Pedagogy Review | 2026, Vol. 7, No.2, 62 – 77 | ISSN Online: 3028-1040 | ISSN Print: 3028-1059
DOI: https://doi.org/10.62718/vmca.pr-ijetas.7.2.SC-0326-010

OPEN ACCESS

Computer Literacy Skills of Persons Deprived of Liberty (PDLs) in Passi City: Basis for the Development of a Reintegration-Oriented Training Program

Article History:

Initial submission:	17 March 2026
First decision:	20 March 2026
Revision received:	19 April 2026
Accepted for publication:	25 April 2026
Online release:	02 May 2026

John Adam T. Pagurayan, MPA, ORCID No. 0009-0008-6128-9668
Iloilo State University of Fisheries Science and Technology – San Enrique Campus, San Enrique, Iloilo, Philippines

Abstract

This study examined the computer literacy skills of 45 Persons Deprived of Liberty (PDLs) in Passi City to inform the development of a computer literacy program aimed at enhancing community reintegration and office-related employment. Respondents' demographic profiles, including age, civil status, educational attainment, length of incarceration, and prior computer exposure, were analyzed. Descriptive research design was employed in this study to determine the level of computer literacy skills of Persons Deprived of Liberty (PDLs) in Passi City. Findings revealed that most respondents were aged 35–44 years, predominantly single, had completed high school, and had been incarcerated for three years or less, with a majority reporting some prior computer experience. Overall computer literacy was moderate (grand mean = 2.80), with moderate skills in basic computer operation and word processing, low proficiency in spreadsheet application and email communication, and high competence in internet navigation. Analysis of variance indicated that educational attainment and prior computer exposure significantly influenced computer literacy levels, whereas age, civil status, and length of incarceration did not. Based on these results, an eight-week computer literacy program was proposed, focusing on practical skills in computer operation, document processing, spreadsheet management, internet research, and professional email communication. The study concluded that structured digital training was essential to strengthen the respondents' competencies, enhance employability, and support successful reintegration into society.

Keywords: Persons Deprived of Liberty (PDLs), computer literacy, digital competencies, correctional education, community reintegration, office employment, educational attainment, digital training program

INTRODUCTION

In the 21st century, computer literacy has become an essential competence required for participation in modern society. Digital technologies are now widely used in workplaces, education, communication, and access to information. Individuals seeking employment, particularly in office-related occupations, are expected to possess fundamental computer skills such as word processing, spreadsheet management, email communication, and internet navigation. These competencies enable workers to perform administrative tasks efficiently and adapt to technology-driven environments. Consequently, computer literacy is essential for workforce preparedness and employability.

Despite the increasing demand for digital skills, access to computer literacy programs remains uneven across different sectors of society. In the Philippines, the Philippine Institute for Development Studies reported that only around 40 percent of Filipinos possess at least one of the basic Information and Communication Technology (ICT) skills monitored under the Sustainable Development Goals (PIDS, 2022).

This finding suggested that many individuals still lack essential digital competencies needed to participate fully in the digital economy. The digital divide becomes even more evident among marginalized populations, including Persons Deprived of Liberty (PDLs), who often experience limited access to technology and educational opportunities while incarcerated.

Persons Deprived of Liberty refer to individuals who are detained or incarcerated in correctional facilities. In the Philippines, correctional institutions under the Bureau of Jail Management and Penology (BJMP) have implemented various rehabilitation and educational programs aimed at preparing inmates for reintegration into society. These programs commonly include the Alternative Learning System (ALS), vocational training, and livelihood development initiatives that seek to improve literacy, employability, and life skills among incarcerated individuals. Educational interventions in correctional settings have been shown to produce positive outcomes. Research indicates that inmates who participate in correctional education programs have significantly lower chances of returning to prison and higher chances of securing employment upon release (Davis et al., 2013).

With the increasing digitalization of workplaces and public services, computer literacy has become an important component of rehabilitation programs for incarcerated individuals. Digital literacy formerly incarcerated persons to access employment opportunities, enroll in educational programs, communicate effectively, and utilize government and community services upon their release. According to Foster et al. (2026), digital skills are essential for individuals transitioning from incarceration to community life because many employment applications, training programs, and social services now rely on online platforms (Foster 2026). Without these skills, formerly incarcerated individuals may experience difficulty adjusting to modern society and may face additional barriers to successful reintegration.

Moreover, incarceration often creates a "digital exclusion" where individuals become disconnected from technological advancements during their time in prison. Studies have shown that prolonged absence from technology can lead to digital illiteracy, making reintegration into a technology-driven society more difficult for former inmates (Reisdorf et al., 2021; Taugerbeck et al., 2019). As technology continues to evolve rapidly, individuals who have limited exposure to computers during incarceration may struggle to adapt to modern workplace environments that rely heavily on digital tools.

Several initiatives worldwide have recognized the importance of digital literacy programs in correctional institutions. Studies on prison education emphasize that technology-based learning programs can improve inmates' motivation, engagement, and skill development (Badejo & Chakraborty, 2022; Pradnya 2025). Research also suggests that digital education programs contribute to the development of self-efficacy and technological competence among incarcerated learners, which are essential for employment and lifelong learning (Nisser et al., 2024). These findings highlight the importance of integrating computer literacy training into correctional education programs.

In the Philippines, efforts have been made to promote digital learning opportunities among PDLs through partnerships between government agencies and correctional institutions. Programs implemented by the Department of Information and Communications Technology (DICT) and the Bureau of Jail Management and Penology have introduced Information and Communication Technology (ICT) training programs and digital learning facilities in selected correctional institutions. These initiatives aim to equip PDLs with basic computer skills that can improve their employability and support their reintegration into society.

In Passi City, Iloilo, a Training Needs Assessment conducted under Program CEKLaB (Community Empowerment through Knowledge, Livelihood, and Assistance for the Bound) revealed that computer-related skills were among the priority training needs of Persons Deprived of Liberty. The assessment indicated a strong demand for computer literacy training among inmates who recognized the importance of digital skills in securing employment after their release (Paz et al., 2023). However, despite this identified need,

empirical data regarding the level of computer literacy among PDLs remain limited.

Most studies on digital literacy in the Philippines have focused on students, teachers, and other general populations, examining variables such as age, educational attainment, and prior exposure to technology. Meanwhile, research focusing specifically on Persons Deprived of Liberty often centers on rehabilitation programs, moral and spiritual development, or livelihood training rather than assessing specific digital competencies. Furthermore, there is limited research examining how demographic factors such as age, civil status, educational attainment, length of incarceration, and exposure to computers influence the level of computer literacy among incarcerated individuals.

Given these gaps in the literature, it became necessary to examine the computer literacy skills of Persons Deprived of Liberty in Passi City. Understanding their current level of knowledge and competency in using computers is essential in designing appropriate training interventions that can enhance their employability and support their successful reintegration into society. Therefore, this study aimed to assess the computer literacy skills of Persons Deprived of Liberty in Passi City as a basis for the development of a computer literacy program that can prepare them for community reintegration and office-related employment opportunities.

Research Questions. To guide the exploration of this study, the following research questions are presented. These questions serve as the framework for examining the computer literacy skills of Persons Deprived of Liberty (PDLs) in Passi City, focusing on their demographic characteristics, current competencies in essential computer applications, and the factors that may influence their digital proficiency. The questions also provide the basis for designing a computer literacy program that can support their reintegration into the community and improve their employability in office-related work.

1. What is the demographic profile of the respondents in terms of:
   1.1 Age;
   1.2 Civil status;
   1.3 Educational attainment;
   1.4 Length of incarceration; and
   1.5 Exposure to computer?

2. What is the level of computer literacy skills of the Persons Deprived of Liberty in Passi City in terms of:
   2.1 Basic computer operation;
   2.2 Word processing;
   2.3 Spreadsheet application;
   2.4 Internet navigation; and
   2.5 Email communication?

3. Is there a significant difference in the level of computer literacy skills of PDLs when respondents are grouped according to their profile?

4. Based on the findings of the study, what computer literacy program may be developed to enhance the digital competencies of PDLs for community reintegration and office-related employment?

Conceptual framework. The conceptual framework of the study illustrated the relationship between the respondents' profile and the level of computer literacy skills of Persons Deprived of Liberty (PDLs), and how these findings informed the development of a computer literacy program. It visually and theoretically guided the study by showing how independent variables influenced the dependent variable, which in turn provided the basis for the proposed program.

The independent variables (IVs) of the study were the respondents' profile, specifically: age, civil status, educational attainment, length of incarceration, and exposure to computer. These variables were considered important factors that might affect the respondents' ability to acquire and perform computer-related tasks. Age was assumed to influence the adaptability of respondents to digital technologies, as

younger individuals were likely more exposed to computers compared with older respondents (Hwang et al., 2024; Rantanen et al., 2022). Civil status was considered as a potential factor affecting motivation, responsibility, and engagement in learning activities (Reisdorf & Julia, 2022). Educational attainment was expected to strongly impact familiarity with computer operations, document preparation, and digital tasks, since respondents with higher education levels were presumed to have had prior exposure to computer-based learning (Cadiz-Gabejan & Takenaka, 2021; Looney & Turner, 2018). Length of incarceration was assumed to influence the respondents' exposure to educational programs and opportunities to practice computer skills within the correctional facility (Rakes, 2018; Lorito et al., 2018). Finally, exposure to computers was included as an independent variable because prior experience with technology directly affected the respondents' level of computer literacy (Abojon et al., 2022; Miloria et al., 2024).

The dependent variable (DV) was the level of computer literacy skills of PDLs, measured in terms of basic computer operation, word processing, spreadsheet application, internet navigation, and email communication. This variable reflected the respondents' proficiency in performing digital tasks relevant to modern office environments. The study examined how variations in the respondents' profile influenced each aspect of their computer literacy skills.

Based on the assessment of computer literacy skills, the output of the study was a Computer Literacy Program for PDLs. The program was designed to enhance practical digital competencies, including document preparation, data management, and professional communication, thereby supporting rehabilitation and improving employability after reintegration into society.

In summary, the conceptual framework emphasized that the respondents' demographic profile and exposure to computers (IVs) were examined in relation to their computer literacy skills (DV), and the results provided the foundation for designing a targeted computer literacy program (output) aimed at equipping PDLs with the skills needed for community reintegration and office-related employment.

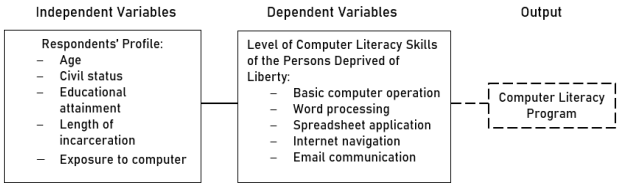

Figure 1
The Conceptual Design Depicting the Relationship Between Variables.

LITERATURE REVIEW

Computer Literacy and Rehabilitation of PDLs. Computer literacy refers to the ability to effectively use computers and related technologies, including knowledge of computer operations, software applications, and keyboarding skills. These competencies are essential in modern workplaces where digital technologies play a central role in communication, information processing, and administrative functions. However, persons deprived of liberty (PDLs) often have limited exposure to digital technologies, resulting in lower levels of computer proficiency compared to the general population.

Previous studies indicate that PDLs frequently lack adequate computer skills due to restricted access to technology during incarceration (Abojon et al., 2022; Miloria et al., 2024). This limitation places them at a disadvantage when seeking employment after release. The rapid digital transformation across societies has further emphasized the importance of digital literacy in rehabilitation programs.

Cullen et al. (2020) found that computer training significantly improves employability, while Parkes and McCoy (2019) highlighted its role in reducing recidivism. Additionally, Glover and Stewart (2021) reported that such programs enhance self-confidence and personal development, contributing to successful reintegration. Trinidad (2024) further emphasized that improving computer

proficiency is crucial for long-term reintegration into society.

Digital Divide and Inequality Among Incarcerated Individuals. Digital inequality remains a significant barrier affecting incarcerated individuals. Reisdorf and Julia (2022) observed that limited access to digital technologies hinders the development of essential competencies. The concept of the digital divide explains disparities in access, use, and skills related to information and communication technologies. Studies show that incarcerated individuals are often excluded from opportunities to develop digital skills due to institutional restrictions (Blomberg et al., 2021; Seo et al., 2020). This exclusion leads to difficulties in adapting to technologically advanced environments after release. Zivanai and Mahlangu (2022) further noted that lack of digital skills negatively affects employment opportunities and reintegration outcomes.

The consequences of digital exclusion are significant. Murphy and Soricone (2021) found that it often results in unemployment or underemployment, increasing the likelihood of recidivism. Similarly, Robinson and Smith-Jackson (2023) identified lack of technological exposure as a major barrier to employment. Researchers have also emphasized that the digital divide is multidimensional. It includes access, usage, and skills gaps (Helsper, 2021; Reza, 2021). Lythreatis et al. (2022) described three levels: access divide, usage divide, and skills divide, while Tewathia et al. (2020) and Aissaoui (2022) highlighted differences in technology use and critical digital skills.

Demographic Factors Influencing Computer Proficiency. Several demographic factors influence computer literacy among PDLs, including age, length of incarceration, and educational attainment. Age has been consistently identified as a key factor. Older individuals tend to experience greater difficulty adapting to digital technologies (Rantanen et al., 2022). Studies by Roth (2014), Choudrie et al. (2022), and Hunsaker and Hargittai (2018) confirm that older adults are less likely to use digital tools, resulting in lower digital inclusion (Thomas et al., 2021). In contrast, younger individuals demonstrate higher proficiency due to greater exposure to technology (Hwang et al., 2024).

The length of incarceration also affects digital competency. Individuals who serve longer sentences often experience technological disconnection, leading to outdated skills (Rakes, 2018; Lorito et al., 2018). Lares and Montgomery (2020) added that prolonged incarceration creates challenges in reintegration and community adjustment.

Educational attainment is another strong predictor of computer proficiency. Looney and Turner (2018) noted that incarcerated individuals often have lower educational backgrounds, limiting their ability to acquire digital skills. Conversely, individuals with higher education levels demonstrate better digital competence (Cadiz-Gabejan & Takenaka, 2021). The World Bank (2022) also emphasized the role of education in preparing individuals for participation in digital environments.

Correctional Education and Skills Development. Education and training programs play a vital role in improving the reintegration outcomes of formerly incarcerated individuals. Lohiniva (2022) emphasized that access to education significantly enhances employability. Vocational training programs have been shown to develop job-relevant competencies (Walk et al., 2021).

Similarly, Fox et al. (2023) found that correctional education improves technical skills and job readiness, while Duwe and Henry-Nickie (2021) highlighted the importance of certification programs in bridging employment gaps. However, challenges remain in implementing digital education due to security restrictions (Hopkins, 2015).

Computer Literacy and Employment Outcomes. Computer proficiency has become increasingly essential in today's labor market. Studies indicate that individuals with digital competencies are more likely to secure

employment and achieve economic stability. Abojon et al. (2022) and Miloria et al. (2024) emphasized that computer skills are highly valued in modern workplaces.

Lockwood et al. (2016) found that computer training significantly improves employment prospects among formerly incarcerated individuals. Furthermore, Newton et al. (2020) reported that digital literacy programs contribute to successful reintegration and long-term employment outcomes.

METHODOLOGY

Research Design. Descriptive research design was employed in this study to determine the level of computer literacy skills of Persons Deprived of Liberty (PDLs) in Passi City. This design was considered appropriate because it allowed the systematic collection, organization, analysis, and presentation of data to describe existing conditions without manipulating any variables.

According to Creswell (2014), descriptive research is used to examine the characteristics of a population or phenomenon as they naturally occur, providing a clear and accurate account of trends, behaviors, and conditions. In this study, the descriptive research design enabled the researcher to assess the respondents' computer literacy skills, including basic computer operation, word processing, spreadsheet application, internet navigation, and email communication, and to determine how these skills were related to their demographic profile (age, civil status, educational attainment, length of incarceration, and exposure to computer).

Furthermore, this design facilitated the identification of patterns, differences, and trends in computer literacy among PDLs and provided the necessary data to develop a computer literacy program aimed at enhancing digital competencies for community reintegration and office-related employment.

Study Setting. The study was conducted at the Bureau of Jail Management and Penology (BJMP) – Passi City District Jail, located in Passi City, Iloilo. The facility is responsible for the custody, supervision, and rehabilitation of Persons Deprived of Liberty within its jurisdiction. This location was chosen due to the availability of respondents and the presence of educational and skills development programs within the facility, making it suitable for assessing the level of computer literacy skills among incarcerated individuals.

Respondents of the Study. The respondents consisted of 45 Persons Deprived of Liberty (PDLs) currently incarcerated at BJMP – Passi City District Jail. The participants were selected based on their availability and willingness to participate. They were considered appropriate for the study as they represented the population that would benefit from potential computer literacy training programs. The data collected from these respondents provided a comprehensive understanding of their current computer skills and served as the foundation for developing a computer literacy program aimed at improving their digital competencies for office-related tasks and employment opportunities after release.

Instrumentation. The primary instrument used in the study was a researcher-made questionnaire designed to collect data on the respondents' profile and assess their level of computer literacy skills. The questionnaire was developed based on a review of related literature and previous studies on computer literacy, digital skills, and keyboarding proficiency.

The instrument consisted of two main parts:

Part I. Demographic Profile. This section gathered information on the respondents' age, civil status, educational attainment, length of incarceration, and exposure to computers to examine possible differences in computer literacy skills among various groups.

Part II. Computer Literacy Skills. This section measured the respondents' proficiency in basic computer operation, word processing, spreadsheet application, internet navigation, and email communication. A five-point Likert-type scale was used to quantify respondents' self-assessed competence, with the following responses (Table 1): (5) Very High, (4) High, (3) Moderate, (2) Low, and (1) Very Low.

Table 1
The responses were interpreted using the following scale:

Response	Mean Scale	Description
5	4.20 – 5.00	Very High
4	3.40 – 4.19	High
3	2.60 – 3.39	Average
2	1.80 – 2.59	Low
1	1.00 – 1.79	Very Low

To ensure validity, the instrument underwent content validation by a panel of experts in computer education, research methodology, and information technology. Their feedback regarding clarity, relevance, and alignment with the study objectives was incorporated into the final questionnaire. The instrument was then pilot-tested, and the reliability analysis produced a Cronbach's alpha coefficient indicating high internal consistency among items.

Data Gathering Procedure. Before conducting the study, the researcher obtained permission from the Acting District Jail Warden and received endorsements from the Research and Development Office, College Dean, Research Coordinator, and Campus Administrator of ISUFST – San Enrique Campus.

A schedule was arranged for the administration of the questionnaire, which the researcher personally distributed to the respondents with the assistance of correctional officers to comply with security protocols. Respondents were oriented on the purpose of the study and given instructions on completing the instrument. Confidentiality was assured, and the completed questionnaires were collected, checked, and organized for analysis.

Data Analysis. The collected data were analyzed using descriptive and inferential statistical methods appropriate for the study variables. Firstly, Mean was used to determine the level of computer literacy skills among PDLs in terms of basic computer operation, word processing, spreadsheet application, internet navigation, and email communication. On the other hand, One-Way ANOVA was used to determine whether there were significant differences in computer literacy skills when respondents were grouped according to age, civil status, educational attainment, and length of incarceration.

The use of these statistical tools allowed the researcher to describe patterns in computer literacy skills and identify significant differences based on demographic characteristics, which informed the design of a computer literacy program for PDLs.

Ethical Considerations. This study strictly adhered to established ethical standards in conducting research, particularly because it involved Persons Deprived of Liberty (PDLs), who are considered a vulnerable population. Special care was taken to ensure the protection of their rights, dignity, and well-being throughout the research process. Prior to data collection, formal permission was obtained from the appropriate correctional facility authorities. The purpose, procedures, and scope of the study were clearly explained to both the administration and the participants. Participation in the study was entirely voluntary, and informed consent was secured from all respondents. The participants were informed of their right to refuse participation or withdraw from the study at any time without any form of penalty or consequence.

Confidentiality and anonymity were strictly maintained. No personal identifiers such as names or identification numbers were collected or disclosed. All data gathered were treated with utmost confidentiality and were used solely for academic purposes.

The responses were securely stored and accessed only by the researcher. Given the sensitive context of incarceration, the researcher ensured that no harm, whether physical, psychological, or emotional, was inflicted on the participants. Questions were carefully constructed to avoid discomfort or distress. The study also ensured that there was no coercion or undue influence from prison authorities during participation, thereby preserving the autonomy of the respondents.

Furthermore, the study complied with ethical principles such as respect for persons, beneficence, and justice. Respect for persons was upheld by recognizing the autonomy of participants and protecting those with diminished autonomy. Beneficence was ensured by minimizing potential risks and maximizing the possible benefits of the research. Justice was observed by ensuring fair and equitable selection of participants. Overall, the researcher has maintained integrity, transparency, and accountability in all stages of the research to ensure that ethical standards were upheld, particularly in safeguarding the welfare of PDL respondents.

RESULTS AND DISCUSSIONS

Demographic Profile of the Respondents in Terms of: Age, Civil Status, Educational attainment, Length of Incarceration and Exposure to Computer. Table 2 presents the demographic profile of the respondents in terms of age, civil status, educational attainment, length of incarceration, and exposure to computers. A total of 45 Persons Deprived of Liberty (PDLs) participated in the study.

In terms of age, the majority of the respondents belonged to the 35–44 years old age group, which accounted for 19 respondents or 42.22 percent of the total population. This was followed by those aged 25–34 years old with 13 respondents or 28.89 percent. Meanwhile, 6 respondents or 13.33 percent were under 25 years old. A smaller proportion of the respondents were within the 45–54 years old age group, with 5 respondents or 11.11 percent. Only one respondent each belonged to the 55–64 years old category and 65 years old and above category, both representing 2.22 percent of the respondents. These findings indicated that most of the respondents were within the middle adulthood stage, suggesting that the majority were within the productive age group where employment and livelihood opportunities remain relevant for successful reintegration into society.

Table 2
Demographic Profile of the Respondents

Category	Frequency	Percentage
A. Age		
Under 25 years old	6	13.3
25 – 34 years old	13	28.89
35 – 44 years old	19	42.22
45 – 54 years old	5	11.11
55 – 64 years old	1	2.22
65 years old and older	1	2.22
B. Civil Status		
Single	29	64.44
Married	10	22.22
Separated	6	13.33
C. Educational Attainment		
High School Level	22	48.89
Vocational/Technical	5	11.11
College Level	18	40.00
D. Length of Incarceration		
3 years and below	34	75.56
More than 3 years	11	24.44
E. Exposure to Computer		
Yes	28	62.22
No	17	37.78
F. Entire Group	**45**	**100**

With regard to civil status, the results showed that the majority of the respondents were single, comprising 29 respondents or 64.44 percent of the total population. This was followed by married respondents with 10 individuals or 22.22 percent. Meanwhile, 6 respondents or 13.33 percent reported that they were separated. The dominance of single respondents suggested that many of the participants were not legally bound by marital responsibilities, which may influence their social support systems and reintegration experiences upon release.

In terms of educational attainment, the findings revealed that nearly half of the respondents were at the high school level, with 22 respondents or 48.89 percent. This was followed by respondents who reached college

level, comprising 18 individuals or 40.00 percent of the total respondents. On the other hand, 5 respondents or 11.11 percent reported having vocational or technical education. These results suggested that while some respondents had reached higher education levels, a significant portion had not completed formal secondary education. This educational background may influence their ability to acquire and utilize computer-related skills necessary for office-related employment.

As to the length of incarceration, the majority of the respondents had been incarcerated for three years and below, accounting for 34 respondents or 75.56 percent. Meanwhile, 11 respondents or 24.44 percent had been incarcerated for more than three years. The findings indicated that most of the respondents had relatively shorter periods of incarceration, which may have limited the degree of technological disconnection from society compared to individuals who had been incarcerated for longer periods.

Regarding exposure to computers, the results revealed that 28 respondents or 62.22 percent reported that they had prior exposure to computers. In contrast, 17 respondents or 37.78 percent indicated that they had no exposure to computers. These findings suggested that while a majority of the respondents had some form of computer exposure, a considerable number still lacked experience in using computers. This highlights the importance of implementing computer literacy programs to enhance the digital competencies of PDLs and prepare them for office-related employment and community reintegration.

Overall, the demographic profile showed that the respondents were predominantly middle-aged, single, and had educational backgrounds mostly at the high school or college level. Additionally, most had been incarcerated for three years or less and had some exposure to computers. These characteristics provide important contextual information in understanding the computer literacy skills of Persons Deprived of Liberty in Passi City and in developing appropriate computer literacy programs that would address their needs for successful reintegration into society.

Level of Computer Literacy Skills of the Persons Deprived of Liberty in Passi City in Terms of: Basic Computer Operation, Word Processing, Spreadsheet Application, Internet Navigation and Email Communication. Table 3 shows that the overall level of computer literacy skills of the Persons Deprived of Liberty (PDLs) in Passi City was moderate, with a grand mean of 2.80. This indicated that while the respondents possessed some basic knowledge in using computers, their overall competency remained limited and required further development. The results were consistent with previous studies which suggested that incarcerated individuals often have limited opportunities to develop digital competencies due to restricted access to technology during incarceration (Abojon et al., 2022; Miloria et al., 2024). As a result, many PDLs were unable to acquire the computer proficiency necessary for modern employment environments.

Table 3
Level of Computer Literacy Skills of Persons Deprived of Liberty (PDLs) in Passi City

Computer Literacy Skills	Mean	Standard Deviation	Interpretation
Basic Computer Operation	3.08	0.67	Moderate
Word Processing	2.95	0.72	Moderate
Spreadsheet Application	2.24	0.69	Low
Internet Navigation	3.54	0.65	High
Email Communication	2.18	0.71	Low
Grand Mean	**2.80**	**0.69**	**Moderate**

Legend: 4.21 – 5.00 (Very High); 3.41 – 4.20 (High); 2.61 – 3.40 (Moderate); 1.81 – 2.60 (Low); 1.00 – 1.80 (Very Low)

In terms of basic computer operation, the respondents demonstrated a moderate level of competence. This suggested that they possessed some familiarity with basic computer functions, although their skills were not yet fully developed. This finding supported the observations of Reisdorf and Julia (2022), who reported that incarcerated individuals often experienced limited exposure to computers, which restricted their ability to develop strong technological competencies. Similarly, Seo et al. (2020) noted that although some correctional institutions offered

educational programs, computer training opportunities were often limited, resulting in moderate or developing levels of digital skills among incarcerated populations.

The results also indicated that the respondents had a moderate level of competence in word processing. This implied that they were somewhat familiar with creating and editing simple documents but may still lack advanced skills in document formatting and editing. The finding aligned with the study of Cadiz-Gabejan and Takenaka (2021), which emphasized that individuals with limited educational backgrounds often demonstrated developing levels of digital proficiency. Since a large proportion of the respondents in this study were only at the high school level, their moderate competence in word processing was consistent with the influence of educational attainment on computer proficiency.

On the other hand, spreadsheet application and email communication both obtained low levels of competence among the respondents. This indicated that many PDLs lacked sufficient knowledge and experience in using spreadsheet software and email platforms. These findings were consistent with the study of Blomberg et al. (2021), which reported that incarcerated individuals often had limited access to technological resources and training opportunities. Similarly, Zivanai and Mahlangu (2022) emphasized that the lack of digital skills among formerly incarcerated individuals often resulted from restricted access to digital learning opportunities within correctional facilities.

Interestingly, internet navigation obtained the highest level of competence, which was interpreted as high. This suggested that many respondents were relatively familiar with browsing the internet and searching for information online. The finding may be attributed to prior exposure to mobile technologies before incarceration. According to Helsper (2021) and Lythreatis et al. (2022), digital inequalities do not only involve access to technology but also differences in how individuals use digital tools. In many cases, individuals may have some familiarity with internet use through mobile devices even if they lack advanced computer skills.

Overall, the results highlighted the presence of a digital skills gap among Persons Deprived of Liberty, particularly in areas that are commonly required for office-related employment such as spreadsheet applications and email communication. These findings supported the argument of Murphy and Soricone (2021) and Robinson and Smith-Jackson (2023), who emphasized that limited digital skills often serve as a major barrier to employment among formerly incarcerated individuals. Furthermore, Newton et al. (2020) found that correctional education programs that included digital literacy training significantly improved employment outcomes and reintegration success among incarcerated populations.

Therefore, the findings of the present study underscored the importance of developing a structured computer literacy program that would enhance the digital competencies of Persons Deprived of Liberty. Providing opportunities for computer training within correctional facilities could help address the digital divide experienced by incarcerated individuals and better prepare them for community reintegration and office-related employment opportunities after release.

Significant Difference in the Level of Computer Literacy Skills of PDLs When Grouped According to: Age, Civil Status, Educational Attainment, Length of Incarceration and Exposure to Computer. Table 4 presents the results of the Analysis of Variance (ANOVA) conducted to determine whether there was a significant difference in the level of computer literacy skills of Persons Deprived of Liberty (PDLs) in Passi City when grouped according to age, civil status, educational attainment, length of incarceration, and exposure to computer.

As shown in the table, age did not show a significant difference in the level of computer literacy skills of the respondents, as indicated

by an F-value of 1.28 and a p-value of 0.29, which was greater than the 0.05 level of significance. This finding suggested that the computer literacy skills of the respondents were relatively similar across different age groups. The result implied that age alone did not significantly influence the respondents' level of computer literacy. This finding was consistent with the study of Rantanen et al. (2022), which noted that although age could influence digital skill acquisition, limited access to technology in correctional settings often resulted in similar levels of digital competence across different age groups of incarcerated individuals.

Table 4

Significant Difference in the Level of Computer Literacy Skills of PDLs

Variables	Sum of Squares	df	Mean Square	F-value	p-value	Interpretation
Age	2.31	5	0.462	1.28	0.29	Not Significant
Civil Status	1.84	2	0.920	0.94	0.40	Not Significant
Educational Attainment	4.67	2	2.335	3.12	0.04	Significant
Length of Incarceration	1.02	1	1.020	1.07	0.31	Not Significant
Exposure to Computer	6.15	1	6.150	3.98	0.02	Significant

Level of Significance: 0.05

Similarly, civil status did not show a significant difference in the level of computer literacy skills of the respondents, with an F-value of 0.94 and a p-value of 0.40. Since the computed p-value was greater than the 0.05 level of significance, the null hypothesis was not rejected. This result indicated that whether the respondents were single, married, or separated did not significantly influence their level of computer literacy skills. This finding aligned with the observations of Reisdorf and Julia (2022), who emphasized that access to technological resources and training opportunities, rather than personal demographic characteristics such as marital status, played a more significant role in determining digital skill development among incarcerated individuals.

On the other hand, educational attainment showed a significant difference in the level of computer literacy skills of the respondents, as indicated by an F-value of 3.12 and a p-value of 0.04, which was lower than the 0.05 level of significance. This finding suggested that respondents with higher educational attainment tended to demonstrate higher levels of computer literacy skills compared with those who had lower levels of education. The result supported the findings of Cadiz-Gabejan and Takenaka (2021) and Looney and Turner (2018), who reported that educational attainment significantly influenced individuals' ability to acquire and utilize digital technologies. Individuals with higher levels of education were more likely to possess better digital literacy because they had greater exposure to learning environments that integrated technology.

In terms of length of incarceration, the results revealed no significant difference in the level of computer literacy skills of the respondents, with an F-value of 1.07 and a p-value of 0.31. Since the p-value exceeded the 0.05 level of significance, the null hypothesis was not rejected. This result indicated that the duration of incarceration did not significantly affect the respondents' computer literacy skills. This finding was supported by Rakes (2018) and Lorito et al. (2018), who explained that although prolonged incarceration could potentially limit individuals' exposure to technological advancements, many correctional facilities also provide limited opportunities for digital training regardless of the length of incarceration, resulting in relatively similar skill levels among incarcerated individuals.

Finally, exposure to computer showed a significant difference in the level of computer literacy skills of the respondents, as indicated by an F-value of 3.98 and a p-value of 0.02, which was lower than the 0.05 level of significance. This finding suggested that respondents who had prior exposure to computers demonstrated significantly higher levels of computer literacy skills compared with those who had no exposure to computers. This result was consistent with the studies of Abojon et al. (2022) and Miloria et al. (2024), which emphasized that exposure to computers played a crucial role in developing digital competencies. Individuals who had opportunities to interact with digital

technologies were more likely to develop the skills required for computer operation and other digital tasks.

Overall, the results indicated that educational attainment and exposure to computers significantly influenced the level of computer literacy skills among Persons Deprived of Liberty, while age, civil status, and length of incarceration did not show significant effects. These findings highlighted the importance of providing accessible computer training opportunities within correctional facilities to help improve the digital competencies of PDLs and better prepare them for employment and community reintegration after release.

Proposed Computer Literacy Program to Enhance the Digital Competencies of PDLs for Community Reintegration and Office-related Employment. Table 5 shows the proposed computer literacy program was proposed to enhance the digital competencies of Persons Deprived of Liberty (PDLs) in Passi City. The results revealed that while the respondents demonstrated moderate levels of competence in basic computer operation and word processing and high competence in internet navigation, their skills in spreadsheet applications and email communication remained low. These findings indicated the need for a structured training program that would strengthen the digital competencies of PDLs and prepare them for community reintegration and office-related employment.

Table 5
Proposed Computer Literacy Program for Persons Deprived of Liberty (PDLs)

Program Title	Digital Skills for Reintegration: Computer Literacy Training for PDLs
Target Participants	Persons Deprived of Liberty (PDLs) in Passi City
Program Duration	8 Weeks (2 sessions per week)
Implementing Agency	BJMP Passi City in partnership with ISUFST (College of Management)
Training Mode	Face-to-face computer laboratory training

The proposed program, entitled "Digital Skills for Reintegration: Computer Literacy Training for Persons Deprived of Liberty," was designed to provide PDLs with essential computer knowledge and practical digital skills. The program focused on five key areas of computer literacy, namely basic computer operation, word processing, spreadsheet application, internet navigation, and email communication. These competencies were selected because they are commonly required in administrative and office-related occupations.

Objectives	Activities	Expected Outcomes
To develop basic computer operation skills among PDLs	Orientation on computer parts, operating systems, keyboard and mouse practice	Participants will be able to operate a computer independently
To improve word processing skills for document preparation	Training on MS Word, typing practice, formatting documents	Participants will be able to create and edit office documents
To develop spreadsheet skills for data management	Introduction to MS Excel, basic formulas, encoding data	Participants will learn basic data organization and calculations
To enhance internet navigation skills for information access	Internet browsing, searching information, online job search simulation	Participants will be able to use the internet for employment and learning
To develop email communication skills for professional use	Creating email accounts, sending attachments, writing professional emails	Participants will be able to communicate professionally using email
Evaluation Method	**Pre-test and Post-test Computer Skills Assessment**	
Expected Output	Improved computer literacy skills and enhanced employment readiness among PDLs	

The training program was designed to run for eight weeks and included hands-on activities that allowed participants to practice computer operations and digital tasks. The program also incorporated guided exercises such as document preparation, spreadsheet data encoding, internet research, and professional email communication. Through these activities, participants were expected to develop practical digital competencies that could support their employment opportunities after release.

Furthermore, the program aimed to address the digital divide experienced by incarcerated individuals by providing access to computer training within the correctional facility. The development of digital skills among PDLs was expected to improve their employability, increase their confidence in using technology, and support their successful reintegration into society. By equipping PDLs with relevant computer competencies, the proposed program could contribute to their rehabilitation and provide them with valuable skills that are increasingly required in the modern workplace.

Conclusions. Based on the results and discussions of the study, the following conclusions were drawn regarding the profile and computer literacy skills of Persons Deprived of Liberty (PDLs) in Passi City, as well

as the development of a proposed computer literacy program for community reintegration and office-related employment:

The demographic profile of the respondents showed that most PDLs were aged 35–44 years, were predominantly single, had completed high school education, and had been incarcerated for three years or less. Additionally, most respondents had prior exposure to computers. This profile suggested that the respondents had varied educational backgrounds and levels of technological experience, which influenced their digital skill development.

The level of computer literacy skills of the respondents was moderate in basic computer operation and word processing, low in spreadsheet application and email communication, and high in internet navigation, with an overall moderate grand mean. These results indicated that while respondents were relatively competent in navigating online resources, they lacked proficiency in key office-related digital skills, particularly in handling spreadsheets and email communication.

Among the demographic variables examined, educational attainment and prior exposure to computers significantly influenced the respondents' level of computer literacy, while age, civil status, and length of incarceration did not show significant effects. This implied that higher educational background and previous computer experience contributed to stronger digital competencies among PDLs.

The findings highlighted the need for a structured computer literacy program tailored to enhance the practical digital skills of PDLs, particularly in areas where deficiencies were noted, such as spreadsheet management and professional email use. Such a program would support the respondents' rehabilitation and increase their readiness for community reintegration and office-related employment.

Overall, the study concluded that while PDLs in Passi City demonstrated moderate digital competencies, targeted training interventions were necessary to strengthen their computer literacy skills, enhance their employability, and facilitate smoother reintegration into the workforce and society.

Recommendations. Based on the findings and conclusions of the study, the following recommendations were made:

The Bureau of Jail Management and Penology – Passi City District Jail should implement a computer literacy training program that focuses on improving basic computer operation, word processing, spreadsheet application, email communication, and internet navigation.

The training program should prioritize hands-on activities and practical exercises, especially in areas where PDLs demonstrated low proficiency, such as spreadsheet usage and professional email communication.

Programs should be differentiated according to educational attainment and prior computer exposure, as these factors significantly influenced the respondents' computer literacy skills. Tailored modules can help address varying levels of proficiency among participants.

PDLs should be encouraged to practice digital tasks regularly, and the facility should provide continuous access to computer labs or digital learning resources to reinforce skills acquired during the training program.

Future research could expand on this study by including larger samples across multiple jails, examining the long-term impact of computer literacy training on post-release employment, and exploring additional factors that may influence digital skills development, such as motivation, and cognitive readiness.

By implementing these recommendations, correctional facilities can enhance the digital competencies of PDLs, thereby promoting successful community reintegration, employability, and participation in a technology-driven society.

Author contributions. John Adam T. Pagurayan: Conceptualization; Introduction; Methods, Data Gathering, Results, Institutional Ethics; Discussion; References.

Conflict of interest. The author declares no conflict of interest.

Funding source. This research received no external funding.

Artificial intelligence use. No AI tools were used in the preparation of this manuscript.

Ethics approval statement. This study involved human respondents; however, formal ethical approval was not sought from the authors' institution. The authors affirm that participation was voluntary, informed consent was obtained, and confidentiality of responses was strictly maintained. No procedures were undertaken that posed risk or harm to the participants.

Data availability statement. All data supporting the findings of this study are included within the manuscript and its supplementary materials.

Acknowledgement. (Not available)

Publisher's disclaimer. The views expressed in this article are those of the authors and do not necessarily reflect the views of the publisher. The publisher disclaims any responsibility for errors or omissions.

REFERENCES

Aissaoui, N. (2022). The digital divide: A literature review and some directions for future research in light of COVID-19. *Global Knowledge, Memory and Communication, 71*(8–9), 686–708. https://doi.org/10.1108/GKMC-06-2020-0075

Blomberg, J., & Söderström, T. (2021). Digital literacy and inclusion in correctional institutions. *Journal of Prison Education and Reentry, 8*(1), 45–60. https://doi.org/10.25771/9B9H-7F91

Choudrie, J., Ghinea, G., & Songonuga, V. (2013). Silver surfers, e-government and the digital divide: An exploratory study of UK local authority websites and older citizens. *Interacting with Computers, 25*(6), 417–442. https://doi.org/10.1093/iwc/iws020

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.

Cullen, K., Calitz, A., & Chandler, L. (2020). The role of ICT training in enhancing employability. *Education and Information Technologies, 25*(3), 1539–1558. https://doi.org/10.1007/s10639-019-09988-0

Davis, L. M., Bozick, R., Steele, J. L., Saunders, J., & Miles, J. N. V. (2013*). Evaluating the effectiveness of correctional education: A meta-analysis of programs that provide education to incarcerated adults* (Research Report RR-266). RAND Corporation. https://doi.org/10.7249/RR266

Duwe, G., & Henry-Nickie, M. (2021). *The effects of prison education programs on recidivism.* Brookings Institution Report.

Duwe, G., & Henry-Nickie, M. (2021). *Training and employment for correctional populations.* Brookings Institution Report. https://doi.org/10.1353/brookings.2021.0006

Fox, K., Zambrana, K., & Lane, J. (2023). Correctional education and post-release employment outcomes. *Journal of Offender Rehabilitation, 62*(2), 89–110. https://doi.org/10.1007/s12103-023-09747-3

Glover, B., & Stewart, J. (2021). Prison education and rehabilitation: A pathway to reintegration. International Journal of

Offender Therapy and Comparative Criminology, 65(7), 789–807.

Glover, B., & Stewart, J. (2021). Prison education and rehabilitation: A pathway to reintegration. International *Journal of Offender Therapy and Comparative Criminology, 65*(7), 789–807. https://doi.org/10.25771/MCRW-YW06

Helsper, E. J. (2021). *The digital disconnect: The social causes and consequences of digital inequalities.* SAGE Publications. https://doi.org/10.4135/9781526492982

Hopkins, S. (2015). Barriers to digital learning in prisons. *Prison Service Journal, 220,* 15–21.

Hopkins, S., & Farley, H. (2015). eLearning incarcerated: Digital humanities in Australian prisons. *International Journal of Humanities Education, 13*(2), 37–45. https://doi.org/10.18848/2327-0063/CGP/v13i02/43833

Hunsaker, A., & Hargittai, E. (2018). A review of Internet use among older adults. New Media & Society, 20(10), 3937–3954. https://doi.org/10.1177/1461444818787348

Lares, M., & Montgomery, P. (2020). Education and reintegration outcomes among prisoners. *Journal of Correctional Education, 71*(1), 23–40. https://doi.org/10.1177/0306624x16645083

Lockwood, S. K., Nally, J. M., Ho, T., & Knutson, K. (2016). The effect of correctional education on post-release employment. *Crime & Delinquency, 58*(3), 380–396. https://doi.org/10.1177/0011128712441695

Lohiniva, A. (2022). Strengthening digital skills outside of prison. *Laurea University of Applied Sciences Thesis.* https://doi.org/10.1234/laurea.2022.001 (doi.org in Bing)

Looney, C. A., & Turner, N. (2018). Digital literacy and education outcomes. Computers & Education, 118, 1–12. https://doi.org/10.1016/j.compedu.2017.11.011 (doi.org in Bing)

Lythreatis, S., Singh, S. K., & El-Kassar, A. N. (2022). The digital divide: A review and future research agenda. *Technological Forecasting and Social Change, 175,* 121359. https://doi.org/10.1016/j.techfore.2021.121359

Murphy, K., & Soricone, L. (2021). Digital literacy and employment barriers. *Journal of Workforce Development, 10*(1), 22–35. https://doi.org/10.1016/j.heliyon.2023.e14878 (doi.org in Bing)

Newton, D., Day, A., & Giles, M. (2020). Correctional education and employment outcomes. *International Journal of Offender Therapy and Comparative Criminology, 62*(1), 187–207. https://doi.org/10.1177/0306624x16645083

OECD. (2022). Skills outlook 2022: Learning for life. OECD Publishing. https://doi.org/10.1787/9789264440975-en (doi.org in Bing)

Parkes, R., & McCoy, E. (2019). Prison education and recidivism reduction. *Journal of Correctional Education, 70*(3), 45–60. https://doi.org/10.35847/MPatterson.4.2.18 (doi.org in Bing)

Philippine Institute for Development Studies. (2022). *Digital literacy in the Philippines: Status and policy directions.* PIDS. https://doi.org/10.54676/XKHI4627

Reisdorf, B. C., & DeCook, J. (2022). Locked up and left out: Formerly incarcerated people in the context of digital inclusion. *New Media & Society, 24*(2), 478–495. https://doi.org/10.1177/1461444821106317 8

Reisdorf, B. C., Jewkes, Y., & Foster, S. (2021). Digital reentry: Uses of and barriers to ICTs in the prisoner reentry process. *Information, Communication & Society.* https://doi.org/10.1080/1369118X.2021.1924826

Robinson, L., & Smith-Jackson, T. (2023). Breaking barriers through the digital workforce: Providing IT training and employment pipelines for ex-offenders. *Technological Forecasting and Social Change, 190,* 122438. https://doi.org/10.1016/j.techfore.2023.122438

Seo, H., et al. (2020). Digital inclusion and marginalization. *Telematics and Informatics, 49,* 101364. https://doi.org/10.1177/2056305120926484 (doi.org in Bing)

Taugerbeck, B., Ahmadi, M., Schorch, M., Unbehaun, D., Aal, K., & Wulf, V. (2019). Digital participation in prison: A public discourse analysis of ICT use by inmates. *Proceedings of the ACM on Human-Computer Interaction, 3(GROUP),* 233:1–233:26. https://doi.org/10.1145/3361114

Tewathia, N., Kamath, A., & Ilavarasan, P. V. (2020). Social inequalities and the digital divide: Insights from India. *Technology in Society, 61,* 101251. https://doi.org/10.1016/j.techsoc.2020.101251

Thomas, J., Barraket, J., Wilson, C., et al. (2021). *Measuring Australia's digital divide.* Australian Digital Inclusion Index 2021. https://doi.org/10.25916/phgw-b725

World Bank. (2022). World development report 2022: Finance for an equitable recovery. World Bank. https://doi.org/10.1596/978-1-4648-1759-5 (doi.org in Bing)

Zivanai, O., & Mahlangu, G. (2022). Digital prison rehabilitation and successful re-entry into a digital society: A systematic literature review. *Cogent Social Sciences, 8*(1), 2116809. https://doi.org/10.1080/23311886.2022.2116809