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JOURNAL FOR THE ADVANCEMENT OF SUSTAINABLE DEVELOPMENT GOALS
AN INTERNATIONAL, PEER-REVIEWED, OPEN ACCESS JOURNAL
www.jasdg.com
Volume 1 Issue 4 Pages 3135-3161
ISSN: 3155-7546 (Online)
DOI: 10.5281/zenodo.24064936

# DEVELOPING A STANDARDIZED ON-THE-JOB TRAINING GUIDE FOR COMPUTER TECHNOLOGY SERVICING

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## ABSTRACT

On-the-job training (OJT) is a core component of technical-vocational degree programs, yet its content, supervision, and assessment often vary from one placement to another. This study assessed the OJT competence of fourth-year Bachelor of Science in Industrial Technology (BSIT) students majoring in Computer Technology at Negros Oriental State University (NORSU), Main Campus, Dumaguete City, as the basis for developing a standardized OJT guide for computer technology servicing. A descriptive survey design was used. A researcher-made questionnaire anchored on the basic, common, and core competencies of the Technical Education and Skills Development Authority (TESDA) was administered to 85 fourth-year students engaged in OJT during School Year 2022–2023 (52 males and 33 females). Data were analyzed using frequency, percentage, weighted mean, standard deviation, and a chi-square goodness-of-fit test. Most respondents were aged 18–24 years (71.76%) and male (61.18%). All respondents (100%) regarded comprehensive training materials, clear guidelines, regular supervisor feedback, and hands-on practice as requirements for effective computer servicing. Hardware-related competencies dominated the basic (91.76%), common (89.41%), and core (91.76%) categories. The leading suggestions for improvement were new training methods or technologies (51.76%) and additional support or mentoring (38.82%). Most respondents (78.82%) rated their OJT as completely aligned with the required competencies ($M = 4.69$, $SD = 0.67$); the distribution of ratings differed significantly from a uniform distribution, $\chi^2(4, N = 85) = 188.71$, $p < .001$. Respondents perceived their OJT as well aligned with competency requirements, but the strong hardware orientation, limited attention to network and software competencies, and the gender imbalance point to areas for improvement. A standardized OJT guide was developed, comprising learning objectives, training activities, assessment methods, evaluation procedures, industry collaboration, feedback mechanisms, and standardized TESDA competencies. The guide is expected to improve OJT quality, boost student performance, and strengthen partnerships between the university and industry, ultimately preparing computer technology students more effectively for the workforce and offering a potential model for similar programs.

**Keywords:** *on-the-job training; computer technology servicing; TESDA competency standards; standardized OJT guide; Industrial Technology; Negros Oriental State University; Philippines*

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## INTRODUCTION

### Background and Rationale of the Study

Computers have become part of daily life, and it is difficult to imagine the world without them. Understanding the basics of computers and how to use them effectively is important not only at home and in school but also at work. Computers do not intrude on or take hold of people's lives; rather, they are tools that can be molded into whatever people need or desire (businesstoinsider, 2023). Computers are also widely used in the workplace and in the dissemination of information, which has by now penetrated almost every walk of life (Taherdoost, 2023).

The subassemblies available for personal computer systems are affordable, with many of them mass-produced in high-volume factories distributed across the Pacific Rim, and peripherals with established interface schemes and hardware compatibility have further enhanced the capabilities of personal computers. However, rushed or careless attempts at computer servicing can lead to the loss of components and threaten system parts (Comp, 2023). For this reason, staying updated with the latest trends in computer system technology requires a focus on the efficient installation, maintenance, diagnosis, and troubleshooting of computer hardware and software (M, 2023).

Troubleshooting skills can never substitute for proper planning and testing of critical implementations. The possibility of a problem is known in advance, and future disasters are prevented through proactive action (Taylor, 2024). Isolating the problem is the first step toward a remedy: once the inactive device or component has been detected, the symptoms must be analyzed with caution and the possible areas of occurrence eliminated (Flowers, 2021). The application of key competencies in computer servicing then ensures the proper solution of the problem (Bulan, n.d.).

The TESDA-specified national competencies in computer system servicing outline the requirements for the installation, maintenance, diagnosis, and troubleshooting of computer system hardware and software, along with basic networking. By adhering to these standards, practitioners obtain the best practices in computer system servicing (TESDA, n.d.).

Considering these factors, this study assessed the competency level of computer technology students during their OJT in computer system servicing. The assumption was that if OJT students demonstrate sufficient competency, they will have a smoother transition to further skills training and upgrading in preparation for their future work environment (Samala, 2020). However, if OJT students fail to meet the required competency standards in computer system servicing, instructors and administrators at NORSU need to take appropriate action to review the curricular offerings. The results provide information on the extent of competency deficiencies among OJT students against the established standards and serve as a reference for computer shops, internet cafés, computer business establishments, and offices when accepting students for OJT placements.

#### *Importance of OJT performance evaluation*

Performance evaluation can be used to assess the performance of BSIT students during their OJT period and to determine their readiness to engage in the workforce. It helps determine whether aspects of the program need enhancement and tests whether the student possesses adequate job knowledge, practical skills, and work behavior. These evaluations form a benchmark for measuring students' ability to apply theoretical concepts to real-life situations and contribute to the continuous improvement of the BSIT curriculum; the Commission on Higher Education (CHED) likewise promotes continuous improvement in the BSIT curriculum by having students undergo OJT as part of their academic activities (CHED, 2021).

#### *Curricular reforms and industry partners' feedback*

Feedback from industry partners regarding the performance of BSIT students during OJT is vital for driving curricular reforms. Such feedback keeps the curriculum relevant to the changing demands of the industrial sector and strengthens

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the linkages between educational institutions and industry, which is a core aspect of curriculum development (Mina, 2020). Colleges and universities may enter into collaborative partnerships with industry partners to define demand trends, knowledge gaps, and skill sets that should be applied in revising the curriculum. It has also been suggested that school facilities be upgraded, instructors retooled, and admission policies revisited so that the BSIT curriculum is consistent with industry requirements and students are better equipped for work (Awasthy, 2020).

***Impact of OJT on student competencies***

OJT contributes substantially to the improvement of students' competencies. It gives them a chance to test theoretical knowledge in practice settings, to hone their skills more intensively, and to be exposed step by step to real challenges (Policarpio, 2024). A positive OJT experience has been found to improve the student's general educational experience and to correlate with higher satisfaction. Students who have meaningful and productive OJT experiences are expected to acquire deeper knowledge of their chosen field, the desired skills, and the self-confidence needed for a successful future career (Policarpio, 2024).

**Theoretical Background**

This study assumes that competence in computer technology servicing can be enhanced by developing a standardized on-the-job training guide for computer technology servicing. The assumption is supported by Kuiken (2022), who observed that computer technology servicing has steadily and rapidly increased its scope in the last few years, mainly because of the sector's reliance on technology. As demand for professionals in this field has expanded, government and the private sector have recognized the need for standard on-the-job training that develops competent manpower and enhances work performance (HiPeople, 2023). This section examines why standardized training matters in relation to legal frameworks and industry demands.

***Legal basis***

Governments play a central role in setting regulations and protecting consumers' interests. Computer technology servicing is governed in many countries by legal frameworks, policies, and standards for the training and performance of computer servicing professionals (Hüsch, 2023). These regulations preserve the quality and integrity of the services provided, facilitate fair competition, and prevent poor workmanship and unethical practices (Hüsch, 2023). In the Philippines, for example, TESDA has implemented competency standards for computer system servicing (TESDA, n.d.). Training programs are benchmarked against these standards so that graduates acquire the knowledge and skills needed in the industry; in this way, the government seeks to produce a qualified workforce able to face the challenges of a rapidly changing technology environment.

***Private-sector demand***

Legal considerations are not the only stimulus for standardizing on-the-job training. As an engine of economic growth, the private sector also has its own reasons for demanding competent manpower and improved work performance (BusinessMirror, 2024). In a competitive market, computer technology servicing businesses know that the quality of their services determines their competitiveness and reputation (Kankam, 2023). To gain an edge, private organizations involve their employees in intensive job training programs (JETechnologySolution, 2023). Because personnel who are properly trained can offer superb services, quick solutions to problems, and satisfaction of customer needs, such organizations can provide trustworthy and efficient computer technology solutions that meet the high expectations of modern consumers (Machuel, 2024).

The private sector is also aware that adhering to established legal frameworks and standards is more than a legal matter; it expresses professionalism and a commitment to best practice within the industry (Bonnie, 2024).

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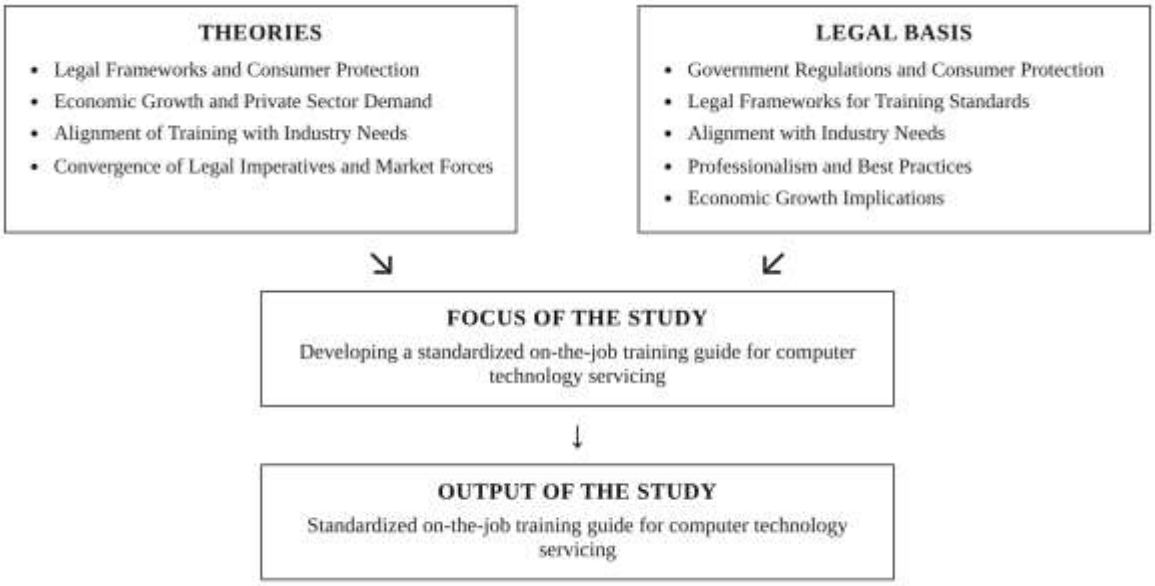
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Organizations avoid legal problems by aligning their training programs with legislation, and they reassure clients that they adhere to recognized standards of quality and service (Kreismann et al., 2020).

***Convergence of legal requirements and market demands***

The convergence of legal requirements and market demands therefore provides a strong impetus for government and the private sector to jointly provide standardized on-the-job training programs in computer technology servicing. These programs are geared toward developing the competencies and skills of individuals so that they meet industry needs and deliver quality service to consumers (Li, 2022). Both legal imperatives and market forces compel standard on-the-job training for computer technology servicing (Congress of the Philippines, 2022): governments set legal frameworks and standards that regulate the industry and protect customers, while the private sector understands that competent professionals are essential if it is not to fall behind and is to meet customers' expectations. Overall, the aim is a highly qualified workforce for the computer technology servicing sector, achieved by aligning the training program with legal requirements and industry demand. Figure 1 presents the schematic diagram of the theoretical framework.

**Figure 1. Schematic diagram of the theoretical framework**




**Statement of the Problem and Research Questions**

This research assessed the on-the-job training competence of fourth-year BSIT (Bachelor of Science in Industrial Technology) students of Negros Oriental State University, Main Campus, Dumaguete City, Negros Oriental, for School Year 2022–2023, as the basis for developing a standardized on-the-job training guide for computer technology servicing. Specifically, the study answered the following questions:

1. What is the demographic profile of the respondents in terms of (1.1) age and (1.2) gender?
2. What are the requirements for effective computer servicing?
3. What are the suggestions and feedback from respondents for improvement?
4. What is the competence level of the respondents based on the TESDA competencies: (4.1) Basic, (4.2) Common, and (4.3) Core?

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5. Is there a significant difference between the perception for effective computer servicing and the competence level of the respondents?

6. Based on the findings, what standardized on-the-job training guide for computer technology servicing can be developed?

**Significance of the Study**

The standardization of an OJT guide carries potential implications for many stakeholders.

**CHED.** The proposed OJT guide may be used as a reference by CHED in developing and updating policies and guidelines for the proper implementation of OJT in academic institutions, directing its efforts toward the relevance and quality of OJT programs suited to the needs of industry.

**Administrators.** Administrators can use the findings to standardize and upgrade their OJT programs to a consistent, quality standard across departments and programs, and to commit resources to the implementation and execution of the upgraded OJT guide.

**Supervisors.** An enhanced OJT guide offers supervisors a full framework from which to design, implement, and evaluate OJT programs, to establish whether students are acquiring the necessary competencies, and to guide and monitor students properly through the OJT experience.

**Teachers.** Teachers can use the OJT guide as a valuable material in orienting students on all aspects of their OJT experience, in aligning classroom expectations with industry expectations, and in planning relevant coursework, activities, and assessments.

**Companies.** An industry-aligned OJT guide may help companies increase the value of OJT students' readiness and productivity to their operations, and feedback and recommendations from companies may be used to refine the guide further.

**Students.** With the new and improved OJT guide, students can better understand the expectations and requirements of their OJT experience, which helps them learn as much as they can and develop professionally, becoming more employable when they graduate.

**Future researchers.** This study forms a basis for future research on the optimization of OJT programs so that they continually evolve and adapt to new industry needs. In pursuing the needs and expectations of these diverse stakeholders, the development of a standard OJT guide may provide a means of improving on-the-job training for students and academic institutions, and consequently for the industry at large.

**The researcher.** Lastly, the study is significant to the researcher because it enhances academic growth and professional competence and contributes to improving OJT programs, ultimately benefiting students, educational institutions, and industry stakeholders.

**Definition of Terms**

Defining key terms establishes a common understanding of the concepts used in the study, minimizing ambiguity and supporting consistent communication and interpretation of the findings. The terms are defined as follows.

**Competency standards in computer system servicing** are the established benchmarks or criteria that define the knowledge, skills, and abilities required of individuals working in computer system servicing. They outline the specific competencies and performance expectations that individuals must meet to demonstrate proficiency in computer system servicing tasks.

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**Computer technology servicing** refers to the maintenance, repair, and troubleshooting of computer systems and related hardware and software components. It involves installing and configuring computer systems, diagnosing and resolving technical issues, and ensuring the proper functioning of computer networks and peripherals.

**Convergence of legal requirements and market demands** refers to the alignment and harmonization of regulatory obligations and industry needs. It describes a situation in which the legal and policy frameworks governing computer technology servicing are in step with the evolving demands and trends of the market, so that industry practices and workforce competencies meet current and future requirements.

**Government–private sector collaboration in training programs** signifies the partnership and cooperation between the public sector (government) and private companies or industry stakeholders to develop and implement training initiatives. The collaboration aims to address workforce needs, bridge skills gaps, and enhance the employability and competitiveness of individuals through joint efforts and resource sharing.

**Investment in on-the-job training programs by private companies** refers to the allocation of resources, such as time, finances, and personnel, to develop and implement OJT programs for employees. Private companies recognize the value of OJT in enhancing employee skills, improving job performance, and meeting organizational goals, and therefore invest in effective training initiatives.

**Legal frameworks and policies governing computer technology servicing** refer to the laws, regulations, and guidelines established by governments or regulatory bodies to govern the practice of computer technology servicing. These frameworks outline the rights and responsibilities of individuals and organizations involved in computer technology servicing and ensure compliance with legal and ethical standards.

**On-the-Job Training (OJT)** is a form of training in which individuals acquire practical skills and knowledge while working in a real-world professional setting. OJT programs provide hands-on experience and exposure to the actual work environment, allowing trainees to apply theoretical knowledge, develop job-specific skills, and gain industry-relevant experience.

**Private sector's commitment to competent manpower and improved work performance** refers to the dedication and responsibility of private companies and organizations in developing a skilled and capable workforce. The commitment involves investing in training and development programs, promoting continuous learning, and fostering a culture of excellence to enhance employee performance and productivity.

**Skilled workforce and high-quality services.** A skilled workforce is a group of individuals who possess the knowledge, expertise, and abilities to perform their job tasks effectively and efficiently. High-quality services are products, solutions, or services that meet or exceed customer expectations and are characterized by accuracy, reliability, professionalism, and customer satisfaction.

**Technical Education and Skills Development Authority (TESDA)** is the Philippine government agency responsible for the development and promotion of technical-vocational education and training (TVET) programs. TESDA aims to enhance the skills and competencies of the Filipino workforce to meet industry demands and contribute to national development.

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## METHODS

This section describes the research design, flow of the study, research environment, respondents, instrument, data gathering procedure, ethical considerations, and treatment of data used in the study.

### Research Design

The study employed a descriptive survey design with a quantitative orientation to evaluate the on-the-job training program in computer servicing, benchmarked against the competency standards of the Technical Education and Skills Development Authority (TESDA). The design gathers comprehensive data from participants, encompassing demographic information (age and gender) as well as their perceptions of the essential competencies and training needs in computer servicing. Descriptive statistics were used to identify significant trends and patterns in the data, and a chi-square goodness-of-fit test was applied to the alignment ratings to determine whether the observed pattern of responses was significant. Key areas of focus were the assessment of the competencies required in the industry, perceived gaps in training, and recommendations for program enhancement. The design emphasizes the alignment of training outcomes with industry requirements so that graduates possess the skills needed to meet job demands, and it provides insights that can inform improvements to OJT programs and serve as the basis for the standardized OJT guide.

### Flow of the Study

The flow of the study describes the input, process, and output of developing a standardized OJT guide for computer technology servicing (Figure 2). It represents the framework employed in creating the output of the study, from gathering relevant data on student needs and industry standards to the systematic development of the guide.

**Input.** The inputs were the data collected from respondents: demographic profiles (age and gender); responses on the basic, common, and core competencies specified by TESDA for computer servicing; perceived needs and requirements for effective computer servicing; recommendations for program improvement; and assessments of the alignment between the competencies and the requirements of industry roles.

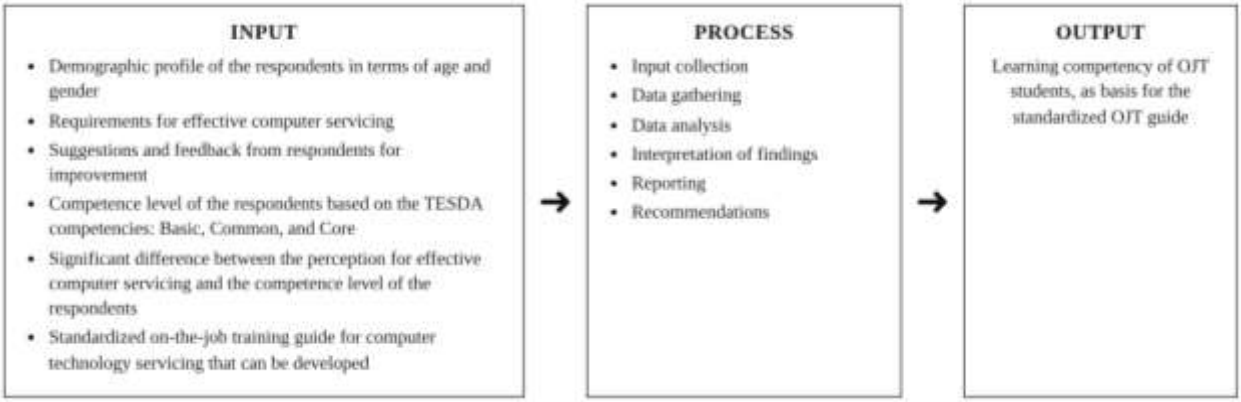
**Process.** The process involved six steps. First, input collection identified the demographic data, the perceived needs and requirements for effective computer servicing, and the recommendations for improvement, and assessed the alignment between the competencies offered and the requirements of industry roles. Second, data gathering used a survey questionnaire to collect quantitative insights into participants' experiences and perceptions. Third, data analysis applied descriptive statistics (and a chi-square goodness-of-fit test) to identify trends and patterns and to clarify the significance of the various competencies and the needs expressed by participants. Fourth, the findings were interpreted to draw conclusions on key aspects, such as the dominance of hardware-related competencies, the need for innovative training methods, and the balance between trainees' expectations and their actual competencies. Fifth, significant findings were compiled into a comprehensive report covering the demographic profile, competency analysis, needs identification, and alignment assessment. Finally, recommendations were formulated to provide actionable insights for enhancing the effectiveness of the OJT program so that it meets industry demands and adequately prepares trainees for their future careers.

**Output.** The output is the assessment of the learning competencies of the OJT students, which serves as the basis for enhancing the effectiveness of the OJT program, ensuring that it meets industry demands and equips trainees with the skills they need, and for developing the standardized OJT guide for computer technology servicing.

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**Figure 2. Flow of the study**




**Research Environment**

The study, entitled "Developing a Standardized On-the-Job Training Guide for Computer Technology Servicing," was conducted in a diverse set of business offices and establishments in Dumaguete City, Negros Oriental, where the respondents undertook their OJT. Its main objective was to develop a standardized framework for on-the-job training in computer technology servicing. The scope of the study covered the various types of businesses and organizations in Dumaguete City in order to gather the widest scope of data and information, so that the training guide would be comprehensive and applicable to numerous professional environments (Figure 3).

Negros Oriental State University traces its beginnings to 1907, to a single woodworking class at what was then the Negros Oriental Provincial School, the forerunner of the present Negros Oriental High School. As more industrial arts subjects were added, a separate secondary arts and trade school, the Negros Oriental Trade School, was established; it became the East Visayan School of Arts and Trades in 1956 and the Central Visayas Polytechnic College in 1983. In 2004, it was converted into the present Negros Oriental State University.

Republic Act No. 9299 was signed by President Gloria Macapagal Arroyo on June 25, 2004. It converted the Central Visayas Polytechnic College (CVPC) into a state university, now the Negros Oriental State University (NORSU), integrating the Genaro Goñi Memorial College in the City of Bais, the Siaton Community College in the Municipality of Siaton, and the Mabinay Institute of Technology in the Municipality of Mabinay. The university is officially recognized by the Commission on Higher Education of the Philippines.

The University primarily provides advanced education and higher technological and professional instruction and training in the fields of arts, sciences, education, commerce, agriculture and forestry, fishery, and other related fields of study. It also promotes research and extension services and provides progressive leadership in its areas of specialization.

NORSU is the only state university in the province of Negros Oriental. Its Main Campus in Dumaguete City, located on Kagawasan Avenue in the heart of the city and adjacent to the Negros Oriental provincial capitol building, offers extensive academic programs and hosts many student organizations. The university also has seven satellite campuses within the province.

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**Figure 3. The research environment: map of Negros Oriental showing the location of Negros Oriental State University, Main Campus**




**Respondents**

The respondents were 85 fourth-year BSIT (Bachelor of Science in Industrial Technology) students majoring in Computer Technology at Negros Oriental State University, Main Campus, Dumaguete City, Negros Oriental, who were undergoing on-the-job training in School Year 2022–2023 (Table 1). Their responses served as the basis for developing the standardized OJT guide for computer technology servicing.

**Table 1. Respondents of the study**

| Course | Year | Major | Number |
|---|---|---|---|
| Bachelor of Science in Industrial Technology | 4th | Computer Technology | 85 |

**Research Instrument**

The instrument was a researcher-made questionnaire designed specifically for this study and administered to the fourth-year BSIT students. It consisted of three parts. Part 1 gathered the respondents' profile (age bracket: 18–24, 25–34, or 35–44 years; gender: male, female, LGBTQ, or prefer not to say); name and address were optional. Part 2 identified the key competencies based on the TESDA guidelines, with three multiple-choice items each for the basic, common, and core competencies. Part 3 assessed respondents' inputs and perspectives on standardization: the

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perceived needs and requirements for computer servicing (training materials and resources, clear guidelines and instructions, regular feedback and support from supervisors, opportunities for hands-on practice, or all of the above); suggestions for improvement (increasing accessibility to resources or information, enhancing communication channels, implementing new training methods or technologies, providing additional support or mentoring, or none of the above); and the alignment between the current OJT program and the respondent's expectations and requirements, rated on a five-point scale (5 = completely aligned, 4 = mostly aligned, 3 = neutral, 2 = somewhat misaligned, 1 = completely misaligned). The complete questionnaire is provided in the Appendix.

**Data Gathering Procedure**

Permission to conduct the study was sought from the University President of NORSU through the Dean of the College of Industrial Technology, and from the OJT Coordinator of the college, whose approval allowed the researcher to survey the OJT students. The researcher-made questionnaire was then distributed to the 85 fourth-year BSIT students majoring in Computer Technology. The distribution of the questionnaires was facilitated by Mr. Simeon D. Timgas, President of the Computer Technology Society, who assisted in distributing the surveys to his fellow graduating classmates. The completed questionnaires were retrieved, tallied, and subjected to statistical treatment.

**Ethical Considerations**

Respondents were assured that their responses would be treated with the utmost confidentiality. Names and addresses were optional on the questionnaire; the collected data were anonymized and aggregated, and the findings were presented in a generalized format without disclosing individual identities.

**Treatment of Data**

Descriptive statistics were used in several parts of the study. Frequency and percentage distributions were used to describe the demographic characteristics of the respondents (age and gender), to outline the requirements for effective computer servicing, to summarize the suggestions for improvement, and to summarize responses to the individual items on the basic, common, and core competencies, from which the competence level of the respondents was determined. The mean was used to determine the average rating of alignment on the five-point scale, and the standard deviation was used to measure the variability of the ratings around the mean.

For inferential analysis, a chi-square goodness-of-fit test was used to determine whether the observed distribution of alignment ratings deviated significantly from a uniform distribution (each alignment level equally likely) at the 0.05 level of significance. The test statistic is computed as

$$\chi^2 = \Sigma\,[(O_i - E_i)^2 / E_i]$$

where $O_i$ is the observed frequency, and $E_i$ is the expected frequency in category i. The null hypothesis ($H_0$) states that the alignment categories are evenly distributed; the alternative hypothesis ($H_1$) states that they are not. The expected frequency per category under $H_0$ is the total number of responses divided by the number of categories (85 ÷ 5 = 17).

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## RESULTS

The results are presented in the order of the research questions: the profile of the respondents, the requirements for effective computer servicing, the respondents' suggestions for improvement, the competencies identified in each TESDA category, the perceived alignment of OJT with required competencies, and the standardized OJT guide developed from the findings. All percentages are based on the 85 respondents.

### Profile of the Respondents

#### *Age*

Table 2 shows the age distribution of the respondents, who fell into three age ranges. The majority, 61 respondents (71.76%), were aged 18–24 years, followed by 22 respondents (25.88%) aged 25–34 years. Only 2 respondents (2.35%) were aged 35–44 years.

**Table 2. Age distribution of respondents**

| Age range | Number of respondents | Percentage |
|---|---|---|
| 18–24 years | 61 | 71.76% |
| 25–34 years | 22 | 25.88% |
| 35–44 years | 2 | 2.35% |
| **Total** | **85** | **100%** |

#### *Gender*

Table 3 presents the gender distribution. Most respondents were male (52 respondents, 61.18%), while 33 respondents (38.82%) were female. No respondent identified as LGBTQ or chose not to disclose gender (0% each).

**Table 3. Gender distribution of respondents**

| Gender | Number of respondents | Percentage |
|---|---|---|
| Male | 52 | 61.18% |
| Female | 33 | 38.82% |
| LGBTQ | 0 | 0% |
| Prefer not to say | 0 | 0% |
| **Total** | **85** | **100%** |

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**Requirements for Effective Computer Servicing**

As shown in Table 4, all 85 respondents (100%) selected "All of the above," indicating unanimous agreement that effective computer servicing requires comprehensive training materials and resources, clear guidelines and instructions, regular feedback and support from supervisors, and opportunities for hands-on practice and application. No respondent selected any individual component alone.

**Table 4. Requirements for effective computer servicing**

| Response option | Number of responses | Percentage |
|---|---|---|
| All of the above | 85 | 100% |
| Comprehensive training materials and resources | 0 | 0% |
| Clear guidelines and instructions | 0 | 0% |
| Regular feedback and support from supervisors | 0 | 0% |
| Opportunities for hands-on practice and application | 0 | 0% |
| **Total** | **85** | **100%** |

**Suggestions and Feedback from Respondents for Improvement**

Table 5 presents the respondents' suggestions for improving the OJT program. Most respondents (44; 51.76%) suggested implementing new training methods or technologies, followed by 33 respondents (38.82%) who called for additional support or mentoring opportunities. Eight respondents (9.41%) highlighted the need to increase accessibility to resources or information. No respondent chose to enhance communication channels for better clarity or "none of the above" (0% each).

**Table 5. Suggestions and feedback from respondents for improvement**

| Response option | Number of responses | Percentage |
|---|---|---|
| Implementing new training methods or technologies | 44 | 51.76% |
| Providing additional support or mentoring opportunities | 33 | 38.82% |
| Increasing accessibility to resources or information | 8 | 9.41% |
| Enhancing communication channels for better clarity | 0 | 0% |
| None of the above | 0 | 0% |
| **Total** | **85** | **100%** |

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www.jasdg.com
Volume 1 Issue 4 Pages 3135-3161
ISSN: 3155-7546 (Online)
DOI: 10.5281/zenodo.24064936

**Competencies Identified by the Respondents under the TESDA Categories**

***Basic competencies***

Table 6 shows that 78 respondents (91.76%) identified computer hardware installation and troubleshooting as the primary basic competency. Six respondents (7.06%) identified network configuration and administration, and 1 respondent (1.18%) identified software installation and configuration. No respondent selected peripheral device maintenance and repair or "none of the above."

**Table 6. Basic competencies**

| Response option | Number of responses | Percentage |
|---|---|---|
| Computer hardware installation and troubleshooting | 78 | 91.76% |
| Network configuration and administration | 6 | 7.06% |
| Software installation and configuration | 1 | 1.18% |
| Peripheral device maintenance and repair | 0 | 0% |
| None of the above | 0 | 0% |
| **Total** | **85** | **100%** |

***Common competencies***

As shown in Table 7, 76 respondents (89.41%) identified performing maintenance and repairs on computer hardware as the primary common competency. Five respondents (5.88%) identified diagnosing and resolving issues with computer components, and 4 respondents (4.71%) identified upgrading and replacing computer components. No respondent selected configuring and optimizing software for optimal system performance or "none of the above."

**Table 7. Common competencies**

| Response option | Number of responses | Percentage |
|---|---|---|
| Performing maintenance and repairs on computer hardware | 76 | 89.41% |
| Diagnosing and resolving issues with computer components | 5 | 5.88% |
| Upgrading and replacing computer components | 4 | 4.71% |
| Configuring and optimizing software for optimal system performance | 0 | 0% |
| None of the above | 0 | 0% |
| **Total** | **85** | **100%** |

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Volume 1 Issue 4 Pages 3135-3161
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***Core competencies***

Table 8 shows that 78 respondents (91.76%) identified computer hardware troubleshooting and repair as the primary core competency. Five respondents (5.88%) identified performing maintenance, cleaning, and preventive care on computer hardware, while upgrading and replacing computer hardware components and configuring and testing hardware settings for optimal performance received 1 response each (1.18%). No respondent selected "none of the above," indicating that every respondent recognized at least one of the listed core competencies as important.

**Table 8. Core competencies**

| Response option | Number of responses | Percentage |
|---|---|---|
| Computer hardware troubleshooting and repair | 78 | 91.76% |
| Performing maintenance, cleaning, and preventive care on computer hardware | 5 | 5.88% |
| Upgrading and replacing computer hardware components | 1 | 1.18% |
| Configuring and testing hardware settings for optimal performance | 1 | 1.18% |
| None of the above | 0 | 0% |
| **Total** | **85** | **100%** |

***Additional competency indicators***

The other competency items of the questionnaire yielded the indicators summarized in Table 9. Hardware troubleshooting and repair was again the competency most frequently recognized as essential (92.94%), whereas operating system installation and software development were not selected by any respondent in the first basic-competency item. Technical support and troubleshooting assistance was unanimously recognized (100%) as a key focus area for the common competencies, and configuring and troubleshooting network devices was identified as an essential common competency by 93.53% of respondents. Among the core competencies, 91.76% of respondents were proficient in hardware troubleshooting and repair, 88.24% in configuring and troubleshooting network devices, and 89.41% in troubleshooting and resolving software-related issues.

**Table 9. Additional competency indicators identified by the respondents**

| Category | Indicator | Percentage |
|---|---|---|
| Basic | Computer hardware troubleshooting and repair identified as the key competency emphasized | 91.76% |
| Basic | Network configuration and administration identified as the key competency emphasized | 8.24% |
| Basic | Operating system installation and maintenance; software development and programming | 0% |
| Basic | Hardware troubleshooting and repair viewed as an essential competency | 92.94% |

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Volume 1 Issue 4 Pages 3135-3161
ISSN: 3155-7546 (Online)
DOI: 10.5281/zenodo.24064936

| | | |
|---|---|---|
| Common | Providing technical support and troubleshooting assistance recognized as a key focus area | 100% |
| Common | Configuring and troubleshooting network devices identified as an essential competency | 93.53% |
| Core | Proficient in hardware troubleshooting and repair | 91.76% |
| Core | Proficient in configuring and troubleshooting network devices | 88.24% |
| Core | Proficient in troubleshooting and resolving software-related issues | 89.41% |

*Note.* Percentages are reproduced from the study's findings; item-level frequency tables were not reported for these indicators.

**Perceived Alignment between the OJT Experience and the Required Competencies**

Table 10 presents the respondents' perceptions of the alignment between their OJT experience and the competencies required in computer technology servicing. A strong majority, 67 respondents (78.82%), rated their training as "completely aligned" (5 on the scale), followed by 12 respondents (14.12%) who rated it "mostly aligned." Four respondents (4.71%) were neutral, and 2 (2.35%) perceived the training as "somewhat misaligned." No respondent selected "completely misaligned." The weighted mean rating was 4.69 (SD = 0.67), which falls in the "completely aligned" range (4.50–5.00).

**Table 10. Perceived alignment between OJT experience and required competencies (N = 85)**

| Response option | Scale | Number of responses | Percentage |
|---|---|---|---|
| Completely aligned | 5 | 67 | 78.82% |
| Mostly aligned | 4 | 12 | 14.12% |
| Neutral | 3 | 4 | 4.71% |
| Somewhat misaligned | 2 | 2 | 2.35% |
| Completely misaligned | 1 | 0 | 0% |
| **Total** | | **85** | **100%** |

*Note.* Weighted mean = 4.69; SD = 0.67.

***Statistical significance of the distribution of ratings***

A chi-square goodness-of-fit test was conducted to determine whether the observed distribution of ratings deviated significantly from a uniform distribution. Under $H_0$ (the alignment categories are evenly distributed), the expected frequency for each of the five categories is 85 ÷ 5 = 17. The computations are shown in Table 11.

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Volume 1 Issue 4 Pages 3135-3161
ISSN: 3155-7546 (Online)
DOI: 10.5281/zenodo.24064936

**Table 11. Chi-square goodness-of-fit computation**

| Category | Observed (O) | Expected (E) | O − E | (O − E)² / E |
|---|---|---|---|---|
| Completely aligned | 67 | 17 | 50 | 2500/17 ≈ 147.06 |
| Mostly aligned | 12 | 17 | −5 | 25/17 ≈ 1.47 |
| Neutral | 4 | 17 | −13 | 169/17 ≈ 9.94 |
| Somewhat misaligned | 2 | 17 | −15 | 225/17 ≈ 13.24 |
| Completely misaligned | 0 | 17 | −17 | 289/17 ≈ 17.00 |
| **Total** | **85** | **85** | **0** | **$\chi^2 \approx 188.71$** |

The test yielded a highly significant chi-square value, $\chi^2(4, N = 85) = 188.71$, $p < .001$, far exceeding the critical value of 9.488 at $\alpha = .05$ (df = 4). The null hypothesis was therefore rejected: respondents' perceptions were not evenly distributed across the alignment categories, and the overwhelming majority perceived their training as highly aligned with competency requirements.

**The Standardized On-the-Job Training Guide**

The sixth research question asked what standardized on-the-job training guide for computer technology servicing could be developed from the findings. The output is a guide designed to address the gaps identified in the current OJT program and to improve the overall quality of the learning experience. This section presents its components, objectives, source materials, and the three competency modules (basic, common, and core) that organize its content.

***Components of the guide***

The guide is built around seven components (Table 12) that together ensure students gain the skills and experience needed to succeed in computer technology servicing.

**Table 12. Components of the standardized OJT guide**

| Component | Description |
|---|---|
| Learning Objectives | Clearly define the goals students should achieve during their OJT and provide a roadmap for the training, so that students know what is expected of them. |
| Training Activities | Practical exercises covering the essential competencies in computer servicing, together with simulated scenarios that enhance problem-solving skills and deepen technical knowledge. |
| Assessment Methods | Tools for evaluating performance through practical assessments and feedback forms. These measure technical skills as well as soft skills such as communication and teamwork. |
| Evaluation Procedures | A systematic approach to evaluating the effectiveness of the training program. Regular feedback from industry partners helps maintain the relevance and quality of the training. |

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www.jasdg.com
Volume 1 Issue 4 Pages 3135-3161
ISSN: 3155-7546 (Online)
DOI: 10.5281/zenodo.24064936

| | |
|---|---|
| Industry Collaboration | Guidelines for establishing partnerships with local businesses and technology firms, offering students real-world experience and opportunities for mentorship and networking. |
| Feedback Mechanisms | Input gathered from both students and industry supervisors, through surveys and interviews, on the effectiveness of the training activities, so that the guide can be continuously improved and adjusted. |
| Standardized Competencies | The essential competencies, based on TESDA standards, that students are expected to master, categorized into basic, common, and core areas to ensure a comprehensive and well-rounded education. |

***Introduction and objectives of the guide***

The guide is based on the identified competency levels, program implementation insights, and feedback from students and industry supervisors. It aims to improve the quality and consistency of OJT experiences and to ensure that students develop skills that meet industry standards. By addressing the gaps identified in the study, the guide enhances training effectiveness, student performance, and collaboration between educational institutions and industry partners. It also addresses the relevance of OJT in education, the industry demand for skilled technicians, competency assessment, and supervisor feedback, and it seeks to tackle gender disparities and influence educational policy. Ultimately, it is designed to better prepare computer technology students for the transition from academia to the workforce.

The objectives of the guide are to:

1. present the standardized OJT guide developed for Computer Technology Servicing students on the basis of the research findings;
2. detail the guide's structure, content, and key components, including learning objectives, training activities, assessment methods, and evaluation procedures;
3. explain how the guide addresses the gaps and areas for improvement in the existing OJT training process, as determined by the study;
4. describe the potential impact of the standardized guide on the quality and consistency of students' OJT experiences;
5. discuss how the guide strengthens the partnership between educational institutions and industry stakeholders by aligning student training with industry standards; and
6. highlight the guide's role in contributing to educational policy and practice, particularly in preparing computer technology students more effectively for the workforce.

***Materials used***

The guide was developed from a range of materials and data sources. The key inputs were the research findings presented above, which assessed students' OJT competence, and the data gathered from the fourth-year BSIT students majoring in Computer Technology at NORSU Main Campus through the researcher-made questionnaire. Feedback from industry partners and supervisors, together with the TESDA-specified national competencies in computer system servicing, was also crucial in shaping the guide's content. The synthesis of these materials produced the structured

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www.jasdg.com
Volume 1 Issue 4 Pages 3135-3161
ISSN: 3155-7546 (Online)
DOI: 10.5281/zenodo.24064936

learning objectives, training activities, assessment methods, and evaluation procedures that make up the guide. Each competency module of the guide is organized into four parts: Introduction, Activities, Presentation, and Output.

***Module 1: Basic competencies***

**Introduction.** In today's workplace, basic computer skills are fundamental across nearly all roles. They are essential for efficient communication, data management, and task completion; proficiency in them enhances productivity, reduces errors, and allows team members to adapt smoothly to new technologies and software. In computer technology servicing these skills are particularly critical because they form the backbone of technical tasks and support. The module covers seven interconnected competencies that provide students with a roadmap of the specific skills they will learn, with clear goals established for each:

1. **Operating a personal computer** is essential for navigating computer systems, managing files, and running applications, which are foundational to almost any task.
2. **Operating word processing software** is necessary for creating and editing documents, writing reports, and communicating effectively in writing.
3. **Operating spreadsheet software** is critical for data analysis, financial management, and the systematic organization of information.
4. **Operating presentation software** plays a significant role in conveying ideas and engaging audiences during meetings or training sessions.
5. **Working with MS-Office** encompasses the essential tools for office productivity, including word processing, spreadsheet, and presentation software, and enhances overall efficiency.
6. **Data encoding** is vital for accurately inputting and managing data, ensuring the integrity and reliability of various systems.
7. **Printing documents** remains necessary for producing hard copies of important information, reports, and presentations, which are still commonly required in professional settings.

Together, these competencies equip students with the essential computer skills needed to succeed in the contemporary workforce.

**Activities.** The module includes hands-on exercises that reinforce the essential computer skills needed in the workplace. Trainees:

- complete practical exercises in operating a personal computer, building fundamental knowledge and confidence in navigating computer systems;
- complete word processing exercises to create and edit documents effectively;
- perform spreadsheet tasks to strengthen their ability to analyze data and manage information;
- create and deliver presentations using presentation software, honing communication skills and the ability to engage audiences;
- work through targeted exercises that build familiarity with MS-Office applications and their range of productivity tools;
- practice data encoding tasks to ensure accurate input and management of information; and

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Volume 1 Issue 4 Pages 3135-3161
ISSN: 3155-7546 (Online)
DOI: 10.5281/zenodo.24064936

- complete document printing exercises that emphasize the importance of producing hard copies of important materials.

**Presentation.** Each competency is introduced through thorough demonstrations that give trainees a solid understanding of the practical applications of the skill. Visual aids, including slideshows and videos, illustrate the steps involved in each task, which reinforces learning and allows trainees to visualize complex concepts in action. Trainees also examine real-world examples that show how these competencies are applied in computer technology servicing, so that they appreciate the practical significance of the training and the direct impact the skills will have on their future careers.

**Output.** By the end of the module, trainees are expected to:

- operate personal computers, with the foundational skills needed to navigate technology effectively;
- create, edit, and format documents using word processing software, producing professional-looking materials;
- create and manipulate data in spreadsheets, enhancing their analytical skills and managing information efficiently;
- design and deliver effective presentations that communicate ideas clearly and persuasively;
- work proficiently with MS-Office applications, using their features and functionalities to optimize productivity;
- encode data accurately, with precision and attention to detail; and
- print documents correctly, understanding the importance of presentation in professional settings.

***Module 2: Common competencies***

**Introduction.** Common competencies are the skills applicable across the various computer technology servicing tasks. Trainees receive a comprehensive explanation of the competencies that are essential in the industry and aligned with general industry practice: (1) the application of quality standards, which shows how to evaluate and ensure the excellence of technical work; (2) computer ethics, covering responsible behavior and ethical considerations when working with technology and client data; (3) teamwork, which emphasizes collaboration with others in a professional setting; (4) efficient communication, which enables trainees to convey technical information clearly to colleagues and clients; (5) critical problem-solving, which teaches how to approach and resolve technical challenges systematically; (6) safety procedures, which stress maintaining a secure work environment when handling equipment and technology; and (7) client interaction, which prepares trainees to engage with clients professionally and understand their needs. Collectively, these competencies equip trainees to navigate the complexities of the field with confidence.

**Activities.** Trainees:

- participate in role-playing scenarios that strengthen ethical decision-making in various computer servicing situations, exploring the implications of their choices in a controlled environment;
- work on group projects that foster teamwork and collaboration toward common workplace goals;
- complete exercises in written and verbal communication with clients and colleagues to convey technical information clearly;

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Volume 1 Issue 4 Pages 3135-3161
ISSN: 3155-7546 (Online)
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- analyze case studies that challenge them to diagnose and resolve computer-related issues, learning to approach problems methodically and to think critically about possible solutions;
- take part in simulations of workplace scenarios that require strict adherence to safety procedures, building awareness of occupational safety; and
- complete practical client-interaction tasks, such as gathering requirements and providing technical support, to understand client relationships and user needs.

**Presentation.** Trainees discuss the importance of each common competency and recognize the critical role of teamwork, effective communication, and problem-solving in the industry. Guest speakers from industry share firsthand experiences and insights on how these competencies are applied in real-world situations, providing inspiring and practical examples. Videos and multimedia presentations illustrate best practices in teamwork, communication, and problem-solving, and demonstrations of effective client interaction allow trainees to observe seasoned professionals engaging with clients in a professional manner.

**Output.** By the end of the module, trainees are expected to:

- demonstrate ethical behavior in all tasks, with integrity and accountability in managing sensitive information and resolving technical issues;
- work effectively with peers in collaborative projects toward common goals;
- communicate clearly, accurately, respectfully, and professionally with clients and colleagues, building confidence and trust;
- apply critical thinking, creativity, and technical knowledge to diagnose and resolve a variety of computer-related issues;
- adhere to established safety procedures, protecting their own well-being and demonstrating responsibility as future technology professionals; and
- provide excellent customer service, meeting and exceeding client expectations and building positive, lasting client relationships.

***Module 3: Core competencies***

**Introduction.** Core competencies relate to the key functions and specific technical skills required in computer technology servicing. In the guide, they comprise installing computer systems (hardware and software); setting up and configuring computer networks; setting up and configuring computer servers; maintaining computer systems and networks; and diagnosing and troubleshooting computer systems. These specialized skills are critical for performing advanced and complex tasks in the field.

**Activities.** Trainees:

- complete practical exercises on installing various computer systems, both hardware and software, to understand the intricacies of computer setups;
- set up and configure computer networks, strengthening their ability to connect multiple devices and ensure seamless communication between them;
- set up and configure computer servers, gaining insight into the complexities of server management and its vital role in network operations;

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Volume 1 Issue 4 Pages 3135-3161
ISSN: 3155-7546 (Online)
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- maintain computer systems and networks through both preventive measures and corrective actions, learning to manage systems proactively to prevent issues and to address challenges effectively; and
- complete diagnostic and troubleshooting exercises to identify and resolve common computer system issues, developing critical thinking and the ability to work methodically through problems.

**Presentation.** Trainees take part in comprehensive demonstrations of how to perform each core competency, using diagrams, videos, and live demonstrations that depict the steps involved in the various processes and make complex concepts more accessible. They examine case studies of real-world scenarios in which these competencies are applied, seeing how theoretical knowledge translates into practice. They also interact with guest speakers from industry, who share their experiences and insights on the significance of these competencies in professional settings.

**Output.** By the end of the module, trainees are expected to:

- install computer systems in accordance with the provided specifications;
- set up and configure computer networks tailored to specific client requirements, ensuring seamless connectivity and functionality;
- set up and configure computer servers for various applications, supporting diverse operational needs;
- maintain computer systems and networks, applying best practices for regular upkeep and monitoring to ensure optimal performance and security; and
- diagnose and troubleshoot computer systems effectively, identifying and resolving both hardware and software issues.

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Volume 1 Issue 4 Pages 3135-3161
ISSN: 3155-7546 (Online)
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## DISCUSSION

### Principal Findings

This study assessed the OJT competence of 85 fourth-year BSIT Computer Technology students of NORSU as the basis for a standardized OJT guide. The respondents were predominantly young adults aged 18–24 years (71.76%) and male (61.18%). They unanimously agreed (100%) that effective computer servicing requires comprehensive training materials, clear guidelines, regular supervisor feedback, and hands-on practice. The most frequent suggestions for improvement were new training methods or technologies (51.76%) and additional support or mentoring (38.82%). Across the basic, common, and core categories, roughly nine in ten respondents identified hardware-related competencies as primary, with far less attention to network and software competencies. Finally, 78.82% rated their OJT as completely aligned with the competencies required, and the distribution of ratings departed significantly from a uniform one. Together, the findings indicate a strong emphasis on hardware competencies in the OJT program, a consensus on the need for innovative training approaches, and high confidence among participants in the alignment of their skills with job expectations.

### Respondent Profile

The concentration of respondents in the 18–24 age range suggests that training should be tailored to the needs and learning styles of young adults, whose preferences and expectations may differ from those of older learners. Modern teaching methods, such as interactive and technology-enhanced learning environments, may engage this group by aligning with its motivations and preferred learning modalities. The concentration of younger participants also presents an opportunity for career development: training can address not only technical skills but also career guidance, networking opportunities, and mentorship, which are essential for young professionals entering the workforce. At the same time, the minimal representation of the 35–44 age group (2.35%) may indicate limited diversity in experience levels within the cohort, which could narrow peer learning opportunities and varied perspectives. Educational institutions may therefore need to reassess their outreach and recruitment strategies, for example through targeted marketing or partnerships with organizations that work with older individuals seeking retraining or upskilling.

The predominantly male composition of the group (61.18% male; 38.82% female; no LGBTQ or non-disclosing respondents) points to a potential gender imbalance that may influence the learning environment and peer interactions. The absence of diverse gender representation raises concerns about inclusivity and the incorporation of varied perspectives in the training context, and it may affect the design and delivery of training materials and methodologies. A more inclusive approach would help all participants feel represented and supported, and could enhance participant engagement, improve training outcomes, and create a more equitable and dynamic learning environment.

### Requirements and Suggestions for Improvement

The unanimous selection of “All of the above” suggests that respondents view training materials, clear guidelines, supervisor feedback, and hands-on practice as interdependent and equally essential. Training programs should therefore integrate these elements, combining theoretical knowledge with practical application and continuous support, and institutions need to allocate resources to well-rounded training materials and to an environment that prioritizes regular feedback and mentorship. Doing so can help programs equip students with the skills, confidence, and adaptability needed for success in computer technology servicing and, ultimately, for better career outcomes.

The preference for new training methods or technologies (51.76%) indicates that respondents recognize the need for innovative approaches that keep pace with the rapidly evolving technology landscape and for integrating modern tools and methodologies into the training curriculum. The 38.82% who called for additional support or mentoring point to a perceived gap in guidance and personalized assistance during training, suggesting that mentorship could significantly enhance learning outcomes and student confidence. The smaller group (9.41%) that asked for greater accessibility to

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Volume 1 Issue 4 Pages 3135-3161
ISSN: 3155-7546 (Online)
DOI: 10.5281/zenodo.24064936

resources points to a need for better availability of information and materials. That no respondent asked for enhanced communication channels or chose "none of the above" suggests a focus on actionable improvements rather than a rejection of existing structures.

**Competencies**

The dominance of hardware-related choices (91.76% for basic hardware installation and troubleshooting, 89.41% for hardware maintenance and repair, and 91.76% for core hardware troubleshooting and repair) shows that students and industry stakeholders regard hardware skills as foundational to success in the field and that OJT training should continue to provide strong, practice-based hardware competencies. At the same time, the minimal selection of network configuration and administration (7.06%), software installation and configuration (1.18%), and the absence of selections for peripheral device maintenance and repair and for software configuration and optimization reveal potential gaps in the curriculum, which may not adequately address the full range of skills required in modern computer servicing roles. Because software skills are increasingly relevant in modern computing environments, training programs may need to broaden their scope to include a more diverse set of competencies and so provide a more comprehensive skill set for students entering the workforce. Aligning training content with the expressed preferences of students, while closing these gaps, can lead to more effective educational outcomes and better prepare graduates for the demands of the workforce.

**Perceived Alignment**

With 78.82% of respondents rating the alignment as "completely aligned," students show strong confidence that their training prepares them for the demands of the industry, which suggests that the current training is largely meeting its educational objectives and can sustain student motivation and engagement. The 14.12% who rated their training as "mostly aligned" and the 4.71% who were neutral, however, indicate that there is still room to achieve full alignment for all students, and the 2.35% who found their training "somewhat misaligned" show that specific gaps or concerns remain to be addressed. These findings imply that continuous evaluation and enhancement of training programs are essential so that all students feel fully equipped to meet industry standards and expectations in computer technology servicing.

**Implications for the Standardized OJT Guide**

The findings informed the design of the guide: its learning objectives, training activities, assessment methods, and evaluation procedures address the demand for integrated materials, clear guidelines, feedback, and hands-on practice; its industry collaboration and feedback mechanisms respond to the call for mentoring and for alignment with industry needs; and its basic, common, and core modules, drawn from the TESDA standards, broaden the competency coverage beyond hardware. The guide thus offers a framework through which OJT quality and consistency can be improved, student performance boosted, and the partnership between the university and industry strengthened.

**Limitations**

The findings should be interpreted in light of several limitations. The study involved a single cohort of 85 students from one institution, so generalization to other institutions or cohorts is limited. The data were self-reported through a researcher-made questionnaire whose items largely asked respondents to identify the competencies they considered primary or essential; the results therefore reflect perceived emphasis rather than directly measured proficiency. Because the requirements item offered an "All of the above" option, the unanimous response may partly reflect the item format. The chi-square test compared the observed ratings with a uniform distribution, which establishes that responses were concentrated in the upper categories but does not compare perceived requirements against measured competence. Future studies may use validated instruments, supervisor ratings, and performance-based assessments to complement student self-reports.

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Volume 1 Issue 4 Pages 3135-3161
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## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

The study concludes that the OJT program in computer servicing is perceived by its students as well aligned with industry needs, particularly in developing essential hardware competencies. The program mainly attracts young adults (ages 18–24) entering the workforce, yet it exhibits a notable gender imbalance, revealing an opportunity to foster greater inclusivity and to increase female participation.

The emphasis on hardware skills, such as computer hardware troubleshooting and repair, which more than 90% of respondents recognized as critical, accords with current industry demands. However, software competencies are underrepresented, which suggests that broadening the curriculum to include these skills would better equip students for comprehensive technical roles. Students identified technical support and troubleshooting assistance as universally important, reinforcing the program's focus on fundamental skills.

Respondents strongly expressed the need for comprehensive training materials, frequent feedback, and additional hands-on practice. This suggests that innovative training methods, such as virtual labs or mentorship programs, could enrich the learning experience and improve readiness for real-world challenges. With 78.82% of students confident in the alignment of their training with role requirements, the program appears effective in preparing participants for the workforce.

In conclusion, while the OJT program in computer servicing successfully develops critical hardware competencies and meets current industry standards as perceived by its students, future improvements should aim to diversify skills training, particularly in software, and to strengthen inclusivity efforts. These enhancements, supported by the standardized OJT guide, could strengthen the program's impact and better prepare students for evolving workforce demands.

### Recommendations

Based on the findings of the study of the OJT competence of BSIT students at Negros Oriental State University, the following recommendations are proposed to enhance the training experience and improve student outcomes.

1. **Broaden the competency focus.** Enhance the curriculum so that, beyond hardware installation and troubleshooting, it includes essential skills in software management, network configuration, and peripheral device maintenance. This will equip students to adapt to various roles within the technology servicing field.

2. **Adopt an integrated training approach.** Develop comprehensive training materials that cover both theoretical knowledge and practical applications across all areas of computer servicing, and make them accessible to all students. Provide clear guidelines and instructions for each training activity so that students understand and execute tasks with clarity and consistency.

3. **Increase hands-on training.** Provide more opportunities for hands-on training through workshops, labs, and real-world projects to reinforce theoretical concepts and develop technical skills. Incorporate simulated scenarios that replicate real-world challenges in computer servicing so that students can apply their knowledge in a controlled environment.

4. **Implement regular feedback mechanisms.** Use continuous assessment that evaluates both technical skills and soft skills such as communication and teamwork, drawing on practical assessments, peer reviews, and supervisor feedback to monitor progress. Obtain feedback from industry partners to keep the program relevant and aligned with industry standards.

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JOURNAL FOR THE ADVANCEMENT OF SUSTAINABLE DEVELOPMENT GOALS
AN INTERNATIONAL, PEER-REVIEWED, OPEN ACCESS JOURNAL
www.jasdg.com
Volume 1 Issue 4 Pages 3135-3161
ISSN: 3155-7546 (Online)
DOI: 10.5281/zenodo.24064936

5. **Strengthen mentorship and support systems.** Offer mentoring opportunities in which experienced professionals guide OJT students and share insights into industry practices, and provide additional support resources, such as tutoring sessions or study groups, for students who need extra assistance in specific areas.

6. **Foster an inclusive training environment.** Encourage diversity in enrollment by developing outreach programs that increase female participation and the representation of LGBTQ individuals in technology-related fields, and promote an inclusive culture that welcomes diverse perspectives.

7. **Use technology in training.** Explore new training technologies, such as online learning platforms, virtual labs, or augmented reality simulations, to enhance engagement and learning outcomes. Make all training resources accessible online so that students can study at their own pace, revisit materials as needed, and learn more flexibly.

8. **Standardize competencies.** Continuously review and align the curriculum with the competencies outlined by TESDA so that students acquire the skills that are recognized and valued in the technology servicing industry.

By implementing these recommendations, the OJT program can become more effective, meeting current educational standards while preparing students for successful careers in computer technology servicing. This holistic approach will not only enhance the learning experience but also improve students' readiness to tackle real-world challenges in the technology industry.

## ACKNOWLEDGMENTS

The author expresses deepest gratitude to the thesis advisory committee for their guidance, expertise, and support: Dr. Joseph C. Pepito, President of Cebu Technological University and Chairman; Dr. Nolasco K. Malabago, who served as both statistician and committee member; Dr. Segundino G. Cuadra, adviser; and committee members Dr. Rino Anthony M. Demeterio, Dr. Januario L. Flores Jr., Dr. Perla N. Tenerife, and Dr. Regina P. Galigao. Gratitude is also extended to Dr. Joel P. Limson, President of Negros Oriental State University, for approving the request to conduct the study among students of the College of Industrial Technology; Dr. Glicerio E. Duran Jr., Dean of the College of Industrial Technology, for his full support; Mr. Geory A. Tajada, OJT Coordinator of the college, for allowing the survey of the OJT students; Dr. Galileo Oral Malahay Lim, a dear colleague who guided the author throughout the study; Mr. Simeon D. Timgas, President of the Computer Technology Society, for helping distribute the questionnaires; and the Graduate School faculty of Cebu Technological University for the knowledge and expertise they imparted.

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