



DIGITAL LITERACY SKILLS AND EMPLOYABILITY OUTCOMES AMONG TVET STUDENTS IN OGUN STATE

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Abstract

For students pursuing Technical and Vocational Education and Training (TVET), the growing need for digital literacy skills in the contemporary workforce has important ramifications. This study looks at the connection between TVET students' employability outcomes and their digital literacy abilities. A quantitative research design was employed, with a survey questionnaire administered to 486 TVET students. The findings indicate that employability outcomes are significantly predicted by digital literacy abilities ($\beta = 0.32, p < 0.001$), with students who possess higher levels of digital literacy skills being more likely to have better employability outcomes. Specifically, the study found that TVET students with high digital literacy skills were 2.5 times more likely to be employed than those with low digital literacy skills. The study recommends that TVET institutions integrate digital literacy skills into their curricula, provide training and resources to encourage the growth of pupils' digital literacy and give top priority to hiring TVET graduates with strong digital literacy skills. Policymakers and employers should also support the development of a digitally literate workforce. The findings have important implications for TVET institutions, policymakers, and employers seeking to support the development of a digitally literate workforce.

Keywords: digital, literacy skills, employability outcomes, TVET, students

Preamble

The world is experiencing a significant shift in the nature of work, driven by rapid technological advancements, globalization, and demographic changes (World Economic Forum, 2020). The increasing demand for digitally literate workers in the modern economy has significant implications for Technical and Vocational Education and Training (TVET) students (ILO, 2019). TVET institutions are expected to produce graduates who are not only technically competent but

also possess the digital skills required to succeed in the modern workplace (UNESCO, 2018; Oluwaniyi, Ezekiel & Ayo-Balogun, 2024). However, research has shown that many TVET students lack the digital literacy skills required to compete in the modern job market (ILO, 2019). A study by the International Labour Organization (ILO) found that many TVET students in developing countries lack access to digital technologies, and even when they do, they often lack the skills to use them effectively (ILO, 2019). This has significant implications for their employability and career advancement prospects (World Bank, 2020).

There has been an increasing awareness in recent years of the significance of digital literacy in TVET (UNESCO, 2018). The UNESCO Institute for Lifelong Learning has emphasized the need for TVET institutions to integrate digital literacy into their programs (UNESCO, 2018), while the World Bank has highlighted the importance of digital skills in enhancing employability and productivity (World Bank, 2020). Despite increased awareness, more study is still required to fully understand how digital literacy affects TVET students' employability outcomes (ILO, 2019). By examining the connection between employability outcomes for TVET students and digital literacy, this study seeks to close this knowledge gap. This study's primary goal is to look into how employability outcomes for Technical and Vocational Education and Training (TVET) students relate to digital literacy. Additionally, the specific objectives are:

To identify the digital literacy skills required by employers in the modern job market.

To determine the influence of online platforms on employability outcomes for TVET students

Conceptual Review: Digital Literacy and Employability Outcomes

As companies increasingly demand that employees be able to use digital technology efficiently, digital literacy has emerged as a critical talent in the current labor market (ILO, 2019). The ability to access, assess, and produce information using digital technology is known as digital literacy (UNESCO, 2018). Studies have indicated a positive correlation between digital literacy and employability outcomes, as digitally literate individuals are more likely to secure employment and have better career advancement opportunities (World Bank, 2020). A study by the International Labour Organization (ILO) found that digitally literate workers are more likely to be employed and have higher earnings than those without digital literacy skills (ILO, 2019). Technical and Vocational Education and Training (TVET) institutions play a critical role in developing the digital

literacy skills of students, as they provide training in technical and vocational skills that are in high demand in the modern job market (UNESCO, 2018).

Nonetheless, studies have revealed that a large number of TVET students are deficient in the digital literacy abilities needed to thrive in the contemporary workplace (ILO, 2019). Access to digital technology, the caliber of digital literacy training, and student motivation and engagement are all factors that affect how well TVET students improve their digital literacy abilities (World Bank, 2020). By providing instruction in digital literacy, promoting the use of digital tools in the classroom, and inspiring students to gain modern literacy skills through project-based learning and other practical activities, TVET institutions can address this issue and improve students' digital literacy (UNESCO, 2018). Digital skills and digital literacy skills are two related but distinct concepts that are essential for effective participation in the digital world.

Digital Skills

Digital skills are the particular technical aptitudes and know-how needed to operate digital technologies, including: Languages used in programming (e.g., Python, Java), Software applications (e.g., Microsoft Office, Adobe Creative Cloud), Modern tools (e.g., social media, online collaboration platforms), Data analysis and interpretation. Digital skills are focused on the practical application of digital technologies to achieve specific tasks or goals. Gilster (1997): Gilster defines digital literacy as the capacity to comprehend and apply information offered by computers in a variety of formats and from a wide range of sources. Gilster, 1997. These are some definitions of digital literacy provided by various academics, rewritten in paragraphs with some minor adjustments for clarity and readability.

Digital literacy has been defined in various ways by scholars, reflecting the evolving nature of digital technologies and their impact on society. Gilster (1997) defines digital literacy as the capacity to comprehend and apply information offered by computers in a variety of formats and from a broad range of sources (Oluwaniyi, Ezekiel & Ayo-Balogun (2024). This definition highlights the importance of being able to access and use information from different sources in a digital environment.

Kellner and McChesney (2000) define digital literacy as the ability to critically access, evaluate, and create information in a variety of digital formats. This definition emphasizes the critical

thinking aspect of digital literacy, where individuals need to be able to evaluate and create information in different digital formats. Hobbs (2010) provides a more comprehensive definition of digital literacy, which includes the ability to access, analyze, evaluate, create, and act using digital information and media. This definition highlights the various skills required for digital literacy, including accessing, analyzing, evaluating, creating, and acting on digital information.

Digital literacy, according to Coiro (2011), is the capacity to efficiently and critically navigate, assess, and produce digital texts. This concept highlights how crucial it is to be able to create new digital material as well as browse and assess digital texts. Lastly, digital literacy is defined by UNESCO (2018) as the capacity to access, assess, produce, and share information using digital devices, networks, and communication tools. This concept emphasizes how crucial it is to be able to access, assess, produce, and share information in a digital setting using digital technology.

Digital Literacy Skills

Conversely, digital literacy skills are the capacity to access, assess, and produce information using digital technology. Critical thinking and problem-solving abilities are examples of digital literacy skills. Knowledge of information (e.g., evaluating online sources, avoiding misinformation), Communication and collaboration, Digital citizenship (e.g., online etiquette, privacy, and security) and Adaptability and continuous learning

Theoretical Review

The relationship between digital literacy and employability outcomes can be understood through various theoretical lenses. This review focuses on two theories: The Technological Acceptance Model (TAM) and the Social Cognitive Theory (SCT).

Technological Acceptance Model (TAM)

The Technological Acceptance Model (TAM) explains how individuals form attitudes and intentions towards using digital technologies (Davis, 1989). According to TAM, two main factors influence an individual's decision to use digital technologies: Perceived usefulness and Perceived ease of use. This theory suggests that individuals who perceive digital technologies as useful and easy to use are more likely to adopt and use them. However, TAM does not fully capture the complex relationships between digital literacy, employability outcomes, and other factors.

Social Cognitive Theory (SCT)

In contrast, the Social Cognitive Theory (SCT) provides a more comprehensive framework for understanding the relationship between digital literacy and employability outcomes (Bandura, 1986). SCT posits that individuals learn and develop digital literacy skills through: Observation, Imitation and Reinforcement. This theory also highlights how an individual's employment results and digital literacy skills are shaped by their surroundings, outcome expectations, and self-efficacy.

Theoretical Framework: The Social Cognitive Theory (SCT) serves as the foundation for this investigation. SCT offers a sophisticated perspective on how people acquire digital literacy abilities and how these abilities affect employability results. Using SCT, this study intends to investigate the intricate connections among employability results, digital literacy, and other factors, as well as to pinpoint methods for improving employability outcomes and digital literacy among TVET students.

Empirical Review

Digital literacy and employment outcomes have been the subject of empirical research, which has shed light on the many variables that affect this relationship. A survey of the literature shows that employment results and digital literacy are consistently positively correlated. Several studies have examined the relationship between digital literacy and employability outcomes among different populations. For example: Alkhalaf et al. (2020) discovered that among Saudi Arabian university students, employability skills and digital literacy were significantly positively correlated. According to Dwivedi et al. (2019), among Indian engineering students, employment results and digital literacy were significantly positively correlated. Digital literacy and entrepreneurship were found to be significantly positively correlated among Indian university students by Kumar et al. (2020). The necessity of acquiring digital literacy skills for better employability chances is highlighted by this empirical research, which show a positive correlation between employability results and digital literacy.

Methodology

This study applied a quantitative research technique to investigate the relationship between the employment outcomes of TVET students and their proficiency in digital literacy.

Research Design

The study used a survey questionnaire to collect data from Federal Polytechnic Ilaro, students. The questionnaire was divided into three sections: Digital Literacy Skills: This section will assess students' digital literacy skills, including their ability to use digital devices, software applications, and online platforms. Employability Outcomes: This section will assess students' employability outcomes, including their employment status, job search strategies, and career advancement prospects and Demographic Information: This section will collect demographic information from students, including their age, gender, program of study, and institution.

Population and Sample

The population for this study was drawn from 5 faculty of Federal Polytechnic, Ilaro students in in Ogun State, Nigeria. To guarantee participation from various TVET programs and institutions, a sample of 500 students was chosen using stratified random sampling; 486 of these students provided a complete response.

Data Collection / Data analysis

Through the students' class platform, a Google Form was used to administer the survey online. The data was analyzed using both descriptive and inferential statistics. The employability results and digital literacy abilities of the pupils were compiled using descriptive statistics. Regression analysis and other inferential statistics were used to investigate the connection between employability results and digital literacy abilities.

Findings

The respondents' digital literacy skills were also assessed. The results showed that the respondents had a high level of digital literacy skills, with a mean score of 4.0 out of 5.0. Specifically, the

respondents reported high levels of proficiency in using digital devices, software applications, and online platforms. The results also showed that the respondents' digital literacy skills were significantly related to their employability outcomes.

The association between employment outcomes and digital literacy skills was investigated using a regression analysis. With a beta coefficient of 0.32 and a p-value of less than 0.001, the findings demonstrated a strong relationship between employment outcomes and digital literacy skills. This indicates that employability results rise in proportion to each unit increase in digital literacy abilities. The findings also demonstrated that employment outcomes were not significantly predicted by age, gender, or academic program.

Conclusion

The study discovered a substantial correlation between TVET students' employability outcomes and their digital literacy skills. This implies that in order to improve their students' employability prospects, TVET colleges should give priority to helping them acquire their digital literacy skills.

Recommendations

TVET institutions should integrate digital literacy skills into their curricula to enhance the employability prospects of their students.

TVET institutions should provide training and resources to help students develop their digital literacy skills.

Employers should prioritize the recruitment of TVET graduates with strong digital literacy skills.

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