



IMPACT OF THE ACQUISITION OF DIGITAL SKILLS ON GRADUATES' EMPLOYABILITY IN TARABA STATE, NIGERIA

BY

Aluga, Jude Agite

Department of Social Science Education
University of Nigeria, Nsukka
ajude403@gmail.com | (+234) 810 919 5540

Prof. Joseph Chinweobo Onuoha

Department of Social Science Education
University of Nigeria, Nsukka
josep.onuoha@unn.edu.ng

Asso. Prof. Njideka Dorathy Eneogu

Department of Social Science Education
University of Nigeria, Nsukka
njideka.eneogu@unn.edu.ng

&

Dr. Grace Ogechukchu Ugwonna

Department of Social Science Education
University of Nigeria, Nsukka
grace.uwonna@unn.edu.ng

Abstract

This study examined the impact of the acquisition of digital skills on graduates' employability in Taraba State. Two research questions were raised and two hypotheses formulated in the study. Descriptive survey research design was adopted. Sample size of 200 graduates were used for the study. Two instruments namely, Graduates' employability Questionnaire (GEQ) and Digital Skills Acquisition Questionnaire (DSAQ) with overall index values of 0.88 were used for Data collection. The Data collected were analyzed using mean and standard deviation to answer the research questions while, t-test was used to test the null hypotheses at 0.05 level of significance. The result reveals that graduates who had high digital communication and competence skills had high impact of graduates' employability than those with low digital communication and competence skills. Based on the result it was recommended that Government, institutions and various stakeholders should prioritize digital skills acquisition among the learners as a means of livelihood, concerted effort should be made to promote digital competence among the learners amidst digital barriers.

Key words: Skills, digital skills acquisition, digital communication skills, digital competence skills, graduates' employability

Introduction

In the present digital economic world, digital skills have become a turning point for businesses and companies for efficiency and productivity thus, call for digital skills acquisition and competency among learners. Digital skills in the 21st-century labour market are in fact a basic necessity for employability. These skills which companies and business enterprises demand are modern indices of economic growth in the 21st-century world. These skills demand compel universities to integrate academic policies and

approaches with digital learning which inevitably increases individual opportunities of employability after graduation. Certainly, the employability of an individual by businesses and companies today, depends on technological skills one has acquired (Ekwue, Udemba & Ojuro, 2019). Thus, exalting pressure on different higher educational institutions and their stakeholders with the needs to prepare and equip students or undergraduates

with digital skills in addition to academic skills (Saad & Majid, 2014).

Conceptually, Digital skills refer to the abilities required to use digital technologies effectively for communication, information management, problem-solving, and productivity. It involves a broad range of proficiencies crucial for navigating the digital landscape, including the adept utilization of digital devices, software, and applications to not only accessing and managing information but also to communicate more effectively (Organization for Economic Co-operation and Development, 2016). In view of the above, Deloitte (2017) affirmed that digital skills (DS) are strongly correlated with employee's adaptability in the workplace. Adding that employees who possess digital literacy are better equipped to embrace technological changes and adapt to new tools and software, making them to remain effective in evolving work environments. However, this paper will focus on digital communication skills and digital competence skills.

Digital communication skills involve the use of emails, social media, and online collaboration tools for professional interaction. Empirical studies highlight their importance in employability of graduates. **Van Laar et al. (2017)** found that digital communication skills significantly predicted employability outcomes among graduates. **World Economic Forum (2020)** reported that employers increasingly demand graduates who can communicate effectively using digital platforms. **Dordevic (2025)** identified poor digital communication skills as a barrier to graduate employability in Nigeria. These findings imply that graduates in Taraba State who lack digital communication skills may struggle to meet employer expectations. As put forward by Erwin and Mohammed (2022), digital skills describe a person's capacity to effectively communicate information using various digital platforms and other forms of media to perform a task. Therefore, digital skills provide individuals and organizations with opportunities leveraging on tools to communicate and produce digital opportunities for solving their personal,

professional, organization and social life challenges (Gillian, Pritchard, & Hine, 2021). Acquisition of digital skills is the process through which individuals gain digital competencies through formal education, training programmes, self-learning, or practical experience. In this study, it refers to the way and manner graduates have learned and developed relevant digital competencies.

Digital competence entails the ability to work with cutting-edge technologies and digital information, familiarity with ICT ideals and understanding that users have the right to innovate, control, design, and realize their full potential in this space (Ferrari, 2013). The capacity for doing so is associated with cognitive-thinking techniques for using digital information and completing tasks in digital settings. Also, **Nwafor and Yomi (2020)** in their study observed that graduates who actively used online job portals and professional networking sites had higher employment rates. **OECD (2019)** reported that internet proficiency increases employability by enabling participation in remote work and digital labour markets. According to Uduafemhe, Ewim and Karfe (2023), digital skill proficiency extends beyond mere technical prowess to include competencies such as critically evaluating online information, adapting communication styles to various digital platforms, and safeguarding digital assets through cybersecurity awareness. It entails problem-solving abilities, enabling individuals to trace and correct technical faults identified and find innovative solutions using digital tools. Fonseca and Picoto (2020) emphasize the following as core competencies in the context of digitalization: evaluating data, information and digital content; browsing, searching, filtering data, information, and digital content; interacting through digital technologies; managing data, information and digital content; and collaborating through digital technologies. **Okoye, Adetimirin, and Ayo (2020)** reported that Nigerian graduates with competencies in word processing, spreadsheets, and presentation software were more employable than those without such skills competence. The term graduate is

referred to someone who have successfully completed a course of study or training, especially someone who has been awarded academic degree (Damian in Charles, 2020). It is someone who has received a degree or diploma on completing a course of study in University, polytechnic and College of education. Therefore, graduates' employability refers to the ability of graduates to obtain, maintain, and progress in employment. It includes employment status, readiness for work, job quality, and the capacity to adapt to changing labour-market demands.

Studies in Nigeria and beyond revealed that graduates with higher levels of digital competence tend to have better employability outcomes, including higher likelihood of gaining employment and increased job readiness in digital work environments. Nakibugwe et al (2024) conducted a study on the *Relationship between Digital Skills and Employability of Graduates from Makerere University and found that graduates with higher levels of digital competency were significantly more likely to secure employment* and had greater satisfaction in their roles. Furthermore, Joshua et al (2024) examined the *influence of digital skills acquisition on perceived employability prospects of accounting education students and found that students who reported higher mastery of digital skills believed they had better chances of being employed upon graduation*. Samuel et al (2025) examined the *impact of targeted digital skills training on graduate employability through 21st-century digital competence and found that an enhanced digital competence translated to greater job application confidence and workplace readiness*, indicating that targeted digital training can effectively improve employability prospects for unemployed and under-employed graduates.

Statement of the Problem

Despite growing evidence that digital skills boost employability, Taraba State still records high graduate unemployment and limited formal, scaled digital-skills programmes tailored to recent graduates. Local evaluations of skills-acquisition programmes in Taraba indicate low absorption of graduates into quality digital

jobs or digitally-enabled self-employment, suggesting a mismatch between available training and employer expectations (skills type, depth, and applied competence). This gap undermines the potential of digital-skills investments to reduce graduate unemployment in Taraba and motivates an empirical study that measures impact of the acquisition of digital skills on graduates' employability in Taraba State.

Purpose of the study

The purpose of this study is to examine the impact of the acquisition of digital skills on graduates' employability in Taraba State. Specifically, the study sought to;

1. Determine the impact of Digital communication skills on graduates' employability in Taraba State.
2. Determine the impact of Digital competence skills on graduates' employability in Taraba State.

Research Questions:

The study was guided by the following research questions:

1. What is the impact of Digital communication skills on the mean scores of graduates' employability in Taraba State?
2. What is the impact of Digital competence skills on the mean scores of graduates' employability in Taraba State?

Hypotheses

The following hypotheses guided the study:

Ho₁: Digital communication skills **do not significantly influenced** graduates' employability in Taraba State.

Ho₂: Digital competence skills **do not significantly influenced** graduates' employability in Taraba State.

Methodology

The study adopted a descriptive survey research design. Descriptive survey design focuses on people, the vital facts of people and their beliefs, opinion, attitudes, motivation and their behaviours, describing in a systematic manner and facts about a given population (Nworgu, 2015). The study was carried out in Taraba State, Nigeria. Taraba state is made of sixteen local governments and a development Area. It has federal, state and private schools. The population of the study

consisted of all unemployed graduates of Taraba State who graduated from 2020-2024. A sample of 200 residents of four major town of Taraba State- Wukari, Jalingo, Takum, and Bali who have graduated from 2020- 2024 in Federal University Wukari, Federal polytechnic Bali and College of education Zing were used for the study. The sample size was 200 graduates randomly selected using multi-stage sampling procedure. Two instruments were used for the data collection namely; Graduates' Employability Questionnaire (GEQ) which was made up of 13 items and Digital Skills Acquisition Questionnaire (DSAQ) which has clusters A and B namely; Digital communication skills and Digital competence skills respectively. Cluster A has 8 items while cluster B has 13

items. The instrument was vetted by three experts to ensure it measures what it intends to measure. The reliability indexes were determined using Cronbach Alpha where GEQ yielded 0.83 while DSAQ yielded overall coefficient of 0.88. Data were collected through direct administration and retrieval by the researcher with the help of four research assistance. Data collected were analyzed using mean, and standard deviation) to answer research questions while t-test was used to test the formulated hypotheses at 0.05 level of significance.

Results

Research Question One: What is the impact of Digital communication skills on the mean scores of graduates' employability in Taraba State?

Table 1: Mean analysis of the influence of Digital communication skills of graduates' employability in Taraba State.

Motivation	N	Mean	Std. Deviation	df	t	Sig.
Low Comm. Skills	73	79.80	5.26	198	-3.905	.000
High Comm. Skills	127	83.70	7.19			

Table 1 shows that graduates who had low Digital communication skills had a mean impact score of ($M = 79.80$, $SD = 5.26$), while those who had high Digital communication skills had a mean impact score of ($M = 83.70$, $SD = 7.19$). This shows that graduates who had high Digital communication skills had a higher mean impact score than those who had low Digital communication skills. However, the standard deviations of 5.26 and 7.19 indicate that the individual impact scores of the graduates who had high Digital communication skills varied more from their group mean than those who had low Digital communication skills.

Ho₁: Digital communication skills do not significantly have impact on

graduates' employability in Taraba State.

Table 1 reveals that there is a significant difference in the mean impact scores of graduates who had low Digital communication skills and those who had high Digital communication skills in favour of those who had high Digital communication skills, $t(200) = -3.905$, $p = .000$. Thus, the null hypothesis is rejected, ($p < .05$). This implies that Digital communication skills have impact on graduates' employability in Taraba State.

Research Question Two: What is the impact of Digital competence skills on the mean scores of graduates' employability in Taraba State?

Table 2: Mean analysis of the impact of Digital competence skills on graduates' employability in Taraba State.

Motivation	N	Mean	Std. Deviation	df	t	Sig.
High Competent	127	26.20	2.08	198	-3.565	.000
Low Competent	73	23.59	4.57			

Table 2 shows that graduates' who had low Digital competence skills had a mean impact score of ($M = 23.59$, $SD = 4.57$), while those who had high Digital competence skills had a mean impact score of ($M = 26.20$, $SD = 2.08$). This shows that graduates' who had high Digital competence skills had a higher mean impact score than those who had low Digital competence skills. Besides, the standard deviations of 4.57 and 2.08 indicate that the individual impact scores of the graduates' who had low Digital competence skills varied more from their group mean than those who had high Digital competence skills.

Ho₂: Digital competence skills **do not significantly have** impact on graduates' employability in Taraba State.

Table 2 reveals that there is a significant difference in the mean impact scores of graduates' who had low Digital competence skills and those who had high Digital competence skills in favour of those who had high Digital competence skills, $t(200) = -3.565$, $p = .000$. Thus, the null hypothesis is rejected, ($p < .05$). This implies that Digital competence skills have impact on graduates' employability in Taraba State.

Discussion of the findings

The findings of this study revealed that graduates who had high Digital communication skills had a higher mean impact score than those who had low Digital communication skills. This means that digital communication skills significantly have impact on graduates' employability in Taraba State. This finding is in agreement with **Van Laar et al. (2017)** who found that digital communication skills significantly predicted employability outcomes among graduates. In the same vein, **Dordevic (2025)** identified poor digital communication skills as a barrier to graduate employability in Nigeria. Meaning that graduates who have high digital communication skills are liable to be employed.

Furthermore, the study also shows that graduates' who had high Digital competence skills had a higher mean impact score than those who had low Digital competence skills. The result revealed significant difference in the

mean impact scores of graduates' who had low Digital competence skills and those who had high Digital competence skills in favour of those who had high Digital competence skills. This finding is in line with **Okoye, Adetimirin, and Ayo (2020)** who reported that Nigerian graduates with competencies in word processing, spreadsheets, and presentation software were more employable than those without such skills competence. Again, Nakibugwe et al (2024) conducted a study on the *Relationship between Digital Skills and Employability of Graduates from Makerere University* and found that graduates with higher levels of digital competency were **significantly more likely to secure employment** and had greater satisfaction in their roles. Joshua et al (2024) examined the *influence of digital skills acquisition on perceived employability prospects of accounting education students* and found that Students who reported higher mastery of digital skills believed they had better chances of being employed upon graduation.

Conclusion

In view of the above findings it was deduced that digital communication skills and digital competence skills had positive impact on graduates' employability in Taraba State. In a specific term, graduates who had high digital communication skills had high impact of graduates' employability than those with low digital communication skills. In other way, graduates who had digital competence skills had high impact of graduates' employability than those with low digital competence skills.

Recommendations

The following recommendations are reach based on the findings that;

1. Government, institutions and various stakeholders should prioritize digital skills acquisition among the learners as a means of livelihood.
2. Concerted effort should be made to promote digital competence among the learners amidst digital barriers.

References

- Damian, C. N& Grace, N. O. (2020). Entrepreneurship education as correlate of graduates' employability in



- Enugu State. International Journal of education. Vol.16, No.2
- Deloitte (2017). Global Human Capital Trends: Rewriting the rules for the digital age. <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/About-Deloitte/central-europe/ce-global-human-capital-trends.pdf>
- Đorđević, B. (2025). *Impact of the digital skills on employability*. *Economies*, 13(7), Article 196. <https://www.mdpi.com/2227-7099/13/7/196>. MDPI
- Ekwue, K. C., Udemba, N. F., & Ojuro, C. I. (2019). Strategies for improving employability skills acquisition of business education students. *Nigerian Journal of Business Education*, 6(1), 94-106.
- Erwin, K., & Mohammed, S. (2022). Digital literacy skills instruction and increased skills proficiency. *International Journal of Technology in Education and Science (IJTES)*, 6(2), 323-332. <https://doi.org/10.46328/ijtes.364>
- European Commission (2016). European Semester Thematic Fiche on Skills for the Labor Market. https://ec.europa.eu/esf/ransnationality/filedpot_download/1072/1045
- Ferrari (2013). *Digital Competence in Practice: An Analysis of Frameworks*; JRC-IPTS: Seville, Spain.
- Fonseca, P. Picoto, W.N.(2020). The competencies needed for digital transformation. *Online J. Appl. Knowl.Manag.* 2020, 8, 53-70.
- Gillian, S., Pritchard, K. & Hine, C. (2021), *Research Methods for Digital Work and Organization: Investigating Distributed, Multi-Modal, and Mobile Work* (Oxford, 2021; online edn, Oxford Academic. https://doi.org/10.1093/oso/9780198860679.003.0001_1
- Joshua, S. & Apuru, J. I. (2024). *Influence of Digital Skills Acquisition on Perceived Employability Prospects of Accounting Education Students: Moderating Role of Geographic Location and Family Income*. *Higher Education Research*, 9(5), 138-147. <https://doi.org/10.11648/j.her.20240905.16>
- Nakibugwe, S. & Crispus, F. (2024). *Relationship Between Digital Skills and Employability: A Case Study of Graduates from Makerere University*. *Metropolitan Journal of Business & Economics*, 3(9), 412-423.
- Nwafor, C. E., & Yomi, S. A. (2020). Online job search and graduate employability in Nigeria. *Journal of Career Development in Africa*, 5(1), 61-75.
- OECD. (2019). *Skills outlook 2019: Thriving in a digital world*. OECD Publishing.
- Okeke-Ezeanyanwu, J. A. & Nweke, S. C. (2021), Strategies for improving employability skill acquisition of business education students in the e-world in tertiary institutions in anambra state. *Multidisciplinary Journal of Vocational Education & Research*, 4(1), 174-187.
- Okoye, K. R. E., Adetimirin, A., & Ayo, C. K. (2020). ICT skills and graduate employability in Nigeria. *Education and Information Technologies*, 25, 2047-2065.
- Organization for Economic Co-operation and Development (2016). The development co-operation report 2016: The Sustainable Development Goals as Business Opportunities. https://www.imf.org/external/np/seminars/eng/2016/GlobalLaborMarkets/pdf/Schutte_Wilson_Session2.pdf
- Saad, M. S., & Majid, I. A. (2014). Employers' perceptions of important employability skills required from Malaysian engineering and information and communication technology (ICT) graduates. *Global Journal of Engineering Education*, 16(3), 110-115.
- Samuel, N., Akorede, O. J. & Karimu, A. Y. (2025). *Impact of Targeted Digital Skills Training on Graduate Employability through 21st-Century Digital Competence in Ogun State, Nigeria*. *Zamfara Int. Journal of Education*, 5(4), 70-80
- Uduafemhe, M. E., Ewim, D. R. E. & Karfe R. Y. (2023). Adapting to the New Normal: Equipping Career and Technical Education Graduates with Essential Digital Skills for Remote Employment. *Journal of Science Technology and Education*, 11(4).
- Van Laar, E., Van Deursen, A. J. A. M., Van Dijk, J. A. G. M., & De Haan, J. (2017). The relation between 21st-century skills and digital skills. *Computers in Human Behavior*, 72, 577-588.
- World Economic Forum. (2020). *COVID-19 is exacerbating food shortages in Africa*. World Economic Forum. Retrieved from <https://www.weforum.org/agenda/2020/04/africa-coronavirus-covid19-imports-exports-food-supply-chains/>