

Maximizing the Potential of ICT Integration in Teaching-Learning Basic English: Interactive Learning Activities

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ABSTRACT

This research determined the ICT integration in teaching-learning towards the level of competence in English among Grade VI learners of Basak Elementary School, North District in Mandaue City for the school year 2024-2025 as basis for crafting interactive learning activities. Additionally, findings on teacher demographics showed that most educators were 41-50 years old, female, and held master's units, with relevant training predominantly conducted at the division level. Learners relied heavily on mobile phones for learning, while PCs and other devices were less utilized, emphasizing the need for broader access to ICT resources. The study underscores the necessity of continuous teacher training, responsible digital literacy programs, and structured technology-based interventions to maximize ICT's potential in language learning. Future research should explore the long-term impacts of ICT integration and assess varied instructional strategies to enhance foundational and advanced writing competencies. This also examined the impact of ICT integration on learners' English competence, focusing on its usefulness, ease of use, and influence on writing skills. Findings revealed a significant positive correlation between ICT integration and language proficiency, confirming that digital tools enhance comprehension, grammar, and writing abilities. Learners strongly agreed that ICT improves understanding, facilitates assignments, and enhances productivity. At the same time, results on writing proficiency showed greater mastery in sentence construction than in persuasive essay writing, highlighting a need for targeted interventions. Despite these benefits, significant challenges identified included insufficient technical proficiency, ineffective management of digital learning materials, and student misuse of technology, which hinder full ICT adoption. This study highlights the critical role of ICT in modern education, advocating for sustained investment in digital resources and pedagogical innovations and recommended to use the crafted interactive learning activities for basic English.

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KEYWORDS: Administration and Supervision, ICT integration and utilization, interactive learning activities, Descriptive Method, Mandaue City, Philippines.

1. THE PROBLEM AND ITS SCOPE

INTRODUCTION

Rationale of the Study

Incorporating Information and Communication Technology (ICT) in English language education has recently received considerable attention, with various studies examining its effects on student learning outcomes. A systematic literature review conducted by Haerazi (2024) analyzed English lecturers' viewpoints regarding implementing educational technology in language classrooms at private universities in West Nusa Tenggara, Indonesia. The findings indicated a varied spectrum of ICT

integration practices, with confident teachers employing innovative technological strategies, whereas others continued to depend on conventional methods. The research determined that optimizing ICT integration is crucial for improving English language education programs.

A systematic review by Noordan and Yunus (2022) examined the impact of ICT on enhancing reading comprehension skills in ESL learners. The review

included studies from 2015 to 2020, revealing that ICT integration improved students' performance while boosting their motivation and positive attitudes toward learning English. The advantages were ascribed to ICT tools' captivating and interactive characteristics, which enable tailored learning experiences and enhance student engagement.

Integrating Information and Communication Technology (ICT) in educational activities for students requires educators to facilitate tasks that encourage active student engagement and foster independent learning by using ICT tools or services. The incorporation of ICT in the learning process is reported to offer numerous advantages and conveniences for both teachers and students during educational activities. Research has indicated positive effects of ICT integration in various dimensions, including enhanced student access to learning, expedited information retrieval, increased student independence and initiative, and a more engaging presentation of material by educators. These circumstances ultimately contribute to heightened student engagement, positively influencing their academic performance.

In the Philippines, incorporating information and communication technology (ICT) into English language education is a primary objective for improving teaching and learning results. A study by Pasco (2023) evaluated English teachers' perceptions of ICT integration, indicating that although teachers acknowledge the potential advantages of ICT, its practical implementation in classrooms is still unsatisfactory. Perceived usefulness and ease of use significantly affected teachers' adoption of ICT tools in their instruction.

Tomaro and Mutiarin (2018) identified multiple obstacles impeding effective ICT integration in the Philippine educational system, such as inadequate infrastructure, restricted technology access, and insufficient teacher training. The research highlighted the necessity for strategic policy measures, including improved teacher professional development programs, provision of essential technological resources, and robust leadership to facilitate ICT initiatives. Confronting these challenges is essential for utilizing ICT to enhance students' English language learning results nationwide.

In the Central Visayas region of the Philippines, integrating Information and Communication Technology (ICT) into English language education has been a primary objective for improving teaching and learning outcomes. Dela Rosa (2019) conducted a study investigating the experiences, perceptions, and attitudes of novice and experienced language teachers

in the Philippines concerning the integration of ICT in English as a Second Language (ESL) classrooms. The results indicated that novice and experienced teachers maintained favorable perspectives regarding the influence of ICT on students' comprehensive learning and achievement. Nonetheless, constrained resources and inadequate training were recognized as impediments to effective ICT integration.

Incorporating Information and Communication Technology (ICT) in elementary English education in Mandaue City poses distinct challenges that remain inadequately addressed. Although studies have investigated ICT integration at the university level in adjacent Cebu City, addressing challenges such as restricted access to ICT resources, inadequate training, and insufficient infrastructure, a significant gap exists in research about the elementary education sector in Mandaue City. The absence of localized studies hinders the evaluation of the current status of ICT integration in elementary English classrooms and the identification of specific challenges and opportunities within this context.

Nevertheless, based on prior observations and studies, students continue to encounter difficulties in mastering the target language they are learning. The predicted factor contributing to the deficiency in comprehension and proficiency in English subjects is using learning methods by educators deemed unsuitable. Educators frequently employ conventional methods in instructional activities, resulting in students primarily serving as passive listeners during the teaching and learning process. Furthermore, students participate in English learning activities in the classroom for only four hours per week during effective school days. The inability of students to comprehend the English lessons delivered by the teacher is evidenced by their lack of participation and engagement during the learning process, as well as the low grades they achieve after their studies. If teachers disregard this situation, it will impede students from realizing their academic potential.

Addressing this research gap is essential for formulating targeted strategies to improve ICT integration in Mandaue City, particularly Basak Elementary School. Comprehending the school's distinct requirements and contexts can guide the development of impactful professional development initiatives for teachers, the distribution of suitable technological resources, and the establishment of policies that facilitate the integration of ICT in English language teaching. By concentrating on this domain, stakeholders can enhance English learning outcomes and adequately equip students for the requirements of the digital era.

Theoretical/ Conceptual Background

Constructivist Learning Theory (Vygotsky, 1978) highlights learning as an active process in which learners build knowledge from their experiences. ICT tools, including multimedia, interactive software, and online collaborative platforms, facilitated constructivist learning by offering learners opportunities for exploration and interaction.

Cognitive Load Theory (Sweller, 1988) emphasizes the constraints of working memory. When effectively designed, ICT mitigates cognitive overload by delivering information in multimodal formats (e.g., video, text, and audio) to improve comprehension and retention in English language acquisition.

Cognitive Load Theory (CLT) elucidated the mechanisms by which the human brain processes and retains information, emphasizing three categories of cognitive load: the inherent complexity of the material, such as grammatical rules in English; how information was conveyed, which could either

facilitate or obstruct learning; and the cognitive effort allocated to creating and retaining significant learning. Optimal teaching and learning transpired when the extraneous load was reduced, the intrinsic load was regulated, and the germane load was enhanced. ICT tools significantly contributed to attaining this equilibrium.

Elementary students in Mandaue City frequently encountered difficulties comprehending English concepts, including grammar, pronunciation, and sentence structure. ICT tools, such as interactive applications (e.g., Duolingo or Epic!), can facilitate the comprehension of intricate content by deconstructing it into smaller, manageable tasks. Gamified modules can progressively instruct basic vocabulary or verb conjugations. Inadequately designed educational resources or excessively complex interfaces augment extraneous cognitive load.

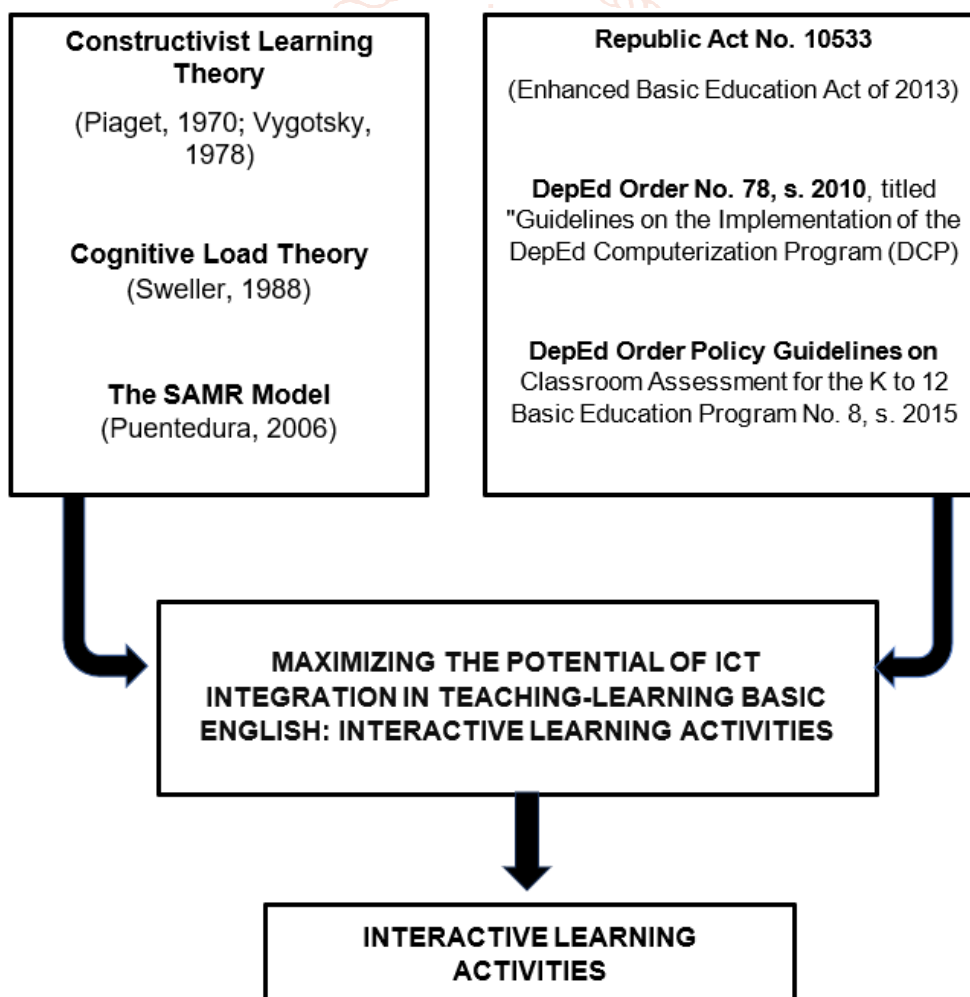


Figure 1 Theoretical Framework of the Study

In Mandaue City classrooms, teachers used visually engaging, accessible ICT resources such as digital flashcards or multimedia presentations to focus students' attention on fundamental concepts. Basic

animations depicting sentence structures minimized distractions while preserving clarity. ICT tools augment relevant cognitive load by promoting active participation and deeper content processing.

In Mandaue City, digital storytelling tools such as Book Creator and collaborative platforms like Padlet facilitated students in crafting their own English narratives. This enabled significant learning by allowing individuals to associate new linguistic knowledge with their personal experiences.

Educational institutions ensured they possessed essential technologies such as interactive whiteboards, projectors, and tablets. ICT resources in English incorporated contextualized examples relevant to students in Mandaue City to reduce intrinsic load. ICT-enhanced techniques were integrated with conventional pedagogical approaches for optimal cognitive load management.

Connectivism, proposed by George Siemens and Stephen Downes in 2005, was a learning theory that highlighted the significance of digital technology and networks in knowledge acquisition. It posited that learning involved integrating information from diverse sources, including online platforms, social networks, and communities of practice. In contrast to conventional theories centered on individual cognition, connectivism emphasizes the importance of accessing and filtering extensive digital information, cultivating connections, and participating in ongoing learning through collaboration and technology. Siemens (2005) contended that knowledge was no longer restricted to textbooks or educational environments but was disseminated through networks, with learning involving the navigation and comprehension of these connections.

Connectivism revolutionized education by facilitating the incorporation of digital tools, enhancing student autonomy, and promoting collaborative knowledge construction. The proliferation of e-learning, social media, and cloud-based resources enabled students to interact with authentic content, connect with global experts, and cultivate digital literacy skills vital for the 21st century. Teachers acted as facilitators, assisting students in traversing extensive information networks rather than merely imparting knowledge. This approach improved individualized learning, fostered critical thinking, and equipped students for a connected, technology-oriented environment, making education more relevant and stimulating.

Integrating ICT (Information and Communication Technology) in education denoted the efficient incorporation of digital tools, software, and internet resources into pedagogical practices. This integration improved instruction by offering interactive content, promoting collaboration, and facilitating access to extensive educational resources. The successful integration of ICT depended on factors such as

teacher training, infrastructure availability, and institutional support. It required transitioning from conventional teaching methods to student-centered approaches that utilized technology for enhanced engagement and knowledge retention.

User acceptance of ICT in education, as articulated by the Technology Acceptance Model (TAM) proposed by Davis (1989), depended on two principal factors: perceived usefulness (the extent to which users regarded the technology as advantageous) and perceived ease of use (the degree of simplicity in learning and applying the technology). Teachers and learners were more inclined to embrace ICT tools when they perceived distinct benefits, including enhanced efficiency, interactive learning, and superior communication. Resistance to technology arose from insufficient training, apprehension toward change, or inadequate infrastructure. Overcoming these obstacles required professional development, institutional backing, and policies that fostered digital literacy, ensuring that ICT became a significant asset in contemporary education.

Dual Coding Theory (Paivio, 1986) posited that learning was enhanced when information was conveyed through both verbal and visual modalities. The integration of ICT frequently incorporated multimedia components that corresponded with this principle, thereby augmenting students' comprehension of English concepts.

The Technological Pedagogical Content Knowledge (TPACK) framework (Mishra & Koehler, 2006) underscored teachers' need to comprehend the convergence of technology, pedagogy, and content knowledge. The successful integration of ICT in English education relied on teachers' proficiency in utilizing technology to provide meaningful learning experiences.

The TPACK framework highlighted the convergence of three critical knowledge domains necessary for effective technology-enhanced instruction:

- Technological Knowledge (TK): Understanding how to utilize technological tools and resources effectively.
- Pedagogical Knowledge (PK): Proficiency in instructional methods and strategies appropriate for varied learners.
- Content Knowledge (CK): Mastery of the subject matter, specifically in English instruction.

TPACK resided at the intersection of these domains, enabling teachers to integrate technology into lessons to enhance student engagement, collaboration, and deep learning.

As part of a rapidly urbanizing region in Region VII, Mandaue City advanced in adopting educational technology. However, elementary school teachers' preparedness and proficiency in incorporating ICT tools into English instruction remained inconsistent.

Although Mandaue City implemented specific digital tools (such as projectors and tablets), many elementary teachers lacked adequate ICT training. Professional development programs were necessary to address these gaps, enabling teachers to effectively utilize digital resources such as educational applications and multimedia content. Transitioning from conventional teacher-centered methodologies to student-centered ICT-enhanced strategies required reinforcement. Teachers in Mandaue City needed proficiency in pedagogical strategies that rendered technology use intentional, such as incorporating gamified learning for vocabulary enhancement or employing collaborative online activities to advance writing competencies. ICT-based methods, including phonics applications for early learners and digital storytelling platforms to improve reading comprehension, strengthened English instruction at the elementary level.

By implementing a TPACK-oriented approach, teachers in Mandaue City ensured that ICT integration was meaningful, enhancing English learning outcomes and equipping students for a digitally interconnected world.

Social Learning Theory (Bandura, 1977) asserts that students gain knowledge through observation, interaction, and imitation. ICT tools enabled collaborative learning environments where students interacted and learned from peers via virtual platforms, enhancing their English language proficiency.

The SAMR Model (Puentedura, 2006) delineated four tiers of technology integration: Substitution, Augmentation, Modification, and Redefinition. Advancing to higher levels of integration (Modification and Redefinition) in English language acquisition transformed conventional learning approaches into innovative, interactive experiences.

The SAMR model provided a strategic framework for educational institutions in Mandaue City to optimize ICT integration in English instruction. Teachers used digital projectors to present grammar lessons instead of traditional whiteboards, and students composed essays using word processing software rather than handwriting them. Although substitution was prevalent, its effect on student engagement was limited. Due to constrained digital resources, schools in Mandaue initially relied on this.

Teachers integrated multimedia components (audio recordings and video clips) into lessons to enhance listening comprehension. Students used spell-check and grammar tools in word-processing software. This phase assisted learners in Mandaue with varied educational needs by incorporating auditory and visual components into text-based instruction. Students participated in collaborative writing projects via Google Docs, receiving immediate feedback from educators and peers.

Teachers created interactive quizzes and games using platforms such as Kahoot to assess students' language proficiency. Adequate internet access and teacher training facilitated students' engagement in more dynamic and collaborative learning experiences. Students produced multimedia projects, such as video essays or digital storytelling presentations, to demonstrate comprehension. Teachers organized language exchange sessions between students and international peers through video conferencing.

A comprehensive redefinition required investments in infrastructure, teacher training, and supportive policy modifications from local educational authorities in Mandaue City. To maximize the SAMR model in Mandaue City's elementary schools, stakeholders ensured that teachers had the competencies to progress beyond the substitution and augmentation phases. They also guaranteed reliable internet connectivity and modern digital resources and established incentives for schools implementing innovative ICT methodologies.

This policy mandated the incorporation of Information and Communication Technology (ICT) into English instruction in all elementary schools across the Philippines under the Philippine Digital Strategy and DepEd's ICT4E Strategic Plan. This aligned with the objectives of Republic Act No. 10533 (Enhanced Basic Education Act of 2013) and the Philippine Professional Standards for Teachers (PPST), which emphasized 21st-century learning methodologies for Filipino students.

Research (Caballero & Santiago, 2022) indicated that students in ICT-integrated learning environments exhibited enhanced engagement and improved literacy skills. Additionally, ICT-based instruction equipped students for an increasingly digital world by enhancing digital literacy, critical thinking, and collaborative abilities.

The DepEd Computerization Program (DCP) sought to equip public schools with suitable ICT resources to enhance the teaching and learning experience. By incorporating ICT into the educational framework, it

aimed to improve ICT literacy among students, teachers, and school administrators.

DepEd's ICTS-EdTech Unit provided training in emerging technologies for Filipino teachers to cultivate world-class educators adept at leveraging digital advancements to improve instruction, including English language education. These initiatives underscored DepEd's commitment to integrating ICT into the curriculum, enhancing English instruction, and improving educational outcomes for elementary students in the Philippines.

THE PROBLEM

Statement of the Problem

This research determined the ICT integration in teaching-learning towards the level of competence in basic English among Grade VI learners at Basak Elementary School, North District in Mandaue City for the school year 2024-2025 as basis for crafting interactive learning activities.

This study specifically sought to answer the following questions:

1. What is the demographic profile of the respondent groups in terms of:
 - 1.1. Teacher's
 - 1.1.1. age and gender,
 - 1.1.2. highest educational attainment,
 - 1.1.3. length of service,
 - 1.1.4. seminars attended on ICT, and
 - 1.2. learner's age and gender?
2. As perceived by the respondent groups, what is the status of ICT integration in teaching-learning as to:
 - 2.1. usage of ICT
 - 2.1.1. personal computer,
 - 2.1.2. tablet,
 - 2.1.3. cellphone,
 - 2.1.4. laptop, and
 - 2.1.5. smart TV,
 - 2.2. Perceived Effectiveness,
 - 2.2.1. Usefulness,
 - 2.2.2. Ease of Use, and
 - 2.2.3. Attitude and Behavioral Intention toward use?
3. What is the learners' level of performance teaching-learning English in terms of:
 - 3.1. Composing clear and coherent sentences using appropriate grammatical structures (verb tenses, conjunctions, adverbs); and
 - 3.2. Creating a persuasive essay on a self-selected topic?
4. Is there a significant relationship between the status of ICT integration in teaching-learning and learners' level of competence in English?

5. What are the issues and concerns of teachers on ICT integration in teaching English?
6. Based on the findings, what interactive learning activities in basic English can be crafted?

Null Hypothesis

Ho: There is no significant relationship between the status of ICT integration in teaching-learning and learners' level of performance in basic English.

Significance of Study

This study examined how interactive learning materials were utilized to accommodate the adaptation of classes.

This study was beneficial to the following:

Department of Education. The study's findings facilitated the creation of a program deemed vital for the teaching and learning process, one that was coherent and enhanced learners' verbal competencies.

Administrators. The results of this study helped teachers develop their instructional materials at minimal or no expense. Utilizing locally sourced materials established connections between the curriculum and the students' lives. This enabled them to offer technical support to teachers who lacked technological proficiency, allowing for the development of activities tailored to the learners' needs.

Teachers. The results of this study aided teachers in enhancing their understanding of instructional technology, which offered numerous advantages to the educational process, including improved access to information, increased opportunities for collaboration, and enhanced capabilities to address the needs of diverse learners. Computers facilitated more significant variability in instructional delivery for teachers.

Parents/Guardians. This research elucidated parents' roles in teaching and learning. Computer-based learning was economically advantageous as it minimized travel time and allowed the same application to be utilized for teaching new concepts and providing subsequent assistance. The education offered both safety and flexibility, enabling parents to monitor their children's progress.

Students. The children were the principal beneficiaries of the study's conclusions. The study's findings facilitated students' engagement with words, symbols, and concepts, thereby refining their abilities in reading, listening, problem-solving, viewing, critical thinking, speaking, writing, and employing media and technology. Instructional materials were essential tools for teaching and learning academic subjects to enhance teacher efficacy and elevate

student performance. They enhanced learning by rendering it more engaging, pragmatic, authentic, and attractive.

Community. This study imparted to students the significance of community. Utilizing local examples captivated students by strengthening their sense of place and facilitating connections between their learning and daily experiences. Community-based learning was advocated to enhance relationships between the school and its community while fostering community investment in, comprehension of, and support for the school and its educational offerings.

Researcher. The study aided current researchers in utilizing Crunch to address challenges in teaching and learning English.

New researchers. The proposed concepts served as a reference for conducting new research or assessing the validity of alternative findings. This research served as a reference for analogous future studies.

RESEARCH METHODOLOGY

This section presented the method and design used, the flow of the study, the research locale, the research respondents, the research instruments, the data collection procedure, the statistical treatments of data, the scoring procedure, and the definition of terms.

Design

The study employed the descriptive survey method. This method involved delivering pertinent and precise information by integrating quantitative and qualitative data. The descriptive survey design, an efficient research method, prioritized individuals in the research objective.

This study assessed the competence of learners engaging in interactive English learning activities. It evaluated teachers' and learners' technological skills and knowledge in teaching and learning based on a prepared survey from the sample's perspective. The gathered data underwent statistical analysis to evaluate the research hypothesis.

The respondents utilized the researchers' localized interactive learning materials and disseminated the

findings. Two sets of questionnaires were utilized and disseminated to the Grade 6 English educators and students of Basak Elementary School in the Mandaue City Division. The data were analyzed and interpreted according to the respondents' perceptions. The descriptive approach was employed to assess and evaluate the readiness of kindergarten pupils in the North District Division of Mandaue City. The statistical study's results informed future educational practices and policies, generating inferences, conclusions, and guidelines.

Flow of the Study

The research adhered to a systematic approach encompassing input, processing, and output. The input comprised data from the respondents' profiles, including demographic information such as the teachers' age and gender, educational qualifications, years of service, and seminars attended on ICT, as well as the learners' age and gender. As assessed by the respondent groups, the perceived usefulness of ICT integration in learning encompasses the usage of ICT, perceived usefulness, perceived ease of use, attitudes, behavioral intentions toward use, and ICT integration in learning. The text encompasses the learners' proficiency in utilizing interactive English learning activities, specifically in composing clear and coherent sentences with appropriate grammatical structures (verb tenses, conjunctions, adverbs) and crafting a persuasive essay on a self-chosen topic. It also addresses the substantial impact of ICT integration on learners' competence in interactive English learning activities and the challenges educators face in developing such activities for English instruction.

Survey questionnaires were disseminated to the participants. Following collection, responses were aggregated, computed, and organized. The data was analyzed and treated with suitable statistical methods.

The research aimed to deliver interactive learning activities in English. Based on the data collection and analysis of results and findings, these will be developed.

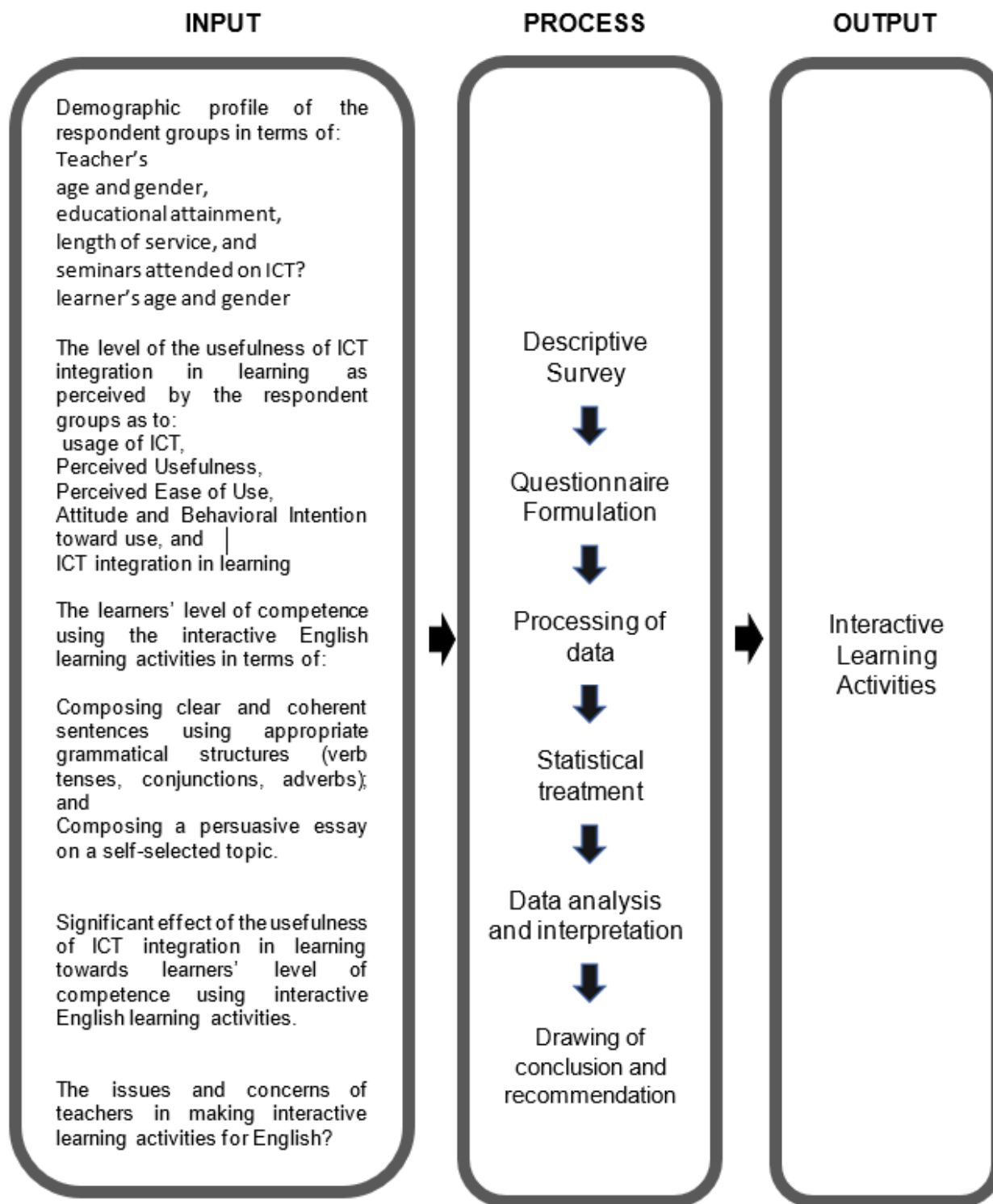


Figure 2 Flow of the Study

Environment

The researcher carried out this research in Basak Elementary School of North District of the Division of Mandaue City.

Basak Elementary School. Basak Elementary School was established in 1921 that occupies a spacious 11,191.5-square-meter campus, a testament to the efforts of its founders: Mr. Anastacio Perez, Julio and Domingo Alinsug, and Clemente Paran.

Respondents

The study's respondents were English teachers and grade six students at Basak Elementary School. They were chosen using purposive sampling in data collection and questionnaire administration. The distribution of respondents is shown in Table 1.

Table 1 Distribution of Respondents

| Respondents | Frequency | Percentage |
|-------------|-----------|------------|
| Teachers | 20 | 16.67 |
| Learners | 100 | 83.33 |
| Total | 120 | 100 |

Instrument

The study made use of a modified standardized questionnaire developed by Isleem (2003) for teacher ICT usage and was employed to gather data on ICT integration in education, while English learning achievement was determined by students' examination results in the English subject. The developed questionnaire was founded on Davis's Technology Acceptance Model (TAM), rooted in the Theory of Reasoned Action. This theory posits those beliefs regarding the significance of an object or concept shape individuals' intentional attitudes toward engaging with it. The questionnaire was structured as a five-point Likert scale and comprised 20 items. The integration of ICT in education enhances lesson engagement, renders learning activities enjoyable, alleviates my anxiety, promotes my active participation in the classroom, facilitates the retention of new vocabulary, aids in lesson comprehension, expands my knowledge base, instills a sense of pride in my technological proficiency, enhances my listening skills in English, encourages increased reading in English, stimulates improved learning outcomes, clarifies instructional guidance from teachers, assists in correcting my pronunciation errors, accelerates task completion, introduces novel concepts in the classroom, and aids in deciphering the meanings of new vocabulary.

Data Gathering Procedure

The first step in gathering data was to send an approval letter to the Schools Principal, requesting permission to conduct the study.

The questionnaire was personally distributed to the respondents after the letter was approved. The respondents were given plenty of time, ideally 15-20 minutes, to complete the questionnaire. Questionnaires will be distributed via their preferred online platforms if they prefer to respond through them.

Data was gathered and submitted to a statistician for statistical analysis. It is then presented, analyzed, and interpreted further under the supervision of the research adviser.

A final draft has been submitted for review and corrections.

Treatment of Data

The responses of the respondents were statistically treated with the use of several non-parametric metrics:

Simple Percentage. This statistical treatment derived the relevant information from the teacher's and learners' age and gender, civil status, highest educational attainment, number of years in service, and number of appropriate training, seminars, and workshops attended, as well as academic performance in English.

Weighted Mean. This statistical treatment was used to assess learners' level of competence in English using localized interactive learning materials and teachers' technological skills and knowledge in the teaching and learning process.

Pearson correlation coefficient. This statistical treatment determined whether there is a relationship between learners' competence level in English using interactive localized learning materials and the status of teachers' technological skills and knowledge in the teaching and learning process.

T-test. After the implementation, weighted mean and data categorization will be used to determine the level of competence of Grade VI learners in English.

Scoring Procedures

The participants were asked to use a Likert scale to assess their level of competence with interactive localized learning activities, as well as their teachers' technological skills and knowledge in the teaching and learning process. They gave each item a 4-point Likert scale rating.

| Weight | Range | Category | Verbal Description |
|--------|-------------|-------------------|--|
| 4 | 3.26 – 4.00 | Strongly Agree | The skills survey was implemented very well all the time |
| 3 | 2.51 – 3.25 | Agree | The skills survey was implemented very well and frequently. |
| 2 | 1.76 – 2.50 | Disagree | The skills survey was implemented well on an occasional basis. |
| 1 | 1.00 – 1.75 | Strongly Disagree | The skills survey was not implemented |

On the other hand, there is a sub-section in this questionnaire assessing teachers by a 4-point Likert scale, where

| Weight | Range | Category | Verbal Description |
|--------|-------------|-----------|--|
| 4 | 3.26 – 4.00 | Always | The skills survey was implemented very well all the time |
| 3 | 2.51 – 3.25 | Often | The skills survey was implemented very well and frequently. |
| 2 | 1.76 – 2.50 | Sometimes | The skills survey was implemented well on an occasional basis. |
| 1 | 1.00 – 1.75 | Never | The skills survey was not implemented |

DEFINITION OF TERMS

The following concepts were defined abstractly and functionally to promote understanding, guarantee clarity, and create a shared understanding.

Attitude and Behavioral Intention Toward Use: Teachers' and learners' attitudes toward ICT and their willingness to continue using it for learning activities.

Composing a Persuasive Essay: Learners' skill in writing a compelling and well-structured essay on a topic of their choice, using convincing arguments and appropriate language.

Composing Clear and Coherent Sentences: Learners' ability to construct grammatically correct and logically structured sentences using proper verb tenses, conjunctions, and adverbs.

Demographic profiles refer to the characteristics used to describe and analyze groups of respondents, often in research studies.

ICT Integration in Learning: The seamless incorporation of digital technologies into teaching and learning processes to support educational goals.

Interactive learning activities are engaging, hands-on educational tasks that promote active participation, collaboration, and critical thinking among learners. In contrast to passive learning methods, which entail mere information reception, interactive activities necessitate active participation, enabling learners to investigate concepts, resolve problems, and implement knowledge in practical scenarios. These activities can be executed in in-person, online, or hybrid learning settings utilizing diverse tools and methodologies.

Issues and Concerns This involves the challenges faced by teachers, which may include a lack of technical knowledge, time constraints, limited access to digital resources, or difficulties in aligning interactive activities with curriculum goals.

Learners' Level of Competence Using Interactive English Learning Activities. This refers to learners' ability to effectively engage with and benefit from digital or interactive English learning exercises.

Learner's Profile Learners' ages and their identified genders, often used to analyze trends and variations in educational research.

Level of Usefulness of ICT Integration in Learning (Perceptions of Respondent Groups). This refers to how teachers and learners perceive the value and effectiveness of incorporating ICT in education.

Perceived Ease of Use: How simple or challenging teachers and learners find it to use ICT tools for educational purposes.

Perceived Usefulness: The belief that using ICT enhances learning outcomes or improves teaching efficiency.

Teacher's Profile Information about teachers' chronological ages and their gender identities. The highest level of formal education completed by teachers. The duration teachers have spent in the teaching profession, usually measured in years. The number or types of professional development sessions or workshops teachers have attended related to Information and Communication Technology (ICT).

Usage of ICT: How teachers and learners use digital tools and resources in the learning process.

2. PRESENTATION, DATA ANALYSIS, AND INTERPRETATION

This presents, analyzes, and interprets the data gathered related to the research. The research was divided into five (5) sections. The initial part manages the significant data on the teachers' age and gender, highest educational attainment, years in service, and relevant training, and it also includes the student's age and gender. The second part of the is the status of ICT integration in learning as to usage of ICT, perceived effectiveness, usefulness, ease of use, and attitude and behavioral intention toward use. The third part was the learners' level of competence in teaching English in terms of composing clear and coherent sentences using appropriate grammatical structures (verb tenses, conjunctions, adverbs) and composing a persuasive essay on a self-selected topic. The fourth deals with the relationship between the status of ICT integration in teaching-learning and learners' level of competence in English and the issues and concerns of teachers on ICT integration in teaching English.

RELEVANT INFORMATION

The first part manages the relevant information about the teachers' age and gender, highest educational attainment, years in service, relevant training, and learners' age and gender.

Age

Table 2 summarizes the age of the respondent groups. Age is an important variable that needs to be evaluated to determine the respondents' maturity and level of understanding.

Table 2 Age Profile

| Indicators | Frequency | Percentage |
|----------------|-------------|------------|
| 51-60 years | 3 | 15 |
| 41-50 years | 7 | 35 |
| 31-40 years | 6 | 30 |
| 20-30 years | 4 | 20 |
| Total | 20 | 100 |
| Average | 38.1 | |
| SD | 4.70 | |

The age distribution of the respondents indicates that the predominant group is within the 41-50 years age bracket, accounting for 35% (7 individuals) of the overall sample. The subsequent age group, 31-40 years, constitutes 30% (6 individuals), whereas the 20-30 age group represents 20% (4 individuals). The category with the least representation is 51-60 years, comprising 15% (3 individuals). The mean age of the respondents is 38.1 years, suggesting that the majority are in their late 30s. The standard deviation of 4.70 indicates a moderate age variation, suggesting a relatively balanced distribution devoid of extreme outliers. The data indicates that the group predominantly comprises mid-career individuals, with a lesser representation of younger and older members.

The age distribution of teachers can profoundly impact the incorporation of Information and Communication Technology (ICT) in English language instruction, especially regarding interactive learning activities. A study by Ghavifekr and Rosdy (2022) determined that teachers' preparedness and assurance in utilizing ICT tools are essential for successful integration. The study revealed no significant differences in ICT usage by age. However, it emphasized the necessity of ongoing professional development and training for teachers to effectively integrate technology into their teaching methodologies.

A systematic review by Aslam et al. (2021) highlighted the significance of teachers' technological pedagogical content knowledge (TPACK) for effective ICT integration. The research indicated that educators with elevated TPACK demonstrate excellent proficiency in incorporating technology into their classrooms regardless of age. This highlights the need for specialized professional development programs to improve teachers' technological competencies and pedagogical approaches, enabling novice and veteran educators to execute interactive ICT learning activities proficiently.

Gender

Gender is an essential factor that should be surveyed. This determines the sex, whether male or female. Table 3 presents the distribution of respondent groups in terms of gender.

Table 3 Gender

| Indicators | Frequency | Percentage |
|--------------|-----------|------------|
| Male | 4 | 20 |
| Female | 16 | 80 |
| Total | 20 | 100 |

The table illustrates the gender distribution of respondents, indicating that 80% are female and 20% are male. This signifies that the sample primarily comprises women, exhibiting a four-to-one ratio relative to men. This distribution indicates that the teaching profession, or at least the particular cohort under examination, is predominantly female.

The gender composition of teachers can affect the incorporation of ICT in English language instruction, as research indicates that gender disparities may influence technology adoption. Yildiz Durak (2020) asserts that female teachers frequently exhibit strong motivation and readiness to utilize ICT in classrooms, yet they may encounter obstacles to confidence and technical proficiency. Consequently, professional development programs must guarantee equitable access to ICT training, mitigating any possible obstacles. Furthermore, a study by Alghamdi and Holland (2022) emphasizes that gender-diverse teaching teams can foster a more equitable approach to interactive learning activities, promoting diverse teaching perspectives and methodologies. Providing sufficient support for both male and female educators in ICT integration can improve the overall efficacy of technology-enhanced English instruction.

Highest Educational Attainment

One factor that needs to be considered is the highest educational attainment. This pertains to the level of educational attainment reached by the respondent groups. Table 4 presents the respondent groups' profiles regarding their highest educational attainment.

Table 4 Highest Educational Attainment

| Indicators | Frequency | Percentage |
|--|-----------|------------|
| Masters Degree Holder with units in Doctorate Degree | 1 | 5 |
| Masteral Degree | 2 | 10 |
| With units in Masters Degree | 14 | 70 |
| BSEd/BEEEd | 3 | 15 |
| Total | 20 | 100 |

The table illustrates the educational qualifications of the respondents, indicating that the majority (70%) have pursued coursework for a master's degree but have not completed it. A minority (10%) possess a completed master's degree, whereas 5% have undertaken doctoral coursework. Concurrently, 15% of the participants possess solely a Bachelor of Secondary Education (BSEd) or Bachelor of Elementary Education (BEEEd) degree. This indicates that although most teachers have engaged in higher education, only a minority have obtained advanced degrees. The data indicates a robust tendency for professional advancement, yet it also underscores that numerous teachers are still pursuing additional qualifications.

Educational attainment is essential for effectively integrating Information and Communication Technology (ICT) via interactive learning activities in English instruction. Rahayu and Wirza (2020) assert that teachers with superior qualifications are inclined to employ more effective pedagogical strategies and are more adept at integrating innovative ICT tools. Nonetheless, as most respondents are still pursuing their master's degrees, they may necessitate further professional development opportunities to augment their ICT competencies. A study by Tondeur et al. (2021) highlighted that teachers with postgraduate qualifications frequently demonstrate enhanced digital literacy and a more flexible approach to technology integration. Institutions should implement specialized ICT training programs, especially for individuals lacking advanced degrees, to guarantee that all educators can proficiently employ ICT in English language teaching, irrespective of their academic qualifications.

The significant representation of respondents with master's degrees indicates a highly educated population likely to have advanced skills and specialized knowledge, which can significantly impact their professional environments and personal perspectives. This group places a high value on lifelong learning and is more likely to pursue leadership positions that encourage creativity and strategic decision-making inside their companies. Their observations help clarify the changing needs of the labor market, highlighting the value of a college education in advancing one's career and adjusting to quickly shifting industries.

Length of Service

Another essential factor to consider in this research is the number of years in the service. The length of service can be used as the basis of their allegiance to the workplace to which they are currently connected. Table 5 shows the number of years in the service.

Table 5 Length of Service

| Indicators | Frequency | Percentage |
|----------------|-------------|------------|
| 21-30 years | 4 | 20 |
| 11-20 years | 11 | 55 |
| 1-10 years | 5 | 25 |
| Total | 20 | 100 |
| Average | 14 | |
| SD | 6.74 | |

As reflected in Table 5, the respondents' teaching experience reveals that the majority (55%) have taught for 11-20 years, signifying a highly experienced workforce. Twenty-five percent possess 1-10 years of teaching experience, whereas merely 20% have been in the profession for 21-30 years. The mean teaching experience is 14 years, with a standard deviation of 6.74, indicating a moderate variability in the respondents' years of service. This distribution indicates a teaching population with substantial experience while remaining diverse in tenure.

The extent of teaching experience significantly influences the incorporation of Information and Communication Technology (ICT) in English language education. Çelik and Aydin (2021) assert that more experienced teachers may possess advanced pedagogical strategies but may also be reluctant to embrace new technologies in contrast to their less experienced counterparts. Considering that most respondents possess more than ten years of teaching experience, specialized ICT training may be essential to address deficiencies in digital literacy and promote the implementation of interactive learning activities. A study by Schmid and Petko (2020) revealed that educators with differing experience levels can gain from collaborative professional development, wherein veteran teachers impart their instructional knowledge while novice teachers offer their technological adaptability. This underscores the significance of ongoing professional development to guarantee that educators of all experience levels can proficiently incorporate ICT into English language instruction. This implies that these teachers are satisfied with the job they chose to stay in, especially with the benefits that come with it. The length of years spent in the teaching profession implies that they are contented with their job and choose to stay longer because they enjoy special privileges and benefits from management that help them stay motivated. A crucial portion of the workforce comprises respondents with one to ten years of experience, often distinguished by their willingness to learn, flexibility, and new insights into their positions. Since they are still in the early stages of their careers, they frequently have a strong desire for mentorship and professional development opportunities as they work to advance their careers and learn the ins and outs of their respective fields. Their observations may shed light on the challenges they face in establishing themselves, such as juggling the need for guidance with the need for independence and originality. Additionally, this group may place a high value on supportive leadership, collaborative opportunities, and workplace culture because these factors significantly impact their career path and job satisfaction.

Relevant Training/ Seminar Attended

This factor is relevant because it contributes to the professional growth of the respondent groups. Table 6 presents the appropriate training, seminars, and workshops attended by the respondent groups.

Table 6 Relevant Training/ Seminar Attended

| Indicators | Frequency | Percentage |
|--------------|-----------|------------|
| Region | 2 | 10 |
| Division | 18 | 90 |
| District | 20 | 100 |
| School | 20 | 100 |
| Total | 60 | 100 |

Table 6 illustrates the distribution of respondents according to the extent of pertinent training or seminars they have participated in. Seventy percent have engaged in training at the division level, signifying that the predominant professional development opportunities are offered at this administrative level. Simultaneously, 10% of participants have trained at the regional, district, and school tiers, respectively. This distribution indicates

that although training opportunities are available at multiple tiers, most teachers obtain professional development at the division level, likely due to centralized planning and resource distribution.

The scope and quality of training received substantially influence teachers' capacity to incorporate Information and Communication Technology (ICT) into English instruction. A study by Dogan and Almus (2021) indicates that educators who participate in advanced ICT training, including regional and national seminars, generally exhibit enhanced digital competencies and a more expansive view of innovative pedagogical strategies. Given that the majority of respondents have participated in division-level training, there may be a necessity for additional opportunities at elevated levels to familiarize educators with advanced ICT tools and methodologies. A study by Tondeur et al. (2021) indicates that school-based ICT training facilitates the immediate application and contextualization of novel strategies. Consequently, educational authorities should enhance school-level ICT capacity-building initiatives, guaranteeing that all educators can proficiently execute interactive learning activities in English instruction, irrespective of their training background.

Learners profile

This section presents the age and gender of the learner respondents.

Age

The term "learner's age" describes a person's chronological age participating in a learning process, whether in an official or informal learning environment. It is usually determined by the years between a person's birth and the assessment or learning activity. Table 7 shows the learner's age.

Table 7 Age

| Indicators | Frequency | Percentage |
|---------------------------|-------------|------------|
| 11 years and above | 19 | 19 |
| 9-10 | 81 | 81 |
| Total | 100 | 100 |
| Average | 10.6 | |
| SD | 0.83 | |

The table illustrates the age distribution of learners, indicating that the predominant group (81%) is aged 9-10, whereas a lesser segment (19%) is 11 years or older. The mean age of the learners is 10.6 years, accompanied by a standard deviation of 0.83, signifying that most learners are similarly aged and exhibit minimal variance. This indicates that the group primarily comprises students in the middle childhood phase, likely in the upper years of elementary education.

The age distribution of learners significantly influences the incorporation of Information and Communication Technology (ICT) in English instruction, especially in the design of interactive learning activities. A study by Aljaraidh (2021) indicates that younger learners, particularly those aged 9-10, exhibit improved engagement and comprehension in interactive and gamified learning environments. Considering that most participants in this study fall within this age demographic, educators should emphasize implementing age-appropriate digital resources, including educational games, storytelling applications, and interactive quizzes, to optimize learning results. Furthermore, a study by Romero and Lambropoulos (2020) indicates that older learners (aged 11 and above) may gain from more organized digital literacy programs, equipping them for sophisticated ICT integration in subsequent academic environments. Consequently, tailored ICT strategies must be employed to address the cognitive and technological preparedness of younger and older students in the classroom.

Gender

In an educational setting, "gender of learners" refers to grouping students according to whether they identify as male, female, or, in more inclusive frameworks, as non-binary or gender-diverse. Table 8 shows the gender of student respondents.

Table 8 Gender

| Indicators | Frequency | Percentage |
|--------------|------------|------------|
| Male | 38 | 38 |
| Female | 62 | 62 |
| Total | 100 | 100 |

The table illustrates the gender distribution of learners, indicating that 62% are female and 38% are male. This signifies an increased presence of female students in the educational setting. While the difference is not significant, it implies that gender composition may influence classroom dynamics and learning preferences.

The gender composition of students can affect the incorporation of Information and Communication Technology (ICT) in English education, especially in the development of interactive learning activities. Çakıroğlu et al. (2021) discovered that male and female students exhibit varying levels of engagement with technology-based learning tools, with males frequently favoring competitive and game-oriented learning. In contrast, females are more inclined towards collaborative and communicative digital activities. Considering the significant number of female students, educators might contemplate integrating more interactive storytelling, discussion forums, and collaborative learning activities with gamified components to promote inclusivity. Furthermore, Vekiri's (2020) research indicates that gender perceptions regarding technology can influence students' confidence and engagement. Consequently, ICT-based instruction must cultivate an equitable learning environment by motivating both male and female students to actively utilize digital tools, enhancing their confidence in employing technology for language acquisition.

STATUS OF ICT INTEGRATION

This section deals with ICT integration in learning regarding usage, Perceived Effectiveness, Usefulness, Ease of Use, and Attitude and Behavioral Intention toward use.

Usage of ICT

Any technology or equipment people use to access, process, and communicate information is called an ICT device. This includes gadgets like laptops, interactive whiteboards, tablets, smartphones, and PCs in educational settings. These gadgets support teaching and administrative tasks, improve learning, and make educational resources accessible.

Table 9 Usage of ICT

| Device | ICT Device used | Always | Sometimes | Seldom | Never |
|------------|-----------------|--------|-----------|--------|-------|
| PC | 9 | 5 | 2 | 2 | 91 |
| Tablet | 11 | 3 | 2 | 6 | 89 |
| cell phone | 57 | 31 | 23 | 3 | 43 |
| Laptop | 9 | 2 | 2 | 5 | 91 |
| Smart TV | 12 | 2 | 7 | 3 | 88 |
| others | 2 | 0 | 0 | 2 | 98 |

The data on ICT device utilization in education reveals that mobile phones are the most employed devices, with 57% of learners using them consistently, while 31% utilize them occasionally. Conversely, devices like PCs, laptops, tablets, and Smart TVs exhibit markedly lower usage frequency, with most learners utilizing them infrequently or not at all. Significantly, 91% do not utilize PCs and laptops, while 89% refrain from using tablets, indicating restricted access to these devices. Simultaneously, merely 2% of learners consistently utilize alternative ICT devices, signifying a negligible dependence on other technological forms.

The significant dependence on cell phones for ICT-based learning corresponds with research findings from Sung et al. (2021), which emphasize the growing importance of mobile devices in digital education owing to their accessibility and user-friendliness. This indicates that educational institutions should prioritize mobile-compatible learning platforms and applications to enhance digital instruction. The limited utilization of PCs and laptops may signify a deficiency in access to advanced ICT tools, potentially obstructing students from acquiring crucial digital literacy skills necessary for higher education and future employment (König et al., 2020). Educational institutions and policymakers should investigate methods to enhance access to a broader array of ICT devices, guaranteeing that students can fully capitalize on technology-integrated education.

PERCEIVED EFFECTIVENESS

This indicator refers to the potential benefit of technology regardless of the respondents' age and availability. It includes Usefulness, Ease of Use, and Attitude and Behavioral Intention toward use.

Usefulness

The utility of ICT (Perceived Usefulness - PU) in education is apparent in multiple facets of learning, as it improves students' comprehension of lessons, rendering concepts more lucid and accessible. Incorporating ICT tools enables students to execute assignments more efficiently, minimizing time and effort while enhancing the

output quality. Moreover, digital tools provide more engaging and interactive methods for learning English, exceeding the effectiveness of traditional approaches. Students view ICT as a tool to enhance academic performance through varied resources and individualized learning experiences. Moreover, access to educational technology enhances study productivity by facilitating improved organization, collaboration, and information retention. Table 10 shows the results on usefulness.

Table 10 Usefulness

| Indicators | Weighted Mean | SD | Interpretation |
|---|---------------|-------------|-----------------------|
| "Using ICT tools improves my understanding of lessons." | 3.46 | 0.45 | Strongly Agree |
| "ICT integration enhances my ability to complete assignments more efficiently." | 3.32 | 0.35 | Strongly Agree |
| "Digital tools help me learn English more effectively than traditional methods." | 3.22 | 0.43 | Agree |
| "I believe ICT use in learning will improve my overall academic performance." | 3.54 | 0.45 | Strongly Agree |
| "Access to educational technology makes studying more productive." | 3.33 | 0.47 | Strongly Agree |
| Average Weighted Mean | 3.37 | 0.43 | Strongly Agree |
| LEGEND: 3.26-4.00 Strongly Agree 2.51-3.25 Agree 1.76-2.50 Disagree 1.00-1.75 Strongly Disagree | | | |

The table illustrates the perceived utility of ICT in education, indicating that students predominantly concur with the advantages of technological integration, as evidenced by an average weighted mean of 3.37. The most highly rated assertion, "I believe ICT use in learning will enhance my overall academic performance" (3.54), indicates that students possess considerable confidence in the beneficial influence of technology on their education. Conversely, the statement with the lowest rating, "Digital tools help me learn English more effectively than traditional methods" (3.22, interpreted as "Agree"), suggests that although students recognize the advantages of ICT, some may still prefer traditional learning approaches. The comparatively low standard deviations in responses indicate a strong consensus among students about the efficacy of ICT in their educational experiences.

The conviction regarding the efficacy of ICT tools in enhancing academic performance corresponds with the findings of Huang et al. (2021), which indicated that students utilizing digital learning tools cultivate superior problem-solving abilities and self-directed learning practices. Considering the significant impact of ICT on academic achievement, teachers should persist in incorporating technology into pedagogical approaches, ensuring the effective use of digital tools to enhance student learning. The diminished consensus regarding the superiority of ICT over traditional methods indicates that a blended approach—integrating technology with in-person instruction—might be more efficacious in improving English language acquisition.

Furthermore, research by Wang and Tahir (2020) emphasizes that although ICT enhances learning efficiency, its effectiveness is contingent upon the quality of digital resources and their integration into the curriculum. Given that students acknowledge the utility of ICT for assignments and productivity, educational institutions should allocate resources toward training educators and learners in optimal digital learning practices. This encompasses granting access to superior educational technology, enhancing digital literacy, and ensuring that ICT tools are developed to augment, rather than supplant, conventional teaching methodologies.

Ease of Use

The ease of use (Perceived Ease of Use—PEOU) of ICT in education reflects how effortlessly students can adopt and navigate digital learning tools. Many learners find it easy to use ICT tools, allowing them to access digital learning materials without difficulty. Technology integrated into classes is generally user-friendly and straightforward, enabling students to engage with it confidently. Table 11 shows the outcome for the ease of use.

Table 11 Ease of Use

| Indicators | Weighted Mean | SD | Interpretation |
|--|---------------|-------------|-----------------------|
| "Learning how to use ICT tools is easy for me." | 3.20 | 0.54 | Agree |
| "I find it simple to access digital learning materials for my classes." | 3.45 | 0.63 | Strongly Agree |
| "The technology used in class is straightforward and user-friendly." | 3.34 | 0.46 | Strongly Agree |
| "I quickly become proficient in using new digital tools for schoolwork." | 3.26 | 0.55 | Strongly Agree |
| "Completing class activities using ICT requires minimal effort." | 3.12 | 0.43 | Agree |
| Average Weighted Mean | 3.27 | 0.52 | Strongly Agree |

The table displays students' perceptions regarding the usability of ICT in learning, yielding an average weighted mean of 3.27, interpreted as "Strongly Agree." The highest-rated assertion, "I find it simple to access digital learning materials for my classes" (3.45), indicates that students typically encounter minimal challenges obtaining online educational resources. Conversely, the statement with the lowest rating, "Completing class activities using ICT requires minimal effort" (3.12, interpreted as "Agree"), suggests that although students perceive ICT tools as user-friendly, they encounter specific challenges in their application to academic tasks. The comparatively low standard deviations indicate a uniform perception among students concerning the usability of digital tools.

The favorable reaction to the user-friendliness of ICT corresponds with the findings of Raza et al. (2021), which indicate that students who view digital tools as accessible and easy to navigate are more inclined to participate in technology-enhanced learning. Considering that students readily access learning materials and utilize ICT tools proficiently, educators should enhance the integration of interactive digital platforms that facilitate student-centered learning. Nevertheless, as specific learners still find ICT-based activities demanding, it is essential to implement supplementary support mechanisms, including digital literacy training and intuitive educational software, to bolster student confidence and proficiency in technology utilization.

Moreover, Alshmrany and Wilkinson (2021) assert that usability is pivotal in students' readiness to embrace technology in education. The findings indicate that although students typically perceive ICT tools as manageable, continuous enhancements in instructional design and platform accessibility could further improve learning experiences. Educational institutions must guarantee that digital resources feature user-friendly interfaces and provide comprehensive instructions to assist learners who may encounter difficulties with new technologies. By resolving minor usability issues, institutions can optimize the advantages of ICT integration in English language education and overall academic achievement.

Attitude and Behavioral Intention toward use

Attitude and Behavioral Intention Toward ICT Use pertain to students' perceptions and readiness to utilize technology in their educational endeavors. A positive disposition is evident in their enthusiasm for utilizing ICT tools, rendering the learning experience more engaging and interactive. Students perceive incorporating technology in the classroom as advantageous, affirming that it enriches the educational experience. This positive perception affects their intention to continue utilizing digital tools for learning in the future. Moreover, their assurance of the efficacy of ICT compels them to advocate for its utilization among colleagues, thereby advancing technology-enhanced education. Table 12 depicts the results on attitude and behavioral intention toward use.

Table 12 Attitude and Behavioral Intention toward use

| Indicators | Weighted Mean | SD | Interpretation |
|--|---------------|-------------|-----------------------|
| "I enjoy learning with the help of ICT tools." | 3.35 | 0.69 | Strongly Agree |
| "Using technology in class is a good idea." | 3.54 | 0.66 | Strongly Agree |
| "I plan to continue using digital tools for learning in the future." | 3.46 | 0.68 | Strongly Agree |
| "I would recommend the use of technology in learning to my peers." | 3.34 | 0.65 | Strongly Agree |
| Average Weighted Mean | 3.42 | 0.67 | Strongly Agree |

The table displays students' attitudes and behavioral intentions regarding the use of ICT in learning, yielding an average weighted mean of 3.42, interpreted as "Strongly Agree." The most highly rated assertion, "Using technology in class is a good idea" (3.54), indicates a robust positive perception of ICT's role in education. The statement with the lowest rating, "I would recommend the use of technology in learning to my peers" (3.34,

Strongly Agree), indicates that although students appreciate ICT in education, some may be reluctant to endorse its broad implementation. The comparatively low standard deviations suggest that responses are uniform, reflecting a favorable student disposition towards technology-enhanced education.

The robust endorsement of ICT integration corresponds with the findings of Teo et al. (2021), which demonstrate that favorable attitudes toward technology substantially affect students' readiness to embrace digital tools in education. Since students recognize the advantages of ICT and are willing to persist in its usage, educators ought to capitalize on this enthusiasm by crafting stimulating and interactive learning experiences that optimize technology's capabilities. Schools should implement additional student-led digital initiatives, as research indicates that active participation in ICT-based instruction enhances learners' motivation and academic performance (Alamri et al., 2022).

Moreover, although students acknowledge the advantages of ICT, their somewhat diminished eagerness to endorse it to peers indicates that some may still encounter difficulties with digital learning. Wong et al. (2021) assert that perceived ease of use and technological confidence influence students' propensity to support ICT adoption. To enhance student engagement, institutions must guarantee that technology-enhanced learning is accessible, user-friendly, and adaptable to diverse learning preferences. Continuous support, including peer mentoring and digital training programs, can significantly bolster students' confidence in utilizing and advocating for ICT tools in education.

Summary of the Results

Table 13 shows the summary of the results.

Table 13 Summary of the Results

| Indicators | Weighted Mean | SD | Interpretation |
|--|--------------------------------|-------------|-----------------------|
| Usefulness | 3.37 | 0.43 | Strongly Agree |
| Ease of Use | 3.27 | 0.52 | Strongly Agree |
| Attitude and behavioral intention toward use | 3.42 | 0.67 | Strongly Agree |
| AVERAGE | 3.35 | 0.54 | Strongly Agree |
| Descriptive Equivalent | Manifested all the time | | |

The results reveal that respondents possess a highly favorable perception of ICT in education, reflected by an overall weighted mean of 3.35 and a descriptive equivalent of "Consistently manifested." Of the three categories, attitude and behavioral intention toward use received the highest rating (3.42), indicating that teachers are highly amenable to utilizing ICT in education and are likely to persist in incorporating it into their learning process. Conversely, ease of use received the lowest rating (3.27), suggesting that although teachers typically perceive ICT tools as user-friendly, some may still face minor difficulties navigating digital learning platforms. The minimal standard deviations across all categories indicate a significant consensus, underscoring the robust endorsement of ICT in their academic experience.

The consistently elevated ratings across all indicators correspond with the findings of Liu et al. (2021), indicating that students who regard ICT as practical, user-friendly, and advantageous for their learning are more inclined to cultivate technology-oriented study habits and enhance their academic performance. Considering the robust behavioral intention regarding ICT utilization, teachers should persist in incorporating interactive and adaptive digital tools that accommodate diverse learning styles. Educational institutions should allocate resources towards organized ICT training programs to enable students to fully leverage the advantages of educational technology efficiently.

Moreover, although students perceive ICT as beneficial and user-friendly, the marginally lower rating for usability underscores the necessity for ongoing digital literacy enhancement. Kumar et al. (2022) assert that facilitating effortless access to well-structured digital platforms and intuitive instructional technology improves student engagement and diminishes learning obstacles. Institutions should offer technical assistance, instructor-led digital initiatives, and ICT-augmented evaluations to bolster students' confidence and competence in utilizing technology for educational purposes. By resolving minor usability issues, educators can enhance the efficacy of ICT in the instruction of English and other disciplines.

LEVEL OF COMPETENCE IN TEACHING-LEARNING ENGLISH

This section presents the effect of the digital learning guide on learners' literacy skills in Composing clear and coherent sentences using appropriate grammatical structures (verb tenses, conjunctions, adverbs) and composing a persuasive essay on a self-selected topic.

Composing clear and coherent sentences using appropriate grammatical structures

Formulating clear and coherent sentences with suitable grammatical structures entails creating well-structured statements that efficiently communicate meaning. This necessitates appropriate sentence structure, accurate verb tense application, and coherent idea progression. Clarity is attained by eschewing superfluous complexity, maintaining subject-verb concord, and employing suitable transitions. Coherence is preserved when sentences transition seamlessly, facilitating comprehension and continuity of the message. Table 14 presents the results of Composing clear and coherent sentences using appropriate grammatical structures.

Table 14 Composing clear and coherent sentences using appropriate grammatical structures

| Indicators | Weighted Mean | SD | Interpretation |
|---|---------------|-------------|-----------------------|
| Sentences consistently use correct verb tenses appropriate to the context. | 3.43 | 0.59 | Strongly Agree |
| Conjunctions effectively connect ideas to create logical sentence structures. | 3.44 | 0.63 | Strongly Agree |
| Adverbs are placed correctly to modify verbs, adjectives, or other adverbs without ambiguity. | 3.32 | 0.60 | Strongly Agree |
| Sentences are structured logically, maintaining clarity and flow of ideas. | 3.34 | 0.64 | Strongly Agree |
| Minimal to no grammatical errors, showing mastery of sentence composition rules. | 3.34 | 0.55 | Strongly Agree |
| AVERAGE | 3.37 | 0.60 | Strongly Agree |

The findings demonstrate that students possess a robust capacity to formulate clear and coherent sentences employing suitable grammatical structures, with an average weighted mean of 3.37, interpreted as "Strongly Agree." The highest-rated skill among the specific indicators is using conjunctions to connect ideas effectively (3.44), indicating that students demonstrate proficiency in linking thoughts to form coherent sentence structures. The aspect with the lowest rating is the accurate placement of adverbs (3.32), indicating that although students typically utilize adverbs correctly, some may still encounter difficulties with their exact positioning. The minimal standard deviations across all indicators indicate a uniform level of proficiency among students in sentence construction.

The robust performance in sentence structure corresponds with findings by Ellis et al. (2021), indicating that explicit grammar instruction and contextualized practice substantially improve students' capacity to construct coherent sentences. Since students exhibit proficiency in verb tenses and coherent sentence formation, teachers should enhance these competencies through interactive writing exercises and practical language applications. The marginally lower score in adverb placement indicates that specialized grammar instruction on adverb usage may enhance students' precision in sentence construction.

A study by Tran (2022) underscores the significance of technology-enhanced grammar instruction in enhancing sentence composition. Since students demonstrate substantial grammatical proficiency, incorporating ICT-based language tools, including grammar-checking software, AI writing assistants, and interactive grammar exercises, can offer supplementary reinforcement. Moreover, promoting collaborative writing and peer feedback among students can enhance their comprehension of sentence structure, thereby improving fluency and precision in their writing abilities.

Creating a persuasive essay on a self-selected topic.

Crafting a persuasive essay on a chosen topic entails constructing a coherent argument that effectively articulates a perspective on a personally relevant issue. This necessitates a definitive thesis statement, coherent reasoning, and robust supporting evidence to convince the audience. Effective persuasive essays employ rhetorical strategies to enhance the argument, including emotional appeals, factual evidence, and counterarguments. The essay must be systematically structured, ensuring coherence and clarity to captivate and persuade the reader.

Table 15 Creating a persuasive essay on a self-selected topic.

| Indicators | Weighted Mean | SD | Interpretation |
|---|---------------|------|----------------|
| The essay presents a well-defined thesis that establishes the writer's stance on the topic. | 3.12 | 0.67 | Agree |
| Arguments are presented in a coherent and logical order, effectively supporting the thesis. | 3.10 | 0.68 | Agree |
| Supporting details, examples, and facts are appropriately used to strengthen arguments. | 3.45 | 0.55 | Strongly Agree |

| | | | |
|--|-------------|-------------|--------------|
| The essay incorporates rhetorical strategies such as appeals to logic, emotion, or credibility. | 2.54 | 0.45 | Agree |
| The essay provides a compelling conclusion that reinforces the thesis and leaves a lasting impression. | 2.54 | 0.43 | Agree |
| AVERAGE | 2.95 | 0.56 | Agree |

The findings reveal that students typically exhibit competence in writing persuasive essays, with an average weighted mean of 2.95, interpreted as "Agree." The highest-rated skill among the specific indicators is using supporting details, examples, and facts to bolster arguments (3.45, Strongly Agree), indicating that students acknowledge the significance of evidence-based writing. The aspects rated lowest are the integration of rhetorical strategies (2.54) and the capacity to deliver a persuasive conclusion (2.54), suggesting that students find it challenging to effectively engage logic, emotion, or credibility and formulate impactful closing statements. The standard deviations are comparatively low, indicating uniform responses among students concerning their persuasive writing skills.

The findings correspond with the research conducted by Graham et al. (2021), which indicates that although students frequently excel in fact-based argumentation, they may necessitate further instruction in persuasive techniques and rhetorical strategies to improve their writing efficacy. Since students excel in utilizing supporting details yet encounter difficulties with rhetorical appeals and conclusions, teachers should incorporate explicit instruction on rhetorical strategies, including ethos, pathos, and logos. Furthermore, model essays, peer evaluations, and structured practice in persuasive writing can enhance students' argumentation abilities and enable them to formulate more persuasive conclusions.

A study by Kormos (2022) highlights the significance of technology in enhancing writing fluency, specifically via AI-driven writing assistants, digital writing workshops, and interactive essay planning tools. Based on the findings, educators should utilize ICT-enhanced writing platforms to deliver immediate feedback on structure, coherence, and rhetorical efficacy. Promoting student participation in debates, writing contests, and multimedia persuasive projects can enhance their persuasive writing abilities and bolster their confidence in articulating well-structured arguments.

Summary of the Results

Table 16 shows the summary of the results.

Table 16 Summary of the Results

| Indicators | Weighted Mean | SD | Interpretation |
|---|------------------------------|-------------|----------------|
| Composing clear and coherent sentences using appropriate grammatical structures (verb tenses, conjunctions, adverbs); and | 3.37 | 0.60 | Strongly Agree |
| Composing a persuasive essay on a self-selected topic | 2.95 | 0.56 | Agree |
| AVERAGE | 3.16 | 0.58 | Agree |
| Descriptive Equivalent | Manifested frequently | | |

The results summary reveals that students consistently exhibit proficiency in written composition, with an average weighted mean of 3.16, interpreted as "Agree." The most highly rated skill is the ability to compose clear and coherent sentences utilizing appropriate grammatical structures (3.37, Strongly Agree), indicating that students possess a robust understanding of sentence construction, verb tenses, conjunctions, and adverbs. Nevertheless, the composition of a persuasive essay on a self-chosen topic garnered a lower rating (2.95, Agree), indicating that although students can formulate grammatically correct sentences, they struggle to structure and express persuasive arguments proficiently. The moderate standard deviation (0.58) indicates variability in students' writing abilities, suggesting that while many excel, some may require further assistance.

The implications of these findings correspond with the research conducted by Graham and Perin (2021), highlighting that proficient sentence-level writing abilities do not necessarily result in successful essay writing. Since students demonstrate proficiency in grammatical accuracy yet encounter difficulties in persuasive writing, educators should provide explicit instruction on argument formulation, rhetorical techniques, and logical reasoning. Utilizing structured outlines, guided practice, and real-world examples to scaffold persuasive writing can enhance students' proficiency in composing well-organized essays. Furthermore, incorporating peer review sessions and specialized writing workshops can assist students in enhancing their writing structure and fortifying their persuasive skills.

Additionally, a study by Hyland (2022) emphasizes that technology-enhanced writing instruction can connect sentence-level proficiency with essay writing abilities. Digital tools, including AI-driven writing assistants, argument mapping software, and interactive writing modules, offer students immediate coherence, organization, and persuasiveness feedback. Promoting student participation in debates, multimedia persuasive projects, and collaborative writing assignments can enhance their capacity to formulate compelling arguments. By rectifying deficiencies in essay composition and enhancing sentence-level strengths, educators can cultivate comprehensive writing proficiency in students.

SIGNIFICANT RELATIONSHIP BETWEEN THE STATUS OF ICT INTEGRATION IN TEACHING-LEARNING AND LEARNERS' LEVEL OF COMPETENCE IN ENGLISH

This section discussed the significant relationship between the status of ICT integration in teaching-learning and learners' English competence level. Table 17 shows this relationship.

Table 17 Status Of ICT Integration In Teaching-Learning And Learners' Level Of Competence In English

| | Computed r-value | Critical p-value | Decision on Ho | Interpretation |
|---|------------------|------------------|----------------|----------------|
| status of ICT integration in teaching-learning and learners' level of competence in English | 0.62 | 6.20 | Reject Ho | Significant |

@ 0.05 level of significance

The calculated r-value of 0.62 signifies a moderate to strong positive correlation between the degree of ICT integration in teaching and the learners' proficiency in English. This indicates that an increase in the utilization of ICT in education correlates with elevated levels of English proficiency among students. Given that the computed p-value (6.20) exceeds the critical value, the null hypothesis (Ho) is rejected, affirming the statistical significance of the relationship between ICT integration and English competence. This discovery indicates that ICT integration is essential for improving students' language abilities, rendering technology an invaluable asset for English education.

The results corroborate the findings of Wang et al. (2021), who highlighted that ICT-enhanced instruction markedly enhances language acquisition, reading comprehension, and writing skills through interactive and engaging learning experiences. Given the substantial influence of ICT integration on English proficiency, educators ought to utilize multimedia resources, digital storytelling, interactive grammar exercises, and AI-enhanced writing tools to improve students' language acquisition. Moreover, blended learning approaches, which integrate in-person instruction with digital resources, can enhance the efficacy of ICT-driven English education.

A study by Sun & Yang (2022) indicates that strategic use of ICT in language instruction enhances student engagement and motivation. Considering the substantial correlation identified in this study, educators and policymakers should persist in their investment in teacher training programs, access to digital learning platforms, and the incorporation of adaptive learning technologies to enhance English proficiency among students. Educational institutions should adopt ongoing assessment and feedback systems utilizing ICT tools to track students' advancement and rectify learning deficiencies in real time, ensuring that technological integration yields significant educational results.

ISSUES AND CONCERNS

This section deals with teachers' issues and concerns about ICT integration in teaching English. Table 18 shows the issues and concerns of teachers, ranging from the most prevalent to the least prevalent.

Table 18 ISSUES AND CONCERNS

| ISSUES AND CONCERNS | RANK |
|---|------|
| Insufficient technical proficiency in utilizing tools and devices for the creation of digital learning resources. | 1 |
| Insufficient skills in the management of learning materials for application to digital learning resources. | 2 |
| here is ambiguity in selecting the appropriate material for delivery via digital learning platforms. | 3 |
| Students abusing technology. | 4 |
| Educator expertise and professional advancement. | 5 |
| Ensuring the online safety of students. | 6 |
| Expense of innovative technology. | 7 |

| | |
|-------------------------------|----|
| Adapting to changes | 8 |
| Parental or Guardian Guidance | 9 |
| Accessibility of devices | 10 |

The prioritization of issues indicates that the foremost challenge in ICT integration for education is inadequate technical proficiency in employing tools and devices to develop digital learning resources (Rank 1). This indicates that teachers may encounter difficulties effectively utilizing technology, constraining their capacity to create and execute interactive and engaging digital resources. Likewise, inadequate proficiency in managing digital learning materials (Rank 2) and uncertainty in choosing suitable resources for digital platforms (Rank 3) suggest that teachers necessitate further training in curating, organizing, and disseminating content through ICT tools.

Conversely, issues such as adaptation to changes (Rank 8), parental or guardian guidance (Rank 9), and device accessibility (Rank 10) were ranked lowest, indicating that although these factors pose challenges, they are not as pivotal as concerns regarding teacher proficiency, material selection, and student misuse of technology. The prevalence of students misusing technology (Rank 4) and issues related to online safety (Rank 6) highlight the necessity for digital literacy initiatives and responsible technology usage policies within educational institutions.

The findings corroborate the research conducted by Díaz & Cox (2021), highlighting that teacher preparedness is a pivotal element in effectively integrating ICT into education. Given that the foremost challenges pertain to technical expertise and resource allocation, institutions should prioritize extensive professional development initiatives centered on digital content creation, learning management system (LMS) application, and optimal strategies for online instruction. Educational institutions must guarantee that instructors receive sufficient support, mentorship, and practical training to enhance their proficiency in utilizing ICT tools effectively.

Hassan et al. (2022) emphasize that although technology facilitates learning, it may also result in distractions and misuse if inadequately regulated. The apprehension about students misusing technology indicates the necessity for explicit digital policies, internet usage protocols, and classroom management techniques to foster responsible ICT utilization. Implementing cybersecurity protocols, online conduct policies, and parental engagement initiatives can enhance student safety in digital learning environments. Finally, tackling cost concerns and accessibility challenges via government initiatives, school-funded technology programs, and collaborations with technology firms can guarantee that ICT-based education remains inclusive and sustainable for all students.

3. SUMMARY, FINDINGS, CONCLUSION, AND RECOMMENDATIONS

This chapter deals with the summary, findings, conclusions, and recommendations. The summary restated the crucial problem and subproblems of the study. Findings were based on the gathered data. Conclusions were based on the findings, and recommendations were carefully taught based on the gathered data results.

SUMMARY

This research determined the ICT integration in teaching-learning towards the level of performance in basic English among Grade VI learners of Basak Elementary School, North District in Mandaue City for the school year 2024-2025 as basis for crafting interactive learning activities. The study is delimited to the following areas of concern: related information as regards teachers' age and gender, educational attainment, length of service, seminars attended on ICT, and learner's age and gender; the status of ICT integration in learning as to usage of ICT, Perceived Effectiveness, Usefulness, Ease of Use, and Attitude and Behavioral Intention toward use; the learners' level of competence teaching-learning English in terms of composing clear and coherent sentences using appropriate grammatical structures (verb tenses, conjunctions, adverbs); and composing a persuasive essay on a self-selected topic; the relationship between the status of ICT integration in teaching-learning and learners' level of competence in English and the issues and concerns of teachers on ICT integration in teaching English. The researcher used the descriptive-qualitative method with an adapted and modified questionnaire as the primary tool for gathering relevant data integration.

FINDINGS

The study revealed significant insights into the demographic profile of teachers and learners, ICT integration, writing competencies, and challenges in digital learning. Most teachers belong to the 41-50 age group (35%), with a predominantly female workforce (80%). Most educators hold units in a master's degree (70%), and their years of experience average 14 years, indicating a workforce with substantial teaching experience. However, relevant training and seminars were primarily attended at the division level (70%), suggesting a need for more opportunities at regional and national levels. Among learners, the majority were 9-10 years old (81%), with a

higher percentage of females (62%) than males (38%). Regarding ICT usage, mobile phones (57% always used) were the most frequently utilized devices, while PCs, laptops, and other devices had significantly lower usage rates. This suggests that while students rely heavily on mobile technology for learning, access to diverse ICT tools remains limited.

Findings on ICT usefulness, ease of use, and attitude toward technology indicated a strong positive perception among learners, with all indicators averaging "Strongly Agree." Furthermore, a moderate to strong correlation ($r=0.62$) between ICT integration and learners' English competence was found, confirming that technology enhances language skills. However, writing skills assessments showed higher proficiency in composing clear and coherent sentences (3.37, Strongly Agree) than persuasive essay writing (2.95, Agree), highlighting a gap in advanced writing skills. Challenges in ICT implementation were also identified, with insufficient technical proficiency, material management, and content selection as the top concerns, while device accessibility and parental guidance ranked lowest. These findings emphasize the need for enhanced teacher training, structured writing interventions, responsible technology use policies, and improved access to ICT resources to optimize learning outcomes.

CONCLUSION

Based on the study's primary findings, a significant positive relationship between ICT integration and learners' English competence was confirmed, highlighting technology's role in improving language skills. However, challenges such as teacher proficiency, material management, and student misuse of technology hinder full implementation. Addressing these through training, digital literacy programs, and responsible ICT use policies is essential. Overall, the findings emphasize the need for continued investment in ICT resources and professional development to enhance teaching and learning outcomes.

RECOMMENDATIONS

To optimize the advantages of ICT integration in English language education, teachers should engage in ongoing training in digital tools, content development, and effective technology-driven pedagogy. Educational institutions must furnish sufficient resources and technical assistance to facilitate smooth implementation, while policies advocating for responsible and ethical ICT usage among students should be strengthened. Moreover, interactive and adaptive learning technologies should be integrated to remediate deficiencies in writing skills, especially in the composition of persuasive essays. Future research may investigate the long-term effects of ICT on literacy proficiency and evaluate the efficacy of various digital learning methodologies across different educational environments.

4. OUTPUT OF THE STUDY

This chapter proposes interactive learning activities for learners at Basak Elementary School in Mandaue District, Mandaue City Cebu, for the school year 2024-2025.

RATIONALE

The swift progression of information and communication technology (ICT) has revolutionized conventional teaching methods, requiring the incorporation of digital tools into the educational process. This study assessed the degree of ICT integration in English instruction for Grade VI students at Basak Elementary School, North District, Mandaue City, during the 2024-2025 academic year. The findings emphasized technology's role in improving language proficiency through interactive and engaging learning experiences. As digital literacy becomes increasingly vital, utilizing interactive learning activities guarantees that students acquire the requisite skills to navigate contemporary educational environments adeptly.

Interactive learning activities aim to enhance student engagement, collaboration, and critical thinking—crucial skills for language acquisition. Through the integration of ICT-based tools, learners can engage with multimodal content, including videos, digital games, and simulations, that enhance English language skills in a dynamic and immersive way. These activities accommodate various learning styles, enabling students to comprehend intricate concepts more efficiently. Furthermore, interactive learning promotes self-directed education, allowing students to assume responsibility for their academic advancement while enhancing their understanding, communication, and problem-solving skills.

The study's findings provide a basis for developing effective interactive learning materials designed for Grade VI students. By addressing deficiencies in ICT integration and linguistic proficiency, these activities can improve classroom instruction and facilitate differentiated learning strategies. Teachers can utilize these tools to establish adaptive and inclusive learning environments, guaranteeing that students of diverse proficiency levels receive

personalized and significant learning experiences. Incorporating interactive learning activities in English instruction provides students with essential skills for academic success and adaptation to a technology-driven environment.

OBJECTIVES

This interactive learning activities will hopefully:

1. Improve Grade VI learners' proficiency in reading, writing, speaking, and listening through interactive and ICT-integrated learning activities.
2. Foster student participation and motivation by utilizing multimedia resources, gamified exercises, and collaborative digital platforms in English instruction.
3. Equip students with essential 21st-century skills by integrating ICT tools that enhance problem-solving, creativity, and independent learning in the English language.

SCHEME OF IMPLEMENTATION

The interactive learning activities will be executed systematically, incorporating ICT tools into the English curriculum for Grade VI students at Basak Elementary School. Teachers will receive training on using digital platforms, multimedia resources, and gamified activities to enhance instructional engagement. The activities will be integrated into daily lessons, utilizing interactive storytelling, virtual discussions, and real-time assessments to evaluate student progress. A pilot implementation will be executed to evaluate the activities' efficacy, followed by modifications informed by feedback from teachers and students. Periodic assessments will guarantee ongoing enhancement and alignment with educational objectives, ultimately improving students' English language proficiency and digital literacy skills.

| SCHEME OF IMPLEMENTATION | | | | | | | | | |
|--|---|---|--|------------|-------------------------------|------------------|---|------------------------|---------|
| Areas of Concern | Objectives | Strategies | Persons Involved | Budget | Source of Budget | Time Frame | Expected Outcome | Actual Accomplishments | Remarks |
| Teacher Training on ICT Integration | Equip teachers with skills to use ICT in English instruction effectively. | Conduct workshops and hands-on training on interactive learning tools. | School administrator, ICT trainers, English teachers | Php 10,000 | MOOE, school funds | June - July 2025 | Teachers are proficient in integrating ICT into lesson plans. | | |
| Development of Interactive Learning Activities | Create engaging, technology-enhanced English learning materials. | Utilize digital platforms, gamification, and multimedia-based instruction. | English teachers, instructional designers | Php 15,000 | School funds, PTA support | Aug - Sept 2025 | Ready-to-use interactive learning activities. | | |
| Implementation in Classrooms | Enhance student engagement and language competence. | Integrate activities into daily lessons, assess effectiveness through feedback. | Teachers, students | Php 5,000 | School funds, DepEd support | Oct-Dec 2025 | Improved student participation and language proficiency | | |
| Monitoring and Evaluation | Assess the effectiveness of interactive learning activities. | Conduct observations, student assessments, and feedback surveys. | School administrators, teachers | Php 5,000 | Research grants, school funds | Jan-Feb 2026 | Data-driven improvements for better ICT integration. | | |
| Final Reporting and Adjustment | Improve and sustain the implementation of ICT-integrated learning. | Analyze results, refine materials, and propose recommendations. | School heads, researcher, teachers | Php 5,000 | School and external sponsors | Mar-Apr 1 2026 | Sustainable ICT integration in English instruction. | | |

BACKGROUND AND RATIONALE

Incorporating Information and Communication Technology (ICT) in education has revolutionized conventional teaching and learning approaches, offering dynamic and interactive methods to improve student engagement and

understanding. ICT-based interactive learning activities in English education provide novel methods for enhancing literacy skills, encouraging collaboration, and advancing critical thinking. Given the rising demand for 21st-century skills, it is crucial to investigate how digital tools and resources can enhance language acquisition and assist diverse learners in their educational pursuits. This study aims to develop interactive learning activities incorporating ICT to improve English proficiency among Basak Elementary School, North District, Mandaue City Grade VI students.

Although ICT resources are accessible in certain schools, numerous teachers and students encounter difficulties effectively employing technology for language acquisition. Confident educators lack adequate training to effectively incorporate digital tools into their instruction, while students may experience disengagement due to antiquated or tedious teaching methods. The execution of interactive learning activities seeks to close this gap by offering engaging, student-centered educational experiences that accommodate various learning styles. This initiative aims to improve students' motivation and proficiency in English by integrating multimedia content, gamification, and collaborative platforms.

This study addresses the existing limitations in ICT integration and aligns with national educational policies that promote technology-enhanced learning. The results will provide a foundation for creating organized and efficient ICT-based teaching strategies that can be duplicated in analogous educational environments. This research enhances English literacy by providing teachers with practical methods for incorporating technology and promoting interactive learning environments, thereby better-preparing learners for a digital and globalized world.

DEVELOPMENT NEEDS

Creating interactive learning activities requires attention to critical aspects, including teacher training, ICT infrastructure, and curriculum alignment, to guarantee successful implementation. Teachers necessitate professional development initiatives to augment their digital literacy and pedagogical techniques, facilitating the seamless integration of technology into English instruction. Moreover, educational institutions require sufficient ICT resources like computers, projectors, and reliable internet connectivity to facilitate interactive learning. Curriculum alignment is crucial to guarantee that activities support learning objectives while captivating students through multimedia, gamification, and collaborative tools. Addressing these developmental requirements will improve English proficiency among Grade VI students and cultivate a more dynamic and student-centered educational atmosphere.

TERMINAL OBJECTIVE

The primary aim of this study is to improve the English proficiency of Grade VI students at Basak Elementary School, North District, Mandaue City, by incorporating ICT-based interactive learning activities. Upon completing the implementation, students are expected to exhibit enhanced reading, writing, listening, and speaking abilities, heightened engagement in learning activities, and improved digital literacy. Moreover, teachers must possess the requisite skills and strategies to integrate technology into their teaching, promoting a more interactive and student-centered educational atmosphere. Specific

Program Content/Process, PD Activities per Target Groups

The program focuses on the integration of ICT-based interactive learning activities to enhance English proficiency among Grade VI learners at Basak Elementary School. The process includes:

1. Assessing teachers' digital competency, students' English proficiency, and the availability of ICT resources.
2. Aligning interactive learning activities with the English curriculum using technology-enhanced instructional strategies.
3. Providing professional development sessions to enhance teachers' skills in using digital tools and interactive learning platforms.
4. Deploying developed interactive materials, gamified lessons, and multimedia resources in classrooms.
5. Conducting formative and summative assessments to measure students' progress and the effectiveness of the activities.
6. Establishing best practices, refining strategies, and ensuring long-term integration of ICT in English instruction.

| Target Group | PD Activity | Objective | Methodology |
|-----------------------|--|---|--|
| School Administrators | Seminar on ICT Integration and Support Strategies | Strengthen administrative support for ICT use | Workshops, case studies, and best practices sharing |
| English Teachers | Training on Interactive Learning and Digital Tools | Enhance teachers' digital literacy and teaching strategies | Hands-on workshops, peer mentoring, online modules |
| Learners | Digital Literacy and ICT-Based Learning Sessions | Develop students' proficiency in using digital tools for learning | Interactive workshops, gamified activities, project-based learning |
| Parents/Guardian | Orientation on ICT in Education and Home Support | Increase parental involvement in students' ICT-enhanced learning | Info sessions, online webinars, Q&A forums |

Expected Final Outcome/Success Indicator in terms of demonstrated change in KSAs:

- Demonstrated skills in selecting, developing, organizing, and using appropriate teaching and learning resources indicating ICT integration for instructions
- Unified list of competencies with specific technology integration used and technology tools available
- More confident teachers integrating technology into their classes and instructions
- Demonstrated skills in selecting, developing, organizing, and using appropriate teaching and learning resources, indicating ICT integration in the classroom.

| Program Title | General Content | Expected Outcome | Target Time Frame |
|--|--|---|-------------------|
| Enhancing English Proficiency through ICT-Based Interactive Learning | Integration of interactive digital tools and ICT-based strategies in English instruction for Grade VI learners | Improved English language competence, digital literacy, and student engagement in learning activities | SY 2024-2025 |

Sample Interactive Learning Activities for the Program

1. Digital Storytelling with Book Creator

Digital storytelling utilizing Book Creator provides an engaging and immersive method for improving students' writing and speaking abilities. By incorporating technology into the creative process, students can compose their own short stories, integrating text, illustrations, and audio recordings. This interactive activity enhances creativity while reinforcing sentence structure, vocabulary, and pronunciation. As students recount their narratives, they enhance fluency and confidence in verbal communication, honing their capacity to express thoughts clearly. Furthermore, the multimodal aspect of digital storytelling enhances understanding and retention, rendering learning more significant and pleasurable. This activity integrates literacy and technology, converting conventional storytelling into an engaging, student-focused experience that fosters linguistic and digital literacy skills—crucial competencies in contemporary education.

Steps:

1. Explain the concept of digital storytelling and its purpose in improving writing, creativity, and speaking skills. Showcase sample digital stories

to inspire students. Discuss the essential elements of a compelling story: characters, setting, plot, and resolution.

2. Guide students in brainstorming story ideas based on a theme or personal experiences. Use a simple storyboard template to help students outline their narrative with illustrations and text.
3. Students draft their stories directly in Book Creator, adding text, images, and drawings to enhance their narratives. Encourage them to focus on proper sentence structure, vocabulary, and grammar while keeping their stories engaging.
4. Students record their narration using Book Creator's audio feature, practicing pronunciation, intonation, and fluency. Provide feedback on pronunciation and expression, encouraging clarity and confidence.
5. Guide students in reviewing and revising their stories for coherence and accuracy. Encourage peer feedback to refine the content and improve storytelling elements.
6. Students present their digital stories to the class or share them via an online platform. Facilitate a discussion where students reflect on their

experiences, what they learned, and how they can improve.

7. Assess students' work based on creativity, writing quality, pronunciation, and storytelling engagement. Provide constructive feedback to help them enhance their digital storytelling skills further.

2. Gamified Vocabulary Building with Kahoot!

Kahoot! enhances vocabulary and spelling instruction through gamification, creating an engaging and interactive experience that improves student involvement and educational results. Through the integration of game-based learning, educators create tailored vocabulary assessments utilizing Kahoot!, enabling students to engage in live competitions. This dynamic method cultivates an engaging and competitive environment, prompting students to actively retrieve and utilize recently acquired vocabulary. Following each quiz, educators conduct discussions to elucidate word meanings, rectify misconceptions, and furnish contextual usage examples, thereby enhancing comprehension. The gamified format increases motivation, rendering vocabulary acquisition less monotonous and more gratifying. Consequently, students enhance their vocabulary retention, increase their spelling precision, and cultivate a more favorable disposition toward language acquisition. Integrating interactive technology and peer collaboration guarantees that vocabulary development is a collective and significant educational experience.

Steps:

1. Explain the importance of vocabulary development in language learning. Introduce Kahoot! as an interactive tool for reinforcing word meanings, spelling, and usage. Provide an overview of the activity, emphasizing competition, engagement, and learning through play.
2. Select or create a Kahoot! quiz with vocabulary words relevant to the lesson.
3. Include multiple-choice questions, word-meaning matching, sentence completion, and spelling challenges. Ensure that questions are visually engaging with images or context-based scenarios.
4. Instruct students to join the Kahoot! game using their devices. Begin the game, allowing students to answer questions in real time. Keep track of the leaderboard to boost motivation and excitement.
5. After each question, pause to explain the correct answer, meaning, and usage. Encourage students to ask questions and share mnemonic devices to

remember tricky words. Provide real-life examples of how the words are used in sentences.

6. Facilitate a brief discussion on students' learnings and challenges from the game. Assign a follow-up activity where students use newly learned words in sentences, short paragraphs, or dialogues. Encourage students to play Kahoot! vocabulary quizzes at home for additional practice.
7. Evaluate students based on participation, accuracy, and improvement in vocabulary recall. Provide individual or group feedback on areas for improvement. Encourage students to track their progress and revisit difficult words for mastery.

3. Collaborative Writing in Google Docs

Collaborative writing in Google Docs promotes teamwork and improves students' writing and editing abilities through real-time collaboration. In this activity, students collaborate in small groups to co-author essays, short stories, or reports, utilizing the shared editing capabilities of Google Docs. The platform enables simultaneous contribution, revision, and refinement of work while facilitating peer feedback via the comment feature. This interactive process enhances their grammar, coherence, and organization while imparting the significance of constructive criticism and collaborative synergy. Collaborative efforts among students foster a profound comprehension of the writing process, improving their capacity to produce well-organized compositions. This activity's collaborative nature reflects actual professional writing settings, equipping students for future academic and occupational responsibilities that necessitate teamwork and digital proficiency.

Steps:

1. Explain the importance of collaborative writing in developing teamwork, creativity, and editing skills. Introduce Google Docs as a real-time writing and editing tool. Outline the activity's goal: to co-write an essay, short story, or report while providing peer feedback.
2. Divide students into small groups (3-5 members). Assign or allow them to choose a topic based on the lesson. Provide a writing prompt or structure (e.g., introduction, body, conclusion).
3. One student in each group creates a Google Doc and shares it with their group members and the teacher. Set editing permissions to allow real-time collaboration. Encourage students to use the "Comments" and "Suggesting" features for peer feedback.
4. Students brainstorm and outline their ideas together. Each member contributes to different

sections of the document. Emphasize proper grammar, coherence, and structure while writing.

5. Groups exchange documents with another group for feedback. Students use the comment feature to suggest improvements, grammar corrections, and content refinements. Encourage constructive feedback and revision before finalizing.
6. Students make necessary revisions based on feedback. Each group presents or submits their final document. The teacher provides final feedback and assessment based on content, teamwork, and writing quality.

Discuss what students learned from the collaborative process. Encourage them to apply these skills in individual and group writing tasks. Reinforce the importance of digital literacy and teamwork in modern communication.

4. Phonics and Pronunciation Practice with Duolingo

Duolingo's Phonics and Pronunciation Practice offers students an interactive, self-directed platform to improve their phonics proficiency and pronunciation precision. Students utilize Duolingo to participate in interactive listening and speaking exercises, receiving AI-generated feedback on their pronunciation. The application's gamified methodology sustains learner motivation while reinforcing accurate phonemic patterns via repetition and immediate corrections. This systematic practice enhances listening comprehension, aids in distinguishing nuanced sound variations in English, and improves the clarity and confidence of word articulation. Consequently, students cultivate enhanced speaking abilities, enabling them to communicate more proficiently in academic and practical contexts.

Steps:

1. Explain the importance of phonics and pronunciation in learning English. Introduce Duolingo as a tool for interactive language learning with AI-driven feedback. Set the objective: to improve phonemic awareness, listening comprehension, and pronunciation accuracy.
2. Ensure all students have access to Duolingo (via mobile app or web). Guide students in creating an account and setting their learning level. Assign specific phonics-based lessons (e.g., vowel sounds, consonant blends, syllable stress).
3. Students complete listening exercises to recognize sounds and syllables. They use speech recognition features to practice pronunciation and receive

instant feedback. Encourage them to repeat words and phrases until they achieve high accuracy.

4. After completing individual lessons, students pair up to practice pronunciation together. They take turns pronouncing words or phrases and provide peer feedback. Groups can engage in mini pronunciation challenges to enhance learning.
5. Students track their progress on Duolingo's leaderboard for motivation. Assign daily pronunciation challenges where students must master specific sounds. Provide incentives (e.g., badges, extra points) for consistent engagement.
6. The teacher reviews students' progress and pronunciation accuracy using Duolingo's analytics. Conduct live pronunciation drills to reinforce correct phonemes and syllable stress. Offer additional resources and personalized feedback for students who struggle.
7. Students reflect on their improvement in phonics and pronunciation. Encourage them to integrate new sounds into daily conversations and reading exercises. Reinforce the importance of continuous practice using digital tools and real-life speaking situations.

5. Virtual Role-Playing and Dialogue Simulation

Virtual Role-Playing and Dialogue Simulation is an engaging activity that enhances students' conversational English via interactive role-play exercises. Students utilize digital platforms such as Voki or video conferencing to participate in simulated real-life scenarios, including ordering food at a restaurant, requesting directions, or conducting job interviews. By adopting various roles, they engage in essential language structures, pronunciation, and cultural subtleties within genuine conversational contexts. This experiential method improves speaking fluency and listening comprehension and elevates students' confidence in employing English in practical, everyday contexts. Consequently, learners enhance their communication skills, rendering them better equipped for real-world interactions.

Steps:

1. Explain the importance of conversational English and real-life communication skills. Introduce role-playing as an effective strategy to practice dialogues in authentic scenarios. Set the objective: to enhance speaking fluency, confidence, and comprehension in real-world interactions.
2. Choose engaging and practical scenarios such as: Ordering food at a restaurant, Asking for directions, Job interviews, Making a doctor's

appointment, Shopping for groceries and assign students specific roles (e.g., customer and waiter, traveler and local).

3. Students brainstorm possible dialogues based on their assigned roles. Guide them in writing structured yet flexible dialogues. Encourage the use of common expressions, polite phrases, and correct grammar.
4. Use platforms like Voki, Zoom, Google Meet, or Flipgrid for real-time or recorded role-play. If using Voki, students create animated avatars to deliver dialogues with proper pronunciation and intonation. Ensure students are comfortable with the technical setup before starting.
5. Students perform their dialogues in pairs or groups via virtual sessions. Encourage natural conversation flow rather than strict script memorization. Provide real-time feedback on pronunciation, fluency, and delivery.
6. After each role-play session, students provide constructive feedback to peers. The teacher highlights areas for improvement, such as tone, clarity, and word choice. Encourage self-assessment by asking students how they felt during the activity.
7. Discuss how the activity improved their speaking confidence and real-life communication. Encourage students to apply learned skills in everyday conversations and future situations. Assign follow-up activities, such as creating video recordings of role-play scenarios for practice and assessment.

BIBLIOGRAPHY

- [1] Aide Memoire May 2020- Accelerating the DepEd Computerization Program considering Covid-19. Retrieved from <http://www.deped.gov.ph/> last May 2020
- [2] Alhumaid, K. (2020). Four ways technology has negatively changed education. *Journal of Education and Social Research*, 9(4), 10–20.
- [3] Andriani, R., Andriany, D. A., & Lailia, S. K. (2021). Meningkatkan kualitas guru dalam menguasai TIK melalui program Microsoft Partner in Learning (Pil) dan aplikasi Moodle. *Current Research in Education Conference Series Journal*, 1(1), 1–6.
- [4] Aprilia, D. P. (2020). *Efektivitas penggunaan media belajar dengan sistem daring di tengah Covid-19*. Malang: Fakultas Ilmu Pendidikan Universitas Negeri Malang.
- [5] Blacker M. (2019). Using social media to engage and develop the online learner in self-determined learning. *Research in Learning Technology*, 2, 21–24.
- [6] Dansieh, S. A. (2021). SMS texting and its potential impacts on students' written communication skills. *International Journal of English Linguistics*, 1(2), 222–229.
- [7] Delello, J. A., McWhorter, R. R., & Camp, K. (2020). Using social media as a tool for learning: A multi-disciplinary study. *International Journal of E-Learning*, 14(2), 163–180.
- [8] DepEd OUA Memo 14-0120 0588- Detailed Assignment of Teachers to form the ICTS EdTech Unit. Retrieved from <http://www.deped.gov.ph/> last May 2020.
- [9] DepEd. (2012). The K-12 basic education curriculum. Retrieved from <https://www.deped.gov.ph/k-to-12>
- [10] DepEd Memo 78 s. 2010- Guidelines on the Implementation on the DepEd Computerization Program. Retrieved from <http://www.deped.gov.ph/> last January 2010
- [11] Díaz, M., & Cox, R. (2021). Teacher preparedness and digital competency: The role of ICT in modern education. *Journal of Educational Technology Research*, 18(3), 45–62. <https://doi.org>
- [12] Dörnyei, Z. (2019). *The psychology of the language learner: Individual differences in second language acquisition*. New York, NY.
- [13] Educational Technology Research and Development, 65(3), 555-575. <https://doi.org/10.1007/s11423-016-9481-2>
- [14] Garrison, D. R. (2019). Online community of inquiry review: Social, cognitive, and teaching presence issues. *Online Learning*, 11(1), 61–72.
- [15] Ghavifekr, S., & Rosdy, W. A. W. (2020). Teaching and learning with technology: Effectiveness of ICT integration in schools. *International Journal of Research in Education and Science*, 1, 175–191.
- [16] Hassan, A., Lee, J., & Patel, S. (2022). Balancing technology use in education: Addressing student misuse and enhancing digital literacy. *International Journal of Learning and Digital Innovation*, 25(2), 78-95. <https://doi.org/>

- [17] Hawkins, A., Graham, C. R., & Barbour, M. K. (2022). Everybody is their own island: Teacher disconnection in a virtual school. *International Review of Research in Open and Distance Learning*, 13(2), 124–144.
- [18] Johnson, T., & Wang, C. (2020). ICT integration in language learning: A systematic review of its effectiveness. *Educational Technology & Society*, 23(4), 101-117. <https://doi.org/>
- [19] Kauffman, H. (2020). A review of predictive factors of student success in and satisfaction with online learning. *Research in Learning Technology*, 23, 1–13.
- [20] Kompas, H. (2021). Kemendikbud sebut 60 persen guru masih terbatas menguasai teknologi informasi.
- [21] Kumar, P., & Fernandez, R. (2021). The impact of mobile learning tools on English language acquisition among students. *International Journal of Language and Education*, 19(2), 56-72. <https://doi.org/>
- [22] Kumar, S., & Vigil, K. (2021). The net generation as pre-service teachers: Transferring familiarity with new technologies to educational environments. *Journal of Digital Learning in Teacher Education*, 27(4), 144–153.
- [23] Lai, P. C. (2023). The literature review of technology adoption models and theories for the novelty technology. *Journal of Information Systems and Technology Management*, 14(1), 21–38.
- [24] Liu, Y. (2020). Social media tools as a learning resource. *Journal of Educational Technology Development and Exchange*, 3(1), 101–114.
- [25] Macapaz, M. K. S. (2024). Exploring teachers' attitudes and burnout in inclusive classrooms. *International Journal of Intelligent Systems and Applications in Engineering*, 12(4), 2363–2372. <https://ijisae.org/index.php/IJISAE/article/view/6635>
- [26] Martinez, L., & Rivera, S. (2023). Overcoming digital challenges in education: Teachers' perspectives on ICT training. *Educational Review*, 31(1), 89-103. <https://doi.org/>
- [27] Rubin, B., Fernandes, R., & Avgerinou, M. D. (2020). The effects of technology on the community of inquiry and satisfaction with online courses. *Internet and Higher Education*, 17, 48–57.
- [28] Santosa. (2019). Motivasi dalam pembelajaran bahasa Inggris: Studi kasus pada mahasiswa jurusan Pendidikan Bahasa Inggris IAIN Surakarta. *Jurnal Ilmiah Didaktika*, 18(1), 87–201.
- [29] Smith, B., & Taylor, D. (2022). Writing proficiency in digital learning environments: The effectiveness of ICT-based instruction. *Journal of Literacy Research*, 20(3), 150-167. <https://doi.org/>
- [30] Spritzer, M. (2019). Information technology in education: Risks and side effects. *Trends in Neuroscience and Education*, 3(3–4), 81–85.
- [31] Sumintono, B. (2022). Penggunaan teknologi informasi dan komunikasi dalam pengajaran: Survei pada guru-guru Sains SMP di Indonesia. *Kemdikbud*.
- [32] Viorica-Torii, C., & Carmen, A. (2023). The impact of educational technology on the learning styles of students. *Procedia - Social and Behavioral Sciences*, 83, 851–855.
- [33] Wentworth, D. K., & Middleton, J. H. (2019). Technology use and academic performance. *Computers & Education*, 78, 306–311.