

# Teachers' Pedagogical Skills and Implementation of Trade/Entrepreneurship Subjects in Senior Secondary Schools in Uyo Education Zone, Nigeria

Hope Joseph Bassey & Ukeme Ekpedeme Umoh

1. Department of Curriculum Studies, Educational Management and Planning, University of Uyo, Nigeria

## Abstract:

The study examined 'Teachers' Pedagogical Skills and Implementation of Trade/Entrepreneurship subjects in Senior Secondary Schools in Uyo Education Zone". The design of the study was ex-post facto with a survey approach. The population of the study consisted of all 21,307 public senior secondary school II students (SS 2 students) in Uyo education zone. The sample size for the study was 600 respondents. Stratified random sampling technique was used to select the schools for the study. The instrument used for the study was "Teachers' Pedagogical Skills and Implementation of Trade/Entrepreneurship subjects Questionnaire (TPSITESQ)", which was validated by three experts; two experts in Curriculum and Instruction and one expert in Research Methodology all in University of Uyo. Cronbach's Alpha statistical method was used to determine the reliability coefficient of .87 for the instrument. Five null hypotheses tested at .05 level of significance guided the study. Pearson's Product Moment Correlation (PPMC) was used to test the null hypotheses. The results showed that there is significant relationship between teachers' pedagogical skills and implementation of trade/entrepreneurship subjects in senior secondary schools. It was recommended based on the findings among other things that teachers should adopt innovating pedagogical skills that suit the trade/entrepreneurship subject he/she teaches.

**Keywords:** *Trade/Entrepreneurship Subjects, Teachers' Pedagogical Skills, Curriculum Implementation*

## INTRODUCTION

Entrepreneurship education is the education that aims at helping the students acquire skills which can help them to be self-reliant. Entrepreneurship education is a form of education which empowers the recipient with all it takes for him to explore his environment and make a living out of it without depending on anyone (Okoye and Ogunleye, 2015). Entrepreneurship subjects are subjects that inculcate functional and useful skills in the learners to enable them become self-reliant and self-employed after graduation. They are skilled acquisition subjects introduced by the government in a bid to solve the issue of unemployment in the country. Onuka (2018) defined entrepreneurship subjects as a body of knowledge that teaches how to plan, establish and run enterprise, they are subjects devoted to productivity and promotion of entrepreneurs.

Nigerian Educational Research and Development Council (NERDC) developed a New Senior Secondary School Education Curriculum (SSEC) in 2006, which was intended to meet global goals and to bridge the gaps in the content and delivery process of the extant curriculum (Orgi, 2011). The implementation of the new curriculum commenced in September 2011 with the inclusion of thirty-four trade/entrepreneurship subjects. The subjects include: Auto Body Repair and Spray Painting, Auto Electrical Work, Auto Mechanic Work, Auto Parts Merchandising, Air Conditioning

and Refrigerator, Welding and Fabrication Engineering Craft Practice, Electrical Installation and Maintenance Work, Radio, TV and Electrical Servicing, Block Laying, Brick Laying and Concrete Work, Painting and Decorating, Plumbing and Pipe Fitting, Machine Woodworking, Carpentry and Joinery, Furniture Making, Upholstery, Catering Craft Practice, Garment Making, Clothing and Textile, Dyeing and Bleaching, Printing Craft Practice, Cosmetology, Photography, Mining, Tourism, Leather Goods Manufacturing and Repair, Stenography, Data Processing, Store Keeping, Book Keeping, GSM Maintenance and Repairs, Animal Husbandry, Fishery, Marketing and Salesmanship (FRN, 2014). All these subjects cannot be properly implemented using the traditional talk and chalk teacher-centered method.

The aim of the inclusion of the trade/entrepreneurship subjects into Senior Secondary School Curriculum is to ensure that every senior secondary education graduate should have been well prepared for higher education as well as acquired relevant functional trade/entrepreneurship skills needed for poverty eradication, job creation and wealth generation. Each student is expected to choose and learn one subject of his/her interest from Senior Secondary I (SS1) to Senior Secondary III (SS3). To achieve the aim of the curriculum, teachers need to employ pedagogical skills that are learner-centered and activity-based for proper implementation of the curriculum.

Pedagogy refers to the strategies of teaching which teachers employ to teach young learners. It is the combination of teaching methods, learning activities and learning assessments. Pedagogy is the study of how best to teach students. It includes examinations of how children learn, various teaching methods, and the impact of the classroom and school environment (Patrice, 2020). Suraasa (2023) sees pedagogy as the art and science of teaching which encompasses a broad range of strategies and techniques aimed at facilitating learning. It is about creating a learning environment that fosters curiosity, engagement and growth. Mosunmola (2016) asserted that pedagogy is the strategies teachers selects to match learner's needs. Therefore, teachers' pedagogical skills are the strategies, methods, techniques teachers use to implement curriculum in classroom. These skills are learner-centered and activity based so as to meet the needs of the 21<sup>st</sup> century learners. Pedagogical skills are a teacher's ability to instruct students and manage their classroom effectively. It simply refers to how teachers teach what they teach. It involves all the strategies employed by teachers to help students learn better. Drew (2020) noted that pedagogical skill is "the art of teaching". It is a term that describes all the strategies teachers use to teach effectively. Pedagogical skills are the skills and techniques that teachers use to plan, organize and deliver instruction (Career Development, 2022). Amusan (2016) noted that teachers' pedagogical skill is an effective force in driving the arrangement of high-quality education.

Teachers' pedagogical skills give learners autonomy and make them active participants in the teaching-learning process as opposed to the talk-and-chalk teacher-centered strategy which makes the leaners passive in the teaching-learning process. The teacher-centered teaching strategies are no more suitable for inculcating in the 21<sup>st</sup> century learners the knowledge, skills, attitudes and values necessary for effective life in a knowledge-based society. According to Akudolu (2012), the teacher-centered strategies cannot develop in the learners, the abilities of autonomy, innovation, lifelong learning, collaboration and other 21<sup>st</sup> century knowledge and skills. Hence the need for teachers' pedagogical skills that are learner-centered.

Teacher's pedagogical skill involves understanding each student's unique needs and learning styles and tailoring instruction accordingly to meet those needs. It also involves creating opportunities for active learning, such as group discussions, hands-on activities and problem-

solving exercises. It is concerned with thinking outside the box and finding innovative ways to engage students. This might include the use of technology. Teacher's Pedagogical skills help to improve the standard of instructional delivery, ensure collaborative learning, remove the monotony in teaching, provide a personalized learning experience, ensure critical thinking and attract assessment excellence (Suraasa, 2023). There are various types of teachers' pedagogical skills which promotes critical thinking, lifelong learning, innovation, wealth creation in the learners and are suitable for the implementation of the trade/entrepreneurship subjects in senior secondary schools. These include: experiential learning, technology integration learning, multiple intelligence learning, project-based learning and self-directed learning.

Experiential learning is an educational approach that emphasizes personal or practical experience in the acquisition of knowledge, skills, values and attitudes. It is the process of learning through hands-on experience. Skills, knowledge and experience are acquired outside the traditional academic classroom setting and may include internships, field trips, field research and service-learning projects. Karen, Sabine, Blenker, Helle & Richard (2014) averred that experiential learning is at the heart of a social constructivist learning paradigm, and addresses the ambition to develop competency, understood as the combination of knowledge, skills and attitudes. The role of the learner is to actively explore and experience the world beyond classroom boundaries. This hands-on experience could be facilitated or enhance through technology integration.

Technology integration learning is the use of technology to deepen learning and achieve pedagogical goals. It refers to the use of technology to enhance and support the educational environment. Randall & Richard (2013) defined technology integration learning as the effective implementation of educational technology to accomplish intended learning outcomes. Umoh (2016) explained that many of the teaching and learning activities that are currently being accomplished through Management Systems and other technologies can also be accomplished via some social networking systems like Facebook, WhatsApp, You Tube, Twitter, skype, My space and LinkedIn. These technologies are usually integrated directly into the curriculum as major curriculum contents, or sometimes used as methods or approaches in teaching and learning curriculum contents. The use of these technologies in the teaching-learning process enhances students' learning.

Project-based learning is an instructional approach designed to give students the opportunity to develop knowledge and skills through engaging projects set around challenges or problems they may face in real world. This approach empowers learners to pursue content knowledge on their own, demonstrate their new understandings through a variety of presentation modes and gain valuable skills that will build a strong foundation for their future in the global economy (Thu, 2018). It is inquiry-based, it stimulates intrinsic curiosity and generates questions as it helps students seek answers. It also inculcates the 21<sup>st</sup> century skills such as critical thinking, communication skill, collaborative and creative skills in the learners. Multiple intelligence learning can also be used to promote acquisition of skills and effective curriculum implementation.

Multiple intelligence learning is connected to multisensory learning, which teaches that children learn better with activities that involve more than one sense organ. Multiple intelligence provides every student differentiated instruction strategies that work with their strengths and weaknesses (Waterford, 2019). Students apply the learning in the classroom according to their own dominant intelligence and learning style, which is most effective for them. Combining learning styles with dominant intelligences enhances the students' learning processes.

Self-directed learning is a process where individual take primary charge of planning, continuing and evaluating their learning experiences. Self-directed learners are in charge of their own learning, there are autonomous in defining what, how and when to learn. There are responsible for their learning. Tekkol and Demirel (2018) noted that self-directed learning is a way of turning individuals into lifelong learners. In self-directed learning, the responsibility to learn shifts from an external source (teacher) to the individual learner. Control and involvement of the learner in the learning process is crucial in this process. All these pedagogical skills are suitable for teaching entrepreneurship subjects in secondary schools.

Teachers can utilize these pedagogical skills to establish a classroom environment that encourages their learners' critical thinking and problem-solving skills. Gregory & Boglarka (2019) noted that pedagogical skills are geared in the direction of boosting educators' skills in lesson distribution and also assistance in attending to perennial inadequate performance of students. It attracts assessment excellence, as teachers can make evaluations and assessments that precisely reflect the learning results of their students. It also improves the standard of instructional delivery that will lead to proper implementation of the entrepreneurship subjects in senior secondary school.

On the other hand, curriculum implementation according to Umoh (2017) is the instructional phase of the curriculum which involves the interpretation and execution of the planned curriculum by the teacher, who is the implementer. The author emphasized that, it is the stage in the midst of learning activities where the teachers and learners are involved in negotiations aimed at promoting learning. Thus, implementation of the Senior Secondary School Trade/Entrepreneurship Curriculum refers to the way teachers deliver instructions in each of the entrepreneurship subjects. It also refers to how teachers deliver instruction and assessment through the use of specified resources provided in a curriculum (Nevenglosky, Cale and Aguilar, 2019).

However, it has been observed that teachers do not deliver instructions in these subjects the way they ought to be delivered. For instance, a subject like fishery, data processing, painting and decoration etc. should be activity-based. There should be practical teaching/learning to support the theoretical aspects of the learning. When the learners are actively involved in the learning, they will be able to acquire the skill easily and remember what they have learnt but when they are just passive in class and the teacher does all the talking, implementation process become difficult for the teacher while the learners tend to forget and cannot put to practice what they have learnt. Yusuf and Amali (2014) noted that instructional delivery cannot be said to be effective when teachers assume the role of "sage on stage", doing the talking alone. Thus, it will render the goals and objectives of the trade and entrepreneurship curriculum unachievable.

Review of related literature revealed that a lot of researches have been carried out on other aspects of curriculum implementation and delivery. However, it appears that studies have not been carried out specifically on Teacher's Pedagogical Skills and Implementation of Senior Secondary School Trade/Entrepreneurship Curriculum in Uyo Education Zone of Akwa Ibom State, Nigeria. Hence, the gap and the concern of this research.

### **Statement of the Problem**

It is common to find secondary school graduates going to learn skills such as Data Processing, tailoring, welding and fabrication from Entrepreneurs outside school after graduation, while

some whose parents cannot afford to sponsor them continue to be idle. This is contrary to the stipulated aim of introducing the thirty-four trade/entrepreneurship subjects that were introduced into the Nigerian senior secondary schools. The aim of the program was to enable secondary school leavers acquire at least one skill before graduation so as to become functional citizens after graduation. However, this is far from the reality as some of those subjects are not implemented in schools while some that are implemented are not implemented the way they ought to be so the students graduate without having acquired any skill. This may be as a result of some ineffective pedagogical skills used by teachers to implement the curriculum.

All these thirty-four trade/entrepreneurship subjects should be implemented by teachers using pedagogical methods that are activity based (which are facilities and instructional materials connected) and hands-on. This is because entrepreneurship subjects are skill based and usually require equipment's. For learners to be actively involved in the learning of these subjects, the right pedagogical methods are required.

Having observed that majority of secondary school graduates in Nigeria do not have any skill they have acquired from their schools; while some who have acquired one or two do so outside the schools and with extra cost. The researchers became concerned to find out whether there is any relationship between teachers' pedagogical skills used and the implementation of these trade/entrepreneurship subjects in Uyo Education Zone, Nigeria.

### **Purpose of the Study**

The main purpose of this study is to examine the relationship between teachers' pedagogical skills and the implementation of the trade/entrepreneurship subjects in senior secondary schools in Uyo Education Zone of Akwa Ibom State. Specifically, this study sought to find out:

1. The relationship between experiential learning and the implementation of trade/entrepreneurship subjects in senior secondary schools in Uyo education zone.
2. The relationship between technology integration learning and the implementation of trade/entrepreneurship subjects in senior secondary schools in Uyo education zone.
3. The relationship between multiple intelligence learning and the implementation of trade/entrepreneurship subjects in senior secondary schools in Uyo education zone.
4. The relationship between project-based learning and the implementation of trade/entrepreneurship subjects in senior secondary schools in Uyo education zone.
5. The relationship between self-directed learning and the implementation of trade/entrepreneurship subjects in senior secondary schools in Uyo education zone.

### **Research Hypotheses**

The following null hypotheses were formulated to guide the study:

1. There is no significant relationship between experiential learning and the implementation of trade/entrepreneurship subjects in senior secondary schools in Uyo education zone.
2. There is no significant relationship between technology integration learning and the implementation of trade/entrepreneurship subjects in senior secondary schools in Uyo education zone.
3. There is no significant relationship between multiple intelligence learning and the implementation of trade/entrepreneurship subjects in senior secondary schools in Uyo education zone.

4. There is no significant relationship between project-based learning and the implementation of trade/entrepreneurship subjects in senior secondary schools in Uyo education zone.
5. There is no significant relationship between self-directed learning and the implementation of trade/entrepreneurship subjects in senior secondary schools in Uyo education zone.

## LITERATURE REVIEW

### **Experiential Learning and Implementation of Trade/Entrepreneurship Subjects**

Experiential learning is one of the effective teachers' pedagogical skills in which learners learn skills and develop knowledge through hands-on-activities and real-world experiences. Boggu and Sundarsigngh, (2019) opined that experiential learning is a successful teaching method facilitating active learning through providing real-world experiences in which learners interact and critically evaluate course material and become involved with a topic being taught. Onwekwe and chukwuma (2020) defined experiential learning as a method of learning that gives room for easy acquisition of knowledge where students have a personal relationship with their learning materials and are able to learn on their own pace. It makes learning much more than a teacher-student relationship since it gives students the ability to move outside the classroom and learn more through their personal experiences that makes learning more rewarding.

According to Butler, Church and Spencer (2019) experiential learning is a method of teaching that allows learners learn while "Do, Reflect, and Think and Apply". It is concerned with more concrete issues related to the learner and the learning context, it entails a hands-on activity approach to learning that moves away from just the teacher at the front of the classroom imparting and transmitting their knowledge to students Onwekwe and chukwuma (2020). It encourages learners to be flexible, creative and innovative learners. In experiential learning, the conventional role of the teacher shifts from knowledge provider to a mediator of experience through well-known systematic processes. The teacher becomes a facilitator of the learning process rather than an instructor. Teachers are to encourage learners by providing information, suggestions and relevant experiences for the learners.

Sternberg and Zhang, (2014) asserted that experiential learning is a paradigm for resolving the contradiction between how information is gathered and how it is used. It is focused on learning through experience and evaluating learners in line with their previous experiences. The paradigm highlights the importance of learner's participation in all learning processes and faces the idea of how experience contributes to learning. Kolb and Kolb (2017) noted that experiential learning entails giving learners, more authority and responsibility, as well as involving them directly in their learning process within the learning atmosphere.

### **Technology Integration and Implementation of Trade/Entrepreneurship Subjects**

Technology integration simply refers to the use of technology to enhance students learning experience. Baronia (2022) defined technology integration as an act of using technology including computers, digital cameras, compact disks, held devices, probes and related technologies to deliver and enhance the curriculum already in place. It is the seamless blend of digital tools and technology skills into learning. The emphasis is on achieving curriculum objectives using thoughtfully selected hardware and software. Technology integration in its broadest form includes devices, social media platforms, networks, applications, the internet, classroom practices and school management systems (Technokids, 2023).

Fatma (2016) asserted that technology integration means using technology to enhance the educational process that involves more than just learning how to use specific piece of hardware and software. It requires an understanding of pedagogical principles that are specific to the use of technology in an instructional setting. Technology also changes the way teachers teach, offering educators effective ways to reach different types of learners and assess students understanding through multiple means. Utilizing different types of technology in the classroom creates learners who are actively engaged with learning objectives. The implementation of technology also creates pathways for differentiated instruction to meet the unique needs of students as individual learners within a broader classroom climate. Technology provides instant accessibility to information which is why its presence in the classroom is vital.

### **Project-Based Learning and Implementation of Trade/Entrepreneurship Subjects**

Project-based learning is one of the active learning methods where some problems and incidents encountered in real life are investigated and the results are expressed in oral presentation or written reports. It is a teaching strategy that increases students' critical thinking skills and ability to link what they have learnt with real life. (Aydin, Atalay and Goksu, 2018). Project based learning or project-based instruction is a student-centered teaching method that encourages learning through engaging, real-world curriculum related questions and challenges (Meredith, 2022). The goal is to get students to engage with a question or challenged that requires concentration and nuanced problem-solving skills. This question or challenge must be open ended, encourage students to apply skills and knowledge they have developed in classes and allow students to take their own approaches to develop an answer and deliver a product.

Thu (2018) averred that project-based learning is an approach that empowers learners to pursue content knowledge on their own, demonstrate their new understandings through a variety of presentation modes and gain valuable skills that will build a strong foundation for their future in the global economy. It develops and enrich the learning skills of the students, provide life-long learning, enables students participate in learning activities based upon teamwork and collaboration. It does not conform to rote approaches or teacher-led instruction. It is driven by critical thinking and often interdisciplinary and encourages students to take a rewarding-yet-challenging road to skill-building and knowledge acquisition through nuanced learning process. Project based learning boosts classroom engagement and has a direct impact on how well students are prepared to enter the workforce once they graduate (Meredith, 2022).

### **Multiple Intelligence and Implementation of Trade/Entrepreneurship Subjects**

Multiple intelligences theory was developed by Howard Gardner in 1983. This theory is based on the premise that everyone has specific and distinct intelligences and each element of intelligence is separate and can combine with others to provide solutions to problems. It holds that all people possess at least eight different intelligences that operate in varying degrees depending upon each individual. The eight intelligences are spatial intelligence, linguistic intelligence, logical-mathematical intelligence, bodily-kinesthetic intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence and naturalistic intelligence. Samuel and Abba (2020) opined that multiple intelligence is a framework that helps teachers design instructions and provide varied learning experiences tailored for each learner. It helps teachers foster student's preferences to improve their performance.

Regardless of the subjects, teachers should present learning materials in multiple ways. Everyone has strengths and weaknesses in various intelligences which is why teachers should decide how

best to present their course material given the subject matter and individual class students. Instruction designed to help students learn material in multiple ways can trigger their confidence to develop areas in which there are not strong. Student's learning is enhanced when instruction includes a range of meaningful and appropriate methods, activities and assessments (Gardner, 2013).

### **Self-Directed learning and Implementation of Trade/Entrepreneurship Subjects**

Self-directed learning also known as student-directed learning is an educational theory or method of content delivery in which the student takes control of their own education (Lois, 2022). Through the use of self-directed learning, students set their own goals and deadlines while following a broad assignment outcome. They participate in research relative to their own interests, while the teacher remains available for support if needed. Szalay (2020) opined that self-directed learning is an instructional strategy where the students with guidance from the teacher decide what and how they will learn. Students can use self-directed learning to learn anything they are motivated to learn whether for hobby or work related. Self-directed learning requires a number of skills, including critical thinking, research, time management, communication and self-management (Lois, 2022).

## **RESEARCH METHODS**

This study was carried out in Uyo Education Zone of Akwa Ibom State. The study adopted the Ex-post facto research design. The population of the study comprised all twenty-one thousand three hundred and seven (21,307) senior secondary school 2 students in the eighty-nine (89) public senior secondary schools in Uyo Education Zone for 2022/2023 academic session (State Secondary Education Board, 2023). The sample for the study was six hundred (600) respondents. This represents 30% of the total population from the 89 public senior secondary schools in the area of study. Stratified random sampling technique was used to select and group the schools according to Local Education Committee (L.E.C.s).

Thereafter, a total of 17 schools were selected to represent 20% of the number of schools in each stratum. Finally, simple random sampling technique was used to select 36 respondents from each school selected for the study. The instrument used for the study was researcher's developed instrument entitled "Teachers Pedagogical Skills and Implementation Questionnaire (TPSIQ). The instrument was designed by the researcher to examine the relationship between teachers' pedagogical skills and implementation of trade/entrepreneurship subjects in senior secondary schools. The instrument was validated by three experts, two experts in Curriculum and Instruction and one expert in Research Methodology all in University of Uyo.

To establish the reliability of the instrument, a trial-test was carried out using forty (40) students who were not part of the main study but were representatives of the study population. The researcher administered the instrument to the respondents. The scores obtained were subjected to Cronbach Alpha Statistical Analysis which yielded a reliability coefficient of 0.87 and was considered reliable and suitable for the study. Data generated was analyzed using Pearson Product Moment Correlation Analysis.

### **Testing of Research Hypotheses**

#### ***Null Hypothesis 1:***

There is no significant relationship between experiential learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone.

**Table 1: Pearson Product Moment Correlation Analysis of the Relationship between Experiential Learning and Implementation of Trade/Entrepreneurial Subjects.**

Variables	$\Sigma x$	$\Sigma x^2$	$\Sigma xy$	r-cal r-crit Decision
$\Sigma y$	$\Sigma y^2$			
Experiential Learning (X)	8197	119015	227715	0.65 0.088 Rejected
Implementation of Trade Subjects (Y)	16764	497366		

\*=Significant at 0.05 alpha level; df = 598; N = 600

Analysis on Table 1 shows that the calculated r-value of 0.65 is greater than the critical r-value of 0.088 at 0.05 alpha level of significance with 598 degrees of freedom. The null hypothesis that had predicted no significant experiential learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone is rejected. This implies that there is a significant relationship between experiential learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone. The inference is that, experiential learning influences implementation of trade/entrepreneurial subjects in senior secondary schools.

**Null Hypothesis 2:**

There is no significant relationship between technology integration learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone.

**Table 2: Pearson Product Moment Correlation Analysis of the Relationship between Technology Integration and Implementation of Trade/Entrepreneurial Subjects.**

Variables	$\Sigma x$	$\Sigma x^2$	$\Sigma xy$	r-cal r-crit Decision
$\Sigma y$	$\Sigma y^2$			
Technology Integration (X)	7585	100855	211937	0.72 0.088 Rejected
Implementation of Trade Subjects (Y)	16764	497366		

\*=Significant at 0.05 alpha level; df = 598; N = 600

Analysis on Table 2 shows that the calculated r-value of 0.72 is greater than the critical r-value of 0.088 at 0.05 alpha level of significance with 598 degrees of freedom. The null hypothesis that had predicted no significant technology integration learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone is rejected. This implies that there is a significant relationship between technology integration learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone. The inference is that, technology integration learning influences implementation of trade/entrepreneurial subjects in senior secondary schools.

**Null Hypothesis 3:**

There is no significant relationship between multiple intelligence learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone.

**Table 3: Pearson Product Moment Correlation Analysis of the Relationship between Multiple Intelligence and Implementation of Trade/Entrepreneurial Subjects**

Variables	$\Sigma x$	$\Sigma x^2$	$\Sigma xy$	r-cal r-crit Decision
$\Sigma y$	$\Sigma y^2$			
Multiple Intelligence (X)	8088	115284	225664	0.73 0.088 Rejected
Implementation of Trade Subjects (Y)	16764	497366		

\*=Significant at 0.05 alpha level; df = 598; N = 600

Analysis on Table 3 shows that the calculated r-value of 0.73 is greater than the critical r-value of 0.088 at 0.05 alpha level of significance with 598 degrees of freedom. The null hypothesis that had predicted no significant multiple intelligence learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone is rejected. This implies that there is a significant relationship between multiple intelligence learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone. The inference is that multiple intelligence learning influences implementation of trade/entrepreneurial subjects in senior secondary schools.

**Null Hypothesis 4:**

There is no significant relationship between project-based learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone.

**Table 4: Pearson Product Moment Correlation Analysis of the Relationship between Project-based and Implementation of Trade/Entrepreneurial Subjects**

Variables	$\Sigma x$	$\Sigma x^2$	$\Sigma xy$	r-cal r-crit Decision
$\Sigma y$	$\Sigma y^2$			
Project-Based Learning (X)	8783	137007	244937	0.67 0.088 Rejected
Implementation of Trade Subjects (Y)	16764	497366		

\*=Significant at 0.05 alpha level; df = 598; N = 600

Analysis on Table 4 shows that the calculated r-value of 0.67 is greater than the critical r-value of 0.088 at 0.05 alpha level of significance with 598 degrees of freedom. The null hypothesis that had predicted no significant project-based learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone is rejected. This implies that there is a significant relationship between project-based learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone. The inference is that project-based learning influences implementation of trade/entrepreneurial subjects in senior secondary schools.

**Null Hypothesis 5:**

There is no significant relationship between self-directed learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone.

**Table 5: Pearson Product Moment Correlation Analysis of the Relationship between Self-Directed and Implementation of Trade/Entrepreneurial subjects**

Variables	$\Sigma x$	$\Sigma x^2$	$\Sigma xy$	r-cal r-crit Decision
$\Sigma y$	$\Sigma y^2$			
Self-Directed Learning (X)	9148	150616	256154	0.61 0.088 Rejected
Implementation of Trade Subjects (Y)	16764	497366		

\*=Significant at 0.05 alpha level; df = 598; N = 600

Analysis on Table 5 shows that the calculated r-value of 0.61 is greater than the critical r-value of 0.088 at 0.05 alpha level of significance with 598 degrees of freedom. The null hypothesis that had predicted no significant self-directed learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone is rejected. This implies that there is a significant relationship between self-directed learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone. The inference

is that self-directed learning influences implementation of trade/entrepreneurial subjects in senior secondary schools.

### DISCUSSION OF FINDINGS

The result on Table 1 shows that the null hypothesis which states that "there is no significant relationship between experiential learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone" was rejected. The result is so because as speculated earlier, students learn best in what they experience. Students who learn through hands-on-activity or practical experience acquire the required skills faster. Thus, there is significant relationship between experiential learning and implementation of trade/entrepreneurship subjects in senior secondary schools. This result is in line with the opinions of Onwekwe and Chukwuma (2020) who opined that experiential learning gives room for easy acquisition of knowledge where students have a personal relationship with their learning materials and are able to learn on their own pace.

The result on Table 2 shows that the null hypothesis which stated that "there is no significant relationship between technology integration learning and implementation of trade/entrepreneurial subjects" was rejected. The result shows that the calculated t-value of 0.72 is greater than the critical r-value of 0.088. Therefore, the null hypothesis was rejected. The result is in agreement with the opinion of Norman (2016) who opined that teaching strategies based on technology facilitates the students' learning and boost their capacity, productivity and performance. The author also noted that the future of the educational system is practically determined by the development of technology. The result is also in agreement with the assertion of Debi (2019) that classrooms that immerse students in technology are more likely to produce learners who are competent in critical thinking, communication, collaboration and creativity.

The results on Table 3 shows that there is a significance relationship between multiple intelligence and implementation of trade/entrepreneurship subjects. This result is in line with the assertion of Gardner (2013), who asserted that student's learning is enhanced when instruction includes a range of meaningful and appropriate methods, activities and assessments. The result is also in agreement with the findings of Samuel and Abba (2020) who revealed that multiple intelligence learning strategies had significant effect on students' achievement in Genetics. They further revealed a significant difference between the achievement of students taught Genetics using multiple intelligence learning strategies and those taught using discussion method.

The result on Table 4 indicated that there is a significant relationship between project-based learning and implementation of trade/entrepreneurship subjects in senior secondary schools in Uyo education. This is so because project-based learning gives learners the opportunity to take charge of the learning by carrying out the practical activities on their own. As they engaged in the learning activities, they acquire the skills and what they learn on their own retains in their memory. It also develops critical thinking in the learners. The result is in agreement with Aydin, Atalay and Goksay (2018) who opined that project-based learning increases students' critical thinking skills and ability to link what they have learnt in real life.

This result on Table 5 shows that there is a significant relationship between self-directed learning and implementation of trade/entrepreneurial subjects in senior secondary schools in Uyo Education Zone. This result is in agreement with the study of Ogwunte (2016) who found out that independent and experiential instructional strategies were considered very effective in teaching

business subjects at secondary school level. The result is also in line with the opinions of Shen, Chen and Hu (2014) who observed that self-directed learning enhanced curiosity, critical thinking, understanding quality, retention and recall.

## CONCLUSION

Based on the finding of this research work, the following conclusions were made:

1. There is a significant relationship between experiential learning and the implementation of trade/entrepreneurship subjects in senior secondary schools in Uyo education zone.
2. There is a significant relationship between technology integration learning and the implementation of trade/entrepreneurship subjects in senior secondary schools in Uyo education zone.
3. There is a significant relationship between multiple intelligence learning and the implementation of trade/entrepreneurship subjects in senior secondary schools in Uyo education zone.
4. There is a significant relationship between project-based learning and the implementation of trade/entrepreneurship subjects in senior secondary schools in Uyo education zone.
5. There is a significant relationship between self-directed learning and the implementation of trade/entrepreneurship subjects in senior secondary schools in Uyo education zone.

## RECOMMENDATIONS

The following recommendations were made based on the findings of the study:

1. Government should provide adequate instructional resources for the implementation of trade/entrepreneurial subjects in senior secondary schools.
2. Teachers should adopt pedagogical skills that soothe the particular trade/entrepreneurial subjects they teach.
3. Teachers should engage students with lots of practical activities in each of the trade/entrepreneurial subjects to promote the learning of skills.
4. Government should set up monitoring team to monitor the implementation of trade/entrepreneurial subjects in senior secondary schools.

## REFERENCES

Achamma, R. F. (2012). Multiple intelligence approach to curriculum transaction and achievement of educational objectives at secondary school level. Ph.D Thesis. university of Mumbai p.212.

Akudolu, L. R. (2012). Emerging trends in curriculum development in Nigeria, pp153-166. In: U. M. O. Ivowi and B. B. Akpan (Editors). *Education in Nigeria: from the Beginning to the Future*. Lagos: Foremost Educational Services Ltd.

Amusan, M. A. (2016). Cultivating effective pedagogical skills in in-service teachers: The role of Some teachers' variables. *Journal of the International Society for teacher Education*, 20(1): 83-89.

Aydin, S., Atalay, T. D. and Goksu, V. (2018). Project-based learning practices with secondary school students. *International Online Journal of Educational Sciences*, 10 (3): 230 – 242.

Baromia, R. (2022). Obstacles in technology integration and implementation.  
V5555555555https://www.kionline.com/article/332/obstacles-in-technology-integration-and-implementation.

Butter, M. G., Church, K. S. & Spencer, A. W (2019). Do reflect, think, apply: experiential education in accounting. *Journal of accounting Education* 48, 12 – 21. Doi: 10.1016/j.jaccedu.

Chan, K. (2012). Assessment for community service types of experiential learning in the engineering discipline. *European Journal of Engineering Education*, 37(1): 2938.

Debi C. (2019). Why do we need technology integration in education? <https://www.classcraft.com/blog/why-do-we-need-technology-integration-in-education/> Retrieved 30<sup>th</sup> July, 2023.

Fatma, A. (2016). Integrating technology in the curriculum as an effective teaching strategy. *International Journal of Academic Research* 4(1): 4 – 50.

Federal Republic of Nigeria (2014). National Policy on Education.

Gardner, H. (2013). Frequently asked questions – multiple intelligences and related educational topics. <https://howardgradnerO.I.files-wordpress.com/2012/>

Gregory, H. and Boglarka, A. (2019). Teachers' pedagogical skills and the provision of quality education: Case of United States and Hungary, *Journal of Education*, 2(4): 74-82.

Karen W. M., Sabine, M., Per B., Helle N. and Richard T. (2014). Experience-based Learning in Entrepreneurship education – A Comparative Study of four Programmes in Europe. [https://www.researchgate.net/publication/2670-60736\\_Experience-based\\_learning\\_in\\_Entrpreneurship\\_Education\\_a\\_comparative\\_study\\_of\\_four\\_programs\\_in\\_Europe](https://www.researchgate.net/publication/2670-60736_Experience-based_learning_in_Entrpreneurship_Education_a_comparative_study_of_four_programs_in_Europe). (Retrieved on 9<sup>th</sup> Juned 2023).

Kolb, A. Y. and Kolb, D. A. (2017). Experiential learning theory as a guide for experiential educations in higher education.

Lois, M. (2022). Self-directed learning is the key to new skills and knowledge. <https://www.betterup.com/blog/self-directed-larning>. Retrieved 7<sup>th</sup> July, 2023.

Mcleod, S. (2023). Constructivism learning theory and philosophy of education. <https://www.simplypsychlogy.org/constructivism.html>.

Meredith, M. (2022). Project-based learning (PBL) Benefits, examples and 10 ideas for classroom implementation. <https://www.prodigygame.com/main-en/blog/project-based-larning>. Retrieved 7<sup>th</sup> July, 2023.

Musunmola, A. A. (2016). Cultivating effective pedagogical skills in in-service teachers: The role of some teacher variables. *Journal of the International Society for Teacher Education*, 20(1):83-89.

Norman, S. (2016). 7 benefits of Technology Integration in the education sphere. E-learning industry. <https://elearningindustry.com/benefits-technology-integration-education-sphere>. Retrieved 28<sup>th</sup> July, 2023.

Ogwunte, P. C. (2016). *Strategies considered effective by Business teachers in South – South, Nigeria for teaching new business subjects in secondary schools* in Awka. Ph.D Thesis. Nnamdi Azikiwe University, Awka, Nigeria, p. 179.

Okon, I. J. (2017). *Educational Resources and Implementation of Senior Secondary Curriculum in North East Senatorial District of Akwa Ibom State, Nigeria*. MSc (Ed) Dissertation. University of Uyo, Nigeria, 112.

Okoye, K. R. and Ogunleye, S. (2015). Trade subjects as compulsory subjects at the senior secondary schools in Nigeria: A subject for re-consideration. *International Journal of Innovative Research and Development*, 4(13): 40-44.

Onuka, A. U. (2018). Integrated vegetable production into Trade/Entrepreneurship subjects and institutional delivery. *Journal of Center for Technical, Vocational Education Training and Research*, 3(2): 238-245.

Orgi, N. S. (2011). The new senior secondary school curricula: prospects and challenges for achieving the millennium Development Goals. Paper presented at the 8<sup>th</sup> Annual conference on educational crisis and millennium development goals in Nigeria organized by the primary and tertiary teacher education association of Nigeria (PATTEAN) at the federal college of education Yola, Adamawa State, 20<sup>th</sup>-24<sup>th</sup> June 2011.

Patrice, F. M. (2020). Developing Effective Pedagogical Skills, Strategies and Innovations in the Classroom. <https://teachercertification.com/effective-pedagogical-skills-strategies-innovations-for-teachers/> (Retrieved 18<sup>th</sup> July 2023).

Professor. <https://helpfulprofessor.com/pedagogical-skills/> Retrieved 18 July 2023.

Randall, S. D. and Richard E. W. (2013). Technology integration in schools: Handbook of research on educational communications and technology, pp37. M. Spector, M. J. Bishop, M. D. Merill (editors)

Shen, W., Chen, H. and Hu, Y. (2014). The validity and reliability of the self-directed learning instrument (SDLI) in mainland Chinese nursing students. *BMC Medical Education* 14(1): 1–7.

Suraasa (2023). Significance of Pedagogical Skills for Teachers. <https://www.suraasa.com/blog/significance-of-pedagogical-skills-for-teachers>. Retrieved 3<sup>rd</sup> July 2023.

Technokids, (2023). <https://www.technokids.com/store/computer-curriculum/technology-integration.aspx>. *Integrating technology in the Curriculum*. Retrieved 4<sup>th</sup> July, 2023.

Thu, T. L. (2018). *Project-Based Learning in the 21<sup>st</sup> Century: A Review of Dimensions for Implementation in University-Level Teaching and Learning*. 4<sup>th</sup> ICEAC International Conference on English Across Cultures held at Bali, Indonesia. [https://www.researchgate.net/publication/352977987\\_project-based\\_learning\\_in\\_21st\\_century\\_A\\_Review\\_of\\_Dimensions\\_for\\_Implementation\\_in\\_university-level\\_Teaching\\_and\\_learning](https://www.researchgate.net/publication/352977987_project-based_learning_in_21st_century_A_Review_of_Dimensions_for_Implementation_in_university-level_Teaching_and_learning) (Retrieved on 8th June 2023).

Umoh, U. (2015). Acceptance and methods of implementation of integrated science curriculum and social studies teachers in secondary schools in Akwa Ibom State. Ph.D. Thesis, University of Uyo, Nigeria.

Umoh, U. E. (2017). Methods of implementation of integration curriculum by science and social studies teachers in secondary school in Akwa Ibom State Nigeria. *Journal of Research and Development in Education (JORDE)*. 7(1), 20-30.

Umoh, U. E. and Etuk, N. E. (2016). Students' involvement in social networking and attitudes towards its integration into teaching. *International Education Studies Canada*. 9 (9), 250-260.