that, a lot of the neighbourhood urchins will not fully understand the benefit of engaging in farm estate agricultural initiative due to their low level of awareness.

Table 3 Categorization of neighbourhood urchins based on their level of awareness on farm estate agricultural initiative for self-empowerment in the study area

Awareness level	Awareness score groups	F	%
Not aware	0.0 – 9.4	71	62.8
Aware	9.5 – 14.0	42	37.2

NB: For awareness score; mean = 9.5, minimum score = 0 and maximum score = 14

Perceived constraints of Neighborhood urchins to participating in farm estate agricultural initiative for self-empowerment

The perceived constraint of neighbourhood urchins to participating in farm estate agricultural initiative were investigated and results expressed in the Table 4 low level of education ranked 1st, low

level of exposure ranked 2nd, fear of adapting to new way of life ranked 3rd, poverty ranked 4th, unemployment ranked 5th. This implies that 1st to 5th ranked constraints were the major constraint limiting the engagement of neighbourhood urchins in farm estate agricultural initiative.

Table 4 Distribution of neighborhood urchins on perceived constraints to participating in farm estate agricultural initiative for self-empowerment

Perceived Constraints	Level of constraint						Mean	Rank
	Severe		Mild		Not a Constraint			
	F	%	F	%	F	%		
Level of education	78	69	25	22.1	10	8.8	1.6018	1 st
Level of exposure	67	59.3	46	40.7	0	0.0	1.5929	2 nd
Addiction to street life	52	46	31	27.4	30	26.5	1.1947	10 th
Unemployment	53	46.9	48	42.5	12	10.6	1.3628	5 th
Poverty	77	68.1	12	10.6	24	21.3	1.4690	4 th
Peer pressure	14	12.4	56	49.6	43	38.0	0.7434	15 th
Societal influence	32	28.3	46	40.7	35	31.0	0.9735	11 th
Strength	0	0.00	67	59.3	46	40.7	0.5929	16 th
Usual way of earning money in the street	18	15.9	51	45.2	44	38.9	0.7699	14 th
Believe that farming is a not profitable	36	31.9	32	28.3	45	39.8	0.9204	12 th
Lack of parental care	41	36.3	62	54.9	10	8.8	1.2743	7 th
Lack trust in government programmes	53	46.9	34	30.1	26	23.0	1.2389	8 th
Lack of motivation of any kind	35	31.0	66	58.4	12	10.6	1.2035	9 th
Fear of adapting to new way of life	81	71.7	16	14.2	16	14.2	1.5752	3 rd
Unwillingness to give up the street life	35	31.0	34	30.1	44	38.9	0.9204	12 th
Believe that street is providing all means of survival	28	24.8	32	28.3	53	46.9	0.7788	13 th
Fear of loosing street relevance and popularity	45	39.8	62	54.9	6	5.3	1.3451	6 th

Source: Field survey 2023

Willingness of neighborhood urchins to engage in Farm estate agricultural initiative for self-empowerment

The success of any agricultural initiative programme, including a farm estate, largely depends on the willingness of people to participate. Table 5 shows that more than 60% of the neighbourhood urchins agreed to the following statements on willingness to engage in Farm estate agricultural initiative: One would like to be engaged in a new day to day activity rather than street earnings (94.7%),

earning a living from farm estate agric initiative is a better option (65.5%), One would like to be engaged in Poultry farming. It is better than street earnings (66.4%). Also, the table shows that more than 50% of the neighbourhood urchins agreed to the following statements on perception of neighbourhood urchins on farm estate agricultural initiative: I cannot even imagine engaging in rabbit farming (61.1%), engaging in cattle farming is not my thing, I cannot do it (76.1%) and engaging in bee farming is not profitable than street earnings (62.8%)

Table 5 Distribution of Neighbourhood urchins on willingness to engage in Farm estate agricultural initiative for self-empowerment

Statements	SA		A		U		D		SD		Mean
	F	%	F	%	F	%	F	%	F	%	
I would like to be engaged in a new day to day activities rather than street earnings	28	24.8	79	69.9	6	5.3	0	0	0	0.0	4.12
If need arises, changing environment wouldn't be an issue	0	0.0	36	31.9	0	0.0	77	68.1	0	0.0	2.64
Working on farm is not even an option	34	30.1	30	26.5	11	9.7	38	33.6	0	0.0	2.47
Earning a living from farm estate Agric initiative is a better option	0	0.0	74	65.5	14	12.4	25	22.1	0	0.0	3.43
Engaging in Crop farming is profitable, I would love to be engaged	0	0.0	58	51.3	36	31.9	19	16.8	0	0.0	3.35
I would like to be engaged in Poultry farming, It is better than street earnings.	16	14.2	75	66.4	22	19.5	0	0.0	0	0.0	3.95
I Would have loved to be engaged in fish farming but street earning is better.	0	0.0	51	45.1	16	14.2	46	40.7	0	0.0	2.96
I can not even imagine engaging in rabbit farming	0	0.0	69	61.1	44	38.9	0	0.0	0	0.0	2.39
Engaging in cattle farming is not my thing, I can not do it.	34	30.1	52	46.0	21	18.6	6	5.3	0	0.0	2.04
Engaging in Goat farming can improve my livelihood, I would love to be engaged.	0	0.0	16	14.2	18	15.9	57	50.4	22	19.5	2.25
Engaging in bee farming is not profitable than street earnings	0	0.0	71	62.8	28	24.8	14	12.4	0	0.0	2.50
Leaving the street earnings for farm estate initiative is not something I can even consider.	0	0.0	47	41.6	0	0.0	60	53.1	47	41.6	3.22
I would prefer farm estate initiative to street lifestyle because it is a good development and life changing initiative programme.	0	0.0	51	45.1	52	46.1	10	8.8	0	0.0	4.07

Source: Field survey 2023

Neighbourhood urchins' willingness to engage in farm estate agricultural initiative for Self-empowerment

Table 6 shows that majority (59.3%) of the neighbourhood urchins were unwilling to engage in farm estate agricultural initiative. As a result, this might be an implication from obtaining a higher percentage of unfavourable perception from majority of the neighbourhood urchins. In other

words, their level of participation in farm estate agricultural initiative was very low. The findings are not in tandem with the study of Olaniyan and Ojo (2017) on the willingness of youth to engage in agricultural production in Nigeria who found that many young people are willing to engage in agriculture if certain conditions are met, including access to land, finance, and technical knowledge.

Table 6: Categorization of Neighbourhood urchins based on their willingness to engage in farm estate agricultural initiative for self-empowerment

Willingness	Willingness score groups	F	%
Unwilling	0.0 – 39	67	59.3
Willing	40 – 45	46	40.7

Source: Field Survey, 2023

Relationship between neighborhood urchins' social economic characteristics and their willingness to engage in farm estate agricultural initiative for self-empowerment

Table 7 shows that there was a significant association between respondents' willingness to engage in farm estate agricultural initiative and their marital status ($\chi^2=15.875$, $p \leq 0.000$). This implies that married youths are more likely to have a stronger sense of responsibility to provide for their families, which motivates them to participate in agricultural activities. Also, Larger household sizes often correlate with increased financial responsibilities and economic pressures. Youth from larger households may prioritize income generation to support their families, leading to a higher

willingness to engage in farm estate agricultural initiatives (Adeyemi et al., 2022).

Also, there was a significant association between respondents' willingness to engage in farm estate agricultural initiative and their educational background ($\chi^2=10.387$, $p \leq 0.016$). This implies that the higher their level of education, the favourable their perception towards engaging in farm estate agricultural initiative. In this response and in line with previous studies. A study by Ajayi et al. (2021) in Nigeria found that young people with higher levels of education were more likely to participate in agricultural activities, including farm estate projects.

Table 7 Result on Chi Square showing relationship between neighbourhood urchins' social economic characteristics and their willingness to engage in farm estate agricultural initiative for self-empowerment

Variables	χ^2	df	p
Sex	0.860	1	0.354
Marital Status	15.875	2	0.000**
Employment Status	2.578	1	0.108
Educational background	10.387	3	0.016**

Source: Field Survey, 2023

Relationship between neighborhood urchins' other social economic characteristics and their willingness to engage in farm estate agricultural initiative for self-empowerment.

Table 8 shows that there was a significant relationship between neighborhood urchins willingness to engage in farm estate agricultural initiative for self-empowerment and their age ($r=-0.298$, $p \leq 0.001$). The study has shown that the older

they are, the better understanding they have about the potential benefits of engaging in agricultural activities. In line with previous findings, a study conducted by the Food and Agriculture Organization (FAO, 2018) found that younger individuals were less interested in agriculture, while older individuals were more likely to be interested in agricultural activities.

Table 9 Result on Pearson's Product moment correlation (PPMC) showing relationship between neighborhood urchins' other social economic characteristics and their willingness to engage in farm estate agricultural initiative for self-empowerment

Variables	r	p
Age	-0.298	0.001**

Source: Field Survey, 2023

Relationship between awareness of the neighbourhood urchins and their willingness to engage in farm estate agricultural initiative for self-empowerment

Result on table 9 shows that there was a significant association between neighbourhood urchins' awareness level and their willingness to engage in farm estate agricultural initiative for self-

empowerment ($\chi^2 = 7.480, p \leq 0.006$). This implies that the extent to which the neighbourhood urchins are aware, will influence their willingness to engage in farm estate agricultural initiative. In other words, the lower their level of awareness, the more they are unwilling and the higher their level of awareness, the more they are willing.

Table 10: Result on Chi square showing relationship between awareness of the neighbourhood urchins and their willingness to engage in farm estate agricultural initiative for self-empowerment

Variables	χ^2	Contingency coefficient	df	p
Awareness level	7.480	0.249	1	0.006

Source: Field Survey, 2023

Relationship between perceived constraint factors of the neighbourhood urchins and their willingness to engage in farm estate agricultural initiative for self-empowerment

Table 11 shows that there was a significant relationship between the neighbourhood urchins' willingness to engage in farm estate agricultural initiative and poverty level ($r = -0.307, p \leq 0.001$). In Nigeria, unemployment rates are high, and many young people are forced to engage in low-paying, informal jobs or to migrate to urban areas in search of better opportunities. However, some young people are also interested in agriculture, and with the right incentives and support, they can be encouraged to engage in farm estate agricultural initiatives. A study by the International Labor Organization (ILO) found that, young people who were living in poverty were more likely to engage in agricultural activities, as agriculture was seen as a way to earn a living and support their families (ILO, 2013).

of parental care ($r = -0.462, p \leq 0.000$), Parental care plays an essential role in shaping the attitudes and behaviours of young people, including their interest in agriculture. Children who grow up in homes where their parents or caregivers actively engage in agriculture are more likely to develop an interest in farming and are more likely to engage in agricultural activities as adults. However, children who grow up without adequate parental care or supervision may lack the motivation or skills necessary to pursue agricultural activities.

Also, there was a significant relationship between the neighbourhood urchins' willingness to engage in farm estate agricultural initiative and lack

There was also a significant relationship between the neighbourhood urchins' willingness to engage in farm estate agricultural initiative and peer pressure ($r = 0.385, p \leq 0.000$). Peer pressure can have both positive and negative effects on neighbourhood urchins' attitudes towards engaging in farm estate agricultural initiative, depending on the context and social norms of their peer group. Njunge et al., 2019 found that peer learning and support networks can help to increase knowledge sharing and promote positive attitudes towards agriculture among young people.

Table 11: Result on spearman rho analysis showing relationship between perceived constraints of the neighbourhood urchins and their willingness to engage in farm estate agricultural initiative for self-empowerment

Variables	rho	p
Level of education	0.077	0.420
level of exposure	0.130	0.168
Poverty	-0.307	0.001**
Strength	-0.086	0.363
Lack of parental care	-0.462	0.000**
Fear of adapting to new way of life	-0.463	0.627
Unemployment	-0.086	0.363
Peer pressure	0.385	0.000**

Source: Field Survey, 2023

CONCLUSION

Most of the neighbourhood urchins were male, were at their tender age and have agility for sustainable agricultural initiative programmes and that they were only aware of farm estate as a means that provide job opportunity and can earn a lot of money on the long run. But on the other hand, they were not aware of farm estate as an ongoing programme, as a youth inclusive programme and that it is fully sponsored by government. In other words, majority of the neighbourhood urchins were not aware of farm estate agricultural initiative. Neighbourhood urchins were unwilling to engage in farm estate agricultural initiative and they considered level of education, level of exposure, poverty and fear of adapting to new way of life as a severe constraint to participating in farm estate agricultural initiative for self-empowerment.

RECOMMENDATIONS

It is necessary to create adequate awareness and comprehensive education on farm estate agricultural initiative potential benefits to the neighbourhood urchins, so as to improve their knowledge and have a sustainable interest in its engagement. This may in turn bring about favourable perception and attitudinal change towards engaging in farm estate agricultural initiative. Motivational Incentives with tangible beneficial rewards and should be spelled out to encourage their participation and serious commitment. The neighbourhood urchins tend to get engaged when they have full understanding of their benefit at the short and long run. It will enhance favourable perception and their willingness to engage in farm estate agricultural initiative. It is important for policymakers and development practitioners to design appropriate interventions that address the unique needs and constraints of different groups based on their level of education. Policy that will also give neighbourhood a sense of inclusiveness, improve their level of education, level of exposure, poverty and take away their fear of adapting to new way of life.

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