International Journal of Research in Interdisciplinary Studies
Volume 4, Issue 11, November 2026
www.ijris.com | E-ISSN: 2584-1017

Assessment of Information and Communication Technology Literacy Among Out-of-School Youth: Basis for Implementation of an Extension Program

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Abstract—This study assessed the level of ICT literacy of the Out-of-School Youth (OSY) in Barangay Sta. Isabel, Cabiao, Nueva Ecija as a basis for the development of a proposed ICT Literacy Extension Program for School Year 2025-2026. Specifically, it looked at the respondents' ICT literacy in Microsoft Word, Microsoft Excel and Microsoft PowerPoint in terms of personal, behavioral and environmental factors. The study employed a descriptive quantitative research design with fifty-seven (57) respondents of Out-of-School Youths identified through total enumeration sampling. The data were collected using a validated researcher-made questionnaire and analyzed using frequency and percentage distribution, weighted mean, and the Kruskal-Wallis H-Test to determine significant differences in the respondents' ICT literacy when grouped according to their demographic profile. The results revealed that respondents had basic knowledge of ICT and showed positive behavioral practices in the use of Microsoft office applications. Nevertheless, the environmental barriers of limited access to digital resources and technological support still posed major challenges. Moreover, the findings revealed that there was no significant difference in the level of ICT literacy of the respondents when classified according to their demographic profile 0.05 level of significance. The findings suggest that there is a need to strengthen digital literacy programs and increase access to technology resources for Out-of-School Youth. Based on the results, an ICT Literacy Extension Program was proposed to enhance the respondents' digital competencies and technological readiness through community-based learning activities. The study further recommends future research using a larger sample size or mixed-method approaches to gain deeper insights into the ICT literacy experiences of Out-of-School Youth.

***Index Terms*—Digital Literacy, Extension Program, ICT Literacy, Information and Communication Technology, Microsoft Office Applications, Out-of-School Youth.**

1. The Problem and its Setting

A. Introduction

In today's digital culture, information and communication technology (ICT) literacy has become a necessary ability for social interaction, work, and education. Proficiency with digital tools and productivity programs becomes more crucial for academic performance and career preparation as technology continues to change many industries. The International Computer Driving Licence (ICDL, 2023) highlights digital literacy's significance in improving employment and job productivity, while UNESCO (2018) recognizes it as an essential component of lifelong learning and social inclusion.

Despite it being important, many young Filipinos do not attend official schools, which restricts their ability to learn organized ICT skills (Desiderio, 2024). According to studies, many Out-of-School Youth (OSY) in the Philippines can access digital knowledge, communication platforms, and productivity apps through smartphones, which are among the most accessible digital devices (Gindap & Cresencio, 2023). Access to technology, however, does not always equate to proficiency with digital tools for learning and work.

Proficiency with Microsoft Office products, especially Word, Excel, and PowerPoint, is one of the digital skills that are becoming more necessary in academic and professional contexts. Presentations, data management, and document production are all common uses for these programs. While prior study has looked at students' digital literacy, there has not been much on out-of-school youth's ICT literacy, especially regarding utilizing Microsoft Office programs.

Based on Social Cognitive Theory (Abun et al., 2024; Mozahem, 2021), this research investigates Barangay Sta.Isabel, Cabiao, Nueva Ecija. Microsoft Word, Excel, and PowerPoint are used by out-of-school youth ICT literacy. The results will be used as a foundation for creating an ICT Literacy Extension Program that will assist their educational and career prospects while enhancing their digital capabilities.

B. Theoretical Framework

This study is anchored on Albert Bandura's Social Cognitive Theory (SCT), which explains that learning occurs through the reciprocal interaction of personal, behavioral, and environmental factors. According to Bandura, individuals acquire knowledge and skills through observation, practice,

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experience, and social influences. The theory also emphasizes self-efficacy, or an individual's belief in their ability to successfully perform a task, as an important factor influencing learning and performance.

Social Cognitive Theory is relevant to this study because ICT literacy is not solely determined by access to technology but is also influenced by an individual's attitudes, behaviors, and learning environment. In the context of Out-of-School Youth (OSY), personal factors may include digital confidence and attitudes toward technology; behavioral factors may involve the frequency and purpose of technology use; and environmental factors may include access to digital devices, internet connectivity, and opportunities for ICT learning.

Guided by this framework, the study assesses the ICT literacy of Out-of-School Youth in using Microsoft Word, Excel, and PowerPoint and examines the personal, behavioral, and environmental factors associated with their ICT literacy. The theory provides a foundation for understanding how these factors influence digital skill development and for identifying areas where ICT literacy interventions may be needed. The findings will serve as a basis for developing an ICT Literacy Extension Program designed to strengthen the digital competencies of Out-of-School Youth.

C. Conceptual Framework

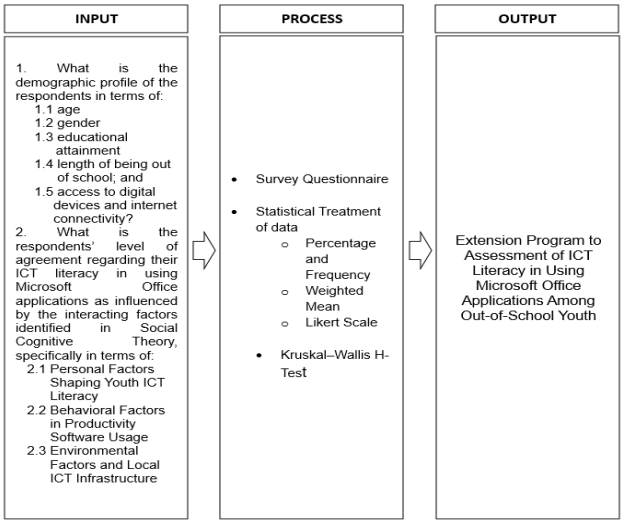


Fig. 1. Paradigm of the study

The Input–Process–Output (IPO) Model, which shows the flow of variables and research techniques used in evaluating the ICT literacy of out-of-school youth in Barangay Sta.Isabel, Nueva Ecija, Cabiao is the foundation of this study. The framework shows how the specified inputs are processed to get the study's intended output.

The Input consists of the respondents' demographic profile in terms of age, gender, educational attainment, length of time being out of school, and access to digital devices and internet connectivity. It also includes the respondents' level of agreement regarding their ICT literacy in using Microsoft Office applications as influenced by the factors identified in Social Cognitive Theory, specifically personal factors shaping ICT literacy, behavioral factors in productivity software usage, and environmental factors related to local ICT infrastructure.

The Process involves the administration of a survey questionnaire to gather the necessary data. The collected data will be organized, tabulated, and analyzed using appropriate statistical tools. Frequency and percentage will be used to describe the respondents' demographic profile, while weighted mean and Likert scale interpretation will be utilized to determine their level of ICT literacy. The Kruskal–Wallis H-Test will be employed to determine significant differences in ICT literacy when respondents are grouped according to their demographic characteristics.

The Output of the study is a proposed ICT Literacy Extension Program for Out-of-School Youth based on the findings of the assessment. The program is intended to address the identified ICT literacy needs and strengthen competencies in using Microsoft Word, Excel, and PowerPoint for educational, vocational, and employment-related purposes.

D. Statement of the Problem

This study delves into assessing the ICT literacy in using Microsoft Office Applications among Out-of-School Youth (OSY). Specifically, this study seeks to answer the following questions:

1. What is the demographic profile of the respondents in terms of:
   - 1.1 Age
   - 1.2 Gender
   - 1.3 Educational attainment
   - 1.4 Length of being out of school; and
   - 1.5 Access to digital devices and internet connectivity?
2. What is the respondents' level of agreement regarding the factors influencing their ICT literacy in using Microsoft Office applications in terms of:
   - 2.1 Personal Factors Shaping Youth ICT Literacy
   - 2.2 Behavioral Factors in Productivity Software Usage
   - 2.3 Environmental Factors and Local ICT Infrastructure
3. Is there a significant difference in the respondents' level of ICT literacy in using Microsoft Office applications when grouped according to their demographic profile?
4. What ICT Literacy Extension Program may be proposed based on the findings of the study?

E. Hypothesis

There is no significant difference in the respondents' level of ICT literacy in using Microsoft Office applications when grouped according to their demographic profile at the 0.05 level of significance.

F. Scope and Limitations of the Study

This study focuses on assessing the ICT literacy of Out-of-School Youth (OSY) in using Microsoft Office applications, specifically Microsoft Word, Microsoft Excel, and Microsoft PowerPoint, in Barangay Sta. Isabel, Cabiao, Nueva Ecija. The study also examines the personal, behavioral, and environmental factors influencing ICT literacy as identified in Social Cognitive Theory.

The respondents of the study consist of fifty-seven (57) identified Out-of-School Youth in the barangay. Total

population sampling was employed to ensure that all eligible OSY listed in the official barangay records were included in the study. The findings of the study are limited to the identified respondents and the specified locale; therefore, the results cannot be generalized to Out-of-School Youth in other barangays, municipalities, or regions.

Furthermore, the study is limited to ICT literacy in Microsoft Word, Excel, and PowerPoint and does not cover other areas of digital competence such as computer programming, networking, hardware maintenance, graphic design, or other specialized ICT skills. The findings will serve as the basis for the development of a proposed ICT Literacy Extension Program for Out-of-School Youth.

G. Significance of the Study

Out-of-School Youth (OSY) — This study will help identify the ICT literacy level and learning needs of Out-of-School Youth in using Microsoft Office applications. The findings may contribute to improving their preparedness for employment, technical-vocational training, and other opportunities that require digital competencies.

Barangay and Community Leaders — The findings of this study will provide local officials and community leaders with data that can serve as a basis for planning and implementing ICT-related programs and initiatives for Out-of-School Youth in Barangay Sta. Isabel.

Educators and Extension Program Implementers — This study will provide valuable insights for educators, extension coordinators, and program implementers in developing responsive learning activities and ICT literacy interventions that address the identified needs of Out-of-School Youth.

Parents — The findings of the study may help parents recognize the importance of ICT literacy in supporting educational, vocational, and employment opportunities. It may also encourage them to support the development of their children's digital skills.

Future Researchers — This study may serve as a reference for future research related to ICT literacy, digital competency development, and educational interventions among Out-of-School Youth and other similar populations.

H. Definition of Terms

Behavioral Factors – Refer to the frequency, manner, and purpose of technology use that may influence the ICT literacy of Out-of-School Youth in utilizing Microsoft Office applications.

Environmental Factors – Refer to the external conditions that may influence ICT literacy, including access to digital devices, internet connectivity, and support from family, peers, and the community.

ICT Literacy – Refer to the ability of an individual to effectively use digital technologies and applications to create documents, manage data, and develop presentations. In this study, it specifically refers to the respondents' literacy in using Microsoft Word, Excel, and PowerPoint.

Microsoft Excel – Refers to a spreadsheet application used for organizing data, performing calculations, and creating tables and charts in this study, it pertains to the respondents' use of Microsoft Excel as part of their ICT literacy.

Microsoft Office Applications – Refer to a suite of productivity software programs. In this study, the term specifically pertains to Microsoft Word, Microsoft Excel, and Microsoft PowerPoint.

Microsoft PowerPoint – Refers to a presentation software application used to create and deliver slide-based presentations containing text, images, and other visual elements.

Microsoft Word – Refers to a word processing application used for creating, editing, and formatting text-based documents.

Out-of-School Youth (OSY) – Refers to individuals aged 15–24 who are not currently enrolled in formal education, technical-vocational programs, or higher education during the conduct of the study.

Personal Factors – Refer to the internal characteristics of Out-of-School Youth that may influence ICT literacy, including digital self-efficacy, technology anxiety, and attitudes toward the use of digital technologies.

2. Review of Related Literature and Study

This section presents the relevant literature and the studies that the researcher considered in strengthening the claim and highlights the importance of the present or current study.

A. ICT Literacy in Microsoft Word, Excel, and PowerPoint

Information and Communication Technology (ICT) literacy has become an essential competence in the digital age, enabling individuals to effectively access, manage, evaluate, and create information using digital technologies and productivity tools (UNESCO, 2018). As technology continues to influence education, employment, and daily life, proficiency in productivity software has become increasingly important. Among the most widely used digital tools are Microsoft Word, Microsoft Excel, and Microsoft PowerPoint, which are commonly utilized for document preparation, data management, and presentations across academic and professional settings (ICDL, 2023).

Several studies have emphasized the importance of ICT literacy in enhancing the knowledge and skills of young people. Cruz and Delos Santos (2019) found that digital literacy, particularly competence in Microsoft Office applications, contributes to improved academic performance and broader opportunities among marginalized learners. Similarly, Santos and Perez (2017) reported that Microsoft Office training helps Out-of-School Youth (OSY) acquire essential digital skills relevant to educational and workplace tasks. Supporting these findings, the International Labour Organization (2022) and the International Telecommunication Union (2021) highlighted the growing importance of digital competencies in an increasingly technology-driven society. Furthermore, Van Dijk (2020) emphasized that meaningful digital competence requires not only access to technology but also the ability to use digital tools effectively.

In the Philippine context, the Philippine Institute for Development Studies (2023) reported persistent barriers affecting disadvantaged youth, including limited access to

digital resources and ICT learning opportunities. These barriers may affect the development of essential digital competencies, particularly among Out-of-School Youth. Local evidence further highlights the need for ICT skills assessment. A study conducted among Out-of-School Youth in Naga City, Cebu revealed low proficiency in networking, operating system installation, and online tools utilization, with only moderate proficiency in office productivity software. These findings indicate that significant ICT competency gaps continue to exist among disadvantaged youth populations and underscore the need for targeted digital skills development initiatives.

Research also shows that structured ICT training can significantly improve digital competencies. Albarillo et al. (2018) reported substantial improvements in participants' knowledge and skills in Microsoft Word, Microsoft Excel, Microsoft PowerPoint, and internet applications following structured training activities. Likewise, the USAID Opportunity 2.0 Activity demonstrated the positive impact of digital skills development programs among Out-of-School Youth through improved educational and employment outcomes (Blum et al., 2025). These findings suggest that providing opportunities for ICT skills development can contribute to improved digital competence and readiness for future opportunities.

Although existing studies consistently highlight the importance of ICT literacy and digital skills training, much of the literature focuses on general digital literacy, training outcomes, or large-scale policy and infrastructure concerns. Limited research has specifically examined the ICT literacy of Out-of-School Youth in using Microsoft Word, Microsoft Excel, and Microsoft PowerPoint within localized community settings. Furthermore, few studies have assessed ICT literacy while considering the influence of personal, behavioral, and environmental factors as identified in Social Cognitive Theory.

Therefore, further research is needed to assess the ICT literacy of Out-of-School Youth in using Microsoft Office applications and to examine the factors that may influence their digital competence. Such assessment can provide valuable information for the development of responsive ICT literacy interventions and extension programs tailored to the needs of local communities.

B. Personal Factors Shaping Youth ICT Literacy

Personal factors play a significant role in the development of ICT literacy, particularly when viewed through the lens of Social Cognitive Theory. According to Bandura (1986), learning is influenced by cognitive and affective characteristics such as self-efficacy, knowledge, motivation, and attitudes. These internal factors shape how individuals approach learning tasks, respond to challenges, and develop new skills. In the context of ICT literacy, personal factors influence an individual's confidence and willingness to engage with digital technologies and productivity applications.

Self-efficacy, defined as an individual's belief in their ability to successfully perform specific tasks, has been consistently identified as an important predictor of technology use and digital competence (Bandura, 1986). Pan (2020) found that individuals with higher levels of technological confidence are more likely to participate in digital learning activities and develop ICT-related skills. Similarly, Speer et al. (2019) emphasized that awareness of one's capabilities contributes to the development of youth competencies. Supporting these findings, Hero (2022) reported that higher levels of ICT self-efficacy are associated with stronger digital performance and greater engagement in technology-related activities. These studies suggest that confidence in using technology plays an important role in the development of ICT literacy.

In addition to self-efficacy, attitudes toward technology development. Almerino et al. (2020) found that learners with positive attitudes toward ICT demonstrate higher levels of participation and skill acquisition in technology-supported activities. Conversely, negative attitudes and technology anxiety may discourage engagement with digital tools and limit opportunities for learning and skill development. These findings indicate that personal perceptions and attitudes can influence an individual's willingness to explore and utilize digital technologies.

Prior knowledge and previous exposure to technology also contribute to ICT] competence. Individuals who have experience using digital tools and productivity applications tend to demonstrate greater confidence and adaptability when learning advanced features of software such as Microsoft Word, Microsoft Excel, and Microsoft PowerPoint. Furthermore, Pan et al. (2025) noted that digital literacy skills are influenced more by technological experiences and learning opportunities than by age alone. In contrast, limited exposure to technology may hinder confidence and slow the development of digital competencies, particularly among disadvantaged groups.

Supporting this view, Nuncio (2020) explained that inconsistent ICT integration and limited opportunities for technology-based learning contribute to uneven levels of digital preparedness among learners. Likewise, Warschauer (2021) emphasized that digital experiences, access to technology, and opportunities for practical application significantly influence ICT literacy development. These findings suggest that personal factors, combined with meaningful learning experiences, contribute to an individual's ability to develop and apply digital skills effectively.

Although existing studies consistently emphasize the importance of self-efficacy, attitudes, motivation, and prior knowledge in shaping ICT literacy, limited research has examined how these personal factors relate to ICT literacy in Microsoft Word, Microsoft Excel, and Microsoft PowerPoint among Out-of-School Youth in localized community settings. Therefore, further research is needed to assess the influence of personal factors on ICT literacy and to better understand how these factors contribute to the development of digital competencies among Out-of-School Youth.

C. Behavioral Factors in Productivity Software Usage

Behavioral factors refer to the actual actions, practices, and experiences individuals engage in when using digital technologies. In the context of ICT literacy, behavioral factors involve the frequency, purpose, and manner in which individuals utilize productivity software such as Microsoft

Word, Microsoft Excel, and Microsoft PowerPoint. These behaviors play an important role in transforming access to technology into actual skill development. Repeated engagement and hands-on practice with productivity software contribute to the development of stronger ICT competencies (Albarillo et al., 2018). Likewise, Selwyn (2016) emphasized that digital skills are developed through continuous interaction with technology and practical experiences over time.

Studies indicate that access to technology alone does not automatically lead to ICT competence. Ramos (2020) found that many young people primarily use digital technologies for communication, entertainment, and social networking rather than for educational or productivity-related purposes. This finding suggests that purposeful and task-oriented use of digital tools is essential in developing meaningful ICT literacy. Similarly, Hatlevik et al. (2018) reported that digital competence is strongly associated with opportunities for technology use, learning experiences, and the frequency of engagement with digital tools.

Research further highlights the importance of consistent practice in developing productivity software skills. Padilla and Javier (2018) and Luna and Ramos (2021) reported that regular use of Microsoft Office applications contributes to improved technical competence and familiarity with digital tasks. Supporting these findings, Albarillo et al. (2018) documented significant improvements in participants' knowledge of Microsoft Word, Microsoft Excel, Microsoft PowerPoint, and internet applications following structured and hands-on learning experiences. These findings demonstrate that repeated exposure and active participation contribute significantly to ICT literacy development.

Local evidence also supports the importance of behavioral engagement in productivity software usage. Bilocura et al. (2023) found that Alternative Learning System (ALS) learners demonstrated varying levels of proficiency across Microsoft Office applications, with many participants showing greater difficulty in Microsoft Excel than in other productivity tools. These findings suggest that differences in usage patterns and levels of engagement may influence competency development across specific software applications.

Furthermore, Siddiq et al. (2016) reported that digital application proficiency is influenced more by learning opportunities and technology engagement than by gender differences. This suggests that behavioral factors, particularly consistent practice and meaningful technology use, play a significant role in shaping ICT literacy outcomes.

Although existing studies emphasize the importance of active engagement and regular practice in developing ICT competencies, limited research has examined the behavioral factors influencing ICT literacy among Out-of-School Youth in localized community settings. Much of the literature focuses on training outcomes and general technology use rather than the frequency, purpose, and manner of using Microsoft Word, Microsoft Excel, and Microsoft PowerPoint. Therefore, further research is needed to examine how behavioral factors influence ICT literacy among Out-of-School Youth and how these factors contribute to their competency in using Microsoft Office applications.

D. Environmental Factors and Local ICT Infrastructure

Environmental factors play a crucial role in shaping ICT literacy, particularly among Out-of-School Youth (OSY) who often depend on community resources and informal learnin opportunities. Guided by Social Cognitive Theory, learning occurs through the interaction of personal, behavioral, and environmental influences (Bandura, 1986). In the context of ICT literacy, environmental factors include access to digital devices, internet connectivity, ICT infrastructure, learning opportunities, and social support systems that may influence the development of digital competencies.

Access to enabling resources is widely recognized as an important determinant of ICT literacy. Sison and Diaz (2017) reported that many Out-of-School Youth in the Philippines experience environmental barriers such as limited access to digital devices, inadequate ICT facilities, and insufficient training opportunities. Similarly, Ellena (2023) identified persistent challenges related to internet connectivity and limited exposure to digital technologies in less developed communities. These findings suggest that environmental conditions can significantly influence opportunities for developing ICT-related skills.

National and international studies further support the importance of environmental support in ICT literacy development. A World Bank report on ICT in Philippine education highlighted limitations in access to computers, internet connectivity, and other technological resources within educational settings. Likewise, UNESCO (2018) and the International Telecommunication Union (2021) emphasized that adequate infrastructure and institutional support contribute to greater digital participation and learning opportunities. Timotheou et al. (2022) also noted that ICT literacy development is often enhanced in environments where learners have access to structured support and technology-based learning experiences.

However, environmental resources alone do not automatically result in meaningful ICT competence. Van Dijk (2020) emphasized that access to technology must be accompanied by opportunities for effective and purposeful use. Similarly, Eynon et al. (2020) argued that digital competence is influenced not only by access to resources but also by social support, learning opportunities, and meaningful engagement with technology. These findings indicate that environmental factors interact with personal and behavioral factors in shaping ICT literacy outcomes.

In the Philippine context, the Philippine Institute for Development Studies (2023) reported continuing challenges related to affordability, access to technology, and internet connectivity among disadvantaged populations. Such barriers may limit opportunities for Out-of-School Youth to develop competencies in productivity software applications such as Microsoft Word, Microsoft Excel, and Microsoft PowerPoint.

Although existing studies consistently emphasize the importance of environmental support in ICT literacy development, limited research has examined how specific

environmental factors influence ICT literacy in Microsoft Office applications among Out-of-School Youth within localized barangay settings. Much of the literature focuses on infrastructure, access, and policy concerns rather than the relationship between environmental conditions and competency in productivity software.

Therefore, further research is needed to examine how environmental factors, including access to digital devices, internet connectivity, and social support, influence ICT literacy among Out-of-School Youth. Such investigation can provide valuable information for developing responsive ICT literacy interventions and extension programs that address the needs of local communities.

E. Synthesis of the Review Literature and Studies

The reviewed literature highlights that ICT literacy in Microsoft Word, Microsoft Excel, and Microsoft PowerPoint is an important skill for young people in the digital age. Proficiency in these applications supports educational, vocational, and professional opportunities (UNESCO, 2018; ICDL, 2023; Santos & Perez, 2017; Padilla & Javier, 2018). However, challenges such as limited access to digital resources, inadequate ICT infrastructure, and disadvantaged youth (PIDS, 2023; Bilocura et al., 2023; Trinidad, 2025).

Guided by Social Cognitive Theory, ICT literacy is influenced by the interaction of personal, behavioral, and environmental factors (Bandura, 1986). Personal factors such as self-efficacy, motivation, and attitudes toward technology affect learners' confidence in using digital tools (Hero, 2022). Behavioral factors, including the frequency and purpose of technology use, enhance digital competencies through practice (Selwyn, 2016; Hatlevik et al., 2018), while environmental factors such as access to devices, internet connectivity, and social support create opportunities for learning and skill development (Sison & Diaz, 2017; Eynon et al., 2020).

Despite the growing body of literature on ICT literacy, most studies focus on general digital skills, technology access, or large-scale assessments (Warschauer, 2021; Pan et al., 2025). Few studies have specifically examined the ICT literacy of Out-of-School Youth in using Microsoft Word, Microsoft Excel, and Microsoft PowerPoint while considering personal, behavioral, and environmental factors within a local community context. Therefore, this study aims to address this gap by assessing the ICT literacy of Out-of-School Youth in Barangay Sta. Isabel, Cabiao, Nueva Ecija and using the findings as a basis for an ICT Literacy Extension Program.

3. Research Methodology

This chapter covers the method that has been followed and the methodology used in examining the problem described in this research study. This part covered the following topics: Study methodology, population and sample size, sampling strategy, respondent description, instrumentation, instrument validation, data collection process, and statistical analysis of the data. Together, these elements made clear the strategy that employed to achieve the goals of this research.

A. Method of Research

This study employed a descriptive research design to assess the ICT literacy of Out-of-School Youth (OSY) in Barangay Sta. Isabel, Cabiao, Nueva Ecija. Descriptive research is appropriate for providing an accurate and objective description of existing conditions, characteristics, and phenomena within a population (Nassaji, 2015). This design enabled the researchers to determine the respondents' demographic profile, assess their ICT literacy in using Microsoft Office applications, and examine the personal, behavioral, and environmental factors associated with their ICT literacy.

A quantitative approach was utilized, with a structured survey questionnaire serving as the primary data-gathering instrument. The questionnaire was designed to collect information on the respondents' demographic profile and their level of agreement regarding the factors influencing ICT literacy in using Microsoft Word, Microsoft Excel, and Microsoft PowerPoint. Specifically, the instrument examined personal factors shaping youth ICT literacy, behavioral factors in productivity software usage, and environmental factors related to local ICT infrastructure.

The collected data were systematically organized, tabulated, and analyzed using appropriate statistical tools. Frequency and percentage were used to describe the respondents' demographic profile, while weighted mean was employed to determine their level of agreement regarding the identified factors influencing ICT literacy (Gayatri & Dahiya, 2018). The Kruskal–Wallis H-Test was utilized to determine significant differences in ICT literacy when respondents were grouped according to their demographic profile. The findings served as the basis for the development of a proposed ICT Literacy Extension Program for Out-of-School Youth in Barangay Sta. Isabel, Cabiao, Nueva Ecija.

B. Population, Sample Size and Sampling Technique

The respondents of this study consisted of fifty-seven (57) Out-of-School Youth (OSY) residing in Barangay Sta. Isabel, Cabiao, Nueva Ecija. For the purposes of this study, Out-of-School Youth refer to individuals who were not enrolled in any formal secondary, vocational, or higher education institution during the conduct of the research. Based on the official records provided by the barangay council, a total of fifty-seven (57) individuals met the inclusion criteria and were identified as qualified respondents.

Table 1
Frequency distribution of the respondents according to population

Name	Respondents	Total
Sta. Isabel	Out-of-School Youth	57
Total		57

This study utilized total enumeration sampling, also known as the census method, wherein all qualified members of the target population were included in the study. This sampling technique was deemed appropriate because the population size was relatively small and manageable. As a result, the inclusion of all qualified Out-of-School Youth in Barangay Sta. Isabel allowed the researchers to gather information that reflected the

true picture of the target group.

Total enumeration made it possible to improve the comprehensiveness of the data collected, while reducing the risk of overlooking important respondents. Hence, the results help in giving a complete picture of the ICT literacy among the Out-of-School Youth in Barangay Sta.Isabel.

C. Description of Respondents

The respondents of this study comprised fifty-seven (57) Out-of-School Youth (OSY) aged 15–24 residing in Barangay Sta. Isabel, Cabiao, Nueva Ecija. For the purposes of this study, Out-of-School Youth refer to individuals who were not enrolled in any formal secondary, vocational, or higher education institution during the conduct of the research. The list of eligible respondents was obtained from the official records of the barangay council and validated through coordination with local officials to ensure that all qualified individuals were included in the study.

Considering the relatively small and manageable population, the study employed total enumeration sampling, wherein all fifty-seven (57) identified Out-of-School Youth were invited to participate. Participation was voluntary, and informed consent was secured prior to data collection. This approach enabled the researchers to obtain comprehensive information from the entire target population within the barangay.

Data were gathered through a structured survey questionnaire designed to assess the respondents' ICT literacy in using Microsoft Office applications, specifically Microsoft Word, Microsoft Excel, and Microsoft PowerPoint. The instrument also collected information regarding the respondents' demographic profile and their level of agreement concerning the personal, behavioral, and environmental factors associated with ICT literacy. The data obtained served as the basis for describing the ICT literacy of the respondents and for developing a proposed ICT Literacy Extension Program.

D. Instruments Used

The instrument used in this study was a researcher-made questionnaire designed to gather data relevant to the objectives of the study. The questionnaire was carefully developed to ensure the accurate and reliable collection of information regarding the ICT literacy of Out-of-School Youth (OSY) in using Microsoft Office applications. It consisted of two parts. The first part focused on the respondents' demographic profile, including age, gender, educational attainment, length of being out of school, and access to digital devices and internet connectivity. The second part assessed the respondents' level of agreement regarding ICT literacy in using Microsoft Word, Microsoft Excel, and Microsoft PowerPoint in terms of personal factors, behavioral factors, and environmental factors.

The researchers utilized a 5-point Likert scale to measure the respondents' level of agreement with each statement. The scale consisted of the following response options: 5 – Strongly Agree, 4 – Agree, 3 – Slightly Agree, 2 – Disagree, and 1 – Strongly Disagree.

The research instrument was subjected to content validation by experts in research and ICT education to assess its clarity, relevance, and alignment with the objectives of the study. Their suggestions and recommendations were incorporated to further improve the quality of the instrument.

To determine the reliability of the instrument, a pilot test was conducted among a group of Out-of-School Youth from a nearby barangay in Cabiao, Nueva Ecija who were not included in the actual respondents of the study. The data obtained from the pilot testing were analyzed using Cronbach's Alpha to determine the internal consistency of the questionnaire. Table 2 presents the results of the reliability analysis conducted on the research instrument. The internal consistency of the instrument was interpreted using the following criteria: 0.91–1.00 (Excellent), 0.81–0.90 (Good), 0.71–0.80 (Acceptable), 0.61–0.70 (Questionable), 0.51–0.60 (Poor), and 0.00–0.50 (Unacceptable).

Table 2
Reliability test

Variables	Cronbach's Alpha	No. of Items	Interpretation
Personal Factors	0.742	8	Acceptable
Behavioral Factors	0.882	10	Excellent
Environmental Factors	0.933	10	Excellent
Overall	0.911	28	Excellent

Legend: 0.91–1.00 = Excellent, 0.81–0.90 = Good, 0.71–0.80 = Acceptable, 0.61–0.70 = Questionable, 0.51–0.60 = Poor, 0.00–0.50 = Unacceptable

Table 2 presents the results of the reliability analysis conducted on the research instrument across its three dimensions. According to the table provided, the Personal Factors subscale exhibited a value of Cronbach's alpha of 0.742 from eight questions, which is an indication of an acceptable internal consistency. On the other hand, the Behavioral Factors subscale gave an alpha value of 0.882 from ten questions, meaning that there is a good reliability. Likewise, the Environmental Factors subscale gave a Cronbach's alpha value of 0.933 from ten questions, which is an indication of excellent reliability. In summary, the 28-question test showed an overall Cronbach's alpha of 0.911, which is an excellent figure. These results indicate that the research instrument possesses a high level of internal consistency and reliability. Therefore, the questionnaire was considered appropriate and dependable for gathering data related to the ICT literacy of Out-of-School Youth in using Microsoft Office applications.

Validity is a quality attributed to propositions or measures of the degree to which they conform to established knowledge or truth. Validity refers to the extent to which an instrument asks the right questions in terms of accuracy (Creswell & Creswell, 2018). Validity is the degree to which tests or others measure what it intends to measure. The steps taken by the researchers under content validity include item analysis and consulting experts who possess knowledgeable expertise on the subject matter.

The instrument passed through contextual validation, examination, adjustments, and other necessary actions to establish validity. To gather data from respondents, a questionnaire was provided. The instrument was reviewed and validated by the thesis adviser and experts who assessed and

rejected statements that did not adhere to research and ethical standards. Upon completion of the initial validation, the instrument was for further structural, statistical, and grammatical validation to scrutinize the clarity of the statements within the instrument for the target youth. All feedback provided by the validators and the thesis adviser were carefully considered.

E. Data Gathering Procedure

The researchers systematically disseminated 57 copies of the survey questionnaires through face-to-face distribution with the assistance of the researchers' colleagues and local barangay leaders. The respondents were verified out-of-school youth (OSY) residing in Barangay Sta. Isabel, Cabiao, Nueva Ecija. The survey instrument focused on assessing the mobile-based ICT literacy of OSY, particularly their digital competencies. The data-gathering procedure was conducted during the second semester of the research timeline. The administration of the questionnaires was scheduled based on the availability and convenience of the respondents to ensure their full participation. Prior to the administration of the survey, each questionnaire was provided with a cover letter stating the purpose of the study and assuring respondents of anonymity and strict confidentiality in accordance with the Data Privacy Act of 2012. Clear instructions were also given on how to accomplish the questionnaire.

For respondents with limited reading abilities, the researchers assisted by reading the items aloud in Filipino and accurately recording their responses. Each session lasted approximately 15–20 minutes. After completion, the questionnaires were immediately retrieved. Finally, all collected data were securely handled, organized, and analyzed to determine the baseline digital competency gaps of the OSY, guided by Social Cognitive Theory.

F. Statistical Treatment of Data

The data collected in the study were organized, encoded, and analyzed using the Statistical Package for the Social Sciences (SPSS). The responses gathered from the 57 out-of-school youth (OSY) were tallied and tabulated to facilitate the presentation, analysis, and interpretation of results. The following statistical tools were utilized:

1) Frequency and Percentage

Frequency and percentage were used to describe the demographic profile of the out-of-school youth and to determine the distribution of responses to each item in the ICT literacy assessment questionnaire. The percentage was computed using the formula:

$$Percentage\ (\%) = \left(\frac{N}{f}\right) \times 1$$

Where:
f = frequency of responses
N = total number of respondents

The percentage distribution enabled the researchers to identify general patterns in the demographic profile and responses of the out-of-school youth regarding their ICT literacy in using Microsoft Office applications.

2) Weighted Mean

The weighted mean was used to determine the level of ICT literacy of the respondents in using Microsoft Office applications, particularly in terms of personal factors, behavioral factors and environmental factors. This statistical tool measured the average level of responses to the items in the questionnaire. The formula for computing the weighted mean is:

$$WM = \frac{N\Sigma(f \times w)}{N}$$

Where:
WM = weighted mean
f = frequency of each response
w = weighted value or scale point
N = total number of respondents

A five-point Likert scale was used to interpret the responses as follows:

Scale	Weighted Mean Range	Interpretation
5	4.21 – 5.00	Strongly Agree
4	3.41 – 4.20	Agree
3	2.61 – 3.40	Slightly Agree
2	1.81 – 2.60	Disagree
1	1.00 – 1.80	Strongly Disagree

The weighted mean enabled the researchers to determine the overall level of ICT literacy in using Microsoft Office applications among out-of-school youth by analyzing each factor individually and collectively. Through the computation of the average responses for all dimensions, the study identified specific strengths and skill gaps that served as the baseline for designing and implementing the extension program. The resulting averages were systematically evaluated against the established numerical thresholds to determine the respondents' level of ICT literacy in using Microsoft Office applications.

3) Kruskal-Wallis H-Test

The Kruskal–Wallis H-Test was utilized to determine whether there were significant differences in the respondents' level of ICT literacy in using Microsoft Office applications when grouped according to their demographic profile, specifically in terms of age, highest educational attainment, and length of being out of school, as reflected in the respondents' demographic profile. This non-parametric statistical tool was chosen because it compares three or more independent groups when the data do not follow a normal distribution, allowing the researchers to evaluate differences across all personal, behavioral, and environmental factors. The formula for computing the Kruskal–Wallis test statistic (H) is:

$$H = \left[\frac{12}{N(N+1)}\sum_{i=1}^{k}\frac{R_i^2}{n_i}\right] - 3(N+1)$$

Where:

- H = Kruskal–Wallis test statistic
- N = total number of respondents across all groups ($N = 57$)
- k = number of independent comparison groups
- n_i = number of respondents in the i-th group
- R_i = sum of ranks assigned to the i-th group

The results of the Kruskal–Wallis H-Test served as the basis for determining whether significant variations existed among the respondents' ICT literacy levels based on their background profiles. By identifying which demographic profile variables showed differences across the personal, behavioral, and environmental factors, the statistical findings provided objective, data-driven support for the design of the proposed extension program.

4) Decision Rule

If $p \leq 0.05$, reject H_0; there is a significant difference.

If $p > 0.05$, accept H_0; there is no significant difference.

5) Conclusion

The Kruskal–Wallis H-Test was employed to determine whether significant differences existed in the respondents' level of ICT literacy in using Microsoft Office applications when grouped according to their demographic profile variables, namely age, highest educational attainment, and length of being out of school. The test examined differences across the personal, behavioral, and environmental factors of ICT literacy and provided statistical evidence to support the findings of the study.

G. Ethical Considerations

In the conduct of this study, Assessment of ICT Literacy Among Out-of-School Youth: Basis for Implementation of an Extension Program, the researchers strictly adhered to ethical standards to protect the rights, dignity, and well-being of all participants. The respondents consisted of out-of-school youth (OSY) aged 15–24. Participation was voluntary and free from coercion, discrimination, or any form of undue influence. To minimize discomfort related to educational background or ICT competency, the questionnaire was designed to be respectful, non-judgmental, and non-intrusive.

Prior to data collection, a formal request letter signed by the researchers and their thesis adviser, Dr. May M. Galang, was submitted to the authorities of Barangay Sta. Isabel, Cabiao, Nueva Ecija. The purpose and significance of the study were clearly explained to all participants. Informed consent was secured before participation, while parental or guardian consent and participant assent were obtained for minors. Respondents were informed of their right to refuse participation or withdraw from the study at any time without penalty.

In accordance with the Data Privacy Act of 2012 (Republic Act No. 10173), confidentiality and privacy were strictly observed. No personally identifiable information was collected, and respondents were assigned codes to ensure anonymity. All data were securely stored and accessed only by the researchers, and findings were presented in aggregate form to prevent the identification of individual participants.

The researchers ensured fair and respectful treatment of all respondents regardless of gender, educational background, or level of access to technology. No monetary or material incentives were provided, and participation was based solely on the respondents' voluntary willingness to contribute to the study.

4. Presentation, Analysis, and Data Interpretation

This chapter presents the data gathered from the fifty-seven (57) out-of-school youth respondents in Barangay Sta. Isabel, Cabiao, Nueva Ecija. The findings are displayed in tabular form, followed by an in-depth analysis that includes the interpretation of results, their implications for the community, and the theoretical bases.

A. Demographic Profile of the Respondents

Table 3
Demographic profile of the respondents by age

Age	Frequency	Percentage
22-24	23	40.4%
18-21	19	33.3%
15-17	15	26.3%
Total	57	100%

Table 3 shows that the majority of respondents belong to the 22–24 age group, with a frequency of 23 (40.4%) of the total. This is followed by the 18–21 age group, with 19 respondents (33.3%), while the 15–17 age group has the lowest frequency, with 15 respondents (26.3%) of the total. The findings indicate that most of the out-of-school youth respondents are young adults aged 22–24.

It shows the respondents have remained outside the formal education system for a longer period. Providing ICT literacy programs that can enhance their digital competencies and improve their opportunities for employment, education, and community participation.

Table 4
Demographic profile of the respondents in terms of gender

Gender	Frequency	Percentage
Male	42	73.7%
Female	14	24.6%
Non- binary	1	1.8%
Total	57	100%

Table 4 shows the summary of the demographic profile of the respondents in terms of gender. Among the three gender categories, male respondents obtained the highest frequency, with 42 respondents (73.7%), followed by female respondents, with 14 respondents (24.6%), while non-binary respondents obtained the lowest frequency, with 1 respondent (1.8%). The overall findings indicate that the respondents are predominantly male.

Table 5
Demographic profile of the respondents in terms of educational background

Educational background	Frequency	Percentage
High School (Grade 7-10)	40	70.18%
Elementary (Grades 1–6)	8	14.04%
No completed formal schooling	7	12.28%
TESDA / Technical or Vocational Course	2	3.50%
Total	57	100%

Table 5 presents the demographic profile of the respondents in terms of educational background. The findings reveal that the majority of the respondents reached the high school level (Grades 7–10), with a frequency of 40 or 70.18%. This was followed by respondents who attained the elementary level (Grades 1–6), with a frequency 8 or 14.04%. Meanwhile, 7 or

12.28% reported having no completed formal schooling, while 2 or 3.50% had completed a TESDA, technical, or vocational course.

Table 6
Demographic profile of the respondents in terms of length of being out of school

Length of being out of school	Frequency	Percentage
Less than 1 year	19	33.3%
5 years and above	15	26.3%
3–4 years	13	22.8%
1–2 years	10	17.5%
Total	57	100%

Table 6 presents the demographic profile of the respondents in terms of the length of time they have been out of school. The findings show that the largest proportion of respondents had been out of school for less than one year, with a frequency of 19 or 33.3% of the total respondents. The respondents who had been out of school for five years and above, with a frequency of 15 or 26.3%. Meanwhile, 13 or 22.8% had been out of school for 3–4 years, while 10 or 17.5% had been out of school for 1–2 years.

Table 7
Demographic profile of the respondents by internet connectivity

Internet Connectivity	Frequency	Percentage
Mobile Data Only	22	38.60%
Wi-Fi / Fiber	18	31.58%
Computer Shop	9	15.78%
No Internet Access	8	14.04%
Total	57	100%

Table 7 shows that the majority of the respondents relied on mobile data only, with a frequency of 22 or 38.60% of the total respondents. This is followed by respondents who had access to Wi-Fi/Fiber internet connectivity, with 18 respondents or 31.58%, while 9 respondents or 15.78% accessed the internet through computer shops. The no internet access category obtained the lowest frequency, with 8 respondents or 14.04% of the total respondents. The findings indicate that most of the out-of-school youth respondents relied on mobile data only for internet connectivity.

Table 8
Demographic profile of the respondents in terms of device

Device	Frequency	Percentage
Smartphone	49	86.0%
Smartphone and Computer	6	10.5%
Desktop computer/ Laptop	1	1.8%
None	1	1.8%
Total	57	100%

Table 8 shows the demographic profile of the respondents in terms of device ownership. Most of the respondents used smartphones, with a frequency of 49 or 86.0% of the total respondents. This is followed by respondents who used both smartphones and computers, with a frequency of 6 that has 10.5%, while the desktop computer or laptop category and the no digital device category obtained the lowest frequency, with 1 respondent equivalent to 1.8% each. The findings suggest that smartphones are the primary means of accessing digital technologies among the respondents. These findings highlight the need for the proposed ICT literacy extension program to incorporate smartphone-based learning activities while providing opportunities for hands-on computer-based training.

Overall, the findings show that the typical out-of-school youth respondent in the study is a male has a population of 42, that is equal to 73.7%, there are respondents aged 22–24 years old has a number of 23 that has a percentage of 40.4, who reached the high school level Grades 7–10 have respondents of 40 that has 70.18% has been out of school for less than one year is 19 of the population that has a percent of 33.3, primarily accesses the internet through mobile data only 22 respondents with a percentage of 38.60 and uses a smartphone is 49 that equivalent of 86.0 percentage as the main digital device.

These findings support the view of Selwyn (2016) that individuals' access to and use of digital technologies are influenced by the resources available to them and the technological environments in which they operate. This profile indicates that the respondents belong to a relatively young, male-dominated group whose formal education was interrupted

Table 9
Summary of the respondents' demographic profile

Demographic Profile	Group	Frequency	Percentage
Age	22–24 years old	23	40.4%
Gender	Male	42	73.7%
Educational Background	High School (Grades 7–10)	40	70.18%
Length of being OSY	Less than 1 year	19	33.3%
Internet Connectivity	Mobile Data Only	22	38.60%
Device	Smartphone	49	86.0%

Table 10
Level of agreement on ICT Literacy in using Microsoft office applications in terms of personal factors

Personal Factors	Weighted Mean	Verbal Interpretation
1. Knowledge of basic tasks in Microsoft Word, Excel, and PowerPoint	4.02	Agree
2. Understanding of the basic functions of Microsoft Office applications	3.81	Agree
3. Understanding of how Microsoft Powerpoint is used to create presentations	3.61	Agree
4. Interest in learning Microsoft Office applications	3.16	Slightly Agree
5. Willingness to spend time learning Microsoft Office applications	2.31	Disagree
6. Confidence in performing simple tasks using Microsoft	2.44	Disagree
7. Interest in learning more about computer applications	1.91	Disagree
8. Willingness to join ICT or digital skills training programs	2.26	Disagree
Overall	**3.03**	**Slightly Agree**

WM = Weighted Mean; VI = Verbal Interpretation. The following scale was used: 4.21–5.00 = Strongly Agree (5); 3.41–4.20 =Agree (4); 2.61–3.40 = Slightly Agree (3); 1.81–2.60 = Disagree (2); 1.00–1.80 = Strongly Disagree (1).

Table 11
Level of agreement on ICT literacy in using Microsoft office applications in terms of behavioral factors

Behavioral Factors	Weighted Mean	Verbal Interpretation
1. Use of Microsoft Word to type documents such as letters or resumes	4.14	Agree
2. Use of Microsoft Excel to create lists or organize information	2.70	Slightly Agree
3. Use of Microsoft PowerPoint to create presentations	3.38	Slightly Agree
4. Practice of Microsoft Office skills during free time	2.68	Slightly Agree
5. Exploration of different features in Microsoft Office applications	2.80	Slightly Agree
6. Adding pictures, tables, or designs in documents or presentations	3.82	Agree
7. Attempt to solve problems encountered while using Microsoft Office	3.36	Slightly Agree
8. Use of Microsoft Office for useful or productive tasks	3.31	Slightly Agree
9. Use of digital devices such as smartphones, computers, or laptops to access Microsoft applications	4.05	Agree
10. Use of Microsoft applications when completing personal or work-related tasks	3.44	Agree
Overall	3.44	Agree

WM = Weighted Mean; VI = Verbal Interpretation. The following scale was used: 4.21–5.00 = Strongly Agree (5); 3.41–4.20 = Agree (4); 2.61–3.40 = Slightly Agree (3); 1.81–2.60 = Disagree (2); 1.00–1.80 = Strongly Disagree (1).

at the junior high school level, suggesting that any intervention program must be sensitive to varying literacy and comprehension levels among participants. Moreover, the predominance of mobile data asthe primary means of internet access, rather than fixed broadband or Wi-Fi, implies that capacity to purchase data load.

B. Level of Agreement on ICT Literacy in Using Microsoft Office Applications

Table 10 shows the level of agreement of the respondents regarding ICT literacy in using Microsoft Office applications in terms of personal factors. The overall weighted mean of 3.03 (Slightly Agree) indicates that the respondents possess a moderate level of personal readiness toward the use of Microsoft Office applications. The highest-rated indicator was Knowledge of basic tasks in Microsoft Word, Excel, and PowerPoint (WM = 4.02, Agree), followed by Understanding of the basic functions of Microsoft Office applications (WM = 3.81, Agree), Understanding of how Microsoft PowerPoint is used to create presentations (WM = 3.61, Agree), Interest in learning Microsoft Office applications (WM = 3.16, Slightly Agree), Confidence in performing simple taskzs using Microsoft Office applications (WM = 2.44, Disagree), Willingness to spend time learning Microsoft Office applications (WM = 2.31, Disagree), Willingness to join ICT or digital skills training programs (WM = 2.26, Disagree), and Interest in learning more about computer applications (WM = 1.91, Disagree). The findings indicate that the respondents possess basic knowledge and familiarity with Microsoft Office applications.

This supports the view of UNESCO (2018) that digital literacy is an essential competency for education, employment, and lifelong learning, highlighting the need for engaging and accessible ICT literacy programs that encourage greater participation and continuous skills development. However, the lower ratings in confidence, willingness to spend time learning, and willingness to participate in ICT training suggest that the respondents may need additional motivation and supportive learning opportunities to strengthen their skills. Therefore, accessible and engaging training activities should be provided to build their confidence, encourage active participation, and promote continuous learning in Microsoft Office applications. These findings further emphasize the importance of providing practical, hands-on activities that can help the respondents apply their existing knowledge and gradually develop greater confidence in using Microsoft Office applications. This over-reliance on a single device which is often data-dependent also brings issues of consistency and depth of digital engagement as limited data load or intermittent connectivity may not allow for sustained engagement in online learning activities. As such, the program should consider including materials that are available offline or low-bandwidth options to ensure that participants are not disadvantaged by financial or connectivity limitations. All these demographic and technological realities highlight the need for the ICT Literacy Extension Program to be flexible, mobile-friendly and adaptable to the different levels of access and readiness among out-of-school youth.

Table 11 shows the level of agreement of the respondents regarding ICT literacy in using Microsoft Office applications in terms of behavioral factors. The overall weighted mean of 3.44 shows as Agree indicates that the respondents generally demonstrate positive behavioral practices in using Microsoft Office applications. The highest-rated indicator was Use of Microsoft Word to type documents such as letters or resumes as Agree with the weighted mean of 4.14, followed by Use of digital devices such as smartphones, computers, or laptops to access Microsoft applications that indicates as Agree with a weighted mean 4.05. The experience of doing Adding pictures, tables, or designs in documents or presentations results on Agree with the weighted mean of 3.82, , Use of Microsoft applications when completing personal or work-related tasks has weighted mean of 3.44 which indicates as Agree, Use of Microsoft PowerPoint to create presentations, Attempt to solve problems encountered while using Microsoft Office results shows Slightly Agree with a weighted mean of 3.38, Use of Microsoft Office for useful or productive tasks indicate as Slightly Agree as the weighted mean of 3.31, Exploration of different features in Microsoft Office applications have the same results as Slightly Agree with the weighted mean of 2.80 another is Microsoft Excel to create lists or organize information and Practice of Microsoft Office skills during free time has the lowest weighted mean as 2.68 which interpret as Slightly Agree. The findings indicate that the respondents generally demonstrate positive behavioral practices in using Microsoft Office applications. The lower scores on exploration, practice on their own time and Excel usage, however, show that the respondents can perform simple and known tasks but are less willing to explore on their own or to further their mastery

Table 12
Level of agreement on ICT literacy in using Microsoft office applications in terms of environmental factors

Environmental Factors	Weighted Mean	Verbal Interpretation
1. Digital devices such as smartphones, computers, or laptops are available for learning Microsoft applications	2.75	Slightly Agree
2. Internet connection is available for learning digital skills	2.68	Slightly Agree
3. Someone is available to help when learning Microsoft applications	2.45	Disagree
4. ICT or computer training programs are available in the community	2.14	Disagree
5. A place is available where digital devices can be used for learning	2.39	Disagree
6. Microsoft Office applications are accessible on available devices	2.31	Disagree
7. Family or friends support learning digital skills	2.09	Disagree
8. Availability of opportunities to learn computer skills in the community	2.50	Disagree
9. Internet services such as Wi-Fi or mobile data are accessible	2.36	Disagree
10. Availability of learning materials related to Microsoft Office	2.40	Disagree
Overall	2.41	Disagree

WM = Weighted Mean; VI = Verbal Interpretation. The following scale was used: 4.21–5.00 = Strongly Agree (5); 3.41–4.20 = Agree (4); 2.61–3.40 = Slightly Agree (3); 1.81–2.60 = Disagree (2); 1.00–1.80 = Strongly Disagree (1)

of these software applications. The pattern suggests that the respondents' ICT literacy may be reactive and not proactive, and that the Microsoft Office skills are largely used when necessary and not as a routine or self-initiated activity. Such a tendency emphasizes the need for structured guidance and hands-on training that fosters sustained engagement, particularly in under-utilized areas of spreadsheet functions and feature exploration. In view of these behavioral patterns, the proposed ICT Literacy Extension Program is relevant in the development of functional competence, confidence and initiative in the use of Microsoft Office. The lower scores on exploration, practice on their own time and Excel usage, however, show that the respondents can perform simple and known tasks but are less willing to explore on their own or to further their mastery of these software applications.

Table 12 shows the respondents' level of agreement on environmental factors Affecting their ICT literacy in using Microsoft Office applications. The overall weighted mean of 2.41 (Disagree) indicates that the respondents generally perceive their environment as providing insufficient support for the development of ICT literacy skills. The highest-rated indicator was Digital devices such as smartphones, computers, or laptops are available for learning Microsoft applications (WM = 2.75, Slightly Agree), followed by Internet connection is available for learning digital skills (WM = 2.68, Slightly Agree), Availability of opportunities to learn computer skills in the community (WM = 2.50, Disagree), Someone is available to help when learning Microsoft applications (WM = 2.45, Disagree), Availability of learning materials related to Microsoft Office (WM = 2.40, Disagree), A place is available where digital devices can be used for learning (WM = 2.39, Disagree), Internet services such as Wi-Fi or mobile data are accessible (WM = 2.36, Disagree), Microsoft Office applications are accessible on available devices (WM = 2.31, Disagree), ICT or computer training programs are available in the community (WM = 2.14), while Family or friends support learning digital skills obtained the lowest weighted mean of 2.09 interpret as Disagree. This supports the findings of Eynon et al. (2020), who emphasized that digital competence depends on access to technology, learning opportunities, and support systems.

Table 13
Summary of the respondents' level of agreement on ICT Literacy in using Microsoft office applications

ICT Literacy Factors	Weighted Mean	Verbal Interpretation
Personal Factors	3.03	Slightly Agree
Behavioral Factors	3.44	Agree
Environmental Factors	2.41	Disagree
Overall	2.96	Slightly Agree

WM = Weighted Mean; VI = Verbal Interpretation. The following scale was used: 4.21–5.00 = Strongly Agree (5); 3.41–4.20 = Agree (4); 2.61–3.40 = Slightly Agree (3); 1.81–2.60 = Disagree (2); 1.00–1.80 = Strongly Disagree (1)

Table 13 presents the summary of the respondents' level of agreement on ICT literacy in using Microsoft Office applications. The overall weighted mean of 2.96 (Slightly Agree) indicates that the respondents possess a moderate level of ICT literacy in using Microsoft Office applications. Among the ICT literacy factors, Behavioral Factors obtained the highest weighted mean of 3.44 (Agree), followed by Personal Factors with a weighted mean of 3.03 (Slightly Agree), while Environmental Factors obtained the lowest weighted mean of 2.41 (Disagree).

The findings suggest that environmental barriers continue to affect the respondents' ICT literacy. This supports the findings of Raihan (2024) on unequal access to technology and learning opportunities and Trinidad (2025) on the limited ICT resources and training opportunities among out-of-school populations.

C. Significant Difference in ICT Literacy When Grouped According to Demographic Profile

Table 14
Significant difference in the respondents' level of ICT literacy in using Microsoft office applications when grouped according to age

ICT Literacy Factors	P-value	Decision	Interpretation
Personal Factors	0.200	Accept Ho	Not Significant
Behavioral Factors	0.023	Reject Ho	Significant
Environmental Factors	0.342	Accept Ho	Not Significant

P-value is ≤ 0.05 – Reject Ho; P-value ≥ 0.05 – Accept Ho

Table 14 presents the results of the Kruskal–Wallis H-Test conducted to determine whether significant differences exist in the respondents' level of ICT literacy in using Microsoft Office applications when grouped according to age. Among the ICT literacy factors, Behavioral Factors obtained a p-value of 0.023, which is lower than the 0.05 level of significance. Therefore, the null hypothesis for this factor is rejected. In contrast, Personal Factors (p = 0.200) and Environmental Factors (p = 0.342) obtained p-values greater than 0.05; thus,

the null hypothesis for these factors is accepted.

The findings suggest that age influences the respondents' behavioral practices in using Microsoft Office applications. This supports the findings of Pan et al. (2025), who reported that differences in digital technology utilization emerge across age groups. Therefore, age should be considered when designing ICT literacy interventions for out-of-school youth.

Table 15
Significant difference in the respondents' level of ICT literacy in using Microsoft office applications when grouped according to gender

ICT Literacy Factors	P-value	Decision	Interpretation
Personal Factors	0.171	Accept Ho	Not Significant
Behavioral Factors	0.348	Accept Ho	Not Significant
Environmental Factors	0.617	Accept Ho	Not Significant

P-value is ≤ 0.05 – Reject Ho; P-value ≥ 0.05 – Accept Ho

Table 15 presents the results of the Kruskal–Wallis H-Test conducted to determine whether significant differences exist in the respondents' level of ICT literacy in using Microsoft Office applications when grouped according to gender. Personal Factors (p = 0.171), Behavioral Factors (p = 0.348), and Environmental Factors (p = 0.617) all obtained p-values greater than the 0.05 level of significance. Therefore, the null hypothesis is accepted for all three factors.

The findings suggest that gender does not significantly influence the respondents' ICT literacy in terms of personal, behavioral, and environmental factors. This supports the findings of Hatlevik et al. (2018) and Siddiq et al. (2016), who emphasized that digital competence is more strongly associated with access to technology, learning opportunities, and actual technology use than with gender differences. This is further supported by Lafifa and Rosana (2023), who likewise found no statistically significant difference in digital literacy levels between male and female students, reinforcing the view that gender alone is not a determining factor in digital competence. The finding was consistent across different educational environments and Cultural contexts, indicating that the lack of a substantial gender gap in ICT literacy may be a more generalizable pattern.

Table 16
Significant difference in the respondents' level of ICT literacy in using Microsoft office applications when grouped according to educational background

ICT Literacy Factors	P-value	Decision	Interpretation
Personal Factors	0.042	Reject Ho	Significant
Behavioral Factors	0.121	Accept Ho	Not Significant
Environmental Factors	0.224	Accept Ho	Not Significant

P-value is ≤ 0.05 – Reject Ho; P-value ≥ 0.05 – Accept Ho

Table 16 presents the results of the Kruskal–Wallis H-Test conducted to determine whether significant differences exist in the respondents' level of ICT literacy in using Microsoft Office applications when grouped according to educational background. Among the ICT literacy factors, Personal Factors obtained a p-value of 0.042, which is lower than the 0.05 level of significance. Therefore, the null hypothesis for this factor is rejected. In contrast, Behavioral Factors (p = 0.121) and Environmental Factors (p = 0.224) obtained p-values greater than 0.05; thus, the null hypothesis for these factors is accepted. The findings indicate that significant differences exist only in the respondents' personal factors when grouped influences the respondents' personal factors related to ICT literacy but does not significantly affect their behavioral or environmental factors.

This supports the findings of Warschauer (2021), who emphasized that ICT literacy is shaped not only by formal education but also by access to technology, digital experiences, and youth may develop practical digital skills through regular exposure to digital devices and opportunities for technology use. Similarly, Trinidad et al. (2025) noted that out-of-school everyday technology use despite differences in educational attainment. Thus, ICT programs should consider differences in educational background to better support the respondents personal ICT development.

Table 17
Significant difference in the respondents' level of ICT literacy in using Microsoft office applications when grouped according to length of being an out-of-school youth

ICT Literacy Factors	P-Value	Decision	Interpretation
Personal Factors	0.073	Accept Ho	Not Significant
Behavioral Factors	0.179	Accept Ho	Not Significant
Environmental Factors	0.368	Accept Ho	Not Significant

P-value is ≤ 0.05 – Reject Ho; P-value ≥ 0.05 – Accept Ho

Table 17 presents the results of the Kruskal–Wallis H-Test conducted to determine whether significant differences exist in the respondents' level of ICT literacy in using Microsoft Office applications when grouped according to the length of being an out-of-school youth. Personal Factors (p = 0.073), Behavioral Factors (p = 0.179), and Environmental Factors (p = 0.368) all obtained p-values greater than the 0.05 level of significance. Therefore, the null hypothesis is accepted for all three factors. The findings suggest that the length of time respondents have been out of school does not significantly influence their ICT literacy. This supports the findings of Selwyn (2016) and UNICEF (2025), which emphasized that digital skills can be developed through continuous technology use and everyday digital activities. Therefore, out-of-school youth may continue to develop ICT competencies through informal learning experiences. This indicates that regular exposure to technology may help maintain and develop ICT skills regardless of how long respondents have been out of school. ICT programs should provide continuous opportunities for practical digital learning and skill.

Table 18
Significant difference in the respondents' level of ICT literacy in using Microsoft office applications when grouped according to device

ICT Literacy Factors	P-value	Decision	Interpretation
Personal Factors	0.281	Accept Ho	Not Significant
Behavioral Factors	0.033	Reject Ho	Significant
Environmental Factors	0.082	Accept Ho	Not Significant

P-value is ≤ 0.05 – Reject Ho; P-value ≥ 0.05 – Accept Ho

Table 18 presents the results of the Kruskal–Wallis H-Test. Among the ICT literacy factors, Behavioral Factors obtained a p-value of 0.033, which is lower than the 0.05 level of significance. Therefore, the null hypothesis for this factor is rejected. In contrast, Personal Factors (p = 0.281) and

Environmental Factors (p = 0.082) obtained; thus, the null hypothesis for these factors is accepted.

This supports the findings of Eynon et al. (2020), who emphasized that digital competence is shaped by technology use and learning opportunities. This approach can help reduce the challenges experienced by respondents who have limited or unstable internet connectivity. This may also encourage continuous learning despite being out of school.

Table 19
Significant difference in the respondents' level of ICT literacy in using Microsoft office applications when grouped according to internet connectivity

ICT Literacy Factors	P-value	Decision	Interpretation
Personal Factors	0.129	Accept Ho	Not Significant
Behavioral Factors	0.009	Reject Ho	Significant
Environmental Factors	0.016	Reject Ho	Significant

P-value is ≤ 0.05 – Reject Ho; P-value ≥ 0.05 – Accept Ho

Table 19 presents the significant difference in the respondents' IC T literacy when grouped according to internet connectivity using the Kruskal-Wallis H-Test. The results revealed that personal factors with a p-value of 0.129 are not significant since the value is greater than the 0.05 level of significance; therefore, the null hypothesis was accepted. However, behavioral factors with a p-value of 0.009 and environmental factors with a p-value of 0.016 showed significant differences since the values are less than the 0.05 level of significance; thus, the null hypothesis was rejected. This indicates that internet connectivity affects the respondents' actual use of Microsoft Office applications and their access to digital learning resources and support systems.

The findings imply that stable internet access helps improve the respondents' Microsoft Office skills needed for employment-related tasks such as document preparation, data organization, and presentation creation. Padilla and Javier (2018) stated that ICT literacy improves the job readiness of out-of-school youth. Similarly, Santos and Perez (2017) emphasized that Microsoft Office training enhances employability and workplace preparedness among youth.

Table 20
Summary of significant difference in the respondents' level of ICT literacy in using Microsoft office applications when grouped according to demographic profile

ICT Literacy Factors	P-value	Decision	Interpretation
Personal Factors	0.811	Accept Ho	Not Significant
Behavioral Factors	0.063	Accept Ho	Not Significant
Environmental Factors	0.274	Accept Ho	Not Significant
Overall	0.612	Accept Ho	Not Significant

P-value is ≤ 0.05 – Reject Ho; P-value ≥ 0.05 – Accept Ho

Table 20 presents the summary of the significant difference in the respondents' level of ICT literacy in using Microsoft Office applications when grouped according to demographic profile using the Kruskal–Wallis H-Test. The results revealed that personal factors (p = 0.811), behavioral factors (p = 0.063), and environmental factors (p = 0.274) all obtained p- values greater than the 0.05 level of significance. Likewise, the overall p-value of 0.612 was greater than 0.05; therefore, the null hypothesis was accepted.

These findings indicate that there is no significant difference in the respondents' level of ICT literacy in using Microsoft Office applications when grouped according to them demographic profile. The findings suggest that the respondents generally share similar levels of ICT literacy regardless of their demographic characteristics. This supports the findings of Warschauer (2021) and the Global Scientific Journal (2024), which emphasized that digital literacy is influenced more by access to technology, digital experiences, and learning opportunities than by demographic characteristics alone.

D. Part 1: Project Summary

TITLE OF THE EXTENSION PROJECT	Project Mobile-SIKHAY (Skills Improvement, Knowledge and Honing Advancement of Out-of School Youth).
IMPLEMENTER **College/Campus:** **Department:** **Academic Program:**	Polytechnic University of the Philippines- Cabiao Campus Education Bachelor of Elementary Education
PROJECT TEAM	
TARGET GROUP/PARTNER BENEFICIARIES	• The direct beneficiaries of this community extension project are Out of School Youth (OSY) of Barangay Sta. Isabel, Cabiao, Nueva Ecija. • These youth are referred to as people with little access to formal ICT training but have the potential to develop digital literacy skills at the reach of mobile technology.
COOPERATING AGENCIES	Department of Education (DepEd), District of Cabiao Barangay Local Government Unit of Sta.Isabel, Cabiao, Nueva Ecija
TIME FRAME	3 Year
FINANCIAL REQUIREMENTS	Php 255,300
IMPACT STATEMENT	• The Polytechnic University of the Philippines, dedicated to enhancing quality of life and supporting community outreach, will launch Project Mobile-SIKHAY in partnership with the Department of Education, Cabiao District, Nueva Ecija. • The program seeks to improve ICT skills among Out-of-School Youth (OSY) by offering mobile training in Microsoft Word, Excel, and PowerPoint. Although many OSY possess smartphones, they often lack formal opportunities to build digital skills. • The training is expected to enhance participants' productivity, employability, and preparedness for future educational and employment opportunities. Ultimately, it aims to empower out-of-school youth by strengthening their ICT competencies, increasing their confidence, and enabling them to become productive and active members of their communities. • The Polytechnic University of the Philippines – Cabiao Campus, together with local government units and education stakeholders, implements Project Mobile-SIKHAY as a community-based ICT literacy extension initiative designed for Out-of-School Youth in Barangay Sta. Isabel, Cabiao, Nueva Ecija. The project aims to address the existing gap between access to mobile devices and the development of practical ICT skills, considering • that many beneficiaries have smartphones but have limited opportunities for formal training in Microsoft Word, Excel, and PowerPoint. • The findings revealed that although learners demonstrate willingness and interest in using digital technologies, their ICT development remains constrained by environmental challenges, including limited access to training programs and organized ICT learning opportunities. Guided by Albert Bandura's Social Cognitive Theory, the project recognizes that learning is influenced by the interaction of personal, behavioral, and environmental factors. • Through mobile-based instruction and practical hands-on activities, Project Mobile-SIKHAY seeks to strengthen digital literacy skills, enhance employability opportunities, and promote continuous learning, supporting the DepEd vision of "No One is Left Behind."

E. Part II: Project Details

BACKGROUND AND JUSTIFICATION	• Information and Communication Technology (ICT) literacy is a vital competency in the modern digital era because it contributes to education, employment, and everyday efficiency. Applications such as Microsoft Word, Excel, and PowerPoint are commonly utilized in academic and workplace environments, highlighting the importance of ICT proficiency for personal growth and career advancement. Enhancing these skills enables individuals to improve their productivity, increase employability, and become more prepared to take advantage of opportunities in an increasingly technology-centered society. • The target beneficiaries of this extension program are the Out-of-School Youth (OSY) of Barangay Sta. Isabel, Cabiao, Nueva Ecija. The study focused on the Out-of-School Youth (OSY) of Barangay Sta. Isabel, Cabiao, Nueva Ecija. Findings revealed that while most respondents own smartphones and use mobile data, they still lack structured ICT training opportunities, particularly in Microsoft Word, Excel, and PowerPoint. Their moderate ICT literacy level was affected by environmental barriers such as limited training programs and community support. • To address this gap, Project Mobile-SIKHAY (Mobile-Based Skills Improvement and Knowledge Advancement for Youth) is proposed. Anchored on Albert Bandura's Social Cognitive Theory, the program provides mobile-based ICT training that considers personal, behavioral, and environmental factors in developing digital skills. • Through this intervention, Out-of-School Youth are expected to enhance their digital skills, improve employability, and become more productive members of the community, in support of inclusive development and lifelong learning.
SPECIFIC OBJECTIVES	• To conduct ICT literacy training for Out-of-School Youth in the use of Microsoft Word, Microsoft Excel, and Microsoft PowerPoint. • To facilitate the transfer of knowledge and digital • skills that will help participants effectively utilize information and communication technologies. • To contribute to the development of digital competence and lifelong learning among Out-of School Youth. • To improve the ICT literacy skills of the participants and prepare them for educational, employment, and community-related opportunities.
PROJECT COMPONENTS AND EXPECTED OUTCOMES	See the 3-year extension projects based on the Extension Program of the College/Campus provided below:

	Project Focus / Component	Major Activities	Expected Outcomes
Year 1	ICT Literacy Enhancement: ICT Orientation and Basic Digital Skills Program (Smartphone-Based Learning)	- Coordinate with barangay officials and recruit Out-of-School Youth (OSY) participants. - Conduct a needs assessment and pre-test to determine the participants' baseline ICT literacy skills. - Conduct orientation sessions on basic ICT concepts, digital literacy, mobile-based learning, and responsible use of technology. - Demonstrate basic smartphone operations, including typing, file management, internet browsing, and use of productivity applications. - Introduce Microsoft Word, Microsoft Excel, and Microsoft PowerPoint mobile applications through simple demonstrations. - Provide hands-on and guided activities using smartphones for basic document creation, simple spreadsheets, presentation design, typing, and file management. - Monitor participants' progress through simple practical activities and facilitator observation.	- OSYs demonstrate an improved understanding of basic ICT concepts and smartphone-based computer operations. - Baseline ICT literacy data are established through the needs assessment and pre-test. - OSYs demonstrate basic skills in using smartphones for productivity and digital learning activities. - Participants develop greater confidence in using digital devices and applications. • Participants become prepared for more advanced Microsoft Office training in Year 2.
Year 2 Microsoft Office Essentials Program	Word Processing and Spreadsheet Skills	- Conduct scheduled hands-on workshops on Microsoft Word and Microsoft Excel. - Demonstrate basic document creation and formatting, including typing, editing, text formatting, tables, and simple resume preparation. - Introduce basic spreadsheet skills, including entering data, organizing information, creating simple tables, and using basic formulas. - Provide guided exercises and individual or peer-assisted practice activities. - Use simple visual guides and demonstrations to support participants with different literacy levels. - Monitor participant progress through practical tasks and facilitator observation.	- OSYs develop practical skills in creating, editing, and formatting digital documents. - Participants improve their ability to organize information and perform basic spreadsheet tasks - Participants demonstrate improved proficiency in Microsoft Word and Microsoft Excel. - Participants become more capable of using Microsoft Office applications for daily, educational, and employment-related activities.
Year 3 Digital Communication, Presentation, Assessment, and Community Showcase Program	Presentation Skills and ICT Application	- Conduct hands-on training on Microsoft PowerPoint and basic digital presentation techniques. - Demonstrate how to create simple presentations using text, images, and other appropriate visual elements. - Assign practical projects that integrate Microsoft Word, Excel, and PowerPoint skills. - Introduce basic online communication, information sharing, and collaboration tools. - Organize peer presentations and provide facilitator feedback and assistance. - Conduct post-tests and practical ICT skills assessments to measure improvement from the baseline. - Gather participant feedback through simple surveys, interviews, or group discussions. - Hold a community showcase where participants present selected outputs and receive certificates of participation or completion. - Prepare recommendations for sustaining and improving future ICT extension activities.	- OSYs confidently create and deliver basic digital presentations using ICT tools. - Participants demonstrate measurable improvement in ICT literacy and digital communication skills. - Participants demonstrate the ability to integrate Microsoft Word, Excel, and PowerPoint in practical activities. - Participants become more confident in applying ICT skills in educational, employment, and community-related activities. - The effectiveness and outcomes of the extension program are evaluated and documented. - The community gains a foundation for continued ICT learning and future extension initiatives.

D. LINE-ITEM BUDGET	**See the table below**		
BUDGET ITEM	**PARTICULARS / ITEM**	**ESTIMATED COST (₱)**	**TOTAL COST (₱)**
1. OPERATING COST			
Bond Paper	Attendance sheets, simple visual guides, assessments, and certificates	₱200	₱600
Printer Ink	Printing of assessments, certificates, and documentation	₱400	₱800
Tarpaulin	Project identification and training activities	₱600	₱600
Internet/Data Support	Mobile data for smartphone-based ICT training and demonstrations	₱300	₱3,600
Training Supplies	Pens, markers, folders, logbooks, and visual materials	₱100	₱1,200
SUBTOTAL			₱6,800
2. FOOD EXPENSES			
Snacks and Water	Light snacks and water for 57 participants	₱25/person	₱51,300
Meals	Lunch during selected major/longer training activities	₱50/person	₱17,100
SUBTOTAL			₱68,400
3. TRANSPORTATION AND TRAINING SUPPORT			
Fuel/Gasoline	Transportation support for trainers and project team	₱400	₱4,800
SUBTOTAL			₱4,800
4. CONTINGENCY FUND	Unforeseen minor project expenses	—	₱3,000
YEAR 1 TOTAL			₱83,000
Year 2	Microsoft Office Essentials		
1. OPERATING COST			
Bond Paper	Simple activity guides,	₱200	₱600
	attendance sheets, assessments, and certificates		
Printer Ink	Printing of assessments, certificates, and documentation	₱400	₱800
Internet/Data Support	Mobile data for Microsoft Word and Excel activities	₱300	₱3,600
Training Supplies	Pens, markers, folders, logbooks, and visual materials	₱100	₱1,200
SUBTOTAL			₱6,200
2. FOOD EXPENSES			
Snacks and Water	Light snacks and water for 57	₱25/person	₱51,300
Meals	Lunch during selected major/longer training activities	₱50/person	₱17,100
SUBTOTAL			₱68,400
3. TRANSPORTATION AND TRAINING SUPPORT			

D. LINE-ITEM BUDGET	**See the table below**		
BUDGET ITEM	**PARTICULARS / ITEM**	**ESTIMATED COST (₱)**	**TOTAL COST (₱)**
Fuel/Gasoline	Transportation support for trainers and project team	₱400	₱4,800
Year 3	Digital Communication and Presentation Program		
1. OPERATING COST			
Bond Paper	Simple activity guides, assessments, certificates, and project documentation	₱200	₱600
Printer Ink	Printing of assessments, certificates, and documentation	₱400	₱800
Internet/Data Support	Mobile data for communication, presentation, and online activities	₱300	₱3,600
Training Supplies	Pens, markers, folders, logbooks, and presentation materials	₱100	₱1,200
SUBTOTAL			₱6,200
2. FOOD EXPENSES			
Snacks and Water	Light snacks and water for 57 participants	₱25/person	₱51,300
Meals	Lunch during selected major/longer training activities	₱50/person	₱17,100
SUBTOTAL			₱68,400
3. TRANSPORTATION AND TRAINING SUPPORT			
Fuel/Gasoline	Transportation support for trainers and project team	₱400	₱4,800
Culminating Activity	Certificates, medals, recognition materials, and simple program needs	—	₱7,500
SUBTOTAL			₱12,300
YEAR 3 TOTAL			₱89,900
GRAND TOTAL ESTIMATED PROJECT COST		₱17,950	₱255,300

F. Evaluation Plan

Year / Focus Area	**Intended Outcome**	**Indicators**	**Data Collection Method**	**Frequency**
Year 1	OSYs improve their understanding of basic ICT concepts and demonstrate increased confidence in using smartphones for digital learning and productivity tasks.			
Year 2	OSYs develop practical skills in using Microsoft Word and Microsoft Excel for daily, educational, and employment-related activities.			
Year 3	OSYs apply their acquired ICT skills in creating digital presentations, communicating using ICT tools, and completing practical ICT-based projects.			

5. Summary, Conclusions, and Recommendations

This chapter presented the summary of the findings, conclusions, and recommendations as an outgrowth of this research study based on the data analyzed in the previous chapter. This study aimed to assess the ICT literacy among out-of-school youth basis for implementation of an extension program.

A. Summary of Findings

1. Most of the respondents were 22–24 years old (40.4%), male (73.7%), high school level (70.18%), out of school for less than one year (33.3%), relied on mobile data (38.60%), and used smartphones (86.0%).
2. The respondents obtained an overall weighted mean of 2.96, with behavioral factors (WM = 3.44) recording the highest score, followed by personal factors (WM = 3.03) and environmental factors (WM = 2.41).
3. The respondents' level of ICT literacy showed an overall p-value of 0.612.

B. Conclusions

Based on the findings of the study, the following conclusions were drawn:

1. The respondents were predominantly young adult males who had reached the high school level, had recently become out-of-school youth, relied mainly on mobile data for internet access and used smartphones as their primary digital device.
2. The respondents demonstrated a moderate level of ICT literacy in using Microsoft Office applications, showing stronger behavioral skills than personal and environmental support factors.
3. There was no significant difference in the respondents' level of ICT literacy when grouped according to demographic profile, indicating that ICT literacy levels were generally similar regardless of age, gender, educational background, length of being out of school, internet connectivity, and device used.

C. Recommendations

Based on the findings and conclusions of the study, the following recommendations are hereby offered:

1. To enhance the ICT literacy of Out-of-School Youth (OSY), the University Extension Office, barangay officials, Sangguniang Kabataan (SK) leaders, and other relevant stakeholders may adopt and conduct the proposed Project Mobile-SIKHAY. The program ought to address the ICT literacy gaps found in the study through the provision of organized, practical

training in Microsoft Word, Microsoft Excel, and Microsoft PowerPoint utilizing smartphones as the main learning medium.

2. Sangguniang Kabataan (SK) leaders and program implementers may integrate motivational and support mechanisms in the implementation of Project Mobile-SIKHAY, such as career orientation sessions, certificates of participation, mobile data assistance, and other appropriate learning incentives. These strategies may help encourage active participation, sustain learner engagement, and further enhance the development of ICT literacy skills among Out-of-School Youth.
3. Project Mobile-SIKHAY may be implemented among Out-of-School Youth without categorizing participants according to demographic characteristics such as age, gender, educational attainment, length of being out of school, internet connectivity, and device used. Since no significant difference in ICT literacy was found among the respondent groups, uniform training activities, instructional strategies, and learning support may be provided to ensure equitable access to ICT literacy development.
4. Future researchers may conduct similar studies in other communities or among different groups of learners to further validate the findings of the present study. They may also utilize the results as a basis for developing, enhancing, or evaluating community-based ICT literacy extension programs.

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