

Assessing On-the-Job Training (OJT) in Computer Studies: Implications for OJT Manual Development

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Abstract: This study was conducted to disseminate information and raise awareness among OJT students in the College of Computer Studies internship program. The researcher concludes that the intern students have acquired the necessary knowledge and skills required for their respective courses, as evidenced by the high ratings results given to them by the host establishment in terms of competencies, skills, attitude, and personality development as excellent, and that both the school and host establishment have provided enough support and training for OJT since the practicums encountered minimal problems in their OJT in terms of training, work environment, and school support. Moreover, it was proven that the students and the company successfully handled time work distribution and had a very high rating for their competence. The OJT students voluntarily assist others (as needed) in completing their responsibilities. The study directly affects the student's demographic profile, with different factors affecting their skills, ability, training, and competence, with 89 responses. There are numerous areas in which this study of the student's internship could improve the process of their On-the-Job training course. The study focuses on the analysis and interpretation of the survey results conducted by the researcher. And the basis for the development of the OJT manual. The researcher administered survey questionnaires via Google Forms to the College of Computer Studies undergraduate students. It is suggested that an on-the-job training manual be proposed for faculty members, students, and companies involved in the OJT programs.

Keywords: Internship, Undergraduate Programs, On-the-Job Training (OJT), OJT Manual Development, Computer Studies

INTRODUCTION

Academic institutions confront problems that do not meet business demands, notably in the skills they develop. Due to a mismatch in employment skills, many graduates cannot fill job opportunities today. Many of the talents that firms need, such as technical, human resource, and conceptual skills, are taught in universities. Furthermore, on-the-job training programs may be used to reinforce these similar skills. On-the-job training (OJT) programs are course requirements that allow students to apply theories, concepts, and ideas gained in the classroom in a controlled environment. These training programs expose students to real-world situations, allowing them to refine their abilities and prepare for life beyond university or college.

Prior research on on-the-job training has mostly focused on assessing learning outcomes, student happiness, and the overall efficacy of the internship program. Few, nevertheless, have critically examined how, in light of the quick changes in technology, the structure and content of institutional OJT manuals either support or fail to support the unique skill development requirements of computer studies students. This study adopts a twofold approach by examining both the real-world experiences of students during their On-the-Job Training (OJT) and the institutional guidelines that shape these engagements. Through this method, the research aims to pinpoint specific gaps in current OJT manuals, particularly in terms of aligning competencies, ensuring task relevance, and establishing appropriate assessment criteria. The central issue addressed by this study is the absence of a systematic, evidence-based framework for developing OJT manuals that effectively reflect the evolving demands of the ICT industry and the intended academic outcomes of Computer Studies programs. This state institution (LSPU) began in 1952 with humble beginnings. The College of Computer Studies was originally under the College of Arts and Sciences. Its first name was College of Information Technology, and it was under the leadership of the retired Dr. Mario C. Pasion as the

dean. Dr. Pasion consulted Retired President Dr. Wagan, who said that there are various programs under the said College, then the College was renamed as the College of Computer Studies.

On-the-Job Training (OJT) serves as a practical instructional method wherein individuals acquire essential skills, knowledge, and competencies directly within the work environment. This experiential learning approach enables trainees to apply theoretical understanding to real-world tasks, thereby reinforcing professional capabilities through direct practice. Historically, education has been recognized as a critical driver of economic resilience and political influence. National development and industrial progress are intrinsically linked to the level of education and training attained by the workforce. As human capital is considered one of the nation's most vital resources, its productivity significantly influences overall prosperity. To ensure a competent and effective labor force, students must receive not only quality education but also rigorous, skill-based training. Education thus plays a pivotal role in preparing individuals to navigate the complexities of modern work environments, enabling them to define their career paths, engage with societal systems, and contribute meaningfully to national growth.

Based on the revised and enriched CMO No. 25, 2015, CMO No. 34, 2012, CMO No. 20, 2013, and CMO No. 4, 2018, from the curriculum of Bachelor of Science in Information Technology and Bachelor of Science in Computer Science. In support of the K to 12 and Outcome-Based Education (OBE) educational transition or revolution, the College of Computer Studies initiated the revision and enrichment as early as last year of 2017. The basis of revision was CMO No. 25, 2015, CMO No. 34, 2012, CMO No. 20, 2013 and CMO No. 4, 2018. The College of Computer Studies graduates are expected to become globally competitive and innovative computing professionals imbued with utmost integrity, contributing to the country's national development goals with the program's educational objectives. The Bachelor of Science in Information Technology graduates are professionals who can adapt to the fast-paced computing trends responsive to global IT demands.

There is a need for on-the-job training programs because of their importance, and students pursuing their education at these private and public institutions must be protected. Skills-specific responsibilities and mentorship are assigned to universities. This study primarily focused on assessing the on-the-job training practices of select colleges and universities in Quezon City, Philippines, as the basis for enhancing their on-the-job training program. It also determined the relationship between the level of performance of student trainees, such as personal characteristics, attitudes toward their jobs, competence, job performance, and obedience to company policies and procedures, and their genders and ages, and the degree of significance of the problems in the implementation of the on-the-job training program encountered by the student trainees, OJT advisers, and college deans. Descriptive survey research was used in this study.

The primary purpose of using and considering descriptive survey research was to fully describe and clearly explain the phenomena and how they work. The researcher raised the 4-point Likert scale questionnaire to gather data on the student-trainee's involvement in the implementation of the on-the-job training program in compliance with their characteristics, attitude towards the job, job performance, competencies, and obedience to school policies, and finally, problems encountered in the implementation of the on-the-job training program by the student-trainees, college deans, and OJT advisers. These were validated by experts, practitioners, and professionals on on-the-job training programs. The data collected were statistically analyzed using frequency, percentage, rank, mean, t-test of difference, and analysis of variance. The study's results show a significant difference in the perception of the foresighted solution to the level of agreement with the problems being met by the informants in implementing the on-the-job training program. The hypothesis that OJT problems negatively affect the intention to enhance the on-the-job training program cannot be supported. (Hebron, 2020)

Moreover, the On-the-Job Training Program, or OJT is required under the Information Technology Education (ITE) offered by the College of Computer Studies. OJT is being taken by students in the public or private sectors who are engaged in productive work requiring knowledge and skills essential to complete and achieve adequate performance on the job. Student interns are deployed in public or private institutions for 600 hours to learn and observe the different natural working environments as part of the hands-on teaching method.

The Bachelor of Science in Information Technology (BSIT), Bachelor of Science in Computer Science (BSCS), and Bachelor of Science in Information System (BSIS) curricula were designed to offer OJT 400 during the 1st semester of 2020-2021. (CCS ON THE JOB TRAINING (OJT) POLICIES AND GUIDELINES for 2021). Internship programs experienced doubts and issues along the road during OJT, which might impair their on-the-job performance in one way or another. Some subject teachers may be frustrated with their on-the-job training. Higher learning institutions must consider several variables to make an OJT Program an effective student training environment.

On the other hand, internship subject teachers encountered minimal problems handling OJT regarding students' behavior during their adjustment period in the new environment. They have difficulty scheduling the ocular visits in the host establishment due to different practicum sites. Also, the subject teachers experienced difficulty handling OJT due to the lack of standard guidelines, policies, rules, and regulations of the College. The time that she experiences problems is the only time that she will look for solutions.

Despite the growing emphasis on outcomes-based education (OBE) and industry-aligned curricula in computer studies, many institutions continue to implement OJT programs based on outdated or generalized manuals that may not effectively address the unique competencies required in the evolving ICT landscape. Current literature tends to focus broadly on OJT effectiveness or student performance but seldom evaluates the alignment between existing OJT guidelines and the actual training experiences of students in the ICT sector. This study seeks to fill this gap by assessing the existing OJT practices in Computer Studies, particularly identifying mismatches between institutional expectations and on-site experiences, to inform the development of a more responsive and contextually grounded OJT manual.

REVIEW OF RELATED LITERATURE

Theoretical Foundations of OJT

Internship programs should include an orientation phase grounded in Phoenix Guard Management's study on workforce planning to enhance productivity. This study recommends incorporating key organizational positions, desired job behaviors, and their supervisory roles into the internship program. The research on internship development programs is focused on helping wage-grade employees transition into supervisory roles. (Torbert, J. B., n.d.)

As part of the university's mission to provide efficient and cost-effective training programs, On-the-Job Training (OJT) is an essential internship program for qualified students before graduation. This study aimed to identify issues related to the OJT program and provide recommendations for improvement. Respondents included Bachelor of Science in Electrical Engineering (BSEE) students, coordinators of the Student Internship Program of the Philippines (SIPP), and potential Host Training Establishments (HTEs). They were selected through stratified random sampling, identifying specific groups (strata) within the population. Preliminary findings highlighted various data and guidelines to enhance OJT programs, focusing on rules and guidelines, time and scheduling, potential HTEs, and SIPP relations. The study will further recommend measures to improve the OJT program for BSEE students. (Martin et al., 2023)

This study examines the documentation of the student admission procedure for On-the-Job Training (OJT) at Batam Aero Technic. The motivation for selecting this research topic stems from the inconsistencies in the organization's OJT admission process for college students. The study aims to clarify the procedures for admitting students to the OJT program. Using a descriptive methodology, data were collected through interviews and documentation. The research outcome provides a comprehensive overview of the admission procedures through a flowchart detailing each step in the process for college students seeking OJT at Batam Aero Technic. (Sari, 2023)

Effectiveness of OJT in ICT and Computer Studies

A study assessed the effectiveness of the On-the-Job Training (OJT) program and the performance of Bachelor of Science in Information Technology (BSIT) students at Cagayan State University's (CSU) Gonzaga campus. It aimed to identify the respondents' profiles, perceptions of the OJT program's effectiveness, their level of OJT performance, and potential relationships between these variables. The analysis covered pre-deployment orientation, work assignments, school monitoring, agency training and support, trainee cooperation, and evaluation and post-deployment activities. Findings indicated that trainees perceived the OJT program to be highly effective overall, with pre-deployment orientation, work assignments, monitoring, and cooperation rated particularly effective. The respondents also exhibited excellent performance in various OJT aspects, such as quality of work, job knowledge, and human relations. (Suetos, 2023)

The effectiveness of the On-the-Job Training (OJT) program and the performance of Bachelor of Science in Information Technology students were assessed to analyze the significant influence of technological support on OJT in nine Technical and Vocational Education and Training (TVET) institutions in Malaysia. This effort aimed to enhance the quality of academicians as part of the organization's nurturing process towards achieving its objectives. The study was conducted across nine polytechnic campuses on the East Coast of Malaysia, encompassing the states of Kelantan, Pahang, and Terengganu. The population included 1,408 respondents, consisting of lecturers from various

departments. A questionnaire with 17 questions on a 7-point Likert scale was distributed using a stratified sampling procedure to gather feedback from the respondents. Multiple regression analysis was employed to assess the relationships among the variables. The output from the Statistical Package for the Social Sciences (SPSS) indicated a strong relationship between all measured variables. The multiple regression analysis for technological support and on-the-job training revealed a significant value of 0.000, with $B = 0.610$ and $t = 14.25$. (Mat Nawi et al., 2019)

The training method is a success in every organization, with employees being crucial and accountable for most deliverables. This research aims to evaluate the impact of on-the-job training (OJT) versus formal training on employee performance. The primary research will be conducted at IDG Direct, a B2B telemarketing company, with the company's consent. Quantitative research will be used to assess employees' opinions on which training method has a greater impact on their performance. Data will be collected from 256 employees through a web-based structured questionnaire, with 110 responses received. The findings indicate that both on-the-job training and formal training impact performance, but OJT has a greater influence. It is suggested and recommended that training provided by companies be tailored to individual needs and that training sessions be continuously evaluated to ensure employees have acquired the relevant skills. (Forde, n.d.)

Challenges and Gaps in OJT Implementation

An OJT program framework was developed based on instructional practices, students' readiness, and industry needs. Surveys, interviews, and document analyses showed that the college faculty's instructional practices significantly influence students' readiness. However, no significant correlation was found between students' readiness and industry needs. The industry emphasized that OJT assignments should link theory and practice, focusing on time management, punctuality, and meeting workplace deadlines. Business education faculty are encouraged to use diverse instructional practices consistently to ensure students' adaptability and employability. The study highlighted the importance of aligning students' specializations with industry services offered by OJT. A follow-up study could include drafting an OJT instructional manual to facilitate the proposed framework. (Rapatan & Juevesa, 2020)

A quantitative study using a descriptive survey design assessed the on-the-job training performance of Bachelor of Science in Information Technology (BSIT) students. The findings revealed that partner-company organizations were aligned with the students' specializations, utilizing IT-based software and assigning tasks related to information technology. Student trainees were able to enhance their communication skills, while mobile application development was identified as the area with the slightest improvement. Students found courses such as Professional Ethics and Values Education for IT, Multimedia Systems, Operating Systems, Oral Communication, Fundamentals of Grammar, Presentation Skills, and Technical Writing to be the most relevant. However, they highlighted challenges like performing non-IT tasks, extended OJT periods, overtime, and specific provisions in the current manual. The researchers concluded that implementing the BSIT Internship Manual could enhance students' fieldwork performance. (Casugay et al., 2024)

Based on the study of Rapatan and Juevesa (2020) on the Instructional Practices, Students' Readiness, and Industry Needs: Bases for an OJT Program Framework, the locale setting is one (1) of the colleges in General Santos City that described how the school envisions its students joining the corporate world after successfully earning the business administration and management degrees. The study designed an OJT program framework based on the instructional practices, students' readiness, and industry needs. Researchers conducted surveys, interviews, and documentary analyses that revealed that the instructional practices of the college faculty are significantly related to students' readiness. The industry needs to stress that matching OJT assignments requires the link of theory and practice, which emphasizes time management, punctuality, and promptness to meet deadlines in workplaces. The study identified the need to match the field of specialization that students get in college and the services that the industries offer for OJT. Drafting of an OJT instructional manual to facilitate the framework being proposed will be considered as a follow-up study to this.

Role and Impact of OJT Manuals

The study examined the impact of trainer experience on the use of directive behaviors and communication clarity in structured on-the-job training (OJT) and how these factors affected trainee perceptions. It was hypothesized that trainer experience would be positively related to these trainer characteristics and that the use of structured OJT guides would influence this relationship. Data were collected from 76 current and recent technical trainees and trainers at electrical utilities in the United States and Canada to test these hypotheses. The results indicated that trainer characteristics, such as directive behaviors and communication clarity, positively predicted perceptions of the trainer

and overall training effectiveness. The study concluded that while trainer experience may not be the most critical factor in influencing training sessions and trainee perceptions, the use of structured OJT guides is essential for fostering a productive and effective training environment. (Cooperstein Reisinger, 2023)

The study of Casugay, Fontanilla, and Subang employed a quantitative approach using a descriptive-survey design to evaluate the on-the-job training (OJT) performance of Bachelor of Science in Information Technology (BSIT) students. The data were gathered through a structured survey questionnaire and analyzed descriptively using frequency, percentage, and weighted mean. Certain findings indicated that the partner companies were generally aligned with students' specializations, providing IT-related tasks and utilizing relevant software tools. The training contributed to the enhancement of students' communication skills, while mobile application development was identified as the least developed skill area. The most relevant academic subjects identified by the students included Professional Ethics and Values Education for IT, Multimedia Systems, Operating Systems, Oral Communication, Fundamentals of Grammar, Presentation Skills, and Technical Writing. Challenges encountered included task assignments unrelated to IT, extended OJT hours, overtime requirements, and issues with provisions in the current OJT manual. The study concluded that the effective implementation of a revised BSIT Internship Manual could significantly enhance students' field performance. (Casugay et al., 2024b)

Embarking on a comprehensive exploration of the study of Wangchuk, which delves into the captivating realm of On-Job Training (OJT) and its profound impact on student learning within the context of the 6th cohort of the Diploma in Materials and Procurement Management program at Jigme Namgyel Engineering College in Dewathang. To assess the impact of On-Job Training (OJT) on the acquisition of practical skills, knowledge, and competencies among students in the 6th cohort, with a specific focus on their ability to apply theoretical concepts in real-world work environments, is the main objective of the study. The data were analyzed using a Relative Index of Importance (RII), which provides a descriptive interpretation of the most important variables in this research. It has been observed that the training improved the students' confidence in tackling problems and provided the need for continuous learning. The inadequate duration and insufficient stipend were the major concerns students expressed during their internship. It has been concluded that industrial experience gained from the OJT helps to improve the student's ability and knowledge gained, which can provide the basis for a successful career after graduation from college. It was recommended that OJT should be seen as a tool to improve students' abilities. (Wangchuk, 2023)

Institutional Approaches to Enhancing OJT

The students' needs Technical Competency, which is the capacity of the on-the-job trainees to carry out practical activities or processes within the certain technical or mechanical sector with accuracy, skill, and efficiency. This study aimed to determine the variable that predicts the technical competency of on-the-job trainees. A descriptive-correlational research design was used with the supervisors, team leaders, chief technicians, and focal persons of the Host Training Establishment (H.T.E.), who were the respondents of the study, utilizing simple random sampling techniques and using descriptive statistics. The data describe the level of curriculum alignment, educational approach, school governance execution, and the technical competency of the on-the-job (OJT) trainees. The result revealed that there was an aligned curriculum to industry-required competency, a very good educational approach in developing the technical competency, high school governance execution of the on-the-job training program, and a high technical competency of the trainees when they were in the industry or host institution for OJT. It implies that there should be constant coordination with the industry and TESDA for the changes and general suggestions to increase the learner's technical proficiency according to the change and rapid evolution of technology. (Calabit & Paglinawan, 2024)

The On-the -Job Training has been utilized to provide work skills to TVET students in order to meet the labor market in Oman. It is important to determine whether the quality of the training is meeting TVET students' needs. The study looked at the OJT training quality factors in relation to Trainer Quality, Effective assessment, Clear expectation, Learning Stimulation, Training Relevancy, Competence Development, Training Resources, Effective Support and Active Learning as found to have a direct link to students' satisfaction. The study involves 30 participants using a random sampling technique. The research adopted a quantitative approach, with data analyzed through descriptive statistical methods. Findings were presented with explanatory notes to support interpretation. To ensure the reliability of the instrument, Cronbach's Alpha was computed, yielding values between 0.80 and 0.90, which indicate high internal consistency. The Total Quality Management (TQM), specifically referencing the 5-C TQM Model of Academic Excellence and the SERVQUAL Model for service quality. The quality of OJT training was assessed in relation to student satisfaction, and the results demonstrated a statistically significant P-value. (Barwani & Azam, 2023)

The research identifies the fundamental elements influencing the technical competency of trainees before the on-the-job training (OJT) program. Factors were examined in connection with innovations in curriculum, instructional strategies, and school governance. Research design utilized is characterized as descriptive-correlation research. Pearson product-moment correlation was utilized to determine the extent of connection between curriculum innovation, instructional strategy, and school governance on trainees' technical competency. At the end, it demonstrated that universities and colleges had fully integrated curriculum innovations to enhance the technical competency of trainees. The research also formulated effective instructional strategies, while school governance ensured the complete implementation of the OJT program. As a result, trainees exhibited a significantly proficient technical competency even before commencing the OJT program. (Research Park, n.d.)

Objective of the Study

This study aims to identify the profile of the OJT advisers and student-trainees involved in implementing the On-the-Job-Training program, determine the problems encountered by the practitioners and coordinators in the OJT Program, and assess the performance of the OJT students.

Specific Objectives:

1. To identify the profile of the OJT advisers and student-trainees involved in implementing the on-the-job training program in terms of the following:
 - 1.1 Demographic Characteristics
 - 1.2 Age
 - 1.3 Gender
 - 1.4 Civil Status
 - 1.5 College
 - 1.6 Highest degree earned
 - 1.7 Present position
 - 1.8 Number of years in service
2. To determine the problems encountered by the practitioners and coordinators in the OJT Program in terms of the following:
 - 2.1 Training
 - 2.2 Feedback
3. To assess the performance of the OJT students in terms of the following:
 - 3.1. Competence
 - 3.2. Skills
 - 3.3. Attitude
 - 3.4. Personality Development
4. To develop a comprehensive student OJT Manual with the procedures and clear guidelines for the College of Computer Studies students.

Conceptual Framework

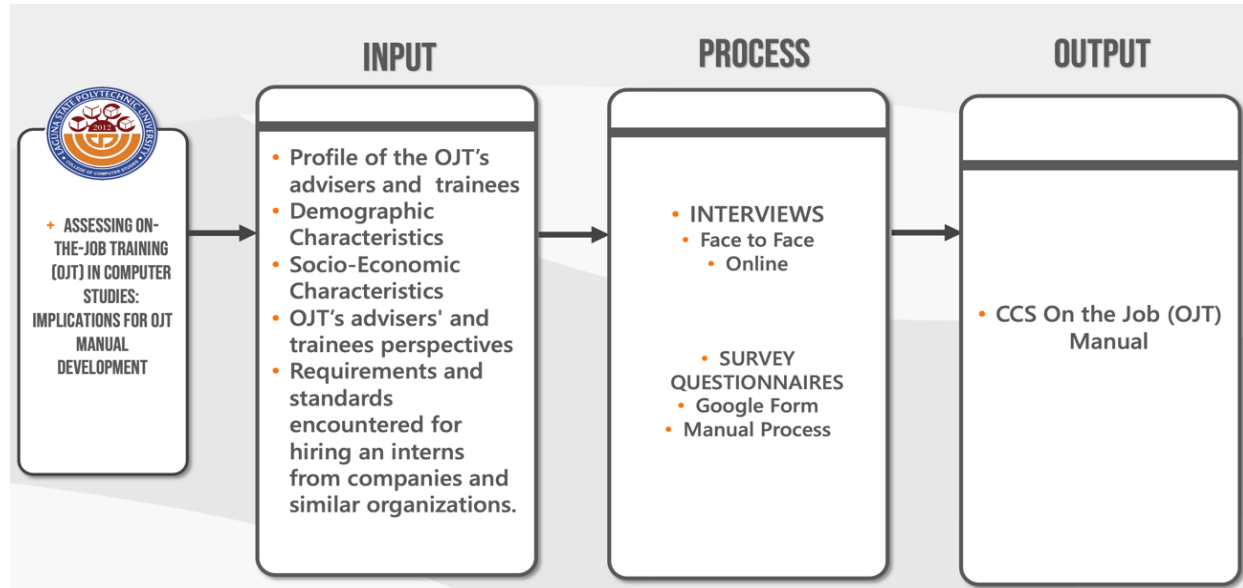
The conceptual framework outlines a systematic method for evaluating the On-the-Job Training (OJT) program in Computer Studies. This framework encompasses the demographic and socioeconomic characteristics of both advisers and interns. By gathering detailed input data through interviews and surveys, the study aims to create an informed OJT manual. The CCS On-the-Job (OJT) Manual will be developed based on this collected data and analysis. It will serve as a comprehensive guide for structuring and implementing the OJT program in Computer Studies, ensuring alignment with both educational objectives and industry standards.

The conceptual framework shown in Figure 1 outlines the structure for a research study assessing On-the-Job Training (OJT) in Computer Studies, specifically focusing on its implications for OJT manual development. This framework visually represents how the study is organized, the flow of information, and the relationships between key components. The Input section includes the foundational elements that inform the research of the Profile of OJT advisers and trainees, which refers to collecting demographic and background information about both groups, Demographic and Socio-Economic Characteristics, OJT advisers' and trainees' perspectives. Requirements and standards for hiring interns. The Process section describes the methods used to gather and analyze data on Interviews,

Survey Questionnaires, Lastly, the Output is the intended result of the research process, which is the CCS On-the-Job (OJT) Manual, which is the final product, a manual that will be informed by the findings from the input and process stages.

Figure 1

Conceptual Framework



The conceptual framework shown in Figure 1 outlines the structure for a research study assessing On-the-Job Training (OJT) in Computer Studies, specifically focusing on its implications for OJT manual development. This framework visually represents how the study is organized, the flow of information, and the relationships between key components. The Input section includes the foundational elements that inform the research of the Profile of OJT advisers and trainees, which refers to collecting demographic and background information about both groups, Demographic and Socio-Economic Characteristics, OJT advisers' and trainees' perspectives. Requirements and standards for hiring interns. The Process section describes the methods used to gather and analyze data on Interviews, Survey Questionnaires, Lastly, the Output is the intended result of the research process, which is the CCS On-the-Job (OJT) Manual, which is the final product, a manual that will be informed by the findings from the input and process stages.

METHODOLOGY

The population of the study is the students from the College of Computer Studies in its two (2) undergraduate programs, Bachelor of Science in Information Technology and Bachelor of Science in Computer Science, particularly the students who are in their 4th year and are enrolled in their OJT programs. Descriptive research is a survey or normative technique that defines and analyzes what it is. It concerns the current state of relationships, practices that prevail, beliefs and phases, and current impacts or emerging trends. It is fact-finding with competent interpretation, which includes components of meaning and significance interpretation in addition to data collecting and tabulation.

The researcher utilized the descriptive research approach to investigate the College of Computer Studies' Internship program. This study includes distributed surveys. This study also reveals the issues and other concerns that faculty members, students, and companies face during on-the-job training programs. The researcher utilized the Likert Scale to interpret and assess the students' problems encountered and performance in their OJT Programs. The

numerical rating equivalent shows the scale and verbal interpretation of the Likert Scale, which consists of 5 – Excellent, 4 – Very Good, 3 – Good, 2 – Fair, and 1 – Poor.

A total of 89 students were identified as eligible participants based on official internship records. From this group, all 89 students responded to the survey, resulting in a response rate of approximately 78%. The study did not undergo a formal review by an ethics board, but it adhered to standard ethical research practices. These included securing informed consent from participants, ensuring that participation was entirely voluntary, and maintaining strict confidentiality of all responses. The use of random sampling ensured that each eligible student had an equal chance of being selected, supporting the representativeness of the sample in evaluating OJT performance and experience. Although methods like t-tests and ANOVA were considered, this study mainly used descriptive statistics such as frequency counts, percentages, and weighted means to analyze the OJT performance data. This method was appropriate because the study aimed to summarize the students' responses and highlight general patterns, rather than compare groups or test specific hypotheses.

Table 1 presents the respondents per program of the respondents involved in the study. For the samples among the respondents, the LSPU–College of Computer Studies college students have an overall population of 89, with the composition of Bachelor of Science in Information Technology and Bachelor of Science in Computer Science. This included seventy-five (75) students enrolled in the Bachelor of Science in Information Technology (BSIT) program and fourteen (14) students from the Bachelor of Science in Computer Science (BSCS) program. As the total population was manageable, the researchers employed a total enumeration method, wherein all eligible students served as respondents of the study.

Table 1

Total Population of the Study

Respondents	Population
Bachelor of Science in Information Technology (BSIT)	75
Bachelor of Science in Computer Science (BSCS)	14
Total	89

The researcher included the scaling system shown in Table 2 to know the respondents' understanding since this is based on their opinions. The formula for getting the weighted mean is indicated to interpret the respondent's opinion. The Likert scale used questions with five response alternatives: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree. The researchers used this method to examine the extent to which respondents agree or disagree with a questionnaire. The Likert Scale that the researchers used to interpret and assess the respondents' satisfaction level. The table shows the scale and verbal interpretation for the Likert scale, which consists of Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree.

Table 2

Likert Scale—Numerical Rating Equivalent

Range	Verbal Interpretation
4.20 - 5.00	Very High
3.40 - 4.19	High
2.60 - 3.39	Moderate/Average
1.80 - 2.59	Low
1.00 - 1.79	Very Low

The scale in Table 2 provides a standardized interpretation of the mean scores obtained from survey responses, enabling a clearer understanding of stakeholders' satisfaction and perception levels. The mean score of 4.35 for network accessibility would be interpreted as "Very High", indicating excellent performance or strong agreement. A score of 3.75 for technical support availability would fall under "High," suggesting satisfactory services that may still have room for improvement. Conversely, a score of 2.45 for software availability would be interpreted

as “Low”, signifying potential issues that need to be addressed in the proposed IT infrastructure plan. Using this scale, the study identifies key strengths and weaknesses in the current IT infrastructure, which serves as a basis for recommending targeted improvements.

Standard Deviation Formula:

Figure 2

Formula for the standard deviation

$$SD = \sqrt{\frac{\sum |x - \bar{x}|^2}{n}} \quad (1)$$

Figure 2 above shows the formula for Standard Deviation that the researchers used to compute the data distribution from the users' responses for the user acceptance questionnaires.

Likert Scale formula:

$$\text{Weighted Mean} = \frac{((SA*5) + (A*4) + (N*3) + (D*2) + (SD*1))}{\text{Total Number of Respondent}} \quad (2)$$

Where:

SA (Strongly Agree or 5), A (Agree or 4), N (Neutral or 3), D (Disagree or 2), SD (Strongly Disagree or 1) = Degree of Agreement

The researchers used the weighted mean and standard deviation method to compute the data distribution from the user acceptance questionnaires. The Likert Scale contains five response options, ranging from 5 being the highest and 1 being the lowest, so the researchers were able to gather the respondents' opinions and level of agreement.

The survey instrument underwent a rigorous content validation process conducted by Mr. Ralph Randel R. Rivera, RPM, MA, a licensed psychometrician (License No. 0016599). The validation focused on key psychometric properties of the tool, including clarity of language, relevance to the research objectives, content completeness, and alignment with both academic competencies and industry-based expectations for On-the-Job Training (OJT) performance. The psychometrician provided detailed feedback to ensure that each item effectively measured the intended constructs within the study framework.

The survey was administered using Google Forms, targeting undergraduate students from the College of Computer Studies, specifically those enrolled in the Bachelor of Science in Information Technology (BSIT) and Bachelor of Science in Computer Science (BSCS) programs. To statistically assess item quality, responses were measured using a five-point Likert scale, and the initial validation analysis involved computing item-level means and standard deviations to assess the consistency and variability of responses. This provided a basis for the verbal interpretation of each item's performance about its expected function within the questionnaire.

Based on the psychometrician's recommendations and statistical analysis, several modifications were made to refine the wording of selected statements, enhance item clarity, and improve the instrument's overall alignment with the study's objectives. These revisions contributed to ensuring the survey tool's construct validity and internal consistency, thereby strengthening the reliability of the research outcomes.

RESULTS AND DISCUSSION

The results and discussion present the analysis and interpretation of the survey results conducted by the researcher. This section also aims to answer the objectives as a basis for developing the OJT manual. The researcher administered survey questionnaires via Google Forms to the College of Computer Studies undergraduate students. The results section of this study primarily employed descriptive statistics such as frequency, percentage, and weighted mean to summarize students' experiences and perceptions during their on-the-job training. This approach was initially chosen to provide a general overview and highlight dominant trends in the data.

The interpretation of the findings has been further refined to establish a stronger linkage between the study's empirical results, its stated research objectives, and the prevailing body of scholarly literature. Specifically, the observed challenges reported by student trainees, such as misalignment of assigned tasks with their academic specialization, extended OJT hours, and lack of structured guidance, are now critically examined in light of established findings that underscore persistent disconnects between academic preparation and actual industry demands. This expanded interpretation contributes to the development of an evidence-based OJT manual that is not only aligned with institutional learning outcomes but also responsive to dynamic industry requirements.

Objective 1: To identify the profile of the OJT advisers and student-trainees involved in implementing the on-the-job training program in terms of the following demographic characteristics.

- 1.1 Age
- 1.2 Gender
- 1.3 Civil Status
- 1.4 College
- 1.5 Highest degree earned
- 1.6 Present position
- 1.7 Number of years in service

In Figure 3, there are 89 responses from the respondents, wherein the highest demographic age falls under 22 years old with 59.6%. The X-axis represents the age in years, while the Y-axis shows the number of respondents per age group. The data indicate that the majority of respondents (59.6%) were 22 years old, with 53 individuals falling into this category. This is followed by those aged 21 (11.2%), 23 (9%), and 24 (7.9%). A minimal number of respondents (1.1%–2.2%) fall into the older age brackets, including ages 25, 27, 29, 35, and up to 37. This age distribution reflects the typical age range of undergraduate students enrolled in the Bachelor of Science in Information Technology and Computer Science programs who are completing their On-the-Job Training (OJT). The concentration around the ages of 21 to 24 suggests that the OJT program primarily targets students in their final years of study.

Figure 3

Demographic Characteristics—Age

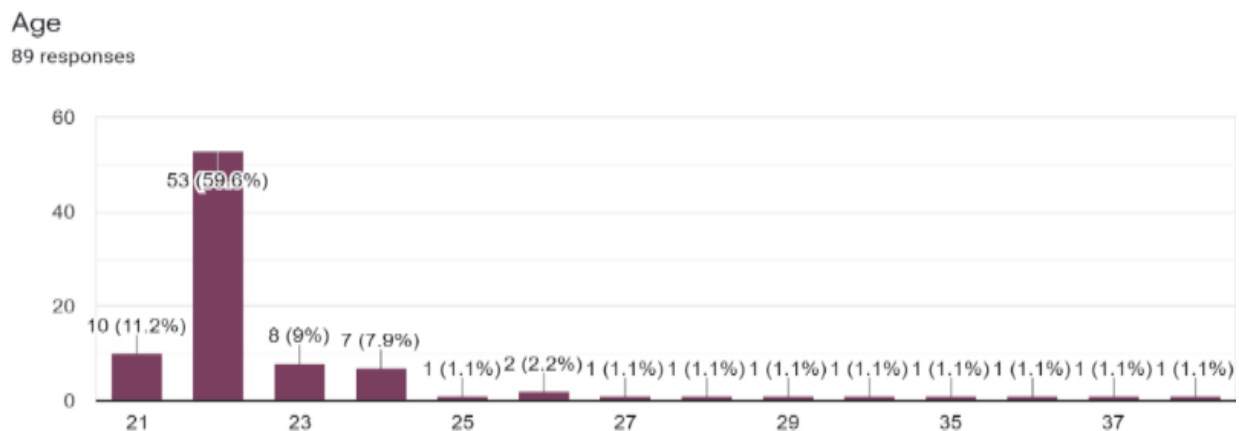
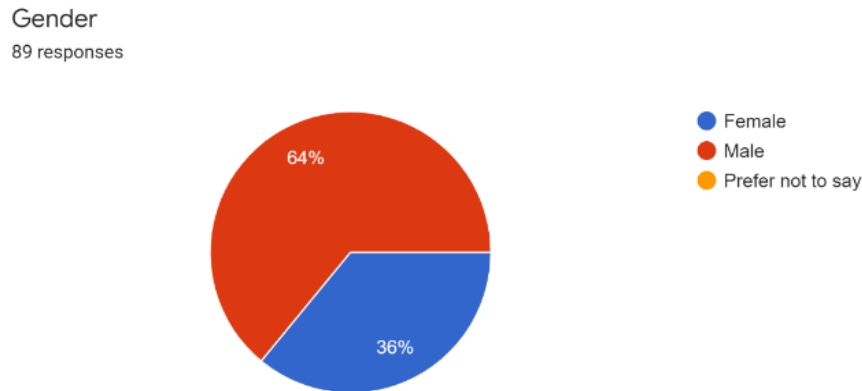


Figure 4 shows the Gender of the respondents, with 64% Male and 36% Female. The gender composition of the 89 student respondents who participated in the study. The gender categories are visually represented as proportions of the total sample: Male respondents account for 64% of the sample, representing the majority. Female respondents constitute 36% of the sample. There were no respondents who selected “Prefer not to say,” indicating full disclosure of gender identity among participants. The gender distribution shows a male-dominated sample, which may reflect the enrollment trends within the Computer Studies programs, particularly in technical fields such as Information Technology and Computer Science. Understanding this demographic characteristic is important for developing inclusive and effective OJT manuals, ensuring that training materials and communication approaches are sensitive to

gender-based learning preferences and workplace challenges. This information may also guide program coordinators in promoting gender equity in internship placements, mentoring support, and task assignments during OJT.

Figure 4

Demographic Characteristics—Gender



Regarding Civil Status, in Figure 5, of the respondents, 92.1% are Single, while 7.9% are Married. The pie chart shows the civil status distribution among the 89 respondents of the study. The breakdown is Single respondents constitute the majority at 92.1% of the total population, Married respondents account for 7.9%, and No participants were classified as widowed. The data indicate that the overwhelming majority of student respondents are single, which aligns with the expected civil status of undergraduate students enrolled in Bachelor of Science in Information Technology (BSIT) and Bachelor of Science in Computer Science (BSCS) programs. Understanding civil status is useful when analyzing factors that may influence students' availability, stress levels, or responsibilities during their On-the-Job Training (OJT) period. For example, married students may face different time constraints or challenges compared to single students, which could impact their internship experience and should be considered in manual development.

Figure 5

Demographic Characteristics—Civil Status

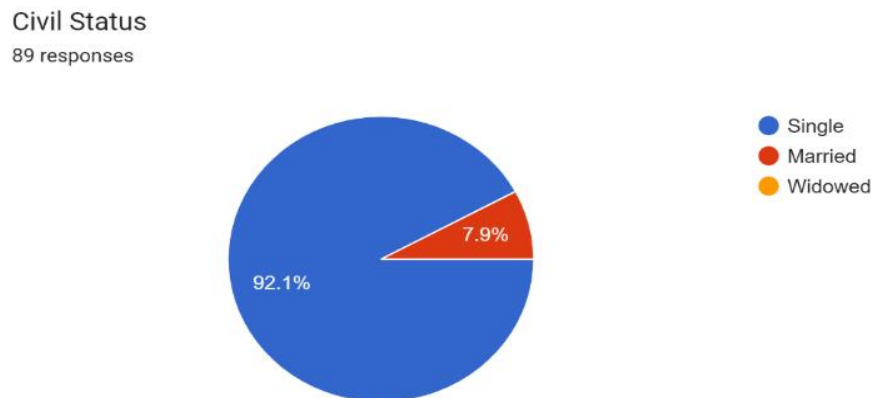


Figure 6

Demographic Characteristics—Present Position

Present Position

89 responses

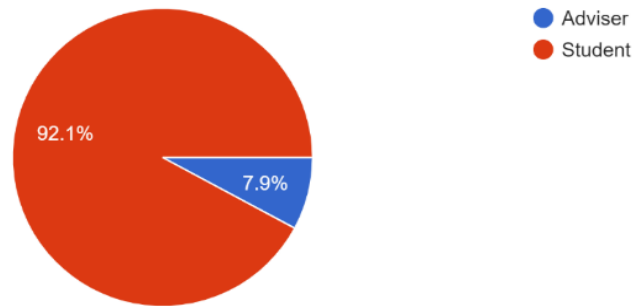


Figure 6 shows the present position, whether it is as an adviser or student. There are 92.1% Students and 7.9% advisers. The first image is a pie chart showing the distribution of responses by present position from a total of 89 respondents. 92.1% of respondents are Students (shown in red). 7.9% of respondents are Advisers (shown in blue). This means that out of 89 people, the majority are students, while a small minority are advisers.

Figure 7

Number of Years in Service

Number of years in service (Adviser)

21 responses

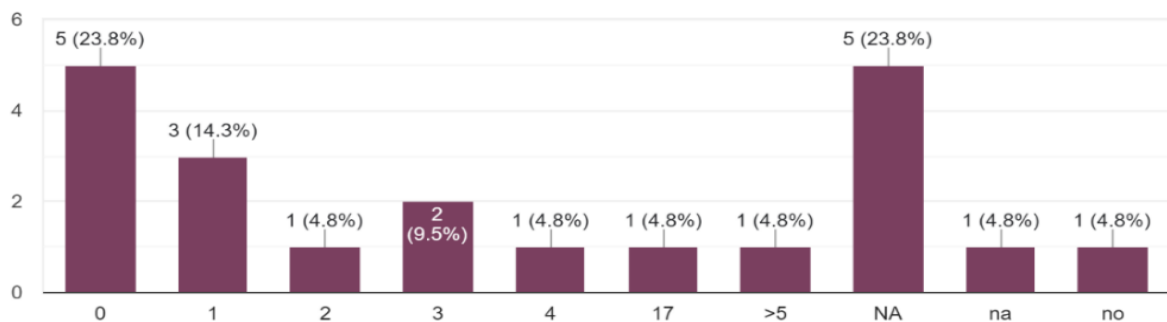


Figure 7 shows the number of services with 21 responses, and this was only intended for the adviser with the highest score of 5, with 23.8 %. The second image is a bar chart displaying the number of years advisers have been in service, based on 21 responses. The distribution is as follows: 5 advisers (23.8%) have 0 years in service (possibly new advisers or just starting). 3 advisers (14.3%) have 1 year in service. 1 adviser (4.8%) each for 2, 4, 17, and >5 years, "na," and "no." 2 advisers (9.5%) have 3 years in service. 5 advisers (23.8%) marked "NA" (not applicable or did not answer).

Objective 2: To determine the problems encountered by the practitioners and coordinators in the OJT Program in terms of the following:

- 2.1 Training
- 2.2 Feedback

Table 3 shows the results if the practitioners and coordinators in the OJT program encounter problems. Regarding training, respondents responded **“Moderate/Average,”** with a mean of 3.07 and a standard deviation of 1.44 on the company’s institution providing adequate training.

If the company/institution provides feedback on behavior, the mean result is 3.08 with a standard deviation of 1.41 and a verbal interpretation of **“Moderate/Average.”** Regarding the company/institution compensating interns for the additional services done, the mean was 3.07 with a standard deviation of 1.39, which means **“Moderate/Average.”** The overall mean is 3.07, with a standard deviation of 1.41, and the verbal interpretation is **“Moderate/Average.”**

Table 3

Training

	Statement	Mean	SD	Verbal Interpretation
1.	The company/institution provides inadequate training to match the practicum’s aims and expectations.	3.07	1.44	Moderate/Average
2.	The company/institution does not provide feedback to the school on practicums relatively in terms of their behavior.	3.08	1.41	Moderate/Average
3.	The company/institution does not compensate the practitioners for additional services done.	3.07	1.39	Moderate/Average
	Overall Mean and SD	3.07	1.41	<i>Moderate/Average</i>

Table 4 displays the Feedback on the company/institutions with insufficient knowledge, with a mean of 3.39 and a standard deviation of 1.45 with a verbal interpretation of **“Moderate/Average.”** Regarding being permitted to ask any supervisor, the respondents answered 3.01, with a standard deviation of 1.53, meaning **“Moderate/Average.”** On the last question, respondents answered **“Moderate Average”** with a mean of 3.24 and a standard deviation of 1.37, in which the company/institution is insufficient to handle workplace assignments and obstacles.

Table 4

Feedback

	Statement	Mean	SD	Verbal Interpretation
1.	The company/institution has insufficient knowledge of the OJT student's appointed duty.	3.39	1.45	Moderate/Average
2.	The OJT Students are not permitted to ask superior questions anytime.	3.01	1.53	Moderate/Average
3.	The company/institution preparation (prerequisite courses) is insufficient to handle workplace assignments and obstacles.	3.24	1.37	Moderate/Average
	Overall Mean and SD	3.21	1.45	Moderate/Average

Objective 3: To assess the performance of the OJT students in terms of the following:

- 3.1. Competence;
- 3.2. Skills;
- 3.3. Attitude; and
- 3.4. Personality Development

In Table 5, Competence: The respondents responded “Very High” in the three (3) statement questions, with a mean of 4.25 for the company completing the appropriate tasks and a 0.80 standard deviation. A problem suggests a solution to the assessments; it has a mean of 4.30 and a standard deviation of 0.73. The last question, wherein the company successfully handles time work distribution, has a mean of 4.38 and a standard deviation of 0.77.

Table 5

Competence

	Statement	Mean	SD	Verbal Interpretation
1.	The Company completes appropriate tasks and adapts knowledge to new contexts.	4.25	0.80	Very High
2.	The Company identifies and analyzes a common problem, suggests a solution, and assesses the efficacy of the solution	4.30	0.73	Very High
3.	The Company successfully handles time and work distribution, among others.	4.38	0.77	Very High
	Overall Mean and SD	4.31	0.76	Very High

For Table 6, Skills, the intern students responded with a 4.31 mean and standard deviation of 0.79 in the intricacies of the task allocated to them, resulting in “**Very High.**” The mean of 4.39 and a standard deviation of 0.74 with a Verbal Interpretation of “**Very High**” on the responsibilities demonstrates flexibility. Also, the assistance on the responsibilities resulted in “Very High,” with a mean of 4.42 and a standard deviation of 0.70.

Table 6

Skills

	Statement	Mean	SD	Verbal Interpretation
1.	The OJT students manage the intricacies of the tasks allocated to them.	4.31	0.79	Very High
2.	The OJT student, when doing his or her responsibilities, demonstrates flexibility (as needed).	4.39	0.74	Very High
3.	The OJT students voluntarily assist others (as needed) in completing their responsibilities.	4.42	0.70	Very High
	Overall Mean and SD	4.37	0.74	Very High

Table 7

Attitude

	Statement	Mean	SD	Verbal Interpretation
1.	The OJT students execute activities independently without supervision	4.06	0.96	High
2.	The OJT displays focus and attention to the responsibilities entrusted to him/her.	4.30	0.81	Very High
3.	The OJT students display pleasant and productive behavior and timeliness.	4.39	0.74	Very High
	Overall Mean and SD 4.25	0.84	4.25	Very High

Respondents answered **“High”** in Table 7, Attitude, with a mean of 4.06 with a standard deviation of 0.96 on the execution of activities. The interns focus on their responsibilities and tasks entrusted to them with a mean of 4.30 and a standard deviation of 0.81 and verbal interpretation **“Very High.”** The interns answered **“Very High”** in pleasant and productive behavior and timeliness, with a mean of 4.39 and a standard deviation of 0.74.

For the Personality development in Table 8, OJT students answered **“Very high”** with a mean of 4.33 on the exhibit’s passion and a positive outlook. Regarding composure, it verbally interprets **“Very High,”** with a mean of 4.30 and a standard deviation of 0.74. The OJT students dress correctly, with a mean of 4.45 and a standard deviation of 0.69, with a verbal interpretation of **“Very high.”**

The verbal and numerical interpretations of the aforementioned results are crucial because they offer a thorough comprehension of the information gathered. Numerical data provides measurable insights into several OJT program components, including intern performance, satisfaction levels, and areas in need of improvement. Conversely, verbal interpretation puts these figures in perspective and offers a more in-depth understanding of the experiences and viewpoints of the counselors and interns. This dual approach highlights the program’s strengths and faults, ensuring a well-rounded appraisal.

Table 8

Personality Development

Statement	Mean	SD	Verbal Interpretation
1. The OJT students exhibit passion and a positive outlook.	4.33	0.80	Very High
2. The OJT students demonstrate composure and self-assurance	4.30	0.74	Very High
3. The OJT students groom and dress properly	4.45	0.69	Very High
Overall Mean and SD	4.36	0.74	Very High

The creation of the OJT Manual will be directly influenced by the knowledge obtained from the thorough examination of the outcomes. Comprehending the particular obstacles encountered by interns and advisers, for example, will facilitate the development of focused instructions and support systems in the handbook. The development of the OJT handbook will be directly influenced by the insights obtained from the thorough examination of the findings. To provide focused recommendations and support mechanisms inside the handbook, for example, requires an understanding of the unique difficulties experienced by advisers and interns.

One can discover common issues and effective techniques from the study of the OJT program at the College of Computer Studies. The establishment of a more thorough and unified OJT framework can result from a more collaborative examination of the subject, which will benefit not only the Computer Studies department but the entire school. It can also guide developing curricula, involving professors, and improving overall academic quality, guaranteeing that all departments meet industry requirements and learning goals.

CONCLUSION

The study, *“Assessing On-the-Job Training (OJT) in Computer Studies: Implications for OJT Manual Development,”* was conducted to evaluate the internship experiences of students, their competencies, and the overall effectiveness of the current OJT program. Findings revealed that students have developed essential technical and soft skills required by their respective programs, as indicated by high performance ratings from host establishments. These ratings reflect not only the students’ competence but also the strong support system provided by both the university and industry partners. This study contributes to the field of computer studies education by providing evidence-based insights into the actual implementation and effectiveness of OJT programs. The findings highlight not only the areas of strength, such as the relevance of technical tasks assigned, but also challenges like supervision gaps and mismatched industry placements in which the OJT and advisers as well as the trainees, were involved in the implementation of the OJT training programs about objective number one (1). These insights have direct implications

for the development of a more responsive and structured OJT manual. Specifically, the study informs guidelines for student placement, industry coordination, and outcome monitoring. By integrating these findings into manual development, institutions can enhance the alignment between academic preparation and industry needs, ultimately improving graduate employability and program relevance.

The minimal challenges encountered during training, work environment adaptation, and school support suggest that the existing internship structure is generally effective, which is asked for in objective number two (2) on determining the problems encountered in the OJT program in terms of training and feedback. However, this study also highlights the need for a more structured and comprehensive OJT manual that aligns with industry standards and educational objectives. Such a manual can serve as a guide for students, advisers, and partner companies, ensuring a standardized approach to OJT implementation. Although the students demonstrated strong competence and professionalism, voluntarily assisting others and managing their time well, variations in performance were observed depending on demographic factors such as skill level, prior training, and academic background. These findings suggest the need to tailor parts of the OJT manual to accommodate these differences.

Implications for practice include enhancing adviser involvement, establishing stronger feedback mechanisms from employers, and integrating OJT more deeply into the academic curriculum. Furthermore, structured training and orientation programs for both students and company supervisors should be developed. While the study provides valuable insights, its limitations include the restricted sample size (89) respondents from a single college) and the localized context, which may affect generalizability. Future studies should involve broader, cross-campus, or multi-institutional samples and explore long-term career outcomes of interns to assess the sustained impact of OJT programs. With this lies the assessment of the performance of OJT students in their competence, skills, attitude, and personality development for objective number three (3).

This study is subject to several limitations. First, the sample was limited to students from a single academic year and a single institution, which may restrict the generalizability of the findings to other universities or programs. Additionally, the assessment relied heavily on self-reported data, which may introduce bias due to students' subjective perceptions. These factors suggest that while the results provide valuable insights into OJT experiences, they must be interpreted with caution.

Future studies are recommended to expand the sample to include multiple institutions and a variety of academic years, allowing for a more comprehensive analysis of OJT effectiveness across different settings. It would also be valuable to incorporate employer evaluations and direct performance assessments to complement student self-reports. Additionally, research could explore the long-term career outcomes of students who underwent OJT programs to assess the sustained impact of on-the-job training on employability and skill development. By addressing these areas, future research can provide a more holistic and robust foundation for OJT manual development and program enhancement in Computer Studies education.

The study supports the development of an OJT manual and contributes to the improvement of internship practices in computer studies, aiming to enhance student employability and practical readiness in the workforce. The researcher developed a comprehensive student On the Job Manual wherein the faculty members revised as the "On-The Job Training Journal" with the procedures and clear guidelines for the College of Computer Studies students.

Based on the findings, the following practices are recommended for OJT program improvement: (1) Establish a standardized industry partner evaluation tool to ensure students are assigned tasks aligned with their field of study; (2) Require mid-term monitoring visits by faculty coordinators to assess student progress and industry support; (3) Provide a pre-deployment orientation program focusing on workplace ethics, technical expectations, and communication skills; (4) Include clear protocols in the OJT manual for grievance handling to address student concerns during deployment; and (5) Strengthen and Develop a post-OJT feedback mechanism where students and employers submit structured reflections to further refine OJT practices.

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