(RESEARCH ARTICLE)

# Assessing on-the-job trainees' proficiency in office productivity tools: An investigation of training needs and strategies

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## Abstract

This study aimed to assess the office productivity tool proficiency among on-the-job trainees in a public higher education institution in Nueva Ecija, Philippines. Descriptive research was utilized and a self-made instrument developed. It was properly reviewed and revised to ensure valid and reliable results. Findings showed a disparity in the number of male and female respondents, with Web Systems Technology being the majority specialization and smartphones being the most commonly used gadget. Although the majority of the respondents had no formal office productivity tools training, they exhibited intermediate proficiency levels in document processing, spreadsheet, presentation, publication, collaboration, and online digital content creation applications. Notably, only a few respondents had advanced skills. A skills training template was designed as a result of the study, and recommendations were provided for future academic endeavors.

**Keywords:** Assessment; Office Productivity Tools; On-the-job Trainees; Skills Enhancement; Training

## 1. Introduction

The teaching and learning methods of the 21st century have provided learners with numerous benefits that have helped them thrive in today's fast-paced and constantly evolving world. Innovative instructional approaches led to the acquisition of crucial learning outcomes necessary to equip the younger generation with the skills to face the challenges of living in the knowledge-based society of the 21st century [1]. However, the state of higher education in the 21st century has become a matter of concern to many, especially regarding the preparation of students for the workforce. Pia and Mayya [2] have asserted that higher education institutions (HEIs) must "rethink their coaching and study methods to generate job-ready graduates". This implies that traditional teaching and learning methods in higher education may not have effectively prepared graduates for the workplace.

Traditionally, higher education institutions have placed a strong emphasis on theoretical knowledge and research skills, which may not necessarily have directly translated to the skills and competencies required in the workplace. Ain, Sabir and Willison [3] have asserted that it is possible that graduates may not have possessed, applied, or conveyed the complete range of competencies required to participate in inquiry and acquire new knowledge in their professional environment. To address this, higher education institutions can adopt new teaching methods that focus on practical, hands-on learning experiences such as project-based learning, internships, and apprenticeships. Improved trainings can be one way in which higher education institutions provide their students with the necessary skills to succeed in the workplace.

According to Kartika and Kartika [4], training has been designed to improve students' skills. It has been through training activities that teamwork and collaboration have been significantly developed among the students [5]. Undergraduate

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students value skills development programs, particularly when communication and teamwork are enhanced, according to [6]. Skills education could significantly impact their future [7]. Therefore, higher education institutions must find ways to provide learning opportunities among the students to fully develop essentials skills needed for the workforce.

Despite the importance of assessing and enhancing on-the-job trainees' proficiency in office productivity tools, there has been a lack of research on the specific training needs and strategies that have been most effective for this population. In recent years, the belief that obtaining a college degree guarantees achievement in both career and personal life has been diminishing [8]. While there have been studies on productivity tool proficiency and training in general, few have focused specifically on the needs and challenges of on-the-job trainees. As such, there is a need for research that investigates the unique needs and challenges of this group and identifies strategies for effective training and development in office productivity tools. Additionally, there has been a lack of research on how to assess the impact of such training programs on trainees' productivity, job satisfaction, and overall job performance. Therefore, there is essential to conduct research that evaluates the effectiveness of different training strategies and measures the outcomes of these programs on trainees' performance and job satisfaction.

## 1.1. Statement of the Problem

The aim of this study was to assess the proficiency level of the on-the-job trainees in office productivity tools, to inform the development of supplemental training activities. Specifically, it aimed to answer the following:

1. How to describe the demographic profile of the respondents in terms of
   - Sex;
   - Specialization;
   - Types of Gadgets Owned; and
   - Training Experience in Office Productivity;
2. How to describe the proficiency level of the respondents in terms of using the following applications:
   - Document Processing;
   - Spreadsheets;
   - Presentation;
   - Publishing;
   - Collaboration; and
   - Online Digital Content Creation;
3. How to describe the sentiments of the respondents in terms of conducting supplemental training activities for skills development?
4. How to develop the skills training plan based from result of the assessment made?

## 2. Material and methods

A systematic approach to investigating a scientific problem has been referred to as a research design [9]. The research design has played a critical role in the success of a study as it has provided a systematic and organized plan for conducting the research. It has outlined the methods and procedures that have been be used to collect and analyze data, ensuring that the research has been conducted in a rigorous and scientific manner. In this study, a descriptive research design has been utilized. Through this design, the researchers have been able to describe the entire population.

This study was conducted in a public higher education institution in Nueva Ecija, Philippines during the Academic year 2022-2023. The respondents of this study were the fourth year Information Technology students who underwent their internship program in the college. The entire population of the on-the-job IT trainee in the college was considered in this study. A total of 35 on-the-job trainee participated.

The conceptualization of the study started during the first semester. The researchers reviewed several studies and literature related to the topic. After several readings and reviews of studies and literature, the researchers devised the instrument. The instrument was a self-made instrument based on the reviewed literature and studies. The goal of the instrument was to collect necessary information to answer the research problems of this study. The researchers ensured that the contents of the instrument were valid by allowing other experts in the field to review the face and contents of the instrument. The comments of the reviewers were considered for the improvement of the instrument.

The instrument consisted of three parts. The first part covered the demographic profile of the respondents which was used to address the first research problem. The second part assessed the proficiency level of the respondents in different

office productivity applications, addressing the second research problem. The researchers were able to elicit responses as to whether the respondents believed they had no experience, were in the beginning, intermediate, or advanced levels using the instrument. The third part aimed to gather the views of the respondents on training activities to enhance their office productivity proficiency levels, addressing the third research problem.

The researchers utilized descriptive statistics such as frequency count and percentage distribution in this study. The results of the statistical treatment were analyzed and interpreted using Software Packages for Social Sciences (SPSS) version 23, to provide a better understanding. During the data collection process, the researchers explained to the respondents the purpose of the study and assured them that no personal data would be collected. Additionally, the researchers made sure that no harm was inflicted on the respondents by participating in this study. Participation in the study was purely voluntary, and the respondents were informed that the data collected were treated with the utmost confidentiality and anonymity.

## 3. Results and discussion

### 3.1. Demographic Profile of the Respondents

To better understand the demographic characteristics of the study's respondents, the following figures present the gathered data. Figure 1 shows the percentage distribution by sex.
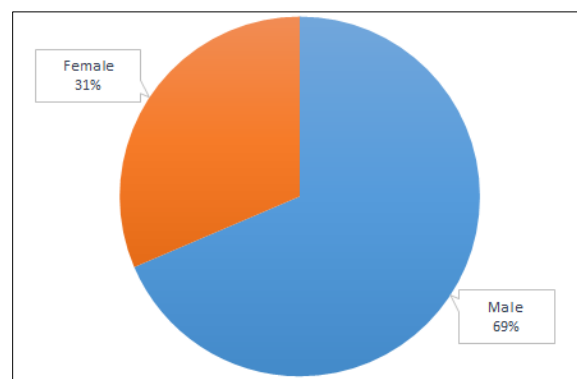


**Figure 1** Percentage distribution by sex

Based on the assessment, 31% of females and 69% of male on-the-job trainees participated in this study, representing a 31% difference in respondents. Among the entire population of interns in the college, 47% were from the Web Systems Technology specialization, constituting the highest number of respondents for this study. 41% of respondents belonged to the Network Systems Technology specialization, while 12% were from the Database Systems Technology, as shown in Figure 2.
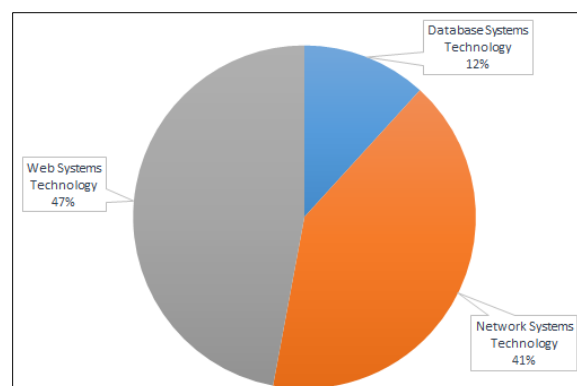


**Figure 2** Percentage distribution by specialization

Figure 3 shows the percentage distribution based on the gadgets owned by the respondents. Out of the total number of respondents, 77% of them have a smartphone, while 23% have personal computers or laptops. In today's modern world, gadgets have become an essential part of students' lives. They are necessary to easily access information, improve the

quality of communication, aid in managing time properly, learn new things through multimedia, improve productivity, and enable distance learning. Gadgets are also instrumental in helping students develop their technical skills, as well as building a new set of important skills relevant for the world of work.
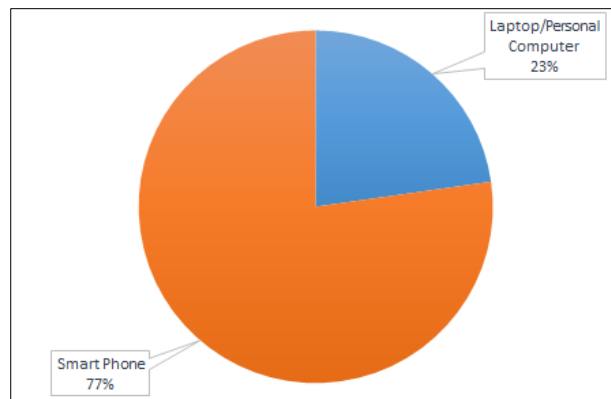


**Figure 3** Percentage distribution by types of gadgets owned

Figure 4 shows the percentage distribution of respondents who have undergone skills training for office productivity. This information is essential for establishing a solid foundation to conduct supplementary training activities for the trainees.
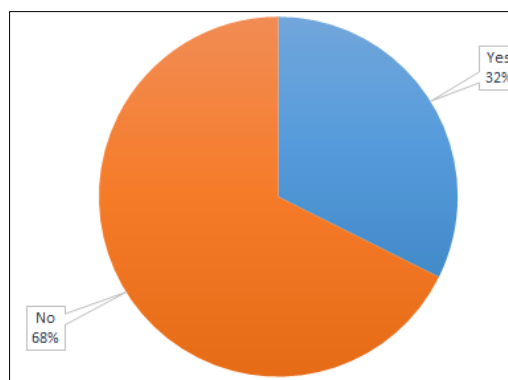


**Figure 4** Percentage distribution by training experience in office productivity

It was observed that the majority of respondents did not have any formal training experience in office productivity, whether extensive or comprehensive. Although most respondents were able to use various office productivity tools, they acknowledged not having undergone any dedicated formal training to improve their skills. This indicated their lack of experience in office productivity.

## 3.2. Proficiency Level in Using Different Applications

The following figures present the results of the respondents' assessment of their proficiency levels in using various office productivity tools and applications.

The information presented in Figure 5 indicates the proficiency level of the respondents in terms of document processing. The majority of respondents, which is 77.1%, reported having an intermediate level of proficiency. This means that they have a basic understanding of document processing, but there is still room for improvement in terms of efficiency and accuracy. On the other hand, 20% of the respondents reported having a beginner level of proficiency. This suggests that they have limited knowledge and skills in document processing, which could affect their productivity in the workplace. It is important for them to receive proper training and guidance to develop their proficiency in this area. Only 2.86% of the respondents reported having an advanced level of proficiency in document processing. This indicates that they have a high level of knowledge and skills in this area, which could give them an advantage in the workplace. However, even those who are advanced may still benefit from further training and development to maintain and enhance their skills.
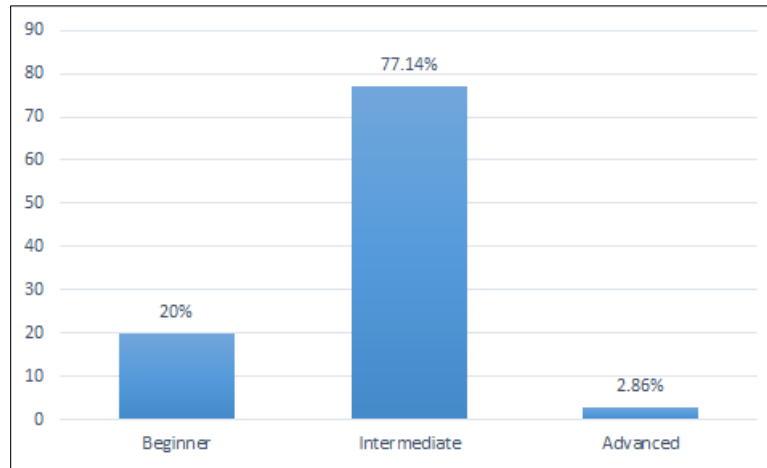
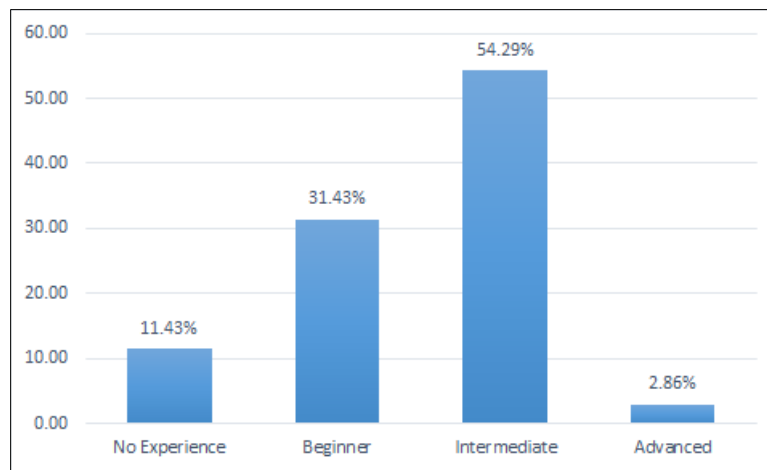**Figure 5** Document processing software proficiency level



**Figure 6** Spreadsheet software proficiency level

Based on the data presented in Figure 6, it can be inferred that a significant number of respondents had an intermediate level of proficiency when it comes to using spreadsheets. Specifically, 54.29% of the respondents reported that they had an intermediate level of skill in using spreadsheets. On the other hand, 31.43% of the respondents were classified as beginners, indicating that they had limited experience in using spreadsheets. Another 11.43% of the respondents have no experience at all, suggesting that they had no experience in using spreadsheets. The remaining 2.86% of the respondents were already in the advanced level, which indicated that they had extensive experience and skills in using spreadsheets. These findings provide valuable insights into the skill level of the respondents when it comes to using spreadsheets. It may be necessary to provide training and resources to those who reported beginner and intermediate levels of proficiency to enhance their skills and improve their productivity. Meanwhile, the small percentage of respondents who reported advanced skills could be tapped to provide support and guidance to other trainees who are still developing their skills in using spreadsheets. In summary, the data presented in Figure 6 highlights the importance of assessing the proficiency levels of trainees to determine the appropriate level and type of training to provide.
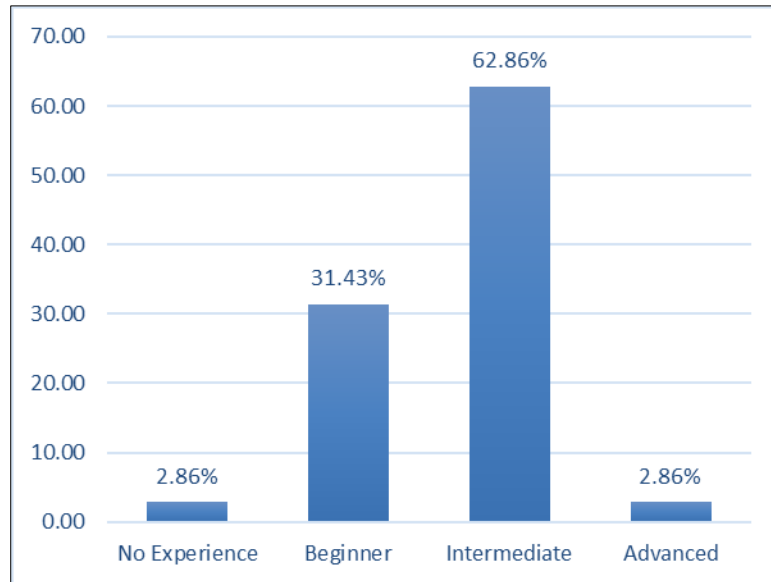
**Figure 7** Presentation software proficiency level

Based on the data presented in Figure 7, it can be observed that the majority of the respondents reported their proficiency level in using presentation tool as intermediate, with 62.86% of the total respondents falling into this category. This means that they have a moderate understanding of how to use presentation tools and are able to perform basic tasks Additionally, 31.43% of the respondents reported that they have beginner-level proficiency, indicating that they have a basic understanding of how to use presentation tools but may struggle with more advanced tasks. On the other hand, only 2.86% of the respondents reported having an advanced level of proficiency, which suggests that they have a high level of expertise in using presentation tools and are able to perform complex tasks efficiently. Also, 2.86% of the respondents have no experience in using presentation software. In a nutshell, these findings suggest that the majority of the respondents have at least some knowledge and experience in using presentation tools, but may still require additional training and support to improve their skills and perform more advanced tasks effectively.
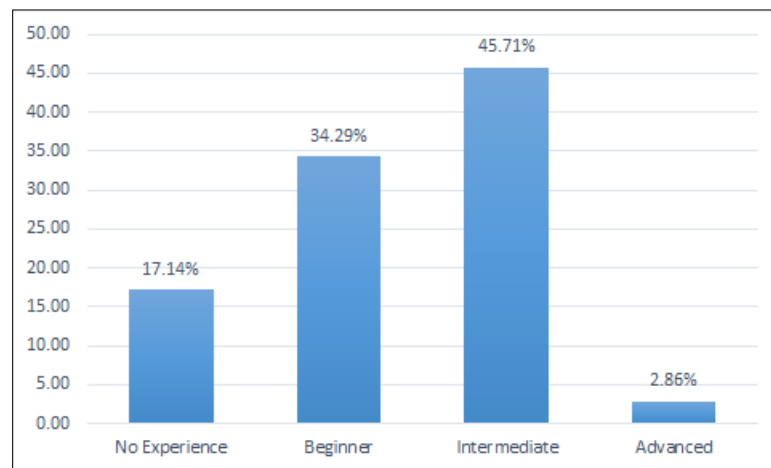


**Figure 8** Publishing software proficiency level

The results presented in Figure 8 show the respondents' self-reported proficiency levels in publishing software use. Specifically, 45.71% of the respondents reported having an intermediate level of proficiency. This means that they have a decent understanding of publishing tools and functions, but may still need some assistance with more complex tasks. Meanwhile, 34.29% of the respondents reported being at a beginner level, indicating that they may need more training and guidance in using publishing tools. Additionally, 17.14% of the respondents reported having no experience with publishing tools, suggesting that they may need to start with the basics before progressing to more advanced functions. Finally, a small percentage of respondents (2.86%) reported having an advanced level of proficiency in using publishing tools, which means that they have a deep understanding of the various functions and tools available and can use them to solve complex problems efficiently. In general, the findings suggest that while a significant proportion of respondents

have some level of experience with publishing tools, there is still a considerable need for training and support to improve their proficiency levels.
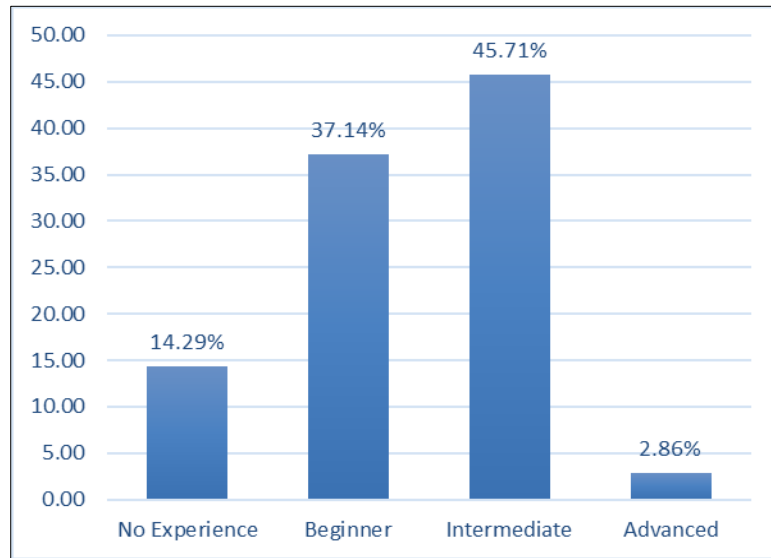


**Figure 9** Collaboration software proficiency level

The data presented in Figure 9 reveals the proficiency levels of respondents in terms of collaboration tools. It shows that the majority of the respondents, at 45.71%, had an intermediate level of proficiency. This means that they have a certain degree of familiarity and comfort using collaboration tools, but may still require some guidance or training to utilize them effectively. On the other hand, 37.17% of the respondents reported being at the beginner level, indicating that they may require more assistance or training to use collaboration tools properly. Meanwhile, 14.29% reported having no experience in using collaboration tools, highlighting the need for introductory training and education. Finally, a small percentage of respondents, at 2.86%, reported being at an advanced level of proficiency. This suggests that these individuals are likely comfortable and experienced with collaboration tools, and may even be able to assist others in using them effectively. In summary, the data presented in Figure 9 emphasizes the importance of providing adequate training and support for individuals with varying levels of proficiency in using collaboration tools. By doing so, organizations can ensure that their employees are equipped with the necessary skills and knowledge to collaborate effectively and efficiently, leading to improved productivity and overall success.
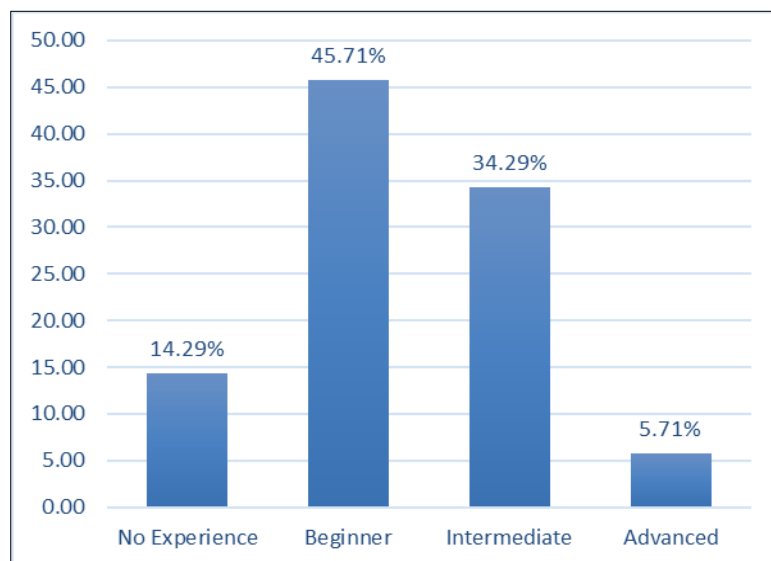


**Figure 10** Online digital content creation software proficiency level

According to the data presented in Figure 10, a significant portion of the respondents (45.71%) reported that they had a beginner level of proficiency in terms of online digital content creation tools. This suggests that a majority of the respondents lacked the necessary skills and experience to utilize these tools effectively. Meanwhile, 34.29% of the respondents reported that they had an intermediate level of proficiency, indicating that they had some experience and familiarity with digital content creation tools. On the other hand, 14.29% of the respondents reported having no experience at all, indicating a lack of exposure to such tools. Interestingly, a small percentage of the respondents (2.86%) reported having an advanced level of proficiency in digital content creation tools. This may indicate that these respondents are well-versed in the use of such tools and could potentially serve as resources for the training of others. In summary, the data presented in Figure 10 highlights the varying levels of proficiency among the respondents in terms of online digital content creation tools. This information can be used to tailor training programs and materials to meet the specific needs of different proficiency levels.

### 3.3. Sentiments about the conduct of supplemental training activities

Figure 11 shows the sentiments of the respondents about the possible conduct of supplemental training activities. Sentiments can be positive, negative, or neutral. These sentiments were from the responses reported by the respondents in the survey instrument.
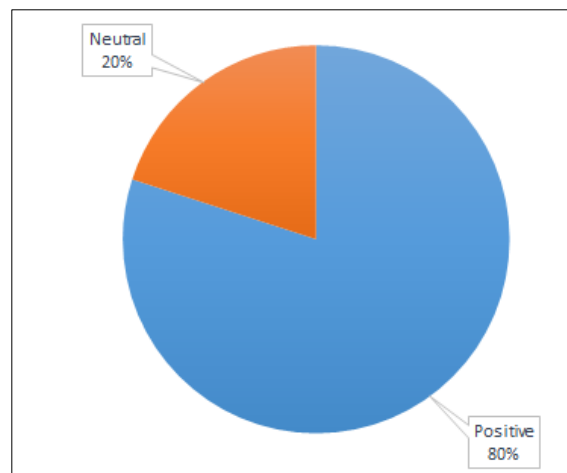


**Figure 11** Sentiments of the respondents on the conduct of supplemental training activities

According to the data presented in Figure 11, the vast majority of the respondents (80%) had a positive attitude towards participating in supplemental training activities that focus on improving their technical proficiency in using office productivity tools in preparation for employment. This indicates that the trainees are willing to take part in training opportunities that can help them develop the necessary skills for success in the workforce. Moreover, the remaining 20% of the respondents expressed a neutral stance on this matter, which suggests that they are not opposed to participating in such training activities, but are perhaps not as enthusiastic about it as the majority of the respondents. Notably, the survey did not record any negative sentiments among the trainees regarding the idea of conducting training activities. This implies that there is no resistance or opposition from the trainees towards participating in training programs that can help them improve their technical skills and enhance their prospects for employment.

### 3.4. Development of the skills training plan for office productivity tools

Table 1 presents a sample template for developing a skills training plan for on-the-job trainees. The plan aims to supplement the knowledge and skills acquired from the training program they enrolled in and to prepare them for the workforce.

**Table 1** Skills training plan

| Specific Productivity Tool | Target Level of Proficiency | Training Curriculum | Training Delivery Methods | Timeframe | Metrics | Remarks |
|---|---|---|---|---|---|---|
| Identify the specific office productivity tools and software that are most important for trainees to master in their field. | Determine the level of proficiency that trainees should aim to achieve in each tool or program. | Determine a training curriculum that addresses each of the identified skills and competencies. | Determine the appropriate training delivery methods for each component of the curriculum. | Create a timeline or schedule for the training program | Identify metrics for measuring the effectiveness of the training program, such as pre- and post-training assessment, and develop a plan for evaluating and analyzing results. | Consider incorporating ongoing training and professional development opportunities like refresher courses and advanced training modules |

## 4. Conclusion

Based on the results of this study, it was concluded that there was a need to improve the office productivity proficiency level of on-the-job trainees in the public higher education institution in Nueva Ecija, Philippines. The 31% gap between male and female trainees was also identified as an area that needed to be addressed to ensure gender equality in terms of office productivity skills. It was noteworthy that the majority of the trainees had no training experience in office productivity tools, which emphasized the importance of providing adequate training for these skills. The fact that smartphone was the most commonly used gadget of the trainees also highlighted the need for mobile-friendly office productivity tools. Although the trainees reported being on an intermediate level in most areas of office productivity, there were only a few who were in the advanced levels. This indicated the need for more comprehensive and specialized training programs that could cater to the specific needs of the trainees.

Overall, the development of a training plan template and the positive sentiments expressed about supplemental training activities were encouraging. This suggested that there was a willingness among the trainees to improve their office productivity proficiency level, and that the institution could provide the necessary support to achieve this goal.

### Recommendations

Based on the conclusion of this study, it is recommended that the higher education institution should prioritize the improvement of office productivity proficiency level among their on-the-job trainees. The HEIs may also implement programs and activities that promote gender equality in terms of office productivity skills. Moreover, HEIs may provide adequate training for trainees who have no prior experience in office productivity tools. The use of mobile-friendly productivity tools should also be considered given that smartphone is the most commonly used gadget of the trainees. To address the need for more comprehensive and specialized training programs, HEIs should identify the specific needs of their trainees and tailor-fit their training programs accordingly. The development of a training plan template is also recommended to ensure that HEIs provide a standardized and organized approach to training their on-the-job trainees.

Lastly, HEIs may continue to conduct supplemental training activities and seek feedback from their trainees to further improve their training programs. By doing so, HEIs can ensure that their trainees are equipped with the necessary office productivity skills to succeed in their future careers.

## Compliance with ethical standards

*Disclosure of conflict of interest*

All authors declare that there is no conflict of interest.

*Statement of informed consent*

Informed consent was obtained from all respondents included in the study.

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