

Effect of Traditional Learning Methods on the Development of Practical Skills among Students at Ramat Polytechnic, Maiduguri, Borno State

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Abstract: The purpose of this quasi-experimental study was to determine the effect of Traditional Learning Method on the Development of Practical Skills acquisition among Students at Ramat Polytechnic, Maiduguri Borno state. The traditional method to practical skill acquisition is characterized by classroom lectures and theoretical instruction which has been prevalent for decades. However, it often falls short in adequately preparing students for the demands of the modern job market, especially in technical and vocational fields. The population was the intact classes comprises of one hundred and twelve (112) ND II Quantity Surveying and ND II Building Technology students offering Building Science and Properties of Materials respectively. Three Null Hypotheses were tested at 0.05 level of significance, pre-test-post-test Quasi-experimental design was used for testing the effect of Traditional Method on development of practical skills acquisition of students. Hypotheses one indicated the mean scores of Experimental group (mean= 15.78 and S.D= 0.94) and Control group (mean= 15.48 and S.D= 0.89) and $P= 0.76$. The P value is greater than the confidence level, that is $P>0.05$. Hypotheses two indicated pre-test (mean= 15.78 and S.D= 0.94) and post-test (mean= 25.44 and S.D= 0.61) in SAFA. The t (56) is 15.753. The P value, 0.00 which is less than the confidence level, that is $P<0.05$. Hypotheses three indicated Experimental group (mean= 25.44 and S.D= 0.61) and Control group (mean= 19.38 and S.D= 0.73). The t (110) is 7.856. The P value, 0.00 which is less than the confidence level, that is $P<0.05$. The findings indicate that Tradition method of imparting practical skills is not effective instructional strategy that can be used to promote self-regulated learning and improved learning outcomes in practical skills acquisition in tertiary institutions. However there is need to complement with more effective learning strategy to ensure adequate training in tertiary institution especial those that involved in technology and vocation training.

Keywords: Skill, Traditional Learning method, Vocational Training, Self Reliant, Work ready

1.0 Introduction

Technical and vocational training within tertiary institutions serves as a critical pathway for students to acquire the practical skills necessary for successful careers in specialized fields such as environment, engineering, healthcare, and mechanics. According to Dewey, (1938) Hands-on experiences and experiential learning have been recognized as effective strategies for enhancing practical skill acquisition for trainees in technical field of studies. Billett, (2001) confirmed that

the acquisition of practical skills is a foundation of such education, enabling students to seamlessly transition from the classroom to the workplace. According to Zhang, (2019) Skill acquisition is the science that underpins movement learning and execution and is more commonly termed motor learning and control. He furthered that Skill acquisition examines the factors that affect the acquisition, performance, and retention of required skills in both developing and elite trainees under vocational study. Also, as industries continue to evolve and demand specialized expertise, the effectiveness of instructional methods in facilitating practical skill development becomes paramount (Eraut, 2004). Harris, and Taylor, (2016) affirmed that Traditional Learning Methods have been a longstanding approach in education, encompassing instructive lectures, textbook-based learning, and standardized assessments. While these methods have their merits in conveying theoretical knowledge, their impact on development of practical skills has been questioned.

The shift towards competency-based education has encouraged discussions about the need for more experiential and hands-on learning approaches in vocational technical education. OECD, (2017) affirmed that due to the changing requirements of the labour market, is very crucial to strategies more efficient means of imparting practical skills to learners especially in Technical and vocational education and training (TVTE). It can also be assumed that the prevalence of multi-careers will increase a large number of people performance in various occupational fields during their lifetime and that may go a long way to improve their skills and enhance continuous lifelong learning. However, to meet the demands of a digital society, educational institutions are expected to provide greater flexibility and individualization so that learners have the opportunity to adapt the learning process to their own needs and specific life phases (Barnett, 2014). Hrastinski, (2019) believes that Flexible learning, process which cut across adoption of different methods of imparting knowledge in practical based courses may also be the alternative way of moving away from usage of traditional method only in order to improve level of practical skill acquisition among learners. According to Claude & Thoralf (2021), Learning can take place in different modalities, often distinguishing between face-to-face classroom instruction and virtual learning, as well as a synchronous learning. According to Billett, (2001) the need for a study that delves into the impact of traditional learning methods and the acquisition of practical skills among students in vocational technical education programs is very paramount, since traditional learning methods have been a longstanding approach in education, encompassing instructive lectures, textbook-based learning, and standardized assessments. However, investigating the effectiveness of this method and reveal its unconstructive effect in equipping students with the skills demanded by today's industries is very necessary as this study will contribute to the ongoing dialogue on pedagogical enhancements in vocational education and training. Smith *et al.*, (2018) affirmed that Researchers have noted that traditional learning approaches often prioritize theoretical understanding over practical application, potentially leading to a disconnect between classroom learning and workplace demands. Johnson and Brown, (2020) stretched that hands-on experiences and experiential learning have been recognized as effective strategies for enhancing practical skill acquisition.

In the pursuit of academic excellence and career readiness, Ramat Polytechnic in Maiduguri, Borno State, plays a crucial role in providing technical and vocational education. However, an essential aspect of this education is the development of practical skills majorly impacted by the prevalent use of traditional learning methods within the institution. It was observed by the researchers, Ramat Polytechnic, like many other tertiary institutions, relies on traditional learning methods characterized by classroom lectures, theoretical instruction, and conventional assessments. Despite the historical effectiveness of these methods in certain contexts, their alignment with the needs of technical and vocational students requires careful consideration.

Dewey (1938) argued that experiential learning and hands-on experiences are fundamental for skill development, emphasizing a misalignment between traditional methods and the practical skill goals of students at technical institutions like Ramat Polytechnic. The researchers observed that the prevalent utilization of traditional learning methods in most educational programs may inadvertently hinder the practical skill acquisition of students, thereby compromising their readiness for the dynamic demands of the workforce. However, the glaring importance of equipping students undertaking practical based courses across the tertiary institutions in Nigeria with productive employable skills made it compulsory to pay proper attention to the processes of impacting practical skills acquisition during the course of study in various academic institutions. As narrated in UNESCO (2012), with the rapid increase in the rate of unemployment in the country, strive to empower upbringing youths with self reliant and work ready skills cannot be over emphasize.

1.2 Objectives of the study

The objectives of this paper are to review and reveal the effect of traditional teaching method in imparting practical skills among students in the polytechnic.. The following hypotheses were tested at 0.05 level of significance:

H0₁: There is no significant difference between the pre-test mean scores of students taught Sieve Analysis in Soil and Materials Laboratory using Traditional method and Team Based Learning strategy in Ramat Polytechnics Maiduguri Borno State.

H0₂: There is no significant difference between the pre-test and the post-test mean scores of students taught Sieve Analysis in Soil and Materials Laboratory using Team Based Learning strategy in Ramat Polytechnics Maiduguri Borno State.

H0₃: There is no significant difference between the post-test mean scores of students taught Sieve Analysis in Soil and Materials Laboratory using Traditional method and the based Learning strategy in Ramat Polytechnics Maiduguri Borno State.

2. Literature Review

According to Dewey, (1938) Technical and vocational education and training (TVET) in tertiary institutions plays an essential role in preparing students for careers that demand practical skills. Ugochukwu *et al*; (2020) narrated that (TVET) aims to equip learners with the technical skills required for the industrial and social development of a nation. They further stated that TVET training in Nigeria leads to the production of crafts trainers, technical college teachers, technicians, and other skillful citizens that can be enterprising and self-reliant. Oladejo, (2019) narrated that learning system in Vocational and Technical Education (TVE) was in phase of disorientation before its re-invention in the 21st century. She added that the methodology adopted a historical interface between education and industry following Nigeria's economic trends. It was identified by her that the primary sources used was the National Archives Ibadan (NAI) which was supported by the collaborated hand on deck training by the department of Commerce and Industries rather than traditional face to face classrooms practice or method. According to Okolie, *et al*; (2021) Collaborative learning strategy (CLS) is another teaching and learning method which plays a significant role in enhancing student's practical acquisition and promoting deep cognitive, motivational and social outcomes especially at higher educational level. They classified (CLS) as

a set of teaching and learning strategies which allows students to work together to accomplish shared goals, seek outcomes that are beneficial to all, discuss materials with each other, help each other to understand concepts, and encourage each other to work hard. However, Kolb, (1984) confirmed that the persistent reliance on traditional learning methods in those programs offered in polytechnics contributes to inadequate students' practical skill acquisition, leading to a misalignment between educational outcomes and industry requirements. Okolie *et al.*, (2019) clarifies that in Nigeria, Technical and Vocational Education Training (TVET) is offered at the upper secondary and tertiary education levels to train learners in applied sciences, technology, and commerce, particularly at sub-professional levels. Ansah and Kissi, (2013) stressed that (TVET) aims to equip learners with the technical skills required for industrial and social development. According to Seyi (2014), at Technical Colleges or other similar higher secondary levels, TVET subjects to train learners in skill acquisition for self-reliant include local crafts, computer education, applied electricity, book-keeping and accounting, building construction, auto mechanics, commerce, electronics repairs, clothing and textiles, food and nutrition, painting and decoration, carpentry and joinery, home management, metalwork and fabrication, technical drawing, shorthand, typewriting, and fine art. These subjects prepare learners either for further studies in higher education institutions or to set up small businesses in order to earn livelihoods and possibly train others. However, at the tertiary institution level, TVET areas of specialization include agricultural education, business education, home economics, fine and applied arts, woodwork technology, building technology, electrical/electronic technology, quantity surveying, building technology and mechanical/metal works technology among others. This study significantly examines the negative effects of traditional learning methods on practical skill acquisition among students in Ramat Polytechnic Maiduguri, drawing on relevant research and scholarly works.

2.1 Inadequate Hands-On Experience:

One of the primary negative effects of traditional learning methods in TVET is the limited opportunity for hands-on experience. Classroom-based instruction and theoretical learning dominate in the adherence to its usage, often leaving students with insufficient practical exposure this is quite noted in the polytechnic system today which requires prompt attention to be complemented with more practical-oriented methods for effective practical skills acquisition to meet the objective of training students in polytechnics. According to Orishev *et al* (2021), the role and importance of designing knowledge for the formation of professional skills and competencies of future Teachers/Instructors of technological education is important in the acquisition of skills for professionals or in the rebirth of man. They added the proverb "The head begins, the foot throws" was to apply the deep harmony of the wisdom of education to the problem of vocational guidance of young people. They added that the "head" is the education system, and no matter how they start, the crowd of millions of young people will follow in their footsteps. The impact and glory of these steps requires the development of an adequate practical teaching method to create the conditions for the realization of the dreams of youths with self-reliant skills. Dewey (1938) emphasized the importance of experimental learning, arguing that hands-on experiences are integral to skill development. However, traditional methods typically prioritize theoretical knowledge over practical application.

2.2 Inactive Learning and Reduced Inspiration

Traditional method of imparting knowledge or training learners in skill acquisition often promote passive learning, where students passively receive information rather than actively engaging with it. Kolb (1984) highlighted the importance of active engagement in the learning process, suggesting that passive learning reduces inspiration and it may hinder effective skill acquisition. Wapmuk, (2011) narrated that Technical and vocational education (TVE) involves the acquisition of practical skills and competencies that can help people to function productively in industrial and commercial occupations. However, Technical Vocation Education is the functional education that provides people with skills, knowledge and attitudes for effective employment in specific occupation. According to Yinusa, (2014) the, instruction strategies preferably need to be employed by Lecturers, Instructors and technologists in Technical and Vocational Education programme should be such that can enhance skill acquisition process in line with the changing needs of the contemporary society. Intensive Lectures and textbooks, common in traditional method, may fail to engage students actively in the learning process, which may result in reduced motivation of the trainings.

2.3 Lack of Problem-Solving Skills

Practical skill acquisition by nature goes hand in hand with problem-solving abilities. Lave and Wenger (1991) argued that learning is most effective when it occurs within authentic contexts and society. Orr *et al.*, (2020) opine that to meet the growing need for highly qualified employees in the labour market, an effective learning strategy should be made available to trainees or learners at various levels of formal education in various tertiary institutions. However, traditional learning methods often isolate learning from real-world problem-solving situations, limiting students' ability to apply their knowledge to practical challenges.

2.4 Industry and Academic Relationship

The gap between academia and industry remains a persistent issue because of challenging nature of industry in terms of skills requirement to accomplish task assign to the employees in a specified job. According to Mason, (2019) several economic factors influences the availability of job aperture and labour supply, including technological changes and access to quality educational resources teaching method and skills acquisition. He added that one of the most important factors explaining the current disparity between available jobs and labour supply, however, has been the “skills gap,” or the difference between the skills needed for occupations and the skills workers acquired. To address the skills gap according to the source, economists and policymakers have proposed improving access to and delivery of job training and learning strategy. He explained that Workers themselves recognized the need for this kind of training, with nearly 35 percent of respondents in a recent survey, reporting that they do not have the education or training needed to grow successfully in their jobs. While workforce skills training is structured and delivered in different formats, it typically results in some type of credential to demonstrate completion and competency. His report reveal that Labour market data demonstrate that non-degree credentials that is, certificates, licenses, or industry certifications other than an associate or bachelor’s degree add value to workers who owns it, providing them with greater earnings than those who do not possess such credentials. This signifies the importance of non sticky to one way or method of imparting knowledge especially one that has to do with practical skills acquisition. In some industries, the earnings premium for holding a credential is as high as the earnings premium for holding a college degree. These training programs are particularly useful because participating students are not tied to enrolling in credit-bearing programs, which usually have longer time

requirements and course sequences and delay transition to the workforce. The longer time needed to complete a credit-bearing training program is particularly difficult for unemployed or low-wage workers who need enhanced earnings as quickly as possible (Mason, 2019). UNESCO (2012) highlighted that traditional curricula in TVET may not adequately reflect the dynamic needs of industries, leading to a skills gap. This divide can result in graduates who lack the practical skills and competencies required by employers

2.5 Reduced Readiness for Employment:

In the report of Kahirol & Nor, (2020) it was clearly stated that, Technical and Vocational Education and Training or TVET is no longer a new term in today's changing world. However, they confirm that, Career and Technical Education (CTE), Workforce Education (WE) and Workforce Development (WD), Occupational Education (OE), Vocational Education (VE), and Apprenticeship Programs are other terms used by other countries in different background yet the expected outcome is the same, aiming at preparing high-skilled work opportunities for the world of employment. One of the most concerning outcomes of the negative effects of traditional learning methods in TVET is that graduates may not be adequately prepared for employment. Eraut (2004) discussed the importance of informal learning in the workplace, which often involves practical skill development. Graduates who have primarily experienced traditional education may struggle to adapt to workplace demands (Eraut, 2004).

2.6 Inefficiency in Skill Transfer:

Prince (2004) conducted a review of active learning research and found that traditional methods are less efficient in transferring knowledge and skills to real-world contexts. In contrast, active learning approaches, which encourage hands-on experiences, promote the direct application of knowledge in practical scenarios (Prince, 2004).

The negative effects of traditional learning methods on practical skill acquisition in TVET within tertiary institutions are obvious from the work of other researchers, as stated above in the literature different effect that associated with usage of traditional method of learning were highlighted and necessary solution is expected to provide in other to improve practical acquisition of students in tertiary institutions.

3. Methodology

Quasi-experimental design was used in this study. According to Maithreyi *et-al*; (2020) Quasi-experimental research designs, as the name suggest, use no experimental (or non-researcher-induced) variation in the main independent variable of interest, essentially mimicking experimental conditions in which some subjects are exposed to treatment and others are not on a random basis. Regression discontinuity, instrumental variables, differences-in-differences, two-way fixed effects, and other QEDs exploit nonrandom but reasonably exogenous (or as-if random) variation in key parameters to establish causality. They added that the reliability of causal claims and estimates varies across these designs and depends on how close the study conditions are to an experiment. They furthered stated that QEDs improve one's understanding of the causal effects of various educational policies and interventions by focusing on internal validity, then determine if the policy or intervention being studied cause a significant change in the observed outcome (and if so by how much) thereby yielding an unbiased estimate of the average treatment effect. A quasi-experimental design according to Clark & Creswell (2015) is a type of experimental research which allows the researcher to test a treatment using intact groups of participants by assigning identified groups to different conditions, and does not randomly assign participants because groups

cannot be artificially subjected for the experiment. In this study, the researcher introduced a task involved laboratory test. Each intact class was assigned on an actual condition (e.g. treatment or control). Because quasi-experiments make use of existing groups, then the researcher conducted the test on both groups to determine the effect of the traditional method of imparting practical skills in Polytechnics.

The research design was used to test whether the independent treatment variables (traditional Learning Method) have effect on an outcome variable (Practical Skill Acquisition of Polytechnic Students) for the intact class. The design was used to test the hypotheses out lined in this study as indicated in the table below:

Table 1: Pretest-Posttest in Quasi-Experimental Design (Research Frame Work)

Research Groups	Pretest	Treatment	Post test	Gain Score
G ₁	Y ₁₁	X	Y ₁₂	Y ₁₃
G ₂	Y ₂₁		Y ₂₂	Y ₁₃

Where:

G₁-Control Group

G₂- Experimental Group

Y₁₁- Pre-test of the Control Group

Y₂₁- Pre-test of the Experimental Group

X- Treatment

Y₁₂- Post-test of the Control Group

Y₂₂- Post-test of the Experimental Group

Y₁₃- Mean Gain of the Control Group

Y₂₃- Mean Gain of the Experimental Group

Table one above signifies the frame work for this study. According to (Sambo, 2005), the pretest and post-test make use of true experimental design for pure scientific experiment and quasi-experimental design for social experimental study. He recaps that with quasi-experiments, a pre-test and post-test comparison can be made to determine the difference between the experimental and control groups for the dependent variable which is attributed to the intervention.

However, as reported in Suleiman *et-al*; (2024), the population for this study was obtained from two (2) different departments in school of environmental studies in Ramat Polytechnic Maiduguri. They comprise: Department of Quantity Surveying and Department of Building Technology both in Ramat Polytechnic, Maiduguri. The population was made up of one hundred and twelve (112) ND II Quantity Surveying and ND II Building Technology students offering Building Science and Properties of Materials respectively as indicated in Table Two below.

Table 2: Population of the study

Institution	Departments	Students' Population
RAMAT POLY MAID.	QUANTITY SURVEYING	57
BORNO STATE	BUILDING TECHNOLOGY	55
Total		112

Source: Suleiman *et-al*; (2024).

Equally as reported in Suleiman et-al; (2024), Quasi-experimental design is a type of experimental research which allows the researcher to test a treatment using intact groups of participants by assigning different groups to carry out task under different conditions, (Clark & Creswell, 2015). Certainly, the sample was the total one hundred and twelve (112) students from the two departments adopted for the study, 57 ND II Quantity Surveying students and 55 ND II Building Technology students all from Ramat Polytechnic Maiduguri, Borno State. However, the instrument Grading Tests on Aggregates through experiment on Sieve Analysis of Fine Aggregates was used to obtained data for this study, which was adapted from Building Science and Properties of Materials practical manual by the researcher. The aim was to perform the sieve analysis on fine aggregates to grade the aggregate particles to different sizes in other to disclose the impact of the applied treatment during the conduct of practical skill acquisition. The experiment was conducted with sets of apparatus and procedures which were used to conduct pre-test and post-test on both control and experimental group. The data collected from the Sieve Analysis of Fine Aggregates Test (SAFAT) exercise was analyzed using t-test statistics at 0.05 level of significance to test the hypotheses outlined for the study.

4. RESULTS AND DISCUSSION

4.1 Results

The results obtained from the data collected were presented and analysis of data and discussion of findings were made with reference to the result of hypotheses formulated and tested for the study. Then the null hypotheses were tested at 0.05 level of significance with T-test statistical tool.

4.1.1 Hypothesis One

H₀₁: There is no significant difference between the pre-test mean scores of students taught Sieve Analysis in Soil and Materials Laboratory using Traditional method and Team Base Learning strategy in Ramat Polytechnic Maiduguri Borno State.

Table three below shows the independent samples test that was conducted to compare the pre-test mean scores of Control group and Experimental group in Sieve Analysis of Fine Aggregate (SAFA) test. The result from the table shows that there was no significant difference between the mean scores of Control group (mean= 15.48 and S.D= 0.89) and Experimental group (mean= 15.78 and S.D= 0.94) and P= 0.76. The P value is greater than the confidence level, that is P>0.05. The t (110) is 0.287. The null hypothesis which states that there is no significance difference between the pre-test mean scores of students in Sieve Analysis of Fine Aggregate (SAFA) in Control and Experimental group was accepted.

Table 3: Test of difference between the pre-test mean scores of students taught in Sieve Analysis of Fine Aggregate using Traditional method and Team Based Learning Strategy:

Group	N	Mean	S.D	Df	t	P	Decision
Control	55	15.48	0.89	110	0.287	0.78	H₀₁ Accepted
Experimental	57	15.78	0.94				

Source: Suleiman et-al; (2024).

4.1.2 Hypothesis Two

H0₂: There is no significant difference between the pre-test and the post-test mean scores of students taught Sieve Analysis in Soil and Materials Laboratory using Team Base Learning strategy in Ramat Polytechnic Maiduguri Borno State.

Table four shows the paired samples test that was conducted to compare the pre-test and post-test mean scores of Experimental group in SAFA. The result from the table shows that there was a significance difference between the mean scores of students in the pre-test (mean= 15.78 and S.D= 0.94) and post-test (mean= 25.44 and S.D= 0.61) in SAFA. The t (56) is 15.753. The P value, 0.00 which is less than the confidence level, that is P<0.05. The null hypothesis which states that there is no significance difference between the pre-test and post-test mean scores of students taught (SAFA) using Team Based Learning Strategy (TBL) was rejected.

Table 4: Test of difference between the pre-test and post-test mean scores of students taught in Sieve Analysis of Fine Aggregate using Team Based Learning Strategy:

Variables	N	Mean	S.D	Df	t	P	Decision
Pre-test Scores	57	15.78	0.94	56	15.753	0.00	H0₂ Rejected
Post-test Scores	57	25.44	0.61				

Source: *Suleiman et-al; (2024)*.

4.1.3 Hypothesis Three

H0₃: There is no significant difference between the post-test mean scores of students taught Sieve Analysis in Soil and Materials Laboratory using Traditional method and Team Based Learning strategy in Ramat Polytechnic Maiduguri Borno State.

Table five shows the independent samples test that was conducted to compare the post-test mean scores of students taught Sieve Analysis of Fine Aggregate SAFA using Traditional method and Team Based Learning Strategy TBL. The result from the table shows that there was a significant difference between the mean scores in Control group (mean= 19.38 and S.D= 0.73) and Experimental group (mean= 25.44 and S.D= 0.61). The t (110) is 7.856. The P value, 0.00 which is less than the confidence level, that is P<0.05. The null hypothesis which states that there is no significance difference between the post-test mean scores of students taught (SAFA) using Traditional method and Team Base Learning strategy TBL was rejected.

Table 5: Test of difference between the post-test mean scores of students taught Sieve Analysis of Fine Aggregate (SAFA) using Traditional method and Team Based Learning Strategy:

Group	N	Mean	S.D	Df	t	P	Decision
Control	57	19.38	0.73	110	7.856	0.00	H0₃ Rejected
Experimental	55	25.44	0.61				

Source: *Suleiman et-al; (2024)*.

Where:

N –Number of Students

S.D –Standard Deviation

Df – Degree of Freedom

P - Probability value

4.2 Discussion

The finding reveals that there was no significant difference in the pre-test mean scores of students taught Sieve Analysis of fine aggregate (SAFA) using Traditional method and Team Base Learning strategy. This shows that both groups have equal entry behavior before the treatment was applied. The findings of the study is in line with that of Sisk (2011), Clarke, and Braun, (2013) and Vasan, DeFouw, and Compton (2011) who found no difference between the achievement of students in both control and experimental group at the pre-test stage, that means both control and experimental groups have the same entry behaviour before the treatment was applied.

The finding also reveal that there was a significance difference in the pre-test and post-test mean scores of students taught Sieve Analysis of fine aggregate (SAFA) using another instructional method which is Team Base Learning strategy. That is the post-test mean score of students taught Sieve Analysis of fine aggregate (SAFA) using Team Base Learning strategy was significantly higher than the pre-test mean score of students after the treatment was administered. This definitely implies that the difference was as a result of the treatment that is the (TBL) strategy being applied. The findings is in line with Sisk (2011) and Vasan, DeFouw, and Compton (2011) who found out that there was a significance difference between the pre-test and post test scores of students in the experimental group. The conclusion of the findings was that the difference in the pre-test and the post-test scores can be attributed to the application of another teaching method known as treatment in experimental design to prove the ineffectiveness of consistence usage of traditional method especially to impart practical skill in tertiary Institutions.

5. Recommendations

As a result of findings gathered from this study, the following recommendations were made so that tertiary institutions can effectively mitigate the negative effects of traditional learning methods on practical skill acquisition in Ramat Polytechnic Maiduguri Borno State, ensuring that students are adequately prepared for successful careers in their chosen fields.

i. Active Learning Strategies:

Educators should employ active learning strategies, such as Team-Based learning and Inquiry-Based learning, to engage students in the practical application of concepts. These approaches promote critical thinking, problem-solving skills, and collaboration, essential for success in technical fields.

ii. Incorporating Team Based Learning Strategy to Curriculum

While designing curriculum, the need for educational institutions to incorporate team-based learning strategies within the curriculum design for courses that involve practical skill development is becoming important. The inclusion must be well-planned and associated with the learning objectives of the course to ensure a faultless and purposeful inclusion of team-based learning strategy.

iii. Industry Partnerships and Collaboration:

Tertiary institutions should establish strong partnerships with industry stakeholders to ensure that curricula are aligned with industry needs and standards. Industry-led projects, guest lectures, and site visits can provide students with valuable exposure to real-world task and practices.

iv. Technological Integration:

Leveraging technology, such as virtual simulations and computer-based training modules, can enhance practical skill acquisition by providing students with realistic learning experiences in a

safe and controlled environment. Incorporating technology also prepares students for the digitalization of various industries.

v. Faculty Development and Training:

Institutions should invest in faculty development programs to equip educators with the pedagogical skills and tools necessary to facilitate practical skill acquisition effectively. Training sessions on active learning methods, instructional design, and assessment strategies can empower faculty members to create engaging learning experiences.

vi. Continuous Evaluation and Improvement:

Tertiary institutions should establish mechanisms for continuous evaluation and improvement of technical and vocational training programs. Regular feedback from students, faculty, industry partners, and alumni can inform adjustments to curricula, teaching methods, and resources to better meet the evolving needs of learners and industries.

6. Conclusion

In conclusion, the unenthusiastic effects of traditional learning methods on practical skill acquisition in TVET within tertiary institutions are evident from the literature. To improve on the problem, there is a pressing need for reforms in pedagogical approaches. Hence, Educators and Institutions need to consider alternative teaching and learning methods that prioritize hands-on experience, active engagement, and the direct application of knowledge to bridge the gap between academia and industry, better preparing students for the demands of their chosen careers.

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