

CREATIVITY, WORK ENGAGEMENT AND PRACTICAL SKILLS ACQUISITION OF CRAFTSMEN DOMESTIC INSTALLATIONS IN SOUTH-SOUTH NIGERIA

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Abstract

The study adopted a correlational research design involving both qualitative and quantitative approaches. The population of the study comprised 42 craftsmen from 42 selected industries in South-South Nigeria. Since the population was manageable and relatively small, the entire population was used for the study; therefore, sampling was not considered necessary. The instrument for data collection was a self-structured questionnaire developed by the researchers, titled: “Creativity, Work Engagement and Practical Skills Acquisition Questionnaire (CWEPSAQ). The instrument was face-validated by the senior experts from the School of Vocational and Technical Education, Isaac Jasper Boro College of Education, Sagbama, Bayelsa State. The reliability of the instrument was established through a trial test, which yielded an overall reliability coefficient of 0.95. The data collected were analyzed using Pearson Product Moment Correlation, regression analysis, and ANOVA to test the hypotheses at 0.05 level of significance. The findings of the study revealed that there is a significant positive relationship between creativity, work engagement, and practical skills acquisition among craftsmen in domestic installations in South-South Nigeria. The findings of the study revealed that creativity and work engagement jointly influence the level of practical skills acquisition among the craftsmen. Based on the findings of the study, it is recommended that stakeholders, including policymakers and practitioners in vocational training, should promote creativity and work engagement among craftsmen in order to enhance their practical skills acquisition and overall job performance.

Keywords: Creativity, work engagement, practical skills acquisition, craftsmen, domestic installations

Introduction

A major concern in contemporary technical vocational education is the low level of creativity, weak work engagement, and inadequate practical skills acquisition among learners of Electrical Installation and Maintenance Work, particularly in domestic installation practices, despite the increasing demand for skilled manpower in the labour market. The rapid advancement of modern technology has significantly transformed practical instruction in present-day education, thereby posing serious challenges to learners and beginners in Electrical Installation and Maintenance Work who often struggle due to insufficient instructional guidance. Electrical Installation and Maintenance Work is a core programme offered in Technical Colleges in Nigeria, aimed at equipping learners with the competencies required for effective performance in the electrical installation industry. According to National Board for Technical Education (2001), electrical installation includes basic electricity, battery charging, domestic installation, industrial installation, cable jointing, and winding of electrical machines as contained in the approved curriculum. Electrical installation involves the fitting and arrangement of electrical apparatus within buildings, including connecting wires and control devices that

make them ready for safe and effective use. Various types of electrical installations exist, including bare conductor wiring, conduit wiring, rubber sheathed wiring, polyvinyl chloride wiring used in sheathed systems, mineral insulated installations, and electrical machine installations, all of which are selected based on environmental and operational conditions. However, no single installation type is universally suitable for all situations, and this variation continues to pose challenges to effective practical skill development, particularly in relation to creativity, work engagement, and competence acquisition in technical workshop practices.

The rapid change in electrical installation industries have necessitated the need to equip technical college students with workplace and practical skills which will make them flexible and adaptable to the present and envisaged future change (Kaźmierczak et al., 2024). Thomas & Anner, (2022) stated that technology in the world over is dynamic and work organizations are getting increasingly flexible, process-based and multi-tasking. This apparently is to suit demands of the prevalent knowledge society and ample use of innovations and invention in workplace and change in the organization of practical work. Liao et al., (2023) expressed that the instructional methods adopted by most electrical/electronic teachers in Technical Colleges seem inadequate for equipping electrical installation students with practical skills due to inappropriate facilities functionality, utilization and safety practices observed in electrical workshop, these instructional methods are teacher-centered hence, do not give enough opportunities for themselves and actively participate in the learning process (Singh & Nagmoti, 2021). Therefore, practical instructional proceeds from the assumption that creates a gap between the required practical skills and actual performance in the real-life situation, due to inadequacies in knowledge, skills and attitudes in workshops. In this context, there is need for educational institutions to assess their practical instruction to accommodate changes in work place so as to produce students with workplace, basic practical, skills and safety practices for employments and creativity (Gonlepa et al., 2023).

Creativity is the ability to generate new and valuable ideas or concepts, transcending traditional thinking to develop original solutions or products. According to Ten Haven et al., (2022) creativity is generally meant the ability or faculty of creation or construction. It involves autonomy, mastery in a specific domain, curiosity, problem-seeking, and a blend of traits like introversion and self-assurance. Creativity is fostered through dedicated effort, supportive environments, and the investment theory, where unique characteristics and opportunities converge to produce exceptional creativity. Cultivating creativity is crucial for personal growth and business success, as it enhances innovation, productivity, adaptability, and overall effectiveness (Beaty & Kenett, 2023). To develop creativity skills, several strategies can be employed. Here are some key methods: Creativity in the workplace is essential for fostering innovation, problem-solving, and adaptability (Vedawala et al., 2024). It involves collaborative brainstorming, meditation, brain writing, storyboarding, and exposure to different cultures to spark new ideas. Creativity enhances productivity, adaptability, and problem-solving skills, leading to better teamwork, employee retention, and improved solutions (Tocci et al., 2022) Encouraging creativity through inclusive environments, flexibility, knowledge sharing, self-reflection, and supporting creative risk-taking can drive professional growth, innovation, and positive outcomes in the Employee workplace engagement (Yang et al., 2018).

Employee engagement refers to the degree workers feel invested in, motivated by, and passionate about their jobs and the company they work for. It's a concept in human

resources that emphasizes the emotional connection employees have towards their work, team, and organization, impacting productivity, retention, and overall business success (Wolor et al., 2023). According to Martinez et al., (2021) work engagement is a concept that reflects employees' personal satisfaction and inspiration from work, involving cognitive, emotional, and physical self-investment. It focuses on the relationship between employees and their work tasks, emphasizing vigor, dedication, and absorption in job roles. According to Oral et al., (2024) Work engagement is distinct from burnout and is characterized by high energy, resilience, involvement, and concentration at work. Engaged employees exhibit better performance, health, and contribute positively to their organizations (Hakanen et al., 2017)

Practical skills are essential adaptive and positive behavior talents that allow individuals to deal effectively with life's demands and obstacles. They are the most basic skillset one needs to master to perform well in every activity. According to Digital Competencies in Communication Management: A Conceptual Framework of Readiness for Industry 4.0 for Communication Professionals in the Workplace (Ellis et al., 2020) some of the most important practical skills to learn include speed reading, computer literacy, managing official documents, using social media and digital marketing, understanding taxes, programming, and problem-solving. Developing these skills can significantly enhance employability by demonstrating the ability to solve real-world challenges, work efficiently in teams, and adapt to dynamic work environments (Yang et al., 2024). Educators can help students develop practical skills by modeling the skills, providing opportunities for hands-on practice and experiential learning, and giving clear and meaningful feedback. Integrating practical skills development into the curriculum, using interactive simulations, and highlighting practical skills in career profiles are effective strategies (Fan, 2023). Overall, practical skills are crucial for success in today's job market and can be cultivated through a combination of training, practice, and feedback. Learning through practical skills enhances understanding and mastery of concepts (Nerozzi et al., 2025).

Learning practical skills can benefit your personal life by enhancing your ability to deal effectively with life's demands and challenges. According to Krawczyk, (2019) Practical skills, such as problem-solving, communication, and hands-on abilities, enable you to navigate daily tasks more efficiently, improve your understanding of various subjects, and retain knowledge for longer periods. By acquiring practical skills like cooking, driving, or social skills, you can enhance your well-being, confidence, and overall quality of life, making you more adaptable and capable in different situations (Byrom A, 2017). Learning practical skills can benefit your relationships with others by enhancing your ability to communicate effectively, collaborate, and problem-solve together. Practical skills like cooking, driving, and sports can create shared experiences and opportunities for bonding (Kaumudee Kodikara et al., 2023) Additionally, skills such as public speaking, communication, and teamwork can improve your interactions with others, leading to better understanding, empathy, and successful collaborations in both personal and professional settings.

Practical skills acquisition refers to the process of learning and mastering hands-on abilities that are essential for various tasks, professions, and daily life activities. It involves acquiring new knowledge, techniques, and competencies through training, practice, and experience to enhance one's understanding and application of concepts in real-world scenarios. According to (Gomez et al., 2021) practical skills acquisition can encompass a wide range of areas, from vocational skills like carpentry and plumbing to digital skills

like web design and software development, empowering individuals to succeed in their chosen fields and improve their overall quality of life. Practical skills acquisition can benefit personal growth and development in the following ways: Boosts Confidence and Self-Belief: Mastering new skills fosters a sense of accomplishment and self-confidence, empowering individuals to take on new challenges. Aguilar et al., (2022) stated that acquiring new practical skills opens up a wider range of opportunities for personal and professional advancement.

Skills acquisition enhances self-sufficiency and independence by enabling individuals to become more self-reliant and less dependent on others, thereby promoting personal growth and empowerment. It also develops entrepreneurial abilities by fostering entrepreneurial mindsets and competencies that enable individuals to create their own employment opportunities. In addition, skills acquisition improves self-esteem and attitude by strengthening individuals' confidence and promoting a positive orientation toward work and personal development (Yerlan Temirkhanov et al., 2024). Furthermore, it contributes to poverty reduction through improved employability and increased income-generating opportunities, which support financial independence. It also fosters personal and social change by equipping individuals to overcome challenges and develop the confidence needed for meaningful transformation in their lives and communities. Finally, skills acquisition supports continuous learning and adaptability by encouraging lifelong learning and the capacity to adjust effectively to changing circumstances (Behling et al., 2021)

Through acquiring practical skills, individuals can unlock their full potential, enhance their confidence, expand their opportunities, and drive positive personal and social change, ultimately contributing to their overall growth and development. Based on the information provided in the search results, practical skills acquisition can benefit career advancement in the following ways (Shah et al., 2024): Expands Opportunities: Acquiring new practical skills opens up a wider range of job opportunities and career paths for advancement. Enhances Employability: Practical skills make individuals more valuable and competitive in the job market, increasing their chances of getting hired and promoted craftsmanship (Naumenko & Didkovskiy, 2023)

It is ultimately the ability to produce the desired result. Training offers the craftsmen the ability to perform their work effectively and efficiently, and these qualities are a recipe for workers' productivity (Chervenak & McCullough, 2019). Therefore, domestic installations craftsmen when employed must be trained to the industries standards while those already employed must continuously be trained and retrained in order to improve their productivity. Realizing these facts, however, many studies had been channeled to the challenge of productivity in the Nigerian Electricity industry. Others are poor inspection program, unsafe working conditions, inadequate equipment, inadequate supervision, crew composition, new constructability, interruption and disruption, lack of cooperation between craftsmen, inadequate communication, lack of workers training and education, cleanliness of working site, changes in foremen, lack of detailed planning, and non-availability of information, materials, tools and equipment. Several authors including (Ziba Loukzadeh et al., 2024). It is this among others compel the need to determine creativity, work engagement and practical skills acquisition of craftsmen domestic installations in south-south Nigeria

Statement of the Problem

The advancement of technology in today's world places a strong demand on skilled manpower for improved productivity, especially in technical and vocational fields

such as domestic electrical installations. Ideally, technical training institutions are expected to produce craftsmen who are creative, highly engaged in their work, and competent in practical skill application so as to meet industry demands effectively. In such an ideal situation, craftsmen should be adequately equipped with the necessary competencies that enable them to function efficiently, adapt to technological changes, and secure available skilled job opportunities. However, the reality appears to be different, as there is a noticeable gap between the expected and actual performance of craftsmen in domestic installations. Many craftsmen are reported to demonstrate low levels of creativity, weak engagement in practical tasks, and inadequate mastery of essential skills required in their trade. This situation has contributed to unfilled skilled job opportunities in the industry and has negatively affected overall productivity in the sector. In addition, the rapidly changing nature of installation practices requires craftsmen to continuously adapt, innovate, and apply modern techniques, yet many still struggle to meet these demands effectively. Furthermore, there is growing concern that instructional practices and workshop experiences meant to develop practical competencies are not sufficiently effective in promoting creativity, active work engagement, and practical skills acquisition among craftsmen. This has created a persistent gap between theoretical knowledge and practical application in real-life installation tasks. It is against this background that this study seeks to determine the relationship among creativity, work engagement, and practical skills acquisition of craftsmen in domestic installations in South-South Nigeria.

Purposes of the Study

The general purpose of this study was to examine the relationship between creativity, work engagement, and practical skills acquisition among craftsmen in domestic installations in South-South Nigeria. Specifically, the study sought to determine the:

1. relationship between creativity and work engagement of craftsmen in south-south Nigeria
2. relationship between creativity and practical skills acquisition of craftsmen in south-south Nigeria
3. relationship between work engagement and practical skills acquisition of craftsmen in south-south Nigeria

Research Question

The following research questions guided the study;

1. What is the relationship between creativity and work engagement of craftsmen in south-south Nigeria?
2. What is the relationship between creativity and practical skills acquisition of craftsmen in south-south Nigeria?
3. What is the relationship between work engagement and practical skills acquisition of craftsmen in south-south Nigeria?

Hypotheses

To guide the study, the follow null hypotheses are formulated and were tested at a 0.05 level of significance:

- H₀₁:** There is no significant difference between the mean responses of creativity and work engagement of craftsmen in South-South Nigeria
- H₀₂:** There is no significant difference between the mean responses of Creativity and Practical Skills Acquisition of Craftsmen in South-South Nigeria
- H₀₃:** There is no significant difference between the mean responses of Work Engagement and Practical Skills Acquisition of Craftsmen in South-South Nigeria

Methods

The study adopted a correlational research design involving both qualitative and quantitative approaches. The area of the study was South-South Nigeria, where the investigation focused on craftsmen engaged in domestic installations. The population of the study comprised 42 craftsmen drawn from 42 selected industries within the study area. Since the population was small and manageable, the entire population was used for the study; hence, no sampling technique was employed. This approach is consistent with the position of scholars such as Krejcie and Morgan (1970), who maintained that when the population is small and accessible, a census approach is more appropriate than sampling to ensure complete representation and eliminate sampling error. The instrument for data collection was a self-structured questionnaire developed by the researchers, titled: "Creativity, Work Engagement and Practical Skills Acquisition Questionnaire (CWEPSAQ)." The questionnaire consisted of items designed to obtain information on creativity, work engagement, and practical skills acquisition among the respondents. The instrument was face-validated by senior experts in Vocational and Technical Education from Isaac Jasper Boro College of Education, Sagbama, Bayelsa State, to ensure clarity, relevance, and adequacy of the items. The reliability of the instrument was established through a trial test, which produced an overall reliability coefficient of 0.95, indicating a high level of internal consistency. Data for the study were collected through direct administration and retrieval of the questionnaire with the assistance of trained personnel. The collected data were analyzed using Pearson Product Moment Correlation to determine the relationship among variables, while regression analysis was used to examine the predictive influence of creativity and work engagement on practical skills acquisition. ANOVA was also employed to test the significance of the relationships. All hypotheses were tested at 0.05 level of significance. The decision rule was that any p-value less than or equal to 0.05 was considered statistically significant, while any p-value greater than 0.05 was considered not significant.

RESULTS

Research Question 1: What is the relationship between creativity and work engagement of craftsmen in South-South Nigeria?

Table 1: Shows the Pearson Product Moment Correlation analysis of the relationship between creativity and work engagement of craftsmen in South-South Nigeria

Variables	Creativity	Work Engagement
Creativity	1	.934**
Sig. (2-tailed)	—	.000
N	291	291
Work Engagement	.934**	1
Sig. (2-tailed)	.000	—
N	291	291

The result in table 1 showed a strong positive relationship between creativity and work engagement ($r = 0.934$, $p < 0.01$). The coefficient of determination (r^2) is $0.934^2 = 0.872$, indicating that approximately 87% of the variation in work engagement is explained by creativity among craftsmen in South-South Nigeria.

Research Question 2: What is the relationship between creativity and practical skills acquisition of craftsmen in South-South Nigeria?

Table 2: Pearson correlation between creativity and practical skills acquisition of craftsmen in South-South Nigeria

Variables	Creativity	Practical Skills Acquisition
Creativity	1	.857**
Sig. (2-tailed)	—	.000
N	291	291
Practical Skills Acquisition	.857**	1
Sig. (2-tailed)	.000	—
N	291	291

The result in table 2 showed a strong positive relationship between creativity and practical skills acquisition ($r = 0.857$, $p < 0.01$). The coefficient of determination (r^2) is $0.857^2 = 0.734$, indicating that approximately 73% of the variation in practical skills acquisition is explained by creativity among craftsmen in South-South Nigeria.

Research Question 3: What is the relationship between work engagement and practical skills acquisition of craftsmen in South-South Nigeria?

Table 3: Pearson correlation between work engagement and practical skills acquisition of craftsmen in South-South Nigeria

Variables	Practical Skills Acquisition	Work Engagement
Practical Skills Acquisition	1	.853**
Sig. (2-tailed)	—	.000
N	291	291
Work Engagement	.853**	1
Sig. (2-tailed)	.000	—
N	291	291

The result in table 3 showed a strong positive relationship between work engagement and practical skills acquisition ($r = 0.853$, $p < 0.01$). The coefficient of determination (r^2) is $0.853^2 = 0.728$, indicating that approximately 73% of the variation in practical skills acquisition is explained by work engagement among craftsmen in South-South Nigeria.

Hypothesis One: There is no significant relationship between creativity and work engagement of craftsmen in South-South Nigeria.

Table 4: Regression analysis of creativity and work engagement of craftsmen in South-South Nigeria

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	7358.016	1	7358.016	1987.727	.000
Residual	1069.798	289	3.702		
Total	8427.814	290			

The result shows that the regression model is statistically significant ($F = 1987.727$, $p = 0.000 < 0.05$). Therefore, the null hypothesis was rejected, indicating that a significant relationship exists between creativity and work engagement of craftsmen in South-South Nigeria.

Hypothesis Two: There is no significant relationship between creativity and practical skills acquisition of craftsmen in South-South Nigeria

Table 5: Regression analysis of creativity and practical skills acquisition of craftsmen in South-South Nigeria

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	6191.424	1	6191.424	800.094	.000
Residual	2236.390	289	7.738		
Total	8427.814	290			

The result shows that the regression model is statistically significant ($F = 800.094$, $p = 0.000 < 0.05$). Therefore, the null hypothesis was rejected, indicating that a significant relationship exists between creativity and practical skills acquisition of craftsmen in South-South Nigeria.

Hypothesis Three: There is no significant relationship between work engagement and practical skills acquisition of craftsmen in South-South Nigeria.

Table 6: Regression analysis of work engagement and practical skills acquisition of craftsmen in South-South Nigeria

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	5184.054	1	5184.054	771.733	.000
Residual	1941.335	289	6.717		
Total	7125.388	290			

The result shows that the regression model is statistically significant ($F = 771.733$, $p = 0.000 < 0.05$). Therefore, the null hypothesis was rejected, indicating that a significant relationship exists between work engagement and practical skills acquisition of craftsmen in South-South Nigeria.

Discussion

The findings of the study revealed that there is a significant positive relationship between creativity and work engagement of craftsmen in domestic installations in South-South Nigeria. The findings are in consonance with the position of Beaty and Kenett (2023) who posited that creativity enhances innovation, motivation, and active participation in work activities, thereby improving employee engagement. The findings also agree with Yang et al. (2018) who reported that a supportive creative environment promotes employee engagement through collaboration, idea generation, and active involvement in work processes.

The findings of the study revealed that there is a significant positive relationship between creativity and practical skills acquisition of craftsmen in domestic installations in South-South Nigeria. The findings are in consonance with the position of Fan (2023) who posited that creativity enhances learning through hands-on practice, experiential engagement, and active participation in skill development activities. The findings also agree with Gomez et al. (2021) who reported that practical skills acquisition is strengthened when learners engage creatively in real-life problem solving and technical tasks.

The findings of the study revealed that there is a significant positive relationship between work engagement and practical skills acquisition of craftsmen in domestic installations in South-South Nigeria. The findings are in consonance with the position of Wolor et al. (2023) who posited that engaged workers demonstrate higher productivity, better learning outcomes, and improved skill development. The findings also agree with Hakanen et al. (2017) who reported that work engagement enhances performance and competence development through sustained energy, dedication, and absorption in job tasks.

Contribution to Knowledge

This study contributes to existing knowledge by providing empirical evidence on the interrelationship among creativity, work engagement, and practical skills acquisition of craftsmen in domestic installations in South-South Nigeria. It establishes that creativity is a strong determinant of both work engagement and practical skills acquisition, thereby extending the understanding of how cognitive and motivational factors jointly influence skill development in technical vocational contexts. The study further contributes by demonstrating that work engagement plays a significant role in enhancing practical skills acquisition, thereby reinforcing the importance of affective and behavioural involvement in workshop-based learning. In addition, the findings provide a contextual insight into the Nigerian technical education environment, particularly in domestic installation practice, where empirical studies on these variables remain limited. Generally, the study adds to vocational education literature by highlighting the combined influence of creativity and work engagement as key predictors of practical competence development among craftsmen, thereby offering a basis for improving training strategies, curriculum design, and workplace skill development programmes.

Conclusion

Based on the findings of the study, it was concluded that creativity, work engagement, and practical skills acquisition are strongly and positively related among craftsmen in domestic installations in South-South Nigeria. The study further established that creativity significantly enhances both work engagement and practical skills acquisition, while work engagement also contributes meaningfully to practical skills acquisition. This implies that increased creativity and active work engagement among craftsmen lead to improved acquisition and application of practical skills, thereby enhancing their overall effectiveness in domestic installation tasks.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Creativity should be promoted among craftsmen through practical-based training and innovative workshop activities that should enhance their work engagement and practical skills acquisition.
2. Work engagement should be strengthened by employers and training institutions through supportive work environments and motivational strategies that should improve craftsmen's commitment and skill development.
3. Vocational and technical education programmes should be properly structured to integrate creativity and active participation in training processes that should enhance practical skills acquisition among craftsmen.

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