



Framework For The Integration Of Non-Formal Technical Skills Of Electrical Installation And Maintenance Work Trade Into Almajiri School System In Katsina State

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ABSTRACT

The main aim of this study is to build a framework for the integration of non-formal technical skills of Electrical Installation and Maintenance Trade into Almajiri School in Katsina state. Specifically the objectives 6, and guided by six research questions. Descriptive Survey research design was used to investigate the opinion of Trainers in formal technical skills acquisition centers and Almajiri school Malams. The population for the study was 2518 comprises all the trainers and Malams in the acquisition centers and Almajiri schools respectively formal technical skills acquisition centers in Katsina state that are offering electrical installation and maintenance trade and all Almajiri school in Katsina state. Purposive sampling was used to select all the 55 trainers of formal technical skills acquisition centers that are offering EIMT and 191 Almajiri school Malams. Literature related to the study was reviewed. Basically on documentary sources like unpublished thesis and dissertations, published books, and journal articles. A two set of self-structured questionnaires consists of 46 items divided into five parts was used and the other one with ten items to collect data for the research questions formulated to guide the study. The instrument were validated by three experts and Cronbach's Alpha method was used to establish their internal consistency. Data collected for research questions were analyzed using means and standard deviation, among the findings of the study is that the respondents agreed on most of the objectives, content, instructional materials, instructional methods and assessment strategies for the integration of non-formal technical skills of electrical installation and maintenance work trade into Almajiri school system. Based on these findings, the researcher concludes that there is need for the integration of non-formal technical skills of electrical installation and maintenance work trade into Almajiri school system. The major recommendation is that the government should adopt the framework and use it at the formal technical skills acquisition centers for training Almajiris and be certify as crafts men by the Federal Labor Trade Test Certificate (FLTTC). The EIMT instructional materials should be provided by the government to the formal technical skills acquisition centers to facilitate training. The teachers, instructors and technicians of formal technical skills acquisition centers should be trained on the instructional methods to be used for Electrical Installation and Maintenance training by organizing training workshop and seminars for the purpose of enlightenment. The Malams and the Almajiris should be given welfare by the government to make them self-reliance.

Keywords: electrical installation, maintenance work trade, non-formal technical skills

1.0 INTRODUCTION

The phenomenon of the Almajiri educational system has been in northern Nigeria for over 500 years which has made it to have impacts on the understanding, spread and acceptance of Islam generally. It is believed that this system of education predated the Western educational system in Nigeria particularly in the northern region. The word Almajiri according to Hassan, Mursali & Bala (2019) quoting Sheik Abba Aji, a renowned Maiduguri-based Islamic scholar, as a word borrowed from Arabic language which was derived from the word AlMuhajir meaning a seeker of Islamic knowledge. Its origin was the migration of Prophet Mohammed (SAW) from Mecca to Medina. Those who migrated with the prophet to Medina were called “Al-Muhajirun”, meaning emigrants..

According to Sunday, Maxwell & Doris (2020), the issue of Almajiri system of education in Nigeria has attracted global attention. This is because of the current trends of insecurity, terrorism, child abuse, child labor, child neglect, kidnapping, Hassan, Mursali & Bala (2019). reported that there are more than 10 million Almajiris on the streets of northern Nigeria, without formal education and invariably going to face a bleak future, in order to place the Almajiri school on the pedestal of being able to appropriately acquired the skills needed for national development, This is in conformity with the objectives of vocational and technical education which is also about preparing individual for skills acquisition for self-employment and for self-reliance. It aims at giving individuals skills to be useful to himself and his society in general.

According to Banhi,j. Vandana, g. Ajay, s.(2015). Technical and Vocational Education is used as comprehensive term referring to those aspect of the educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in the sectors of economic and social life”. Because of the significance of Technical and Vocational Education in manpower development, attentions have been drawn from various countries around the world on the essence of studying TVE. This quality equally qualifies TVE to be seen as the only attracting programme that tackles the peril of poverty and creates employability skills for any country to become economically flourishing in this 21st century requires the possession of TVE skills to function, practical skill in TVE are designed to lead the beneficiaries’ to self-employment, economic self-sufficiency, and employment generation through short or long-term training, TVE are by design intended to develop skills that can be used in specific occupation or job (Maigida, 2012). The objectives and content of the curricula of TVE according to the World Bank are derived from occupational standards or more directly from analysis of the task that are to be carried out on the job.

In Nigeria, the teaching of skills in the formal sector exists in two types of institutions (Oziegbe, 2009). These institutions are Technical Colleges and Trade Centers. In these institutions, individuals are provided with needed skills that will enable them become proficient in both the public workplace and private employment, hence which has direct relationship with EIMWT since its aim to provide technical training and prepares an individual with job-satisfying requirements towards employment and self-reliance.

Integration means merging two things or two systems together to form a whole. In this case, it is the combination of Non-Formal electrical installation and maintenance training with Almajiri School. The concept of integration as clearly understood, is the introduction of non-formal electrical installation and maintenance training into Almajiri School. This is in conformity with Hassan, Mursali & Bala (2019). Integration in other words, it connotes injecting the essential components of technical Skills into Almajiri schools. The concept means to join technical skills Almajiri school without interfering with the goals of the Almajiri school. It is in this context that this study would examine how this respected cherished ancient system of education will be improved by developing a framework for non-formal electrical installation and maintenance training that could be integrated into Almajiri school in Katsina state since the practical skills component can be learn without leaning the theoretical parts of the contents.

Statement of the Problem

The Almajiri System is becoming a burden, a social nuisance and no doubt a discredited practice whose existence appears to be obnoxious having outlived its purpose. The Almajiri now constitute a large chunk of Nigeria’s embarrassing population of millions out of school children as clearly reported in Muhammad (2019) that there are more than 10 million Almajiris on the streets of northern Nigeria, without formal education and invariably going to face a bleak future not only that, they have formed a pool from where unpatriotic elements

with questionable characters' recruit for their own selfish purposes to unleash and perpetrate violence and other criminalities on the society. Impact, they are now a menace to the entire Northern Nigeria. As confirm by Godwin (2020). It is strongly believed that the scourge is one of the factors responsible for the security challenges and other vices plaguing the country, For instance, many Boko Haram insurgents and arm bandits were products of school drop outs and graduates of Almajiri school system who don't learn any skills for lively hood.

Almajiri integration of non-formal technical skills of electrical installation and maintenance work trade facilitating skill acquisition among street urchins with the purpose of changing their mind-set from begging and over dependence on Malams (Islamic scholars) to self-dependence. Aliyu, Oladejo, Abdulkarim, Olaoye, Ahmadu, Olusegun, Sonny, Jibrin, Abdurrahman and Orinya (2020). Explain that the Almajiri children are completely at the mercy of Malams, who on most occasions cannot cater for them, and consequently, send them out for alms and to do other menial jobs in order to feed and clothe them.

Aim and Objective of the Study

The main of this study is to build a framework for the integration of non-formal technical skills of Electrical Installation and Maintenance work Trade into the Almajiri School System in Katsina state. Specifically, objectives of the study are to:

1. Determine the objectives of non-formal technical skills for Electrical Installation and Maintenance work Trade for integration into the Almajiri School System.
2. Determine the content of Electrical Installation and Maintenance work Trade required for integration into the Almajiri School System
3. Find out the relevant instructional materials for Electrical Installation and Maintenance work Trade required for integration into the Almajiri School System.
4. Find out the relevant instructional methods for Electrical Installation and Maintenance work Trade required for integration into the Almajiri School System
5. Determine the assessment strategies of Electrical Installation and Maintenance work Trade required for integration into the Almajiri School System.
6. Determine the Malams perception on the integration for Electrical Installation and Maintenance work Trade into Almajiri School System.

Research Questions

The following research questions were used to guide the researcher in carrying out the study;

1. What are the objectives of non-formal technical skills of Electrical Installation and Maintenance work Trade required for the integration into Almajiri School System?
2. What are the content of Electrical Installation and Maintenance work Trade required for the integration into Almajiri School System?
3. What are the relevant instructional materials of Electrical Installation and Maintenance work Trade required for the integration into Almajiri School System?
4. What are the relevant instructional methods of Electrical Installation and Maintenance Trade required for the integration into Almajiri School System?
5. What are the assessment strategies of Electrical Installation and Maintenance work Trade required for the integration into Almajiri School System?
6. What are the Malams perception on the integration of Electrical Installation and Maintenance work Trade into Almajiri School System.?

Significance of the Study

The findings of this study when published may be of immense benefit to the Almajiris, Malams of the Almajiri Schools, curriculum planners, Katsina State Government and other Researchers The study in particular will be of benefit to the Almajiris as they would have access to skills acquisition training to make them self-reliant.

Scope of the Study

The study was on building of a framework for integration of non-formal technical skills, of Electrical Installation and Maintenance work Trade into the Almajiri School System in Katsina state. The study was to determine the objectives, content required, relevant instructional materials, relevant instructional methods,

assessment strategies, and Malams perception on the integration of Electrical Installation and Maintenance work Trade into the Almajiri School System in Katsina state.

2.0 LITERATURE REVIEW

A study conducted by Muhammad (2021) On Incorporation of Western Education and Skill Acquisition in Almajiri System as a Panacea for Unemployment and Poverty Eradication in North-East Nigeria: A Case Study of Borno, Bauchi and Yobe States. In the study, three major research questions guided the study. The research is a descriptive research with a target population which contains parents, Almajiris, Malam, government officials, Imam and civil societies were selected areas in North- East, with a total number of three hundred and six (306) people (Chi-square), descriptive statistical to test the distinctive in response. The finding showed that Almajiri are denied basic needs, families sometimes loss their loved ones, the health of Almajiri is at risk, Almajiris are exposed to environmental hazards were identified as some of the implication of Almajiri system of education. The finding also showed that the curriculum provides opportunity for literacy, numeracy, It was based on the findings of the study that appropriate recommendation and suggestions were made as follows: more determined efforts should be made to support Qur,anic and Islamiyah schools. The welfare of Malams and Almajiri and the expansion of Qur,anic education curriculum should be looked into by the Government. The north should plan to formulate new policies on good governance, transparency and accountability to achieve its aims of Almajiri system of education in North-east. The study is relevant in one aspect to the present study as it address one domain in Almajiri school system (Incorporation of Western Education and Skill Acquisition in Almajiri System as a Panacea for Unemployment and Poverty Eradication in North-East Nigeria), however, it differs in the area of the study (A Case Study of Borno, Bauchi and Yobe States), target group (parents, Almajiris, Malam, government officials, Imam and civil societies), and focus (educational policy) with the present study.

In a similar study conducted by Hassan, Mursali and Bala (2019) on Exploring Strategies for Integrating Technical Vocational Education and Training (TVET) into Almajiri Schooling System for Sustainable National Development in North Eastern Nigeria. Two research question were raised to guide the study and two null hypotheses was used and tested at 0.05 levels of significance. Descriptive survey research design was adopted for this study. The population for the study was made-up of all 27,426 of the entire Almajiris, in the area of the study, the researchers decided on a Sample size of five thousand one hundred and seven respondents (5,107) Almajiris. The findings of the study revealed that all of the respondents agreed with a mean score of (3.78) and a Standard deviation of (0.60) as stated that, integrating into the Almajiri schooling system will have allowed students (Almajiri) to engage themselves in practicing on what they would learned for a living, learning practical's, using modern hand tools for teaching during practical's, using well equipped and organized workshop for practical's, grouping students into small groups during practical's for monitoring, always inviting TVET experts from TVET industries to give lectures to the (Almajiri) students on practical innovations, Based on the findings the following recommendations were made: The skills identified in this study should be integrated into the curriculum of TVET for training of Almajiri students in TVET training centers. Workshop and seminars should be organized for TVET teachers on current technologies/issues in TVET from time to time. Teachers of TVET should endeavor to adopt identified teaching and evaluation strategies for training of Almajiri students in TVET training centers. The study is relevant to the present study as it address one aspect in Almajiri school system (Exploring Strategies for Integrating Technical Vocational Education and Training (TVET) into Almajiri Schooling System), however, it differs with the present study which is in a particular trade.

In another research carried out by Muhammad (2018). The incorporating vocational education into Almajiri system of education for economic growth in northern Nigeria. Research was based on the review of relevant literature looking at the concept of vocational and technical education, concept of Almajiri and Almajiri school system of education and concept of economic growth, the researcher concludes that the lingering problem of the Almajiri in Nigeria and most especially northern part needs to be addressed squarely. This study also looked at the holistic nature of the problem and concluded that unless the issue is tackled by giving the Almajiri skills for survival and self-reliance they would continue to be nuisance and hurdles to the economic growth of northern Nigeria and Nigeria in general. Based on the concept and conclusion the

researcher drawn, the following recommendations; federal government should initiate a skills acquisition programme for Almajiri at nearby school clusters. State government should ban street begging all over the region and the country in general. Upon graduation from skills acquisition programme, the Almajiri should be given capital to start on their own however, should be under critical supervision by government officials. State government should involve well-to-do people to partake in the programme. The study also has a relevant in present study in which it address the incorporating vocational education into Almajiri system of education, the research was based on the review of relevant literature looking at the concept of vocational and technical education, concept of Almajiri and Almajiri school system of education and concept of economic growth while the present study is based on descriptive survey.

Another study conducted by Halima (2013) on the integrating basic primary education curriculum into qur,anic education for children in Minna, Niger state, to guide the study, four research question where raised to guide the study and null hypotheses are formulated and tested at 0.05 levels of significance. A descriptive survey research design was used for this study, the population of the study comprises 177 Malams in the qur,anic schools and 28 head teachers in UBE schools, which gave a total of 205 Malams/head teachers. The instrument was a four-point scale structured questionnaire. Findings of the Study, it was found that the entire subject curriculum taught in the UBE need to be integrated into the Qur,anic system of Education. The pre-vocational skills to be integrated into the Qur,anic system of Education are found to be consistent with those of the UBE. The finding of this study shows that the institutional and infrastructural needs of Qur,anic schools are basic. The environments depicted that could facilitate the effective integration of UBE into Qur,anic Education system are child centered. The following recommendations are made in view of the findings and implications of the study. Universal Basic Education curriculum should be integrated into the Qur,anic system of Education for an age group of five years and above through curriculum reform. Qur,anic Education teachers should be adequately motivated by adequate remuneration. In-service training and seminars should be held from time to time to improve the teaching methods and style to teachers to acquaint them with the current teaching methods that can be used to reconcile the UBE curriculum with the Qur,anic system of Education. Its relevant since it address issues of integrating basic primary education curriculum into qur,anic education for children in Minna the study focused on UBE Curriculum while the present study is addressing skills acquisition in EIMT

3.0 RESEARH METHODS

Research Design

A descriptive survey research design was used for this study, the area of the study was Katsina State which is one of the thirty-six states in Nigeria located in North West Zone, Nigeria. The researcher chose to conduct the study at Formal Technical Skills Acquisition Centers and Almajiri Schools in Katsina State because of the large number of Almajiri schools in the state and The Researcher observed too much involvement of Almajiri in the increasing rate of in security in the state as a result of lack of any job or skills to defend on, The population of the study was 2518 respondents, (MORA, ASDAK 2023). For the purpose of this study, a total sample of 246 respondents was involved in the research, the whole population of formal technical skills acquisition centers were involved due to its concise size 55, purposive sampling were used to select Nine Almajiri school from the total population which has a total of 191 Malams of Almajiri schools was form the study sample Therefore, a sum of 246 respondents were used for the research as details below.

Table 1: Sample of Trainers from Formal Technical Skills Acquisition Centers

S/N	Names of Formal Technical Skills Acquisition Centers	No. of Teach	No. of Instruct	No. of Techn	Total
1.	G T C Mashi	02	01	02	05
2.	G T C Ingawa	01	01	01	03
3.	G T C Funtua	01	01	01	03
4.	GG TC C Charanchi	03	01	02	06
5.	Katsina Youth Craft Village	03	02	02	07
6.	COSDEC Katsina	03	01	01	05
7.	COSDEC Malumfashi	02	01	01	04
8.	COSDEC Mani	03	01	02	06
9.	BATC; Katsina	02	01	01	04
10.	BATC Funtua	01	01	01	03
11.	BATC Daura	01	00	01	02
12.	BATC; Dutsin-Ma	01	01	00	02
13.	BATC; Danja	01	00	01	02
14.	BATC; Kankia	01	01	01	02
	TOTAL	25	13	17	55

SOURCE: Ministry for Science, Technology and Innovation Katsina State
 Key;- GTC- Government Technical College; GGTC- Government Technical Commercial College;
 COSDEC- Community Skills Development Centers; BATC- Basic Apprenticeship Training Centers

Table 2: Sample of Malams from Almajiri Schools

S/N	Name of Almajiri School	Sample of Malams
1.	Tsangayar Malam Babangida Malali Katsina	15
2.	Tsangayar Malam Sama,II Katsina	08
3.	Tsangayar Malam Musa Filin Polo	07
4.	Tsangayar Malam Garba Jibia	08
5.	Tsangayar Malam Abu Na Amare	05
6.	Tsangayar Malam kamilu Kaita	06
7.	Tsangayar Malam Nuhu Batagarawa	05
8.	Tsangayar Malam Gambo Kuka Rimi	06
9.	Tsangayar Malam Dahiru Garibawa Kurfi	09
10.	Tsangayar Malam Amadu Ishiyawa	06
11.	Tsangayar Malam Ibrahim Walawa	08
12.	Tsangayar Malam Aminu Kanyar Badala Daura	12
13.	Tsangayar Malam Ammani Sandamu	09
14.	Tsangayar Malam Jamilu Rumfa Maiadua	08
15.	Tsangayar Malam Jabiru Bindawa	04
16.	Tsangayar Malam Abu Fago	06
17.	Tsangayar Malam Lawal Shargalle	04
18.	Tsangayar Malam Haruna Zango	05
19.	Tsangayar Malam Bature Maska	07
20.	Tsangayar Malam Jamilu Gangarawa Mlf	05
21.	Tsangayar Malam Mammada Msw	06
22.	Tsangayar Malam Ummara Matazu	05
23.	Tsangayar Malam Garba Jah Kankara	07
24.	Tsangayar Malam Nuhu Danja	06
25.	Tsangayar Malam Kalla Zango Kafur	07
26.	Tsangayar Malam Halle Bakori	09
27.	Tsangayar Malam Audu Mairiga Dandume	08
TOTAL		191

SOURCE: Ministry for Religious Affairs Katsina State, and Almajiri Schools Development Association Katsina State.

Instrument for Data Collection.

The instrument for data collection was two set of Self-structured questionnaire for collecting the necessary data for the research from the respondents The instruments are design base on four-point modified Likert scale with Strongly Agreed (SA=4), Agreed (A=3), Disagreed (DA=2), and Strongly Disagreed (SDA=1) as the options, the items were developed from the review of relevant literature.

The instruments were face and content validated by three experts two of which are from field of Electrical/Electronic Technology in the Department of Vocational and Technology Education Abubakar Tafawa Balewa University, Bauchi, and one expert from field of Electrical/Electronic Technology, Ministry for Science Technology and Innovation Katsina State, Cronbach's alpha was used to test the internal consistency of the instruments and was found to be (0.85) and (0.84) for the two instruments. The higher the measurement index (close to 1.0) the greater the reliability of the test (Sambo, 2015), the data collected for the research was analyzed using Mean and Standard Deviation respectively. Also, in order to determine the agreement level of the items of the research questions, the mean ratings of respondents will be interpreted

using real limits of numbers as in table 3. All statistical calculations was done using the Statistical Package for the Social Sciences (SPSS).

Table 3: 4 Point Rating Scale

Responses	Symbol	Numerical Value	Real Limit
Strongly Agreed	SA	4	3.50-4.00
Agreed	A	3	2.50-3.49
Disagreed	DA	2	1.50-2.49
Strongly Disagreed	SDA	1	0.50-1.49

4.0 RESULTS AND DISCUSSION

Research Question One: *What are the objectives of non-formal technical skills of Electrical Installation and Maintenance trade for the integration into Almajiri School?*

Data on table 4, the mean scores of the respondents are: 3.58, 3.73, 3.75, 3.63, 3.65, 3.69, 3.71, and 3.77 and, 3.62 with corresponding Standard Deviation of 0.54, 0.45, 0.44, 0.49, 0.48, 0.47, 0.46, 0.43 and 0.60. This shows that they Strongly Agree with all items 1, 2, 3, 4, 5, 6, 7, 8, and 9 on the objectives of non-formal technical skills of Electrical Installation and Maintenance Trade for the integration into Almajiri School, The Mean Range are: 3.50-4.00 (Strongly Agreed), 2.50-3.49 (Agreed), 1.50-2.49 (Disagreed), and 0.50-1.49 (Strongly disagreed). Considering their standard deviation which falls within the same range indicated that their individual responses across all the items do not vary. It means they are not far away from the mean.

Table 4

Table 4: Objectives of Non-formal Technical skills of Electrical Installation and Maintenance

S/N	Items Statements	N	X	SD	Remark
1.	Analyzed electrical working diagrams	52	3.58	0.54	SA
2.	Differentiate types of domestic surface wiring	52	3.73	0.45	SA
3.	Identify different types of domestic conduit wiring	52	3.75	0.44	SA
4.	protect electrical devices and install them	52	3.63	0.49	SA
5.	inspect and test domestic installations	52	3.65	0.48	SA
6.	Identify various types of lamps for lightning	52	3.69	0.47	SA
7.	Used terms used in lightning	52	3.71	0.46	SA
8.	Used basic tools for surface and conduit wiring	52	3.77	0.43	SA
9.	Used various ways of conducting trouble shorting	52	3.62	0.60	SA

Source: field work 2024 **Key:** N = Number of Respondents; X=Mean; SD = Standard Deviation; D = Decision.

Research Question 2: *What are the contents of non-formal technical skills of Electrical Installation and Maintenance Trade required for integration into Almajiri School?*

Data on table 5, The mean scores of the respondents on the items 10, 11, 12, 13, 14, 15, 16, 17, and 19 are: 3.67, 3.62, 3.63, 3.83, 3.54, and 3.67, with corresponding Standard Deviations of 0.64, 0.45, 0.51, 0.47, 0.49, 0.49, 0.38, This shows that the respondents strongly agree with items, while item 18 as Agree with mean value and corresponding standard deviation 0.58, and 0.51, The Mean Range are: 3.50-4.00 (Strongly Agreed), 2.50-3.49 (Agreed), 1.50-2.49 (Disagreed), and 0.50-1.49 (Strongly disagreed). Considering their standard deviation which falls within the same range indicated that their individual responses across all the items do not vary, means they are not far away from the mean.

Table 5: contents of Electrical Installation and Maintenance

S/N	Items	N	X	SD	Remark
10.	Draw electrical Installation Layout from a given living house plan	52	3.52	0.64	SA
11.	Surface wire an installation of two lighting points controlled by independent switches using P.V.C Cable	52	3.73	0.45	SA
12.	Carryout simple surface wiring consisting of: Two points of light controlled by a switch using looping system. Ceiling fan, Socket outlet(13A&15A) Cooker control unit, Distribution board	52	3.67	0.51	SA
13.	Wire a point of light control by two-2 way switch using P.V.C and steel Conduit pipes	52	3.67	0.47	SA
14.	Wire up a complete conduit installation consisting of: Incoming mains Supply, Electrical energy meter, Isolating fuse, Switch board with mains switch and two circuit breakers, ELCB, Single power outlet using P.V.C Cable Single fluorescent	52	3.62	0.49	SA
15.	Wire a lighting point control by a single switch using PVC Cable An electrical stove	52	3.63	0.49	SA
16.	Inspect electrical and mechanical for loose or partial contact test for polarity, continuity and insulation test	52	3.83	0.38	SA
17.	Carryout an experiment to measure the lighting power of a given lamp	52	3.54	0.58	SA
18.	Using illumination table, determine the number lamps required in a given room or area	52	3.50	0.70	A
19.	Identify different types of lamps and relevant electrical fittings	52	3.67	0.51	SA

Source: field work 2023 **Key:** N = Number of Respondents; X=Mean; SD = Standard Deviation; D = Decision.

Research Question 3 *What are the relevant instructional materials of non-formal technical skills of Electrical Installation and Maintenance Trade required for integration into Almajiri School System?*

Data on table 6, the mean scores of the respondents are: 3.65, 2.27, 3.50, 3.50, 3.60, 3.60, 3.65, 4.23, 3.40, 4.30, 3.58 and 3.62 with corresponding Standard Deviation of 0.48, 0.89, 0.50, 0.50, 0.50, 0.53, 0.48, 4.09, 0.63, 5.64, 0.50 and 0.49. This shows that they strongly agree with items 20, 22, 23, 24, 25, 26, 27, 29, 30 and 31., On the other Hand, the respondents agree with items 28, while disagrees with items 21. The Mean Range are: 3.50-4.00 (Strongly Agreed), 2.50-3.49 (Agreed), 1.50-2.49 (Disagreed), and 0.50-1.49 (Strongly disagreed). Considering their standard deviation which falls within the same range indicated that their individual responses across all the items do not vary, means they are not far away from the mean.

Table 6: Relevant Instructional Materials of non-formal technical skills of Electrical Installation and Maintenance

S/N	Items	N	X	SD	Remark
20.	Work bench, Wiring Board's/Wiring Room Simulators, Conduit Bending Machine, Conduit Vice	52	3.65	0.48	SA
21.	Clamps, Oil Can, Ladder, Scaffolding	52	2.27	0.89	D
22.	Hand gloves, Overall Uniform,), Boots, Helmet, Safety Belt	52	3.50	0.50	SA
23.	Workbench, Screw drivers (set), Strippers, Hammers, Pliers	52	3.50	0.50	SA
24.	Ammeter, Voltmeter, multi-meter, Wattmeter, Ohmmeter , Energy Meter , voltage tester	52	3.60	0.50	SA
25.	Cable display board. Ceiling roses, Plugs – assorted, Adaptors – assorted, Socket outlets – assorted, Switches	52	3.60	0.53	SA
26.	Lamp-holders – assorted, Fuses – assorted, Circuit breakers, Aluminum. Clips, Fluorescent fittings, Wiring nails, Electric Bulbs	52	3.65	0.48	SA
27.	Conduit pipes PVC and accessories, Earthing accessories	52	4.23	4.09	SA
28.	Cotton Tape (Impregnated Tape), Insulation Tapes, Fish wires, PVC Vanish, Rubber	52	3.40	0.63	A
29.	Fire extinguisher, Sand bucket, Safety posters, Buzzers, Bells	52	4.31	5.64	SA
30.	Distribution Box, ELCB and MCB, Main switch	52	3.58	0.50	SA
31.	P.V.C Cables (1.5mm2,2.5mm2, twin core and 3-core), P.V.C Cable single Strands(1.5mm2,2.5mm2)	52	3.62	0.50	SA
Valid N (listwise)		52			

Source: field work 2024 **Key:** N = Number of Respondents; X=Mean; SD = Standard Deviation; D = Decision.

Research Question 4: *What are the relevant instructional methods of non-formal technical skills of Electrical Installation and Maintenance Trade required for integration into Almajiri School System.?*

Data on table 7, the mean scores of the respondents are: 2.79, 2.70, 2.79, 3.54, 3.69, 3.63, 2.21 and 3.00. With corresponding Standard Deviation of 0.80, 0.78, 0.85, 0.54, 0.47, 0.53, 0.96 and 2.94. This shows that they strongly agree with items 35, 36 and 37. The respondents also agree with item 32, 33, 34, and 39 while the respondents disagree with item 38. The Mean Range are: 3.50-4.00 (Strongly Agreed), 2.50-3.49 (Agreed), 1.50-2.49 (Disagreed), and 0.50-1.49 (Strongly disagreed). Considering their standard deviation which falls within the same range indicated that their individual responses across all the items do not vary, means they are not far away from the mean.

Table 7: Relevant Instructional Methods of Electrical Installation and Maintenance

S/N	Items	N	X	SD	Remark
32.	Drill and practice	52	2.79	0.80	A
33.	Project-based learning	52	2.69	0.78	A
34.	Field trip/excursions	52	2.79	0.85	A
35.	Experimental practice	52	3.54	0.54	SA
36.	Practical attachment	52	3.69	0.47	SA
37.	Workshop practical's	52	3.63	0.53	SA
38.	Simulations	52	2.21	0.96	D
39.	Peer instruction	52	3.00	2.94	A
Valid N (listwise)		52			

Source: field work 2024 **Key:** N = Number of Respondents; X=Mean; SD = Standard Deviation; D = Decision.

Research Question 5 *What are the assessment strategies of non-formal technical skills of Electrical Installation and Maintenance Trade required for integration into Almajiri School.?*

Data on table 8, the mean scores of the respondents are: 3.88, 2.73, 3.78, 2.54, 3.23, 3.56 and 3.17. With corresponding Standard Deviation of, 0.32, 0.87, 0.46, 0.85, 0.88, 0.54 and 0.71 This shows that the respondents strongly agree that items 40, 42, 45, the respondents also agree with item 41, 43, and 46. The Mean Range are: 3.50-4.00 (Strongly Agreed), 2.50-3.49 (Agreed), 1.50-2.49 (Disagreed), and 0.50-1.49 (Strongly Disagreed). Considering their standard deviation which falls within the same range indicated that their individual responses across all the items do not vary, means they are not far away from the mean.

Table 8: Assessment Strategies of non-formal technical skills of Electrical Installation and Maintenance trade

S/N	Items	N	X	SD	Remark
40.	Practical examination	52	3.88	0.32	SA
41.	Portfolio of the experiences	52	2.73	0.87	A
42.	On-site observation	52	3.79	0.46	SA
43.	Simulation with work samples	52	2.54	0.85	A
44.	Interview	52	3.23	0.88	A
45.	Self-assessment questionnaire	52	3.56	0.54	SA
46.	Pre-survey with interviews	52	3.17	0.71	A
	Valid N (list wise)	52			

Source: field work 2024 **Key:** N = Number of Respondents; X=Mean; SD = Standard Deviation; D = Decision.

Research Question 6: *What are the Malams perception on the integration of non-formal technical skills of Electrical Installation and Maintenance trade into Almajiri School?*

Data on table 9, the mean scores of the respondents are: 3.46, 3.44, 3.39, 3.28, 3.25, 3.26, 3.24, 3.30, 3.40 and 3.50. With corresponding Standard Deviation of, 0.66, 0.66, 0.69, 0.79, 0.78, 0.77, 0.78, 0.76, 0.72 and 0.62. This shows that the respondents strongly agree that non-formal technical skills of Electrical Installation and Maintenance trade is required for integration into Almajiri School, the respondents also agree with item 1, 2, 3,4, 5, 6, 7, 8, 9, and item 10 that it will increased their economic wellbeing.

Table 9: Malams Perception on the Integration of Electrical Installation and Maintenance Work Trade

S/N	Items	N	X	SD	Remark
1.	Electrical Installation and Maintenance Work skills training will ; ensure the possession of saleable skills suitable for Malams' and Almajiris' in Tsangaya school system and will enhance the integration	189	3.46 A	0.66	
2.	Acquiring that right technical education will result in Malams' and Almajiris' becoming more self-confident, with improved self-esteem and becoming more aware of their civil rights	189	3.44	0.66	A
3.	The Tsangaya community and locality of Almajiris will benefit first on the skills of Electrical Installation and Maintenance Work learned especially in rural areas	189	3.39	0.69	A
4.	Adequate Enlightenment by government and community leaders concerning Electrical Installation and Maintenance Work skills training opportunities will boost Malams' and Almajiris' morale on the integration	189	3.28	0.79	A
5.	Financial support to Parents and Malams' will encouragement for inclusion of Electrical Installation and Maintenance Work skills in the Tsangaya school settings of Malams' and their children (Almajiris')	189	3.25	0.78	A
6.	Provision of adequate and conducive training environment will enhance effective Malams' and Almajiris' positive participation	189	3.26	0.77	A
7.	More skills training centers/Schools be made available close to each community and Almajiris' schools.	189	3.24	0.78	A
8.	Provision of endowments and scholarships by Governmental and nongovernmental organizations to the trainee	189	3.30	0.76	A
9.	Admit brilliant students to upgrade their level so as to fully facilitate the integration	189	3.40	0.72	A
10.	It will increased Work skills for national reform and economic development,	189	3.50	0.62	SA
	Valid N (list wise)	189			

Source: field work 2024 **Key:** N = Number of Respondents; X=Mean; SD = Standard Deviation; D = Decision.

Findings of the Study

Followings are the findings of the study:

- i) The respondents of formal technical skills acquisition centers have agreed with all the stated objectives of non-formal technical skills of Electrical Installation and Maintenance Trade for the integration into Almajiri School. Are inline and can be used in training Almajiri to learn skills of Electrical Installation and Maintenance.
- ii) The respondents of formal technical skills acquisition centers have agreed with all the content of non-formal technical skills of Electrical Installation and Maintenance Trade that can be used for the integration into Almajiri School to learn skills of Electrical Installation and Maintenance.
- iii) The respondents of formal technical skills acquisition centers have agreed with all the instructional materials of non-formal technical skills of Electrical Installation and Maintenance Trade can be

- used for the integration of Almajiri School System to learn skills of Electrical Installation and Maintenance.
- iv) The respondents of formal technical skills acquisition centers have agreed with all the instructional methods of non-formal technical skills of Electrical Installation and Maintenance trade are inline to use for the integration of Electrical Installation and Maintenance into Almajiri School for skills acquisition.
 - v) The respondents of formal technical skills acquisition centers have agreed with all the assessment strategies of non-formal technical skills of Electrical Installation and Maintenance trade are inline to be used for the integration into Almajiri School for the assessing the skills acquired in Electrical Installation and Maintenance training.
 - vi) The respondents of Almajiri School on the Malams perception for the integration of non-formal technical skills of Electrical Installation and Maintenance Trade into their School have agreed with all the items stated as it will increased their economic wellbeing.

DISCUSSION OF FINDINGS

The finding of this study with respect to research question (1) is in conformity with the study conducted by Hassan, Mursali & Bala (2019) on "Exploring the Strategies for Integrating Technical Vocational Education and Training (TVET) into Almajiri Schooling System for Sustainable National Development in North Eastern Nigeria" to explore strategies for integrating TVET into Almajiri schooling system for Sustainable National Development in North Eastern Nigeria. Two research questions and one hypotheses were developed which focused on trades that can be integrated into Almajiri School and strategies for integrating pre-vocational skills into Almajiri schooling system. Descriptive survey design was used for the study and (5,107) Almajiris as the participants. Self-structured questionnaire titled "a questionnaire titled integrating TVET into Almajiri schooling system for Sustainable National Development into Almajiri schooling system " was used to collect data which was analyzed using mean and standard deviation to answer the research questions while the null hypothesis was tested using the z-test at 0.05 level of significance, the significant finding of this study indicates conformity as the result for the analysis of research question (1) shows that TEVET trades can be integrated into Almajiri schooling system which can empowered them to be self-reliant.

This study commensurate with the study conducted by Mohammed (2021) on "Incorporation of Western Education and Skill Acquisition in Almajiri System as a Panacea for Unemployment and Poverty Eradication in North-East Nigeria: A Case Study of Borno, Bauchi and Yobe States ". Three research questions were developed, with the aim to incorporation of western education and skill acquisition in Almajiri system as a panacea for unemployment and poverty eradication in Northern-east Nigeria. The research design was descriptive survey with the total population of (306) participants. A 5-points questionnaire was structured by the researcher to obtain data. Study was simple percentage, inferential statistical (Chi-square), descriptive statistical to test the distinctive in response to incorporation of western education and skill acquisition in Almajiri system as a panacea for unemployment and poverty eradication in Northern-east Nigeria, Borno, Bauchi and Yobe State, The finding showed that Almajiri are denied basic needs, families sometimes loss their loved ones, the health of Almajiri is at risk, Almajiris are exposed to environmental hazards were identified as some of the implication of Almajiri system of education, The findings also showed that all items can be adopted as strategies for improving the Almajiri system of education which are the system should be integrated into UBE curriculum. Government should fund the system, vocational skill should be introduced into the system, infrastructural facilities should be provided into the system, private sectors should participate, parents should be charged fees, and policies should be enacted.

The study is also in conformity with the study conducted by Muhammad (2018) incorporating vocational education into Almajiri system of education for economic growth in northern Nigeria", purposely to identify the possibility of incorporating vocational education into Almajiri system of education. The researcher adopt reviewing the existing literature and conceptual framework, the researcher conclude that the lingering problem of Almajiri in Nigeria and most especially northern part needs to be addressed squarely, looking at the holistic nature of the problem the Almajiri needs to be given skills for survival and self-reliance. The researcher also give the following recommendation, the federal government should initiate a skills acquisition

programme for Almajiris at nearby schools cluster, state government should ban street begging all over the region and the country in general, upon graduation from skill acquisition programme the Almajiri should be given capital to start on their own however, should be under critical supervision by government officials.

The findings of research question (3) show that there is need for integration of Electrical Installation and Maintenance Trade content into Almajiri School System. Also study conducted by Aliyu, Oladejo, Abdulkarim, Olaoye, Ahmadu, Olusegun, Sonny, Jibrin, Abdulrahaman, and Orinya (2020) on " Integration of Entrepreneurship Development in the Almajiri Educational System in Katsina State Nigeria ", support these findings. The study was purposely to outline a framework for Integration of Entrepreneurship Development in the Almajiri Educational System in Katsina State, the researcher use of cross-sectional survey research design which was descriptive and three research question was used and hypotheses, also the researcher metal work technology and word work technology, therefor it shows that Almajiri School can be integrated while the present study is specific in the area of electrical installation and maintenance trade.

Furthermore, the findings in research question (4) and (5) show that the instructional materials and instructional strategies for integration of electrical installation and maintenance trade are going to benefit Almajiri school students in acquiring technical skills. In fact the work of Gloria (2015) conducted a research on "skill acquisition and vocational education in non-formal education. The researcher used a conceptual framework where its discuss concept of skill acquisition, concept of vocational education, concept of non-formal education and highlight the acquisition of vocational skill through non-formal education its also recommend as follows ; educational authorities should provide all facilities for training, government should equipped the training centers with all the required functional instructional materials.

The findings of this study shows that Almajiri school Malams are ready to allowed integration of technical skills of electrical installation and maintenance trade since the Almajiri will have access to job opportunity in the society. Malams of Almajiri school believed that Almajiri with right technical education will result in Malams' and Almajiris' becoming more self-confident, with improved self-esteem and becoming more aware of their civil rights and community and locality of Almajiris will benefit first on the skills of Electrical Installation and Maintenance Work learned especially in rural areas. However the findings of this study is not inconformity with the study conducted by Isiaka, (2015) on "a pilot of challenges of infusing Almajiri educational system into the universal basic education programme in Sokoto state Nigeria", with the rationale to ascertain whether integrating Almajiri educational system into universal basic education programme successfully.

SUMMARY

The main objective of the study is to develop framework for the integration of non-formal technical skills of Electrical Installation and Maintenance Trade into Almajiri School System in Katsina state, six specific objectives were formulated, and six research questions. The literature was discussed based on the following sub headings: Theoretical Framework, Formal system of Education, Non-Formal System, Components of Non-Formal Technical Skills, Technical Education, Almajiri School System, Content needed for the integration, Instructional Strategies for the integration, Instructional materials for the integration, Perception of Almajiri School Malams, Integration of EIMT into Almajiri School, Review of Related Empirical Studies, Summary of literature reviewed, The research design of the study was descriptive survey research design. The study was carried out in Katsina State Nigeria. The population of the study consists of two thousand four hundred and sixty three (2463) Almajiri school Malams and fifty five 55 trainers of Electrical Installation and Maintenance Trade (EIMT) in all formal technical skills acquisition centers of Katsina state. There are fourteen (14) formal technical skills acquisition centers that are offering EIMT all over the state. Therefore based on this, the entire population of formal technical skills acquisition center served as the sample of the study and one hundred and ninety one was used in the Almajiri School. The instruments for data collection in this study was a self-structured questionnaires titled "Electrical Installation and Maintenance work Trade Trainers Questionnaire" (EIMTTQ), and Malams perception on the integration of Electrical Installation and Maintenance work Trade into Almajiri School System Questionnaire (MPIEIMTASSQ). The instrument was validated by three experts two from the field of Electrical Electronic technology Education, Department of Vocational and Technology Education, Abubakar Tafawa Balewa University, Bauchi, the reliability was

determine by applying Cronbach's coefficient alpha, and the reliability coefficient was found to be 0.847 and (0.843) for the two instruments. The higher the measurement index (close to 1.0) the greater the reliability of the test

CONCLUSION

Based on these findings, the conclusion is that there is need for integration of Electrical Installation and Maintenance Trade into Almajiri School System. The major recommendation is that government should to equip formal technical skill acquisition centers with basic instructional facilities to provide Almajiri School children with technical skills for Electrical Installation and Maintenance to One of the problem faced by products of Almajiri education system, they cannot use their knowledge to gate employment either within or outside the government. Its hope that once this recommendation is published the products of the Almajiri school system will be recognized, then those coming out of the system would have the same privileges as products of the secular education system and this would boost their self-esteem and image and they would have job opportunities.

The limitations of the study were also highlighted while suggestions for further studies were made. Many researchers have been found to document issues for integration of Almajiri School into deference vocational and technical skills which resulted from diverse aspects of Almajiri school issues and training. If the recommendations would be applied they will reduce and address the street begging and involvement in creating insecurity, if these recommendations would be put in practice they will fill the gap in producing crafts men and has access to federal labor trade test certificate. As such fill the gap in their knowledge about the having relevance in job opportunity and recognition in the society.

RECOMMENDATIONS

Based on the findings of the study the followings are the recommendations of the study

- i) Ministry for science technology and innovation should adopt the framework for the integration of technical skills content of electrical installation and maintenance trade and accepts it as document for use at the formal technical skills acquisition centers in order to facilitate training of Almajiri in the state,
- ii) The EIMT framework for training Almajiris should be accepted as training document for training Almajiri to have a technical skills of Electrical Installation and Maintenance trade and also be certified by the federal labor trade, (FLT).
- iii) The EIMT instructional materials should be provided by the government to the formal technical skills acquisition centers to facilitate training of Almajiri in the Katsina state.
- iv) The teachers, instructors and technicians of formal technical skills acquisition centers should be trained on the instructional methods to be used in Electrical Installation and Maintenance work trade training by organizing training workshop and seminars for the purpose of attaining the goals for the integration of Electrical Installation and Maintenance work trade into Almajiri School System for skills acquisition.
- v) The teachers, instructors and technicians of formal technical skills acquisition centers should be trained on the assessment strategies to be used in Electrical Installation and Maintenance work trade training by organizing training workshop, seminars and conferences for the purpose of attaining the goals for the integration of Electrical Installation and Maintenance work trade into Almajiri School System for skills acquisition.
- vi) The Almajiri Schools, Malams and the Almajiris should be given welfare startup packaged by the government of Katsina state for them to be self-reliant and Malams should only admit the number of Almajiris they can take care off.

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