

**EVALUATION OF TEACHING AND LEARNING OF PHOTOGRAPHY
TRADE AND ITS CURRICULUM IMPLEMENTATION IN OSUN STATE
SENIOR SECONDARY SCHOOLS**

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Abstract

Nigeria recently reviewed her senior secondary education curriculum and re-aligned some 34 trade and entrepreneurship subjects under technical and vocational education and training (TVET) to instil hands-on skills in the secondary school students. Therefore, this study investigated the level of implementation of photography trade curriculum in Osun State, Nigeria. Ex post facto research design was employed using multi-stage sampling technique; the sample size consisted of five high school teachers of photography and 132 students. Four duly validated instruments were used to collect data i.e. Photography Teacher Questionnaire (PTQ), $r = 0.71$; Teachers' Photography Skill Test (TPST), $r = 0.78$, Photography Achievement Test (PAT), $r = 0.84$ and Photography Equipment and Materials Checklist (PEAC), $r = 0.65$. Findings revealed that very few senior secondary schools fully implemented the photography curriculum, majority of the schools are privately owned. Findings further shows that most of the photography teachers acquire basic skill and knowledge through apprenticeship training. Photography equipment, tools and materials are not sufficiently provided for teaching photography while those available are not regularly utilized. Teachers' academic qualifications, mode of skills and knowledge acquisition in photography and working experience had no significant effects on students' achievement in photography. It concludes that photography trade curriculum has not been effectively and fully implemented in Osun State. The study therefore recommends engagement of qualified teachers and procurement of required photography textual materials, equipment, tools and accessories. Moreover, Nigerian higher institution of learning

should also introduce degree and sub-degree programmes in photography trade with considerations for professionalism and teaching pedagogy.

Keywords: Photography Trade, Technical and Vocational Education and Training, Curriculum Implementation, Teaching and Learning.

Introduction

Education is very vital to human development which in turn affects the systematic growth of any nation. Quality of education in Nigeria has constantly been challenged because of the disparity in the products of education and its output in terms of manpower development and economic growth. Nigerian government regarded education as an instrument par-excellence for ensuring national development as well as a “dynamic instrument of change”. Nigeria recently adjusted her technical and vocational education and training curriculum to match ideas and challenges of changing economic and social structure of the modern society. The Nigerian government announcement of the newly reviewed senior secondary school curriculum generated debates about what the curriculum is expected to achieve. It also generated questions about what the value of the newly curriculum at a time when the existing curriculum has not been implemented satisfactorily. Yet, some are of the opinion that a new senior secondary school curriculum does not hold the key to Nigerian’s socio-economic and industrial development.

The National Policy on Education (FRN, 2004) categorized Nigeria educational system into three main vertical segments: basic education, post-basic education (or upper secondary education) and tertiary education. Basic Education is the education offered to children aged between three and fourteen years; it comprises of three years of Early Childhood Care Development and Education (ECCDE), six years of primary, three years of Junior Secondary Education and three years of Senior Secondary Education (FRN, 2004; FRN, 2009;FRN, 2013). The objectives for secondary education put emphasis on a balance between physical and intellectual development. According to section 3 of the post-basic education and career development, the objectives of Nigeria secondary education are to:

- provide holders of the Basic Education Certificate with opportunity for education of a higher level, irrespective of gender, social status, religious or ethnic background;
- offer diversified curriculum to cater for the differences in talents, opportunities and future roles;
- provide trained manpower in the applied science, technology and commerce at sub-professional grades;
- provide entrepreneurial, technical and vocational job-specific skills for self-reliance and for agricultural, industrial, commercial and economic development;
- develop and promote Nigerian languages, art and culture in the context of world's culture heritage;
- inspire students with a desire for self-improvement and achievement of excellence;
- foster patriotism and national unity with an emphasis on the common ties in spite of our diversity;
- raise moral upright and well-adjusted individuals who can think independently and rationally, respect the views and feelings of others and appreciate dignity of labour (FRN, 2004; FRN, 2009; FRN, 2013).

In summary, the senior secondary school education, in more specific terms is intended among other things; to raise a generation of people (mostly youth) who can think for themselves, respect the views and feelings of other, respect the dignity of labour and appreciate those values specified under broad national aims and live as good citizens (FRN, 1998; FRN, 2004;FRN, 2009;FRN, 2013). Several years after setting out with these objectives the country is faced with the challenges of educated but unemployable workforce as Nigerian students from secondary schools and graduate of tertiary institutions lack essential work place skills. There is increased dependence of youths on white collar jobs, which are difficult to come by. It is evident that job employers do not emphasize certificate but what employees can do and urged youth to seek self-reliance through self-employment.

Over time it has been perceived that the Nigerian secondary education from the outset till now appears to be on colonial influence whereby, majority of Nigerian youths are idle and some are involved in various vices due to unemployment. This is because some of the youths

do not have the required skills to either fit into much type of jobs that are available talk less of creating jobs. If Nigeria secondary education is properly planned, executed and monitored, it could be used to develop innate genius in the Nigerian youth and enhance their capacity to contribute economically to the Nigerian state. Thus, secondary education should be used as an investment that could yield rich productive dividends in the nearest future, which could have far reaching effects on national development for Nigeria to become one of the economies with power of the world by year 2020.

The Federal ministry of education bearing in mind the need to properly prepare and equip the Nigerian youth for economic challenges of this age reviewed the senior secondary school curriculum which include trade and entrepreneurship subjects like photography, dyeing and bleaching, clothing and textile, garment making, animal husbandry, carpentry and joinery, catering craft practice, cosmetology, painting and decoration, plumbing and pipefitting and some others which in a sense envisaged should guarantee skill-development, self-employment and professionalism among secondary school leavers in the nearest future. Adekoya (2004) postulated that for the Nigerian youth to be empowered economically they should be given the necessary skills acquisition and for this to be done the newly reviewed curriculum should be effectively implemented. To ensure a positive future for Nigeria, the youth that are believed to be the future leaders of the country ought to be well equipped with basic and functional education and skills to drive the economy.

According to the recently reviewed National Policy on Education (FRN, 2013), every student at the senior secondary school level may choose one trade from the list of 34 trades/ entrepreneurship subjects. However, experience has shown that schools due to the limited or varying resources could only select the trade subjects to be taught to students without recourse to their choice or interest in any of the trade/ entrepreneurship subjects. One of the objectives of the newly reviewed curriculum is to produce secondary school graduates who are sufficiently equipped for tertiary education. Such students are expected to possess at the end of their secondary education practical knowledge and professional skills that could be applied to the socio-economic development of the nation. The Nigeria Educational Research and Development Council (NERDC) states that students would be

required to study five compulsory courses which must include English language, General Mathematics, Computer studies, Civic education and one trade/entrepreneurship subject from the list of 34 trade/entrepreneurship subjects (Obioma, 2009).

According to Obioma (2009) the NERDC newly reviewed senior secondary school trade curriculum for the 34 trade/entrepreneurship subjects marked a radical departure from the subsisting curriculum in which importance was not placed on professional skills acquisition. It implies that for the newly introduced curriculum to be effectively implemented, it is important to make technical facilities widely accessible to secondary students and teachers so as to instil required practical skills. Adekoya (2004) examined influence of practical skill acquisition and socio economic empowerment of youth in Nigeria; findings by the author revealed that youth practical skills acquisition significantly influences their socio-economic empowerment in the larger society. It implies that the joblessness of the Nigerian youth today stems from their non-acquisition of required skills. The Nigeria educational system is expected to attend to the challenges of equipping the youth with technical skills for self-employment and wealth creation. This can be achieved through effective implementation of vocational and technical curricular.

From the foregoing, it is pertinent that Technical and Vocational Education and Training (TVET) are an essential aspect of the Nigeria educational system which is expected to sustain nation's population where quality of life is still very poor. Oni (2007) postulates that vocational and technical education as the one that holds the key to national development. According to Obanya (2007) vocational and technical education is part of integral development of three "Hs": i.e. the head, the heart and the hand which must not be neglected, as doing that will amount to a denial of individual's integrated personality development, further adding that any meaningful programme of technical/vocational education is to be predicted on a sound education.

The United Nation Educational Scientific and Cultural Organization (UNESCO) and International Labour Organisation (ILO) noted that revitalizing the TVET sector is among the ways to improve economic opportunities for youth (UNESCO and ILO, 2002). Dike (2009) in a similar view attests to the fact that vocational and technical education is designed to develop occupational skills and to give

individual basic skills to live, learn and works as productive citizen in a global society. Technical and vocational education and training (TVET) by its curriculum design and development is tailored towards functional education for skills building and skill identity which ultimately becomes a means of livelihood. The objectives of vocational enterprise institutions (FRN 2009; FRN, 2013) include the following: To;

- train post basic education and senior secondary students who are desirous of obtaining some specific skills, knowledge and appropriate certification to pursue a chosen trade or career
- educate post basic education and senior secondary students to think creatively and transform knowledge through technological processes into wealth and a broader economic base
- provide technological based skill training that ensure that students understand how their expertise fits into improving the society and fulfilling national goals
- increase access to technological education at tertiary level
- provide training that enables students to acquire specialized craftsman skills that empowers them to compete globally
- provide training that enables students acquire the skills and competence to exploit life's opportunities
- Provide training that enables students acquire nationally branded continuous education. (FRN, 2009; FRN, 2013).

Photography trade is one of the vocational/entrepreneurship subjects in senior secondary schools with curriculum concepts that are practical-oriented and relevant to real life daily experiences of students. According to NERDC (2007) the introduction of the subject is informed by the continually changing world in which we live today and the unprecedented rate in technological advancement that is shrinking the world into a global village. Photography education and its curriculum is not all that new in Nigeria formal education system because photography has always been a core thematic concept in some field of studies such as; the arts i.e. fine and applied art, creative arts, theatre and performing art and visual art. Furthermore, photography is been taught at tertiary level institutions in Nigeria as part of degree programmes such as; Educational Technology, Mass Communication, or sub-degree courses in; Journalism, Photojournalism, Cinematography,

Audiovisual technology and other related subjects at post-secondary education level.

However, effective implementation of the photography curriculum depends large on provision of necessary facilities and instructional materials. To this end, Akinsanya (2010) in a study on differentials distribution and utilization of human and material resources on students' academic performance in Ogun State public (state and federal) schools revealed that both human and materials resources were practically inadequate and where such resources were adequate, they were not well utilized in both types of schools. The study further revealed that physical facilities like laboratories and information materials and resources were inadequate which invariably according to the author affected students' academic performance. Thus, Akinsanya (2010) asserted that attainment of instructional goals in any school depends largely on adequate provision of recommended and relevant teaching and learning materials and resources which are expected to enhance proper teaching and meaningful teaching and learning processes in conducive school environment.

Consequently, after the introduction of photography trade subject into the senior secondary education alongside some other trade/entrepreneurship subjects with effective from year 2007 (NERDC, 2007); the first public examinations were conducted by both West African Examinations Council (WAEC) and National Examination Council (NECO) in photography trade in the year 2014. Otunla (2014) reported on a baseline assessment which gave an indication that majority of candidates' entries cut across both private and public schools.

Statement of the Problem

Researchers asserted that the National Policy on Education (FRN, 2004) has all the necessary ingredients for landing Nigeria into the future technologically, socially and morally adding that the policy will help the nation to launch itself into limelight among the great nation. More so that the policy focuses on the need for the industrialization of the nation-Nigeria in which technical and vocational education play crucial roles. The policy review was as a result of the government realization that science, vocational and technical oriented educational system has potentials to prepare individual students to be self-reliant and useful to the society. However, these assertions may not be realized unless the

proposed curriculum is properly implemented, monitored, evaluated and reported by researcher to provide directions for further review and adjustments. Therefore, this study was carried out with the intention to find out; the level of implementation of photography trade curriculum in terms of provision of required photographic equipment, tools and materials and engagement of trained specialist teachers.

Purpose of the Study

This study was motivated by the need to:

1. determine characteristics of teachers involved in teaching photography.
2. determine teachers' mode of photography practical skills and knowledge acquisition and extent of practicing photography.
3. investigate the availability of equipment, tools and materials for teaching photography and level of utilization.
4. determine the relationship between each of teachers' photography skills and knowledge vis-à-vis students' academic performance in photography.

Research Questions

1. What are the characteristics of teachers engaged for the teaching of photography trade in Osun State?
2. What is the teachers' mode of photography practical skills and knowledge acquisitions and extent of practicing photography?
3. What is the state of photography equipment, tools and materials' availability for teaching photography trade subject in Osun State?
4. What is the extent of utilization of photography equipment, tools and materials in teaching photography?
5. What is the relationship between teachers' qualification, mode of skills and knowledge acquisition and working experience and students' achievement in Photography?
6. What is the relationship between each of teachers' photography skills and knowledge; and students' academic performance in photography?

Methodology

Research Design

The study adopted Ex-post facto research design to gather data from relevant sources among senior secondary school students and photography teachers in Osun State, South-West, Nigeria.

Population

Population of the study comprises of all senior secondary schools, students and photography teachers in Osun State Educational districts.

Sampling Technique and Sample

Multi-Stage sampling technique was adopted; random sampling technique was used to select 30 senior secondary schools in each of Osun Central, Osun West and Osun East covering the three educational districts of Osun State which produced a total of 90 schools. The sampling of both public and private schools in the state was at the ratio of 2:1. Purposive sampling technique was later used to select only five schools where photography is being offered as a trade subject. Therefore, a total of five photography teachers and 132 students in the five schools offering photography trade were involved in the study.

Instrumentation

Data was gathered using four duly validated instruments; they are Photography Teachers' Questionnaire (PTQ) which yielded ($r = 0.71$); Teachers' Photography Skills Test (PST) which yielded ($r = 0.78$), Photography Achievement Test (PAT) which yielded ($r = 0.84$) and Photography Equipment and Materials Checklist (PEAC) which yielded ($r = 0.65$).

Data Collection Techniques

The instruments used were administered to students and teachers both from private and private senior secondary schools in the three educational district of Osun State, South-West Nigeria. The instruments were distributed few months after the 2014 conduct of photography trade exams by the two Public examination bodies in Nigeria. Four research assistants were employed to help in the administration of the instruments and there searchers were personally involved in

compilation of administered instruments from most of the schools. The photography teachers in the sampled schools served as research assistants and assisted in the administration and supervision of the achievement tests. Baseline data was also gathered on the number of schools and candidates entry in Osun State from one of the examination bodies.

Data Analysis Technique

Data gathered were analysed using quantitative statistics of frequency count and percentages as well as inferential statistics of Pearson correlation.

Data Presentation and Discussion

Research Question One: What are the characteristics of teachers engaged for the teaching of photography trade in Osun State?

Table 1: Characteristics of Photography Teachers in Osun State Senior Secondary Schools

Variables	Frequency	Percentage (%)
Gender		
Male	4	80.0
Female	1	20.0
Total	5	100.0
Academic qualification		
NCE	1	20.0
ND	2	40.0
BA/BSC/BED	1	20.0
BA/Diploma in photography	1	20.0
Total	5	100.0
Working Experience in Relation to Teaching at Photography at the Secondary School Level		
Below 1 year	1	20.0
1 year	2	40.0
3 year	2	40.0

Total	5	100.0
Teaching of other Trade Subject(s)		
None	1	20.0
Fine/Visual art	1	20.0
Painting and Decoration	1	20.0
Visual art/dyeing and bleaching/computer	1	20.0
Visual art/dyeing and bleaching		
Total	5	100.0

Table 1 shows the characteristics of the teachers by category: sex, academic qualification, working experience and teaching of other trade subject. Thus, table 1 shows the break down analysis of profiles of teachers employed for teaching photography in the 5 senior secondary schools. The table shows that there are more male teachers i.e. 4 (80.0%) teaching photography than the female counterparts which is 1 (20.0%); only 1 (20.0%) teacher had NCE, 2 (40.0%) teachers had ND, also 1 (20.0%) teacher had a degree and 1(20.0%) teacher bagged a degree with diploma in photography. This shows that teachers with ND top the number of photography teachers in senior secondary schools in Osun State. Teachers' years of teaching experiences in photography as presented in table 1 reveals that out of the five photography teachers sampled, 1 (20.0%) had below one year experience of teaching photography, while 2 (40.0%) teachers each have one year and three years of teaching photography respectively. This result shows that most of teachers teaching photography have experiences ranging from 1 to 3 years; this is understandable because photography trade was introduced in the year 2008 and the first public examinations were conducted in the year 2014.

Lastly, table I reveals that only 1 (20.0%) of the teachers sampled fully teaches photography while the other 4 (80.0%) teachers teaches the subject alongside other trade subjects such as; painting and drawing, visual art, dyeing and bleaching as well as computer. The finding further confirms that majority of the teachers have expertise in other related fields other than in photography trade.

Research question Two: What is the teachers' mode of photography practical skills and knowledge acquisitions and extent of practicing

photography?

Table 2a: Teachers' Mode of Photography Practical Skills and Knowledge Acquisition

Mode of skill and knowledge acquisition in photography	Frequency	Percentage (%)
Acquisition by apprenticeship training	3	60.0
Acquisition by personal study and self-development	1	20.0
Acquisition by training through workshops or seminar	1	20.0
Total	5	100.0

Table 2ashows mode of photography practical skills and knowledge acquisition among the teachers i.e. 3 (60.0%) teachers indicated that they acquired knowledge in photography by apprenticeship training while 1 (20.0%) teachers each indicated that they acquire photography skills and knowledge through personal study and self-development and participation in workshops or seminar trainings.

Table 2b: Teachers' Mode of Photography Practical Skills and Knowledge Acquisitions and Extent of practicing photography

Items	Agreed	Disagree
Mode of Skills and Knowledge acquisitions in photography		
Acquisition of photography training through apprenticeship	3(60.0)	2(40.0)
Studied photography as part of my Degree/PG/Diploma course	3(60.0)	2(40.0)
Extent of Practicing Photography		
Ownership of a personal digital/analogue camera	5(100)	-
Ownership of a mobile phone with a camera	4(80.0)	1(20.0)
Taking pictures with personal camera phone	4(80.0)	1(20.0)
Practicing photography as an hobby	4(80.0)	1(20.0)
Engagement in photography for commercial purposes	3(60.0)	2(40.0)
Use of camera while teaching photography to the students	5(100)	-

Use of photography textbooks in teaching photography lessons - 5(100)

To further ascertain and authenticate the claims made by the teachers of photography, the same information was extracted as presented on table 2(b). Thus, table 2 affirms that teachers' mode of photography practical skills and knowledge acquisition was by apprenticeship training as indicated by 3 (60.0%) of the teachers, while 2 (40.0%) of the teachers disagree. The findings further shows that 3 (60.0%) teachers studied photography as part of their degree/postgraduate/diploma course and 2 (40.0%) teachers were not exposed to photography as part of their academic programme. The finding established the fact that majority of the teachers engaged to teach photography in senior secondary school in Osun State acquire their photography skills and knowledge through apprenticeship training.

Furthermore, table 2(b) presents responses on extent of practicing photography which indicates that all the photography teachers own a personal digital or analogue camera and it signifies their commitment to practice photography not just teaching the subject. The table also shows that 4 teachers representing 80.0% practices photography as a hobby while 3 (60.0%) of the teachers engage in photography for commercial purposes. Lastly, majority of the teachers agreed that they demonstrate with cameras for teaching photography lessons. However, none of the teachers use photography textbook for teaching photography, which implies that recommended textbook in photography might have not been approved by the Osun State Ministry of Education or other government related agencies.

Research Question Three: What is the state of photography equipment, tools and materials' availability for teaching photography trade subject in Osun State?

The breakdown on availability of photography equipment and materials in the five senior secondary schools that offer photography in Osun state are presented in Tables 3(a) and 3(b). The benchmark set by the researchers for measuring equipment and materials availability for teaching photography trade subject in all the secondary schools used in the study was fixed at; 70% and above as 'Sufficiently Available' (SA),

40% - 69% was considered as 'Moderately Available' (MA) and 1% - 39% as 'Insufficiently Available'(IA).

Table 3(a): Availability of Photography Studio and Laboratory Equipment and Materials

Items	Available		Not available		Remark
	No	%	No	%	
Studio Equipment					
Digital camera	4	80.0	1	20.0	SA
Analogue camera	3	60.0	2	40.0	MA
Film	3	60.0	2	40.0	MA
Memory card	3	60.0	2	40.0	SA
External flash	4	80.0	1	20.0	SA
Computer Equipment	2	40.0	3	60.0	MA
Digital photo printer	2	40.0	3	60.0	MA
Studio Accessories					
Tripod stand	1	20.0	4	80.0	IA
Studio lamp	1	20.0	4	80.0	IA
Fluorescent	1	20.0	4	80.0	IA
Laboratory Equipment					
Plastic container/Bottles					
Funnels	1	20.0	4	80.0	IA
Thermometers	1	20.0	4	80.0	IA
Timers	1	20.0	4	80.0	IA
Developing tanks	1	20.0	4	80.0	IA
Safe light	-	-	5	100.0	-
Photographic Enlarger	2	40.0	3	60.0	MA
Dryer	1	20.0	4	80.0	IA
Developing trays/dishes	-	-	5	100.0	-
Spiral spool	1	20.0	4	80.0	IA
Light box	-	-	5	100.0	-
Hand gloves	1	20.0	4	80.0	IA

Key: Sufficiently Available (SA) Moderately Available (MA) Insufficiently Available (IA)

Table 3(a) shows the level of availability of photographic equipment, tools and materials. The majority 4 (80.0%) of the teachers reported availability of digital camera with memory card for photography teaching and 1 (20.0%) for non-availability. Availability of analogue

camera with films recorded 3 (60.0%) and non-availability recorded 2 (40.0%). Computer equipment and Digital photo printer recorded 2 (40.0%) availability and 3(60.0%) non-availability. Findings gave an indication that most photography studio equipment and materials are available for teaching photography among senior secondary schools in Osun State. The table further shows that studio accessories such as tripod stand, studio lamp and fluorescent are not provided in schools for teaching of photography because the majority 4 (80.0%) of the teachers indicated non-availability of each of the items. This shows that those studio accessories are not provided by the schools authorities.

Table 3(a) further shows that all the five schools involved in offering photography in Osun State did not have the photo-laboratory equipment, tools and materials for teaching photography, as majority of the respondents i.e. 4 (80.0%) indicated non-availability for the required items; plastic container or bottles, funnels, thermometers, timers, photographic enlarger, dryer, spiral spool and hand gloves, while safe light, developing trays/dishes and light box recorded 5 (100.0%) non-availability.

Reasons for this development might not be un-connected with the fact that senior school certificate examinations (SSCE) conducted by WAEC in photography are in three parts namely; Paper 1-Objective tests, Paper 2-Essay and Paper 3-Alternative to Practical; it implies that all the papers are devoid of practical activities. In what looks like a contrast, NECO senior school certificate examination (SSCE) in photography is in two parts; Photography Paper 1A- Laboratory Analysis while Paper 1B- Photographic Production in Black and white; the two papers are practical oriented. The observation of these researchers from personal experiences is that most of the schools presenting candidates for NECO examinations since inception have always engage the commercial laboratories to carry out the practical photographic work during NECO examinations. This is simply because the schools made no provisions for the required supplies of equipment, tools and materials to have been possible for students to produce their work.

Table 3(b): Availability of Photography Film Processing Chemicals, Printing and Finishing Materials

Items	Available		Not Available		Remarks
	No	%	No	%	
Processing Chemicals	1	20.0	4	80.0	IA
Developer					
Fixers	120.0		4	80.0	IA
Stop bath/water supply	1	20.0	4	80.0	IA
Printing Materials	2	40.0	3	60.0	MA
Printing papers					
Printing frame	-	-	5	100.0	MA
Finishing Materials	2	40.0	3	60.0	MA
Guillotine/trimmer					
Cardboard/Chipboard	2	40.0	3	60.0	MA
Gum,tapes or adhesive	2	40.0	3	60.0	MA

Key: Sufficiently Available (SA) Moderately Available (MA) Insufficiently Available (IA)

Table 3(b) shows that out of the sampled schools only a school has the chemicals use in photograph processing which are developers, fixers and stop bath or water supply. This shows that chemicals required for photography processing are not provided in the sampled senior secondary schools in Osun State. Table3(b) further shows that printing materials i.e. printing papers(digital photo paper is useful for printing digital pictures) was made available in only 2 (40.0%) of the schools, printing frame recorded 5 (100.0%) non-availability and guillotine or trimmer recorded 3 (60.0%) non-availability. The table further shows that finishing materials i.e. cardboard or chipboard for framing and gum, tapes or adhesives both recorded 3 (60.0%) non-availability.

Arising from the outcome of the study, it is clear that only photography studio and some laboratory equipment, tools and

materials are provided but not sufficiently available for teaching and learning of photography in senior secondary schools in Osun State. Furthermore, findings show that availability of learning materials for photography trade in Osun State senior secondary schools is poor. Findings also revealed that most of the photographic equipment and materials are not sufficiently available in the few public and private secondary schools that have implemented photography trade curriculum in Osun State. Findings on provisions of photographic studio and laboratory teaching materials buttress Akinsanya (2010) assertion that attainment of instructional goals in any school depends largely on adequate provision of recommended and relevant teaching and learning materials and resources which are expected to enhance proper teaching and meaningful teaching and learning processes in a conducive school environment.

When all these are hard to come by, then teaching may not be efficient and learning environment may not be conducive for students. Thus, provisions of teaching and learning materials make learning more meaningful and impactful because facts are retained better when supplemented with recommended educational resources.

Research Question Four: What is the extent of utilization of photography equipment, tools and materials?

Table 4(a) Utilization of Photography Studio and Laboratory Equipment, Tools and Accessories

Items	Regularly used		Not Regularly used	
	N	%	N	%
Studio Equipment				
Digital camera	3	60.0	2	40.0
Analogue camera	3	60.0	2	40.0
Film	3	60.0	2	40.0
Memory card	3	60.0	2	40.0
External flash	3	60.0	2	40.0
Computer Equipment	2	40.0	3	60.0
Digital photo printer	2	40.0	3	60.0
Tripod stand	-	-	5	100.0
Studio lamp	-	-	5	100.0
Fluorescent	-	-	5	100.0
Laboratory Equipment				

Plastic container/ Bottles	1	20.0	4	80.0
Funnels	1	20.0	4	80.0
Thermometers	1	20.0	4	80.0
Timers	1	20.0	4	80.0
Developing tanks	-	-	4	80.0
Safe light	1	20.0	5	100.0
Photographic enlarger	1	20.0	3	60.0
Dryer	1	20.0	4	80.0
Developing trays/dishes	1	20.0	4	80.0
Spiral spool	1	20.0	4	80.0
Light box	-	-	5	100.0
Hand gloves	1	20.0	4	80.0

Table 4(a) presents utilization of photography studio equipment by teachers; the majority 3 (60.0%) reported regular use in each of digital camera, analogue camera, film, memory card and external flash. Also, the majority 3 (60.0%) reported non-regularly use in each of computer equipment and digital photo printer. Furthermore, each of tripod stand, studio lamp and fluorescent recorded non-use by 5 (100.0%) photography teachers. The table also shows the same pattern in use of laboratory equipment and tools for teaching photography trade in Osun State.

Details of the analysis on table 4(a) further indicated non-regular use of the following; plastic containers/bottles 4 (80.0%), funnels 4 (80.0%), thermometers 4 (80.0%), timers 4 (80.0%), developing tanks 4 (80.0%), safe light 5 (100.0%), photographic enlarger 4 (80.0%), dryer 4 (80.0%), developing trays/dishes 5 (100.0%), spiral spool 4 (80.0%), light box 5 (100.0%), hand gloves 4 (80.0%). This finding further brings to the fore Akinsanya (2010) assertion on need for provision of required technical and vocational trade subjects' teaching equipment and facilities to ensure effective curriculum implementation.

Table 4(b) Utilization of Photography Film Development Chemicals, Printing and Finishing Materials

Items	Regularly used		Not Regularly used	
	NO	%	NO	%
Processing Chemicals				
Developer	1	20.0	4	80.0
Fixer	1	20.0	4	80.0
Stop bath/water supply	1	20.0	4	80.0
Printing Materials				
Printing papers	2	40.0	3	60.0
Printing frame	-	-	5	100.0
Finishing Materials				
Guillotine/ trimmer	1	20.0	4	80.0
Cardboard/chipboard	2	40.0	3	60.0
Gum, tapes and adhesives	2	40.0	3	60.0

Table 4(b) shows non-utilization of all the chemicals as indicated in the ratings i.e. developers 4 (80.0%), fixers 4 (80.0%) and stop bath/water supply 4 (80.0%). Use of printing materials recorded non-regular use by the majority i.e. 3(60.0%) for printing paper and 5 (100.0%) for printing frame. So also non-regular usage were reported by the majority 4(80.0%) for guillotine/trimmer; 3(60.0%) for cardboard/chipboard and 3 (60.0%) gum, tapes and adhesive. Arising from the findings, photography film development chemicals, printing and finishing materials are not regularly utilized for teaching photography trade in Osun State senior secondary school.

Research Question Five: What is the relationship between teachers' qualification, mode of skills and knowledge acquisition and working experience and students' achievement in Photography?

Table 5: Correlation of Teachers characteristics with students' Academic Achievement in Photography Trade

Pearson Correlation		TAQ	TMSKA	TWE	PAT
TAQ correlation	Pearson	1.000	.135	-.039	-.038
TMSKA correlation	Pearson	.135	1.000	.355**	-.524**
TWE correlation	Pearson	-.039	.355**	1.000	.073
PAT correlation	Pearson	-.038	.524**	.073	1.000

Key: TAQ=Teacher Academic Qualification; TMSKA = Teacher's Mode of Skills and Knowledge Acquisition; TWE=Teacher Working Experience; PAT= Photography Achievement Test.

Table 5 presents correlation of photography teachers' variables and students' achievement in photography. Findings from the quantitatively analysis using Pearson Product Moment Correlation reveals that: teachers' academic qualification was negatively related to students' academic achievement in photography- $r = -.038$, but not significant at $p > .01$. Teachers' mode of photography skills and knowledge acquisition was also negatively related to students' academic achievement in photography- $r = -.524$, $p > .01$ while teachers' working experience was positively related to students' academic achievement in photography- $r = .073$, $p > .01$.

However, there was a complex inter-relationship between the three photography teachers' variables; teacher academic qualification, teacher mode of skills and knowledge acquisition and teacher working experience as the three variables (TAQ, TMSKA and TWE) were not significantly related (at $p > .01$) to students' achievement. Arising from the results, there were no statistical reasons why any of teachers' academic qualification, teachers' mode of skills and knowledge acquisition in photography; and teachers' working experience could cause changes in students' academic achievement in photography. Reasons for the disparity recorded in teachers' academic qualification and mode of photography skills and knowledge acquisition may not be un-connected with the fact that students offering photography trade as a subject are exposed to the use of the Internet with unrestricted

access to Open Educational Resources (OERs) on basic concepts, terminologies, process and procedure in photography.

Therefore, it is suffice to conclude that concepts in photography trade are taught more theoretically without much field or laboratory practices, whereas, this is in contrast to the original intention of the new trade/entrepreneur curriculum.

Research Question Six: What is the relationship between each of teachers' photography skills and knowledge and students' academic performance in photography?

Table 6: Correlation Matrix of the student performance in photography and teachers' skill and knowledge

	Teachers skill	Teachers knowledge	Student performance
Teachers' Skills	1.000		
Teachers' Knowledge	-0.194	1.000	
Students' Performance	0.294	-0.021	1.000

Table 6 shows the relationship among teachers' skills and knowledge of photography and student performance in photography. The correlation matrix revealed that teachers' skills in photography were positively related to students' performance with $r = .294$, but not significant as $p > .05$ while teachers' knowledge of photography was significantly related to students' performance in photography where $r = -0.021$, $p < 0.05$. The result shows that only the teachers' knowledge of photography is significantly related to students' performance in photography.

Summary of the Findings

In summary, findings revealed that teaching of photography trade in senior secondary schools in Osun State is not fully implemented and that most of the teachers of photography trade acquired their skills and knowledge through apprenticeship training scheme. Photography equipment and materials including computer tools and accessories are not sufficiently provided for teaching photography trade in Osun State

senior secondary schools because findings revealed that most of the teachers have their own personal digital or analogue camera which they use in the course of teaching photography since they were not provided by the school authorities.

Findings also show that teacher academic qualifications, teacher mode of skills and knowledge acquisition and teacher working experience were not significantly related to students' achievement in photography. Lastly, the result shows that only the teachers' skills and knowledge of photography were positively related and significantly related to students' performance in photography respectively.

Conclusion

The widely believe assertion that curriculum implementation is always problematic in practice is not also an exception in case of photography trade in Nigeria. This study shows that one major setback in effective photography trade curriculum implementation is the problem of non-provision of essential inputs such as facility and equipment and more importantly unqualified teachers. There is therefore need for supply of recommended equipment and facilities and especially specialist teachers that can handle photography trade subject as prescribed by its curriculum. Specialised are expected to be innovative in their teaching approach so as to prepare students offering photography trade subject with skills and knowledge that are sellable in the market place and replicable for entrepreneurship, self-reliance and self-employment.

Recommendations

Arising from the findings of this study, it is hereby recommended as follows:

- Retraining and/or redeployment of graduates teachers in related fields of Fine Art/Visual Art, Educational Technology, Journalism/Photojournalism, Theatre Art and Mass Communication to take up the teaching of photography trade in the interim pending when degree and sub-degree programme in photography will be available in Nigeria higher institutions.
- Provision of enabling teaching and learning environment including procurement of required materials and equipment for

the students to instill and encourage entrepreneurship opportunities should be strengthened.

- Adequate enlightenment and advocacy campaign should be intensified to emphasize importance of photography education in the light of the prevailing economic problem in Nigeria and other parts of the world. This should geared towards changing the societal negative attitude especially parents towards pursuance of career in trade and vocational subjects.
- Creating awareness about the introduction of photography trade should be intensified through career talks, photo exhibition, photography club, field trips and on site learning from professionals and practitioners in photography.
- Provision of photography trade textual materials in form of textbook, workbook and teachers guide should be encouraged.
- Introduction of degree and sub-degree programme in photography in Nigerian higher institution with consideration for teaching pedagogy in photography education.

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