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## Use of Technology and Instructional Strategies in English Language Teaching among the Faculty of Public Higher Education Institutions in Sulu

*Mujahida Jupakkal*

*Graduate School, Sulu State College, Capitol Site, Jolo, Sulu, Philippines*

### ABSTRACT

The purpose of this study was to examine how faculty members at public higher education institutions (HEIs) in Sulu utilized different instructional methods and educational technologies during the 2023–2024 academic year. This study also analyzed the perceptions of the faculty members about the use of technology in English language teachings. Quota sampling was carried out to sample the faculty members from four public HEIs in Sulu, Philippines. Quantitative analysis was carried out to analyze the perceptions on technology use and implementation of instructional strategies in teaching the English language. Findings indicated that the faculty members in Sulu, Philippines were somehow challenged in the integration of technology in their classrooms—most especially male faculty members. It was also evident that the faculty members were highly positive about the usefulness, effort, support, interest, benefits, and acceptance of technology-based English language teaching. They sometimes implement strategies that reflect mechanical/traditional approaches (e.g., outlining, visuals, summarizing) while also considering unconventional/communicative instructional strategies (e.g., cognitive linkages, questioning, experiments, role-playing). The faculty members believed that there could be an opportunity of integrating technology in mechanical/traditional and communicative/unconventional English language teaching. This could be an opportunity to further enhance educational practices by more fully integrating technology into both traditional and innovative teaching methods. Professional development and support mechanisms may be required to assist faculty members, particularly those who are less comfortable with technology, in efficiently incorporating these technologies into their teaching. By addressing these difficulties and leveraging on staff favorable attitudes, institutions can create a more interactive and efficient learning environment that reflects the needs of English language learners in the digital age.

**Keywords:** Instructional strategies; Educational technology; Enhancing language; Learning skills; Practicality; Effectiveness

**\*CORRESPONDING AUTHOR:**

Mujahida Jupakkal, Graduate School, Sulu State College, Capitol Site, Jolo, Sulu, Philippines; Email: [Jupakkalmujahida@gmail.com](mailto:Jupakkalmujahida@gmail.com)

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## 1. Introduction

English language programmes at universities and colleges primarily aim to equip students with the necessary skills to effectively communicate in academic settings, professional environments, and international contexts. In their endeavor to enhance language education, faculty members are required to investigate novel and enhanced pedagogical approaches.

The ongoing transformation in the field of English language teaching in higher education is primarily driven by advancements in instructional technology and the increasing diversity of student bodies. To maintain a high standard of education for students of all backgrounds and in response to the ever-evolving educational landscape, instructors must modify their instructional approaches.

The efficacy of an educator can serve as a reliable indicator of their general zeal for teaching. For instance, Jeon (2022) recently has investigated the experiences of individuals who utilized mobile-assisted learning to study English. The findings indicate that these individuals encountered a wide range of positive experiences. Specifically, Jeon (2022) examined the impact of various factors, including the degree of interaction, accessibility of educational resources, mobility of learning instruments, adaptability and autonomy of the learning environment, and mobility of learning instruments, on self-efficacy in English learning. The implementation of these strategies during lessons could potentially serve as an indicator of the instructor's proficiency in pedagogy, given their influence on the outcome of effective teaching. Nevertheless, the implementation of dynamic and interactive learning platforms within language training has the capacity to enhance conventional pedagogical approaches.

Raygan and Moradkhani (2022) described technology integration as the deliberate and strategic assimilation of technology into an educational setting, with the overarching objective of enhancing the overall quality and effectiveness of that setting. It has been demonstrated that integrating computer technology into the classroom improves the learning

environment by enabling students to complete assignments without relying solely on pen and paper.

People acknowledge the profound impact that technology, including mobile phones, laptops, and computers, has on their daily existence. Gilakjani (2017) acknowledged the significant impact on the quality of life of individuals. The integration of technology into the classroom environment yields numerous advantages for students, such as heightened engagement with and retention of course material. Educators have the potential to enhance the caliber of instruction and knowledge that students receive through the implementation of modern technology.

Accessibility and convenience are two of the primary benefits associated with the use of electronic resources for language acquisition. When used appropriately, this technology provides numerous benefits for both students and instructors, according to studies. Studies suggested that the utilization of digital resources, including libraries, dictionaries, and thesauri, could substantially augment the process of acquiring vocabulary and the rate at which one learns (Alakrash et al., 2022; Anggraini et al., 2022; Hidayat et al., 2022; Suganda, 2022; Tumolo and Finardi, 2021). Similarly, the use of interactive digital whiteboards (Uduak and Kasumu, 2022), students carrying their own smartphones or other learning devices to class (Sheikhtaheri and Taheri Moghadam, 2022), and the implementation of the "flipped classroom" model (Divjak et al., 2022) are all examples of changes occurring in educational settings.

More specifically, the integration of technology has revolutionized language instruction through the introduction of innovative learning aids that have been advantageous for both instructors and learners (Dubé and Wen, 2022). Existing literature suggests that the integration of digital resources into classrooms has a beneficial effect on the English language proficiency of both students and instructors, as well as on instructors' ability to devise innovative lesson plans (Hidayat et al., 2022; Urip et al., 2022). For example, E-books enable language learners to gather new information which enables them to develop their vocabulary and reading comprehension (Ulker

et al., 2021). Similarly, the use of automatic speech recognition technology also develops students' vocabulary, especially in a flipped English class (Jiang et al., 2022).

Considering the benefits of integrating the use of technology in English language teaching, this study explored the perceptions of the faculty members of several public HEIs in Sulu, Philippines regarding the use of technology in their classrooms. This study also analyzed their implementation of different instructional strategies in teaching the English language. Such analysis provided in-depth exploration about technology acceptance and their instructional competence.

## 2. Research question

Considering the need for technology adaptation in English language teaching, this study was conducted to assess the perceptions of teachers on the use of technology in classrooms. The main purpose of this study was to analyze the perception of the faculty members of selected public HEIs in Sulu, Philippines about the use of technology in teaching the English language. This study also analyzed their implementation of mechanical and communicative strategies in teaching the subject. Below are the research questions sought to be answered in this study.

1. What were the demographic profiles of the faculty members?
2. What was the perception of the faculty on technology use in education?
3. What was the level of implementation of mechanical and communicative instructional strategies?
4. Did the perception of faculty members on technology use differ based on their demographic profile?
5. Did the implementation of mechanical and communicative instructional strategies differ based on the demographic profile of the faculty members?
6. Did the instructional strategies correlate to the use of technology in teaching the English

language?

## 3. Literature review

### 3.1 English language teaching

In higher education, a pressing concern is the preparation of competent graduates who possess advanced language skills, a requirement often demanded by employers (Tursunovich, 2022). Competitive graduates possess the ability to engage in fluent conversations in a foreign language, as well as effectively retrieve information and establish dialogues in different communication settings. To address this challenge, it is essential to prioritize the creation and development of educational resources that are specifically designed to enhance and cultivate the necessary communication competencies (Ghafar, 2022; Han, 2022; Poudel, 2022).

Considering the nature of language usage across different contexts, it is imperative to recognize English as a language with worldwide significance, that involves diverse linguistic, cultural, and multimodal practices. The prevailing perspective on English language learning and instruction, known as essentialism, is rooted in the ideology of native-speakerism. This ideology places native-speaker "standard English" as the ultimate objective, while considering learners' first languages (L1s) and their diverse multilingual and multimodal practices as linguistic shortcomings (Fang and Liu, 2020; Fange et al., 2022).

English, originally a native language, has evolved into a second language, a foreign language, and a global language. It has also diversified into various forms known as world Englishes (Sadeghpour and D'Angelo, 2022). However, the difficulties associated with learning and teaching English as a foreign language (EFL) continue to pose significant challenges for many students and teachers (Em, 2022). For example, Lato and Oliva (2021) noted that many students encounter difficulties in understanding the complicated rules of English grammar guidelines which cause errors in both written compositions and verbal communication.

### **3.2 Technology-based learning**

The adoption of technology in education has brought about a significant shift to the trajectory of instruction and learning (Fionasari et al., 2024). The use of technology-based learning (TBL) is widespread in various educational settings, commonly adapted in distance learning, e-learning, blended learning, and computer-assisted education (Başaran and Yalman, 2022; Jaafar et al., 2022; Romli et al., 2022). The use of the Internet across various domains and the proliferation of diverse technological devices such as computers, tablets, and mobile phones have facilitated the seamless integration of TBL into educational settings (Fernández-Batanero et al., 2024).

Technology facilitates expedited and comprehensive access to knowledge for students (Dow-Fleisner et al., 2022; Korkmaz et al., 2022), while teachers can utilize diverse digital learning tools to deliver topics in a more captivating and efficient way (Runge et al., 2023). Technology-integrated teaching and learning offers an adaptable strategy and improved accessibility to learning possibilities as an alternative to classroom instruction (Akram et al., 2021).

Studies have emphasized the need of using instructional methods that incorporate information and communication technology (ICT) to suit the educational objectives of learners. These techniques enhance critical thinking and maintain student motivation, which is considered an important factor in predicting students' educational progress (Xu et al., 2020). For example, Liu et al. (2022a) discovered that incorporating technology into learning enhances students' cognitive processing and academic accomplishments. Furthermore, the integration of ICT in teaching and learning practices facilitates connectivity between learners, instructors, and peers through different social media platforms. This connectivity aids students in resolving academic difficulties and encourages their active participation in learning activities (Liu Z. et al., 2022b).

In English language teaching, technology also had been an essential part of instruction and teaching. Research has demonstrated that the use of tech-

nology is successful in promoting students' analytical thinking abilities (Merta et al., 2023). Technology causes practical problems that can be utilized to foster students' analytical thinking, while also providing a platform for students to express and articulate their ideas without restriction (Fatimah et al., 2019; Vasileiadou and Makrina, 2017).

### **3.3 Instructional strategies for English language teaching**

In the teaching process, teachers must consider strategies that optimize student accomplishment with their teaching competence, particularly by facilitating substantial improvements (Susanto et al., 2022). Isnaini and Hikmat (2022) described learning strategies as planned methods used to provide educational content within a specific learning setting based on the type, extent, and order of activities designed to facilitate a meaningful learning experience for students.

Several instructional strategies were carried out to deliver quality English language teaching. For example, Seraj et al., (2021) found out that mobile phones are essential in the context of English language teaching by facilitating accessible, widespread, and efficient learning environments. However, there were certain limitations associated with their use, including concerns related to charging, the relatively small screen size, potential distractions, and potential challenges related to teacher confidence. Similarly, Shahrol et al., (2020) noted that developing proper educational technology strategies improves the effectiveness of teaching and learning the English language.

Foreign language teachers face significant difficulties in integrating various technology to meet the learning needs of the new generation of students (Klimova et al., 2023). Language teachers should also develop critical thinking, creativity, communication, and collaboration, as well as facilitate acquiring knowledge across various learning environments (Shadiev and Wang, 2022). Because of this, current education for foreign languages is, or ought to be, technology-based, given that technology has become



an essential component of modern life. In addition, the environment in which language learning takes place in the modern day goes beyond the conventional classroom setting.

## 4. Methods

### 4.1 Research design

This study analyzed the implementation of technology-based instructional strategies in English language teaching in public HEIs in Sulu, Philippines. Specifically, this study employed descriptive-comparative analysis to determine the extent of technology-based instructional strategies in Sulu, Philippines.

Descriptive analysis is a statistical method that focuses on summarizing and interpreting data to identify patterns, trends, and relationships within a dataset (Chavez, 2021; Chavez and Madraza, 2019). The primary objective of descriptive analysis is to offer an overview to help understand the fundamental characteristics of the data (Chavez, 2020). In this study, descriptive analysis (i.e., mean and standard deviation) was used to determine the level of implementation of technology-based instructional strategies in Sulu, Philippines.

Comparative analysis is a method used to evaluate and compare two or more datasets, variables, or groups to identify similarities, differences, and patterns. This analytical approach involves systematically examining the characteristics of each subject under comparison, utilizing statistical techniques and metrics to quantify their differences. This study compared the technology use among the public HEIs in Sulu, Philippines based on the demographic profiles of the faculty involving their sex, age, civil status, educational attainment, and length of service.

### 4.2 Participants

The participants of this study were the faculty members of several public HEIs in Sulu, Philippines. Quota sampling was used to sample the participants from different public HEIs in the area. Quota sampling is a non-probability sampling technique where

the sample is constructed to reflect certain characteristics of the population (Yang and Banamah, 2014). In this study within each subgroup, participants are selected until the predetermined number or quota for that subgroup is met. **Table 1** below presents the distribution of the participant quota set in each public HEI in the area.

**Table 1.** Quota set in each public HEI in Sulu.

Higher Education Institutions (HEIs)	Total
Mindanao State University-Sulu	75
Sulu State College	75
Hadji Butu School of Arts and Trades	35
Lapak Agricultural College	15
<b>Total</b>	<b>200</b>

### 4.3 Research instrument

This study developed a research questionnaire that elicited the responses from the participants. The questionnaire was designed to gather data for the demographic profiles of the participants, their perceptions on the technology-based instructional strategies in Sulu, Philippines, and their perceptions on the implementation of mechanical and communicative instructional strategies.

Part I gathered data regarding the demographic profiles of the participants. This study identified several profiles in terms of their sex, age, civil status, educational attainment, and length of service.

Part II of the questionnaire elicited data from the participants on their perceptions about the use of technology in HEIs in Sulu, Philippines. This study had several metrics i.e., Difficulty, Usefulness, Efforts, Support, Interest, Benefits, and Acceptance of technology use.

Part II of the questionnaire identified the level of implementation of mechanical and communicative instructional strategies in their classrooms.

The Part II and Part III of the questionnaire were a 5-point Likert scale.

A validity test was conducted to ensure the measuring instrument accurately reflects what it is intended to measure. It indicates how closely a set of items are related as a group, and is commonly used

in research to assess the reliability of a questionnaire or test. Reliability analysis revealed a Cronbach Alpha value of 0.7, demonstrating an acceptable level of consistency for the instrument.

#### 4.4 Data gathering procedure

Initially, the researcher obtained a letter of authorization from the Dean’s Office of Graduate Studies to conduct the data collection. Upon receiving the necessary approval, the researcher proceeded to initiate contact with the President of the public HEIs in Sulu, Philippines to formally inform them of the data gathering taking place within their institutions. The researchers also requested for a letter of agreement. After receiving the President’s consent, the researchers reached out to the various departments within the institution about their intent to conduct the study and collect data.

Following the acquisition of permissions from the deans, the researcher personally distributed 200 questionnaires to the faculty members. Throughout this process, the researcher ensured that all participants were aware of the confidentiality measures in place to protect their identities and responses. The researcher emphasized that the participation was voluntary, and that all data collected would be anonymized and used solely for the study’s purposes.

#### 4.5 Data analysis

This research used the Statistical Package for the Social Sciences (SPSS) version 29.0.2.0 to conduct statistical analysis on the gathered survey data.

In analyzing the demographic profiles of the participants, this study used a frequency table. A frequency table is a method of organizing and summarizing data by counting the number of times each value or category occurs within a dataset. In the frequency table, the participants were grouped based on their demographic profile.

This study carried out a descriptive analysis to determine the perceptions of the participants about the use of technology and their level of implementation of mechanical and communicative instructional strategies.

This involved using weighted mean (denoted as  $\bar{x}_w$ ) to represent their perceptions into descriptors. A weighted mean, also known as a weighted average, is a statistical measure that calculates the average of a set of numbers, where each number is assigned a weight reflecting its relative importance or significance. **Table 2** below presents the descriptors used in this study to describe the implementation of technology use and instructional strategies.

**Table 2.** Descriptors for mean scores.

Rating Scale	Scale Value	Description	Interpretation
5	4.50–5.00	All of the time	Very High
4	3.50–4.49	Often	High
3	2.50–3.49	Some of the time	Moderate
2	1.50–2.49	Rarely	Low
1	1.00–1.49	None of the time	Very Low

Inferential analysis was conducted to analyze the differences between the demographic groups. Specifically, student’s T-test and analysis of variance (ANOVA) were employed. An independent samples T-test was conducted to assess differences between two subsets of demographic variables (e.g., gender, age). For groups with more than two variables, a one-way analysis of variance (ANOVA) was employed. Upon identifying statistical differences in ANOVA, Tukey’s honest significant difference (HSD) test, a post-hoc examination, was employed to identify specific variable differences. These statistical tests were significant at  $\alpha < 0.05$ , rejecting the null hypothesis.

Pearson product-moment correlation coefficient  $r$  (Pearson’s  $r$ ) was used to analyze the correlation between the implementation of instructional strategies and the perceptions of the faculty members about the use of technology in the classroom.

## 5. Results

### 5.1 Demographic Profiles of Faculty Members

This study identified the demographic profile of the selected faculty members among the public HEIs in Sulu, Philippines. Findings in **Table 3** below pres-

ent the summary of the demographic analyzed based on the participants' age, sex, marital status, length of service, and educational attainment.

In terms of age, ages  $\leq 25$  years old (26.0%), 26–35 years old (26.0%), and 36–45 years old (26.5%) had nearly equal number of participants. In contrast, 21.5% of the faculty were aged  $\geq 46$  years old.

Based on their sex, the majority (66.0%) were female while only 34.0% were male faculty.

**Table 3.** Demographic profiles of the teachers.

Demographics	Frequency (N = 120)	Percent
<b>Age</b>		
25 years old & below	52	26.0%
26–35 years old	52	26.0%
36–45 years old	53	26.5%
46 years old & above	43	21.5%
<b>Sex</b>		
Male	68	34.0%
Female	132	66.0%
<b>Marital Status</b>		
Single	71	35.5%
Married	119	59.5%
Separated	7	3.5%
Widowed	3	1.5%
<b>Length of Service</b>		
5 years & below	83	41.5%
6–10 years	48	24.0%
11–15 years	17	8.5%
16–20 years	23	11.5%
21 years & above	29	14.5%
<b>Educational Attainment</b>		
Bachelor's degree	67	33.5%
Master's degree	108	54.0%
Doctorate	25	12.5%

Most faculty members were married (59.5%) while some of them were single (35.5%). Only 3.5% were separated and 1.5% were widowed.

On the length of service, the majority of the faculty were relatively new in teaching with  $\leq 5$  years of experience (41.5%). Some had 6–10 years of experience (24.0%) and followed by  $\geq 21$  years in service (14.5%). Only 11.5% had 16–20 years of teaching experience and 8.5% had 11–15 years of experience.

On their educational attainment, most of them had a master's degree (54.0%). Some had a bachelor's degree (33.5%) while only 12.5% had a doctorate.

## 5.2 Faculty Perception of Technology Use in Education

This study analyzed the use of technology among the public HEIs in Sulu, Philippines based on the perceived difficulty. In **Table 4**, the findings of this study determined that the faculty believed that technology use in their institutions was moderately challenging ( $\bar{x} = 3.302$ ; S.D. = 0.8849). Specifically, this study determined that for the faculty members, “school's budget is inadequate for buying necessary materials” ( $\bar{x} = 3.49$ ; S.D. = 1.0609), “it is difficult to learn how to use a new technology in the classroom” ( $\bar{x} = 3.22$ ; S.D. = 1.2648), and “it is not easy to use educational technology” ( $\bar{x} = 3.10$ ; S.D. = 1.1862). Notably, the faculty members “cannot easily get necessary instructional facilities whenever needed” ( $\bar{x} = 3.62$ ; S.D. = 0.9857).

This study assessed the perceptions of the faculty in technology use based on their perceived usefulness. In **Table 5**, the findings of the study found out that the faculty members were highly ( $\bar{x} = 3.302$ ; S.D. = 0.8849) positive about the use of technology in the classrooms. Specifically, this study found out that “educational technology enriches the learning environment” ( $\bar{x} = 4.27$ ; S.D. = 0.7051), “using educational technology makes learning more interesting” ( $\bar{x} = 4.21$ ; S.D. = 0.7387), and “students participate actively when using technological aids” ( $\bar{x} = 4.04$ ; S.D. = 0.7999).

This study determined the effort that the faculty members exerted to utilize technology in their classrooms. Generally, the findings in **Table 6** below indicated that they exerted high effort ( $\bar{x} = 3.842$ ; S.D. = 0.5719) in using technology. Specifically, this study determined that the faculty members “always try to discover new ways for effective teaching” ( $\bar{x} = 4.14$ ; S.D. = 0.7571), “try to bring technological aids into the classroom” ( $\bar{x} = 3.90$ ; S.D. = 0.7502), and “always try to persuade their colleagues to use new technologies in the classroom” ( $\bar{x} = 3.86$ ; S.D. = 0.8023).

**Table 4.** Technology use based on perceived difficulty.

Statements	Mean	S.D.	Rating
1 It is difficult to learn how to use a new technology in the classroom.	3.22	1.2648	Partly Agree
2 It is not easy to use educational technology.	3.10	1.1862	Partly Agree
3 I cannot easily get necessary instructional facilities whenever I need.	3.62	0.9857	Agree
4 School's budget is inadequate for buying necessary materials.	3.49	1.0609	Partly Agree
5 It is difficult to use technology in the classroom.	3.09	1.1570	Partly Agree
<b>Composite</b>	<b>3.302</b>	<b>0.88494</b>	<b>Partly Agree</b>

Legend: (1) 4.50–5.00 = Strongly Agree (SA); (2) 3.5–4.49 = Agree (A); (3) 2.5–3.49 = Partly Agree (PA); (4) 1.50–2.49 = Disagree (A); (5) 1.0–1.49 = Strongly Disagree (SD)

**Table 5.** Technology use based on perceived usefulness.

Statements	Mean	S.D.	Rating
1 Students participate actively when I use technological aids.	4.04	0.7999	Agree
2 In my opinion, educational technology enriches the learning environment.	4.27	0.7051	Agree
3 There is a relation between success and the use of technology.	4.07	0.7402	Agree
4 Using educational technology makes learning more interesting.	4.21	0.7387	Agree
5 Technology makes learning exciting for students.	2.83	1.3075	Partly Agree
6 Using educational technology is not a waste of time.	2.72	1.3464	Partly Agree
<b>Composite</b>	<b>3.688</b>	<b>0.55440</b>	<b>Agree</b>

Legend: (1) 4.50–5.00 = Strongly Agree (SA); (2) 3.5–4.49 = Agree (A); (3) 2.5–3.49 = Partly Agree (PA); (4) 1.50–2.49 = Disagree (A); (5) 1.0–1.49 = Strongly Disagree (SD)

**Table 6.** Technology use based on effort.

Statements	Mean	S.D.	Rating
1 I try to bring technological aids into the classroom.	3.90	0.7502	Agree
2 I always try to persuade my colleagues to use new technologies in the classroom.	3.86	0.8023	Agree
3 I am very willing to provide technological aids.	3.84	0.7794	Agree
4 A student can learn a language easily without educational technology.	3.47	0.9611	Partly Agree
5 I always try to discover new ways for effective teaching.	4.14	0.7571	Agree
<b>Composite</b>	<b>3.842</b>	<b>0.5719</b>	<b>Agree</b>

Legend: (1) 4.50–5.00 = Strongly Agree (SA); (2) 3.5–4.49 = Agree (A); (3) 2.5–3.49 = Partly Agree (PA); (4) 1.50–2.49 = Disagree (A); (5) 1.0–1.49 = Strongly Disagree (SD)

This study analyzed the level of support the faculty members received when using technology in their institution. The findings in **Table 7** revealed that the faculty members received high support ( $\bar{x} = 3.591$ ; S.D. = 0.6077) in technology use. For instance, they agreed that “in-service activities have helped them and developed their skills in using educational technology” ( $\bar{x} = 3.94$ ; S.D. = 0.7706), “they share experiences with their colleagues” ( $\bar{x} = 3.96$ ; S.D. = 0.7913), and “other teachers at their school always support them to provide necessary equipment” ( $\bar{x} = 3.79$ ; S.D. = 0.8303).

In terms of the interest of the faculty members, the findings in **Table 8** indicated that they manifested high interest ( $\bar{x} = 3.635$ ; S.D. = 0.6628) in technology use. Particularly, the faculty members “would like to learn more about new developments in educational technology” ( $\bar{x} = 4.35$ ; S.D. = 0.7418) and “follow new developments in educational technology properly” ( $\bar{x} = 3.97$ ; S.D. = 0.8229). For them, “using educational technology in teaching English would be interesting” ( $\bar{x} = 4.04$ ; S.D. = 0.9014) and “students pay more attention when they use technology in the classroom” ( $\bar{x} = 3.93$ ; S.D. = 0.9185).



**Table 7.** Technology use based on support.

Statements	Mean	S.D.	Rating
1 My school does support me when I demand new equipment.	2.94	1.1632	Agree
2 I share my experiences with my colleagues.	3.96	0.7913	Agree
3 Other teachers at my school always support me to provide the necessary equipment.	3.79	0.8303	Agree
4 In-service activities have helped me and developed my skills in using educational technology.	3.94	0.7706	Agree
5 Educational technology is available easily at my school.	3.46	0.9125	Partly Agree
6 I can get enough support easily in finding the necessary equipment.	3.47	0.8675	Partly Agree
<b>Composite</b>	<b>3.591</b>	<b>0.6077</b>	<b>Agree</b>

Legend: (1) 4.50–5.00 = Strongly Agree (SA); (2) 3.5–4.49 = Agree (A); (3) 2.5–3.49 = Partly Agree (PA); (4) 1.50–2.49 = Disagree (A); (5) 1.0–1.49 = Strongly Disagree (SD)

**Table 8.** Technology use based on interest.

Statements	Mean	S.D.	Rating
1 I would like to learn more about new developments in educational technology.	4.35	0.7418	Agree
2 I am interested in using educational technology in the classroom.	2.60	1.3672	Partly Agree
3 I have enough knowledge for using technological aids.	2.93	1.2622	Partly Agree
4 Using educational technology in teaching English would be interesting.	4.04	0.9014	Agree
5 Students pay more attention when I use technology in the classroom.	3.93	0.9185	Agree
6 I follow new developments in educational technology properly.	3.97	0.8229	Agree
<b>Composite</b>	<b>3.635</b>	<b>0.6628</b>	<b>Agree</b>

Legend: (1) 4.50–5.00 = Strongly Agree (SA); (2) 3.5–4.49 = Agree (A); (3) 2.5–3.49 = Partly Agree (PA); (4) 1.50–2.49 = Disagree (A); (5) 1.0–1.49 = Strongly Disagree (SD)

**Table 9** presents the perceived benefit of the use of technology in language classes. Analyzing the perceived benefit of technology use, the findings of this study revealed that faculty members were highly positive ( $\bar{x} = 3.881$ ; S.D. = 0.6607) about the benefits of technology use in their classrooms. Specifically, it

was evident in this study that for them, “technology has a large influence on students’ motivation” ( $\bar{x} = 4.12$ ; S.D. = 0.76721), “using educational technology has an important place in learning English” ( $\bar{x} = 4.09$ ; S.D. = 0.7751), and “students learn better when using technology in the classroom” ( $\bar{x} = 4.94$ ; S.D. = 0.7998).

**Table 9.** Technology use based on benefit.

Statements	Mean	S.D.	Rating
1 I think using technology in class has a significant effect on students’ learning.	3.38	1.1629	Partly Agree
2 My students learn better when I use technology in the classroom.	3.94	0.7998	Agree
3 Using educational technology has an important place in learning English.	4.09	0.7751	Agree
4 Technology has a large influence on students’ motivation.	4.12	0.7672	Agree
<b>Composite</b>	<b>3.881</b>	<b>0.6607</b>	<b>Agree</b>

Legend: (1) 4.50–5.00 = Strongly Agree (SA); (2) 3.5–4.49 = Agree (A); (3) 2.5–3.49 = Partly Agree (PA); (4) 1.50–2.49 = Disagree (A); (5) 1.0–1.49 = Strongly Disagree (SD)

As shown in **Table 10**, this study observed that the faculty members generally accept ( $\bar{x} = 3.840$ ; S.D. = 0.6153) the use of technology in their classrooms. Notably, they “accept the importance of educational technology in teaching English” ( $\bar{x} = 4.24$ ; S.D. = 0.7699). They also said that the “students accept

the importance of technology in language classes” ( $\bar{x} = 4.16$ ; S.D. = 0.7397). They also accept the use of technology because their “colleagues share opinions on the use of educational technology” ( $\bar{x} = 4.05$ ; S.D. = 0.7281).

**Table 10.** Technology use based on acceptance.

Statements	Mean	S.D.	Rating
1 I accept the importance of educational technology in teaching English.	4.24	0.7699	Agree
2 My students accept the importance of technology in language classes.	4.16	0.7397	Agree
3 My colleagues share my opinions on the use of educational technology.	4.05	0.7281	Agree
4 My students find the use of technology boring.	2.92	1.3373	Partly Agree
<b>Composite</b>	<b>3.840</b>	<b>0.6153</b>	<b>Agree</b>

Legend: (1) 4.50–5.00 = Strongly Agree (SA); (2) 3.5–4.49 = Agree (A); (3) 2.5–3.49 = Partly Agree (PA); (4) 1.50–2.49 = Disagree (A); (5) 1.0–1.49 = Strongly Disagree (SD)

### 5.3 Level of Implementation of Mechanical and Communicative Instructional Strategies

This study analyzed the implementation of mechanical instructional strategies employed by the faculty members of selected HEIs in Sulu, Philippines. The findings in **Table 11** revealed that the faculty members sometimes implement mechanical instructional strategies in their classrooms ( $\bar{x} = 2.988$ ; S.D. = 1.1179). Further analysis revealed that they “note

rules, formulas or properties on the blackboard” ( $\bar{x} = 3.14$ ; S.D. = 1.1948), “draw an outline, graph or table before the lesson” ( $\bar{x} = 3.12$ ; S.D. = 1.0852), “summarize the concepts thought and use L1 (first language) to clarify the concepts” ( $\bar{x} = 3.09$ ; S.D. = 1.1508), “draw a graph or outline on the blackboard the topics read in the book or explain” ( $\bar{x} = 3.07$ ; S.D. = 1.1651), and “at the end of an explanation, ask the students to summarize the main concept orally or in writing” ( $\bar{x} = 3.09$ ; S.D. = 1.2381).

**Table 11.** Implementation of mechanical instructional strategies

Statements	Mean	S.D.	Rating
1 Ask the students to take notes during the lesson.	2.81	1.4272	Sometimes
2 Dictate some definitions: if needed translate in their mother tongue.	2.90	1.2441	Sometimes
3 Draw a graph or outline on the blackboard the topics read in the book or explain.	3.07	1.1651	Sometimes
4 Summarize the content of the book orally. If necessary L1 will be used.	3.04	1.2231	Sometimes
5 Ask students to read aloud from the book.	2.91	1.2744	Sometimes
6 Draw an outline, graph or table before the lesson.	3.12	1.0852	Sometimes
7 At the end of an explanation, ask the students to summarize the main concept orally or in writing.	3.07	1.2381	Sometimes
8 Summarize the concepts thought. Use L1 to clarify the concepts.	3.09	1.1508	Sometimes
9 Ask students to write down key words on the topic described.	3.02	1.2947	Sometimes
10 Summarize previous topics before introducing new ones, in case of need, help will be provided.	2.91	1.3584	Sometimes
11 At the beginning of the lesson, list the topics that are to be taught.	2.98	1.3184	Sometimes
12 Provide a summary chart of the main concepts, written out by yourself.	2.97	1.2892	Sometimes
13 Ask students to point out the main concepts in their books.	2.89	1.3269	Sometimes
14 Give a brief explanation of the key concepts, and then read them in the books.	2.91	1.3056	Sometimes
15 Read the book (teacher, or students) then explain.	2.96	1.3142	Sometimes
16 Note rules, formulas or properties on the blackboard.	3.14	1.1948	Sometimes
17 Provide a summary of the topics to be taught, e.g., an outline chart.	3.01	1.3186	Sometimes
<b>Composite</b>	<b>2.988</b>	<b>1.1179</b>	<b>Sometimes</b>

Legend: (1) 4.50–5.00 = Never (N); (2) 3.5–4.49 = Seldom (S); (3) 2.5–3.49 = Sometimes (PA); (4) 1.50–2.49 = Often (O); (5) 1.0–1.49 = Always (A)

In **Table 12**, this study analyzed the implementation of communicative instructional strategies in teaching the English language among the selected public HEIs in Sulu, Philippines. This study determined that faculty sometimes implemented communicative instructional strategies ( $\bar{x} = 3.083$ ; S.D. = 1.0194). In implementing this strategy, the teachers “play music and songs to motivate students’ learning” ( $\bar{x} = 3.36$ ; S.D. = 1.0420), “use multimedia,

such as DVD, and web navigation” ( $\bar{x} = 3.36$ ; S.D. = 1.0553), “activate students’ learning through English games of L1 (first language)” ( $\bar{x} = 3.23$ ; S.D. = 1.1624), “build logical change using temporal links” ( $\bar{x} = 3.23$ ; S.D. = 0.9794). Most notably, “when a student makes an error, the teacher and other students ignore it” ( $\bar{x} = 3.38$ ; S.D. = 1.2504) and “errors are tolerated and will be notified later” ( $\bar{x} = 3.21$ ; S.D. = 1.1531).

**Table 12.** Implementation of communicative instructional strategies.

Statements	Mean	S.D.	Rating
1 Invite students to ask questions during an explanation.	3.01	1.4106	Sometimes
2 Introduce the topics covered using a problem-solving strategy, i.e., by asking questions.	3.04	1.2892	Sometimes
3 Use a variety of educational games to let the students enjoy and learn simultaneously.	3.16	1.2159	Sometimes
4 Students work together in groups of two or three.	3.02	1.3298	Sometimes
5 Errors are tolerated and will be notified later.	3.21	1.1531	Sometimes
6 Summarize concepts already known on the topic and ask students to discuss their ideas and/or what they know.	2.97	1.1491	Sometimes
7 Use drama or show experiments in the classroom or lab.	3.16	1.2173	Sometimes
8 Communicative situations will be provided to help the interactions among the students.	3.02	1.2175	Sometimes
9 The students discuss what they have learned in the class.	3.04	1.1962	Sometimes
10 Introduce a new topic using familiar examples.	2.99	1.3051	Sometimes
11 Create links between different topics and subjects.	3.06	1.2098	Sometimes
12 Education is most effective when it is experienced-centered, when it relates to students’ real needs.	2.92	1.2536	Sometimes
13 Activate students’ learning through English games of L1.	3.23	1.1624	Sometimes
14 Use multimedia, such as DVD, and web navigation.	3.30	1.0553	Sometimes
15 Play music, songs to motivate students’ learning.	3.36	1.0420	Sometimes
16 Ask students if they are encountering any difficulties in studying the topic in question.	3.00	1.2299	Sometimes
17 Organize working groups during the lessons.	3.03	1.2717	Sometimes
18 Students are invited to talk about how they felt during the lesson.	3.01	1.3299	Sometimes
19 Teacher will try to support students’ confidence by not over correcting their mistakes.	3.08	1.2813	Sometimes
20 Use pictures to illustrate a theoretical topic (slides, drawings, charts and so on).	3.05	1.2453	Sometimes
21 The teacher leads the class in discussing the problems, ending with students responding with solutions to the problem.	2.91	1.3193	Sometimes
22 A student makes an error. The teacher and other students ignore it.	3.38	1.2504	Sometimes
23 Build logical change using temporal links.	3.23	0.9794	Sometimes
24 Give students a riddle and ask them to solve it in pairs.	3.20	1.0307	Sometimes
25 Discuss study topics during lesson.	3.06	1.3210	Sometimes
26 Students’ interaction in their groups is emphasized.	3.01	1.2701	Sometimes
27 Give indications about the content of the following lessons, or ask questions about possible developments of a topic.	2.97	1.2397	Sometimes
28 The students are invited to talk about the experiences they have had in the class.	2.98	1.2173	Sometimes
<b>Composite</b>	<b>3.083</b>	<b>1.0194</b>	<b>Sometimes</b>

Legend: (1) 4.50–5.00 = Never (N); (2) 3.5–4.49 = Seldom (S); (3) 2.5–3.49 = Sometimes (PA); (4) 1.50–2.49 = Often (O); (5) 1.0–1.49 = Always (A)

### 5.4 Faculty Perception of Technology Use Across Demographic Profiles

Comparative analysis was carried out to analyze the differences on the perceptions of faculty members on technology use based on their demographic profile. The findings in **Table 13** revealed that there was a significant difference on the perceived difficulty ( $t = 2.471$ ;  $p = 0.014$ ) on technology use based on their sex. Essentially, findings indicated that male

faculty members were more challenged on technology use compared to female teachers.

Analyzing the differences based on age, findings in **Table 14** indicated that no significant difference was observed in the perceived difficulty, usefulness, effort, support, interest, benefit, and acceptance. Consequently, the perceptions of the faculty members were consistent across different age groups identified in this study.

**Table 13.** Inferential analysis on technology use based on sex.

Variables		Mean	S.D.	Mean Difference	<i>t</i>	Sig.	Description
Difficulty	Male	3.5147	0.90129	0.322	2.471	0.014*	Significant
	Female	3.1924	0.85940				
Usefulness	Male	3.7336	0.58169	0.069	0.838	0.403	Not Significant
	Female	3.6641	0.54055				
Effort	Male	3.9294	0.55370	0.132	1.557	0.121	Not Significant
	Female	3.7970	0.57796				
Support	Male	3.6716	0.63610	0.122	1.351	0.178	Not Significant
	Female	3.5492	0.59069				
Interest	Male	3.7426	0.66006	0.163	1.656	0.099	Not Significant
	Female	3.5795	0.65978				
Benefit	Male	3.9412	0.63056	0.091	0.920	0.359	Not Significant
	Female	3.8504	0.67596				
Acceptance	Male	3.9154	0.59634	0.11374	1.240	0.216	Not Significant
	Female	3.8017	0.62351				

\*Significant at  $\alpha = 0.05$

**Table 14.** Inferential analysis based on age.

Sources of Variation		Sum of Squares	df	Mean Square	<i>F</i>	Sig.	Description
Difficulty	Between Groups	5.313	3	1.771	2.306	0.078	Not Significant
	Within Groups	150.526	196	0.768			
	Total	155.839	199				
Usefulness	Between Groups	0.118	3	0.039	0.126	0.945	Not Significant
	Within Groups	61.046	196	0.311			
	Total	61.164	199				
Effort	Between Groups	0.564	3	0.188	0.572	0.634	Not Significant
	Within Groups	64.523	196	0.329			
	Total	65.087	199				
Support	Between Groups	0.760	3	0.253	0.683	0.564	Not Significant
	Within Groups	72.729	196	0.371			
	Total	73.489	199				
Interest	Between Groups	0.995	3	0.332	0.752	0.522	Not Significant
	Within Groups	86.415	196	0.441			
	Total	87.411	199				
Benefit	Between Groups	0.120	3	0.040	0.091	0.965	Not Significant
	Within Groups	86.747	196	0.443			
	Total	86.867	199				
Acceptance	Between Groups	0.434	3	0.145	0.379	0.768	Not Significant
	Within Groups	74.900	196	0.382			
	Total	75.335	199				

\*Significant at  $\alpha = 0.05$

This study analyzed the difference in the perception of the faculty members based on their civil status. Findings in **Table 14** revealed that there was a significant difference in the perceived difficulty ( $F =$

3.064;  $p = 0.029$ ). This means, the civil status of the faculty members could have a relevant effect on how they find it difficult to use technology in their classrooms.

**Table 14.** Inferential analysis on technology use based on civil status.

Sources of Variation		Sum of Squares	df	Mean Square	<i>F</i>	Sig.	Description
Difficulty	Between Groups	6.981	3	2.327	3.064	0.029*	Significant
	Within Groups	148.859	196	0.759			
	Total	155.839	199				
Usefulness	Between Groups	0.109	3	0.036	0.116	0.950	Not Significant
	Within Groups	61.055	196	0.312			
	Total	61.164	199				
Effort	Between Groups	1.271	3	0.424	1.301	0.275	Not Significant
	Within Groups	63.817	196	0.326			
	Total	65.087	199				
Support	Between Groups	1.169	3	0.390	1.056	0.369	Not Significant
	Within Groups	72.319	196	0.369			
	Total	73.489	199				
Interest	Between Groups	2.082	3	0.694	1.594	0.192	Not Significant
	Within Groups	85.328	196	0.435			
	Total	87.411	199				
Benefit	Between Groups	1.920	3	0.640	1.477	0.222	Not Significant
	Within Groups	84.947	196	0.433			
	Total	86.867	199				
Acceptance	Between Groups	1.366	3	0.455	1.206	0.309	Not Significant
	Within Groups	73.969	196	0.377			
	Total	75.335	199				

\*Significant at  $\alpha = 0.05$

This study analyzed the differences in the perceptions of the faculty members based on their educational attainment. In **Table 15**, findings of this study revealed that there was a statistical difference in the perceived difficulty ( $F = 3.064$ ;  $p = 0.029$ ) of faculty members in using technology. Consequently, this indicated that the perceived difficulty of the faculty members in using technology might be influenced by their educational attainment.

**Table 16** presents the summary of inferential

analysis carried out based on the length of service of the faculty members. Findings indicated that there was a significant difference in the perceived difficulty ( $F = 6.328$ ;  $p = 0.000$ ), effort ( $F = 4.127$ ;  $p = 0.003$ ), support ( $F = 5.035$ ;  $p = 0.001$ ) and interest ( $F = 3.347$ ;  $p = 0.011$ ). Consequently, the length of service of the faculty members could have a potential mediating effect on their perceived difficulty, effort, support, and interest in the technology use in the classroom.



**Table 15.** Inferential analysis on technology use based on educational attainment.

Sources of Variation		Sum of Squares	df	Mean Square	F	Sig.	Description
Difficulty	Between Groups	10.176	2	5.088	6.881	0.001*	Significant
	Within Groups	145.663	197	0.739			
	Total	155.839	199				
Usefulness	Between Groups	0.053	2	0.026	0.085	0.919	Not Significant
	Within Groups	61.111	197	0.310			
	Total	61.164	199				
Effort	Between Groups	1.336	2	0.668	2.065	0.130	Not Significant
	Within Groups	63.751	197	0.324			
	Total	65.087	199				
Support	Between Groups	1.147	2	0.574	1.562	0.212	Not Significant
	Within Groups	72.341	197	0.367			
	Total	73.489	199				
Interest	Between Groups	2.666	2	1.333	3.098	0.047	Not Significant
	Within Groups	84.745	197	0.430			
	Total	87.411	199				
Benefit	Between Groups	0.251	2	0.126	0.286	0.752	Not Significant
	Within Groups	86.616	197	0.440			
	Total	86.867	199				
Acceptance	Between Groups	1.957	2	0.978	2.627	0.075	Not Significant
	Within Groups	73.378	197	0.372			
	Total	75.335	199				

\*Significant at  $\alpha = 0.05$

**Table 16.** Inferential analysis on technology use based on length of service.

Sources of Variation		Sum of Squares	df	Mean Square	F	Sig.	Description
Difficulty	Between Groups	17.906	4	4.476	6.328	0.000*	Significant
	Within Groups	137.934	195	0.707			
	Total	155.839	199				
Usefulness	Between Groups	1.628	4	0.407	1.333	0.259	Not Significant
	Within Groups	59.535	195	0.305			
	Total	61.164	199				
Effort	Between Groups	5.080	4	1.270	4.127	0.003*	Significant
	Within Groups	60.007	195	0.308			
	Total	65.087	199				
Support	Between Groups	6.879	4	1.720	5.035	0.001*	Significant
	Within Groups	66.610	195	0.342			
	Total	73.489	199				
Interest	Between Groups	5.615	4	1.404	3.347	0.011*	Significant
	Within Groups	81.796	195	0.419			
	Total	87.411	199				
Benefit	Between Groups	4.054	4	1.013	2.386	0.053	Not Significant
	Within Groups	82.813	195	0.425			
	Total	86.867	199				
Acceptance	Between Groups	1.399	4	0.350	0.922	0.452	Not Significant
	Within Groups	73.936	195	0.379			
	Total	75.335	199				

\*Significant at  $\alpha = 0.05$

### 5.5 Implementation of Mechanical and Communicative Instructional Strategies Based on the Demographic Profile of Faculty Members

Comparative analysis was carried out to analyze the implementation of mechanical and communicative instructional strategies in teaching the English language. Findings in **Table 17** revealed that no significant difference was observed in the implementation of mechanical ( $F = 1.656; p = 0.099$ ) and communicative ( $F = 1.853; p = 0.068$ ) instructional strategies.

In **Table 18**, the comparative analysis indicated no significant difference in the implementation of mechanical ( $F = 1.134; p = 0.336$ ) and communicative ( $F = 0.782; p = 0.505$ ) instructional strategies based on faculty members' age.

In **Table 19**, analyzing the implementation of instructional strategies based on the civil status of the faculty members revealed no significant difference observed in the implementation of mechanical ( $F = 0.225; p = 0.879$ ) and communicative ( $F = 0.062; p = 0.980$ ) instructional strategies.

**Table 17.** Inferential analysis on instructional strategies based on sex.

Variables		Mean	S.D.	Mean Difference	<i>t</i>	Sig.	Description
Mechanical instructional strategies	Male	3.1672	1.04401	0.275	1.656	0.099	Not Significant
	Female	2.8922	1.14673				
Communicative instructional strategies	Male	3.2663	0.98507	0.2777	1.835	0.068	Not Significant
	Female	2.9886	1.02753				

\*Significant at  $\alpha = 0.05$

**Table 18.** Inferential analysis on instructional strategies based on age.

Sources of Variation		Sum of Squares	df	Mean Square	<i>F</i>	Sig.	Description
Mechanical Instructional Strategies	Between Groups	4.243	3	1.414	1.134	0.336	Not Significant
	Within Groups	244.443	196	1.247			
	Total	248.686	199				
Communicative Instructional Strategies	Between Groups	2.447	3	0.816	0.782	0.505	Not Significant
	Within Groups	204.339	196	1.043			
	Total	206.786	199				

\*Significant at  $\alpha = 0.05$

**Table 19.** Inferential analysis on instructional strategies based on civil status.

Sources of Variation		Sum of Squares	df	Mean Square	<i>F</i>	Sig.	Description
Mechanical Instructional Strategies	Between Groups	0.853	3	0.284	0.225	0.879	Not Significant
	Within Groups	247.834	196	1.264			
	Total	248.686	199				
Communicative Instructional Strategies	Between Groups	0.196	3	0.065	0.062	0.980	Not Significant
	Within Groups	206.590	196	1.054			
	Total	206.786	199				

\*Significant at  $\alpha = 0.05$

**Table 20** presents the summary of comparative analysis based on the educational attainment of the faculty member. Findings indicated that no significant difference was observed in the implementation of mechanical ( $F = 1.032$ ;  $p = 0.358$ ) and communicative ( $F = 1.528$ ;  $p = 0.219$ ) instructional strategies.

Findings in **Table 21** indicated that in terms of length of service, there was a significant difference in the implementation of mechanical ( $F = 4.332$ ;  $p$

$= 0.002$ ) and communicative ( $F = 4.628$ ;  $p = 0.001$ ) instructional strategies in teaching the English language. Post-hoc analysis revealed that faculty members with 6–10 years of teaching experience were more likely to implement mechanical (S.E. = 0.1962;  $p = 0.003$ ) and communicative (S.E. = 0.1785;  $p = 0.006$ ) instructional strategies compared to teachers with  $\leq 5$  years of teaching experience.

**Table 20.** Inferential analysis on instructional strategies based on educational attainment.

Sources of Variation		Sum of Squares	df	Mean Square	F	Sig.	Description
Mechanical Instructional Strategies	Between Groups	2.580	2	1.290	1.032	0.358	Not Significant
	Within Groups	246.107	197	1.249			
	Total	248.686	199				
Communicative Instructional Strategies	Between Groups	3.159	2	1.580	1.528	0.219	Not Significant
	Within Groups	203.626	197	1.034			
	Total	206.786	199				

\*Significant at  $\alpha = 0.05$

**Table 21.** Inferential analysis on instructional strategies based on length of service.

Sources of Variation		Sum of Squares	df	Mean Square	F	Sig.	Description
Mechanical Instructional Strategies	Between Groups	20.295	4	5.074	4.332	0.002*	Significant
	Within Groups	228.391	195	1.171			
	Total	248.686	199				
Communicative Instructional Strategies	Between Groups	17.929	4	4.482	4.628	0.001*	Significant
	Within Groups	188.857	195	0.968			
	Total	206.786	199				

\*Significant at  $\alpha = 0.05$

### 5.6 Correlation between Instructional Strategies and the Use of Technology in Teaching the English Language

Correlation was conducted to analyze the association between the implementation of instructional strategies and the use of education technology in teaching the English language. Findings in **Table**

**22** indicated that there was a moderately significant correlation between the implementation of instructional strategies and the use of technology ( $r = 0.391$ ;  $p = 0.000$ ) in teaching the English language. Consequently, this means that the implementation of mechanical and communicative instructional strategies can be associated to the positive perception on technology use in classrooms.

**Table 22.** Correlation matrix for technology use and instructional strategies.

Variables				
Independent	Dependent	r value	Sig.	Description
Instructional Strategies	Use of Education Technology	0.391*	0.000	Moderate

\*Correlation Coefficient is significant at  $\alpha = 0.05$   
 Correlation Coefficient Scale: 0.0–0.1 = Nearly Zero; 0.1–0.3 = Low; 0.3–0.5 = Moderate; 0.5–0.7 = High; 0.7–0.9 = Very High; 0.9–1 = Nearly Perfect

## 6. Discussion

### 6.1 Demographic Profiles of Faculty Members

#### *Difficulty*

The results of this study indicate that faculty members who took part in the research have reported facing difficulties or barriers in incorporating educational technology into their roles as English teachers. The present study aims to investigate the various challenges that arise when faculty members in HEIs in Sulu utilize technology. The challenges associated with the integration of technology into educational methodologies include limited access to resources, such as hardware devices and reliable internet connectivity. These limitations can hinder the smooth integration of technology into educational practices.

Faculty members face a notable challenge in utilizing technology for enhanced teaching and learning outcomes due to inadequate training in digital skills and educational technology. The results of this study aligned with the findings of a study conducted by Delos Reyes (2023). Specifically, having proficiency in a new language can be quite challenging, especially for those who are already fluent in English. Understanding and addressing these challenges is crucial for overcoming obstacles and ensuring the seamless integration of technology in HEIs in Sulu, Philippines.

#### *Usefulness*

The findings indicated that faculty participants generally agreed on the effectiveness, convenience, and practicality of integrating educational technology into English teaching methods. Furthermore, the researchers recognized the favorable results, benefits, and beneficial effects linked to the incorporation of technology in the context of English language acquisition.

It has been found that the use of educational technology in the faculty of HEIs in Sulu has the potential to greatly enhance teaching and learning experiences.

The findings of this study transcend the findings of Ibrahim and Shiring (2022). The findings of this study reveal that technology significantly enhances the effectiveness and efficiency of educators in various aspects of their professional responsibilities. The data indicates that educators perceive technology as a valuable tool for facilitating dynamic and engaging classroom environments. Despite the limited support from administrators, educators conveyed a willingness to continuously learn and adapt to new technological tools to enhance their instructional methods. This overall positive disposition towards technology underscored its perceived usefulness and potential to significantly improve educational outcomes.

#### *Effort*

The results obtained from this research indicate that the faculty participants demonstrated a general agreement regarding their efforts to incorporate educational technology into English language instruction. The participants in the study reported their involvement in a range of activities with the objective of optimizing the efficiency and output of their endeavors. This research investigates the topic of English teacher representation in HEIs in Sulu, Philippines.

The findings reflect that of Goreth's (2023) study. This study noted that the provision, availability, challenges, current state, and emerging patterns of educational technology were evident in education. The study found that considerable endeavors were undertaken in leveraging educational technology for the educational goal. Educators exhibit their capacity

to adapt to the digital teaching environment, customize learning experiences for individual students, promote greater student engagement, and create dynamic language learning environments through strategic utilization of educational technology.

### **Support**

Based on the results of this study, it appeared that faculty members who took part in the research generally agreed on the support they received from the administration, school head, and colleagues when it came to English teachers integrating educational technology into their teaching methods. In Sulu, the successful implementation of educational technology in HEIs was made possible through the establishment of a robust support system for teachers.

The findings were consistent with the findings of Voyiatzaki (2014), which employed visual aids and resources to support educators in overseeing classroom and collaborative tasks. The provision of resources and training for individuals and organizations is significantly influenced by institutional support. Technical assistance is essential for the efficient operation of technology, while pedagogical guidance is key to enhancing the quality of teaching. Resource allocation is vital for ensuring access to necessary tools, and professional learning communities provide a platform for collaboration among educators. In the current era of digital advancements, robust support systems are crucial in empowering educators to effectively integrate technology, improve instructional methods, engage students, and create dynamic learning environments that foster innovation and student achievement.

### **Interest**

The results of the present study indicate that the faculty participants in the research demonstrated a general agreement regarding the propensity of English teachers to either employ or abstain from utilizing technology. Teachers' interest and enthusiasm in educational technology play a crucial role in HEIs in Sulu. This is because it acts as a catalyst for innovation, boosts student engagement, supports professional development, and fosters dynamic learning

environments.

There was evidence to suggest that teachers who demonstrate a genuine passion for technology are more likely to display high levels of adaptability, flexibility, and collaboration in their integration of technology into instructional practices. The notion presented aligns with the findings of a study conducted by Ceneciro et al. (2023), which suggests that individuals tend to exhibit a high level of proficiency when it comes to responding to inquiries and articulating their perspectives. The enthusiasm for educational technology among individuals is driven by a strong motivation to continuously learn, experiment, and be creative. This commitment ultimately results in improved teaching effectiveness and enhanced student learning experiences within the context of a digital era.

### **Benefit**

The present study's findings indicate that faculty respondents generally agreed on the acknowledgment of the advantages and favorable consequences that arise from the incorporation of educational technology within the English teaching profession. The integration of educational technology in HEIs in Sulu brings forth a multitude of benefits for faculty members. The benefits of engaging in interactive and dynamic lessons include improved teaching effectiveness, personalized learning experiences that cater to individual student needs, enhanced student engagement and motivation, increased accessibility and flexibility in learning, and the ability to make data-driven decisions to optimize teaching strategies and promote better student outcomes.

The concept mentioned above aligns with the findings of Nesterenko's (2023) research. The incorporation of smart-learning technologies has been identified as a promising avenue for educational advancements, resulting in improved student concentration, accelerated understanding of educational material, and ultimately, increased rates of student success. The integration of educational technology enables educators to create engaging learning environments, foster student success, and empower students with the essential skills to navigate chal-



lenges in the digital age. The phenomenon results in an enhanced educational encounter and fosters the implementation of inventive pedagogical approaches within HEIs in Sulu.

### ***Acceptance***

The results of this study indicate that the faculty participants who took part in the research generally agreed or supported the use of educational technology by English teachers. The acceptance of educational technology among faculty members in HEIs in Sulu is a significant factor in driving innovation, supporting professional growth, facilitating student-centered learning, improving adaptability, providing flexibility, fostering collaboration, and facilitating knowledge sharing. Educators who demonstrate a willingness to adopt technology exhibit a dedication to investigating novel tools, enhancing instructional approaches, engaging students, adapting to changing requirements, collaborating with peers, and cultivating vibrant learning settings.

The findings of the study aligned with the findings of Duhaylungsod and Chavez (2023). The adoption of educational technology in HEIs enabled faculty members to conveniently access real-time information. The incorporation of technology into instructional methodologies not only diminishes the duration dedicated to conducting research and locating information, but also cultivates academic achievement among students.

The statement presented aligns with the findings of Goreth's (2023) research, which suggests that the integration of technology lessons into the school curriculum and the reduction of gender norms may lead to favorable results.

## **6.2 Level of Implementation of Mechanical and Communicative Instructional Strategies**

### ***Mechanical instructional strategies***

The results of this research indicate that the faculty members adapt mechanical instructional strategies in teaching the English language. The findings indicated how mechanical instructional strategies aid students in acquiring a solid understanding of their

lessons by providing them with clear instructions and procedures. In mechanical education, various instructional strategies are employed by faculty members in HEIs in Sulu.

Educational settings utilize various strategies to enhance learning. These include traditional lectures for theoretical concepts, hands-on practical demonstrations for engaging experiences, simulation and virtual labs for interactive learning, problem-based learning for critical thinking skills, and the flipped classroom model for active student engagement.

Similarly, Delgado (2015) noted that technology in education has had a profound effect on the development of teaching abilities among faculty members and their incorporation of digital instructional approaches. The concept discussed aligns with the findings of Chavez's (2022) research, which highlights the significance of promptly creating educational resources and enhancing teacher training programmes in terms of activities and instructional approaches. They demonstrated that the utilization of different instructional strategies by faculty members yields favorable outcomes in terms of student engagement, practical learning, and the overall readiness of students for achieving success in the realm of mechanical engineering.

### ***Communicative instructional strategies***

The findings of this study suggested that the faculty participants expressed a consensus regarding the English teachers' capacity to effectively involve learners in communicative activities. This study examines the strategies employed by teachers to enhance students' engagement in expressing themselves through oral and written modes of communication. Communicative instructional strategies are employed by faculty members in HEIs in Sulu with the aim of improving students' language proficiency and communication skills. The strategies employed in language education involved various approaches such as communicative language teaching, task-based learning, role-playing and simulations, collaborative learning, and the utilization of authentic materials and contexts.

The findings were consistent with the research

conducted by Liao (2024). It was evident that instructing a foreign language in non-traditional settings can enhance the communicative proficiency of the target language. Similarly, incorporating communicative instructional strategies has been found to be effective in promoting interactive communication, real-life language use, collaborative learning, and cultural understanding among students in HEIs in Sulu. This fostered effective communication skills and language fluency among students.

More importantly, Khansir (2022) noted that English language education has witnessed a significant focus on English language teaching, with faculty members, researchers, and syllabus designers actively engaged in this subject matter. Based on these findings, it can be inferred that college faculty members at public HEIs in Sulu generally recognize their adherence to the necessary procedures for lesson implementation. This adherence was considered effective in engaging students in classroom activities.

### **6.3 Faculty Perception of Technology Use Across Demographic Profiles**

#### ***Sex***

Based on the implications of this finding, it appears that faculty members' perspectives on the evaluation of technology utilization are not exclusively determined by their sex. Consistent with Lindqvist (2021), gender has no substantial influence on the evaluation of technology usage by faculty members in education. This finding provides empirical support for the hypothesis that gender does not influence the utilization of technology in English instruction. Based on the results obtained, it can be inferred that gender does not significantly mediate the relationship between faculty evaluation of technology usage and public HEIs in Sulu.

#### ***Age***

The findings indicated that faculty members of HEIs in Sulu may hold varying perspectives on the utilization of technology, contingent upon their age group. The findings of this research challenge the notion that the age distribution of faculty members

among HEIs in Sulu substantially influences their perceptions about the implementation of instructional technology. The research of Loveys (2023) provides support for the idea for this finding. Conversely, educators offered a more comprehensive examination of their emotions and elaborated on occurrences of students' achievements and shortcomings while utilizing assistive technologies. As a result, the age-sorted data provides support for the hypothesis that there is minimal variation in the extent to which instructors in public HEIs in Sulu utilize technology to facilitate English language instruction.

#### ***Civil status***

When comparing the level of technology usage among faculty members of Higher Education Institutions in Sulu to that of faculty members who are single, separated, bereaved, or vice versa, the present finding suggests that the marital status of faculty members may not be the only factor to consider. As stated in the study conducted by Amare (2024), the idea that was previously referred to is accurate. Prior research has demonstrated that educators, overall, hold a favorable perception of instructional technology, suggesting promising prospects for its extensive implementation. Ensuring positive thinking significantly impacts the enhancement of technology's effectiveness and long-term viability, both of which have substantial repercussions. Therefore, the null hypothesis is adopted, which states that there is no statistically significant difference in the ways in which instructors utilize technology to improve English language instruction in public HEIs in Sulu, when data is categorized by civil status.

#### ***Educational attainment***

In this study, doctorate holders may not have a unique perspective when it comes to gauging the level of technology use among university professors in Sulu. This is seen as different from faculty members who have master's degrees or only bachelor's degrees, or the other way around.

This view is in line with the results of recent research by Ferdy Firmansyah (2021), which highlights the significance of online learning in both of-

ficial and informal education as a critical component to achieving academic achievement. When data is categorized by educational attainment, the results of this research confirm the hypothesis that instructors' use of technology to facilitate English language teaching in public HEIs in Sulu does not vary significantly.

### ***Length of service***

Higher education faculty members in Sulu with at least 21 years of experience may have a more comprehensive understanding of how to assess the extent to which their peers utilize technology. This stands in opposition to faculty members whose tenures are lesser, ranging from 6 to 10, 11 to 15, 16 to 20, or the opposite.

The assertion made in this statement aligns with the results obtained in Alba's (2018) study on the implementation of assessment tasks. The categorization of participants according to their tenure of service constituted a critical component of the study. However, there were conflicting findings concerning classroom instruction and administrative responsibilities. A thorough and all-encompassing approach to tackling the emphasized concerns was formulated in direct response to the investigation. The primary objective of this research is to determine how faculty members' evaluations of their own technology usage in Sulu's HEIs are impacted by the duration of their service. A statistically significant correlation can be deduced from the data between the quantity of technology utilized by English language instructors in public HEIs in Sulu and their duration of service.

## **6.4 Implementation of Mechanical and Communicative Instructional Strategies Based on the Demographic Profile of Faculty Members**

### ***Sex***

The results of this research indicated that the gender of faculty members in HEIs in Sulu does not appear to have a substantial impact on their evaluation of the instructional strategies employed by their male and female colleagues.

The findings aligned with the results obtained in

Brown's (2020) study. The mediation between the attitudes of faculty members and effective strategies for enhancing teaching practices has been the focus of extensive research. Existing research indicates that tenured faculty members could potentially gain from participation in development-oriented training programmes. The significance of continuous endeavors to enhance faculty diversity is emphasized. Gender does not statistically significantly affect faculty members' evaluations of teaching practices at HEIs in Sulu, according to the findings of this study.

### ***Age***

The results of the research indicated that individuals of varying age groups might hold distinct viewpoints regarding the evaluation of the efficacy of pedagogical methods employed by faculty members in HEIs in Sulu. It was discovered that individuals aged 45 and older, 26–35, and 36–45 held distinct viewpoints. Those individuals who are younger than 25 years old may be perceived as possessing a distinct perspective.

The research conducted by Rubio-Alcalá et al. (2019) aligned with the findings of the study. Following their engagement in the study, educators exhibited a significant transformation in their perspectives regarding disciplinary strategies. The objective of this study was to investigate the potential moderating effect of age groups on the relationship between teacher evaluations of their own teaching methods and student performance at HEIs in Sulu. The findings of this analysis do not indicate that age variables play a statistically significant mediating role.

### ***Civil status***

The results of this research indicate that the marital status of faculty members may not offer a distinct viewpoint when assessing the pedagogical approaches utilized by faculty members at higher education institutions in Sulu, as opposed to faculty members who are single, separated, or bereaved.

The findings aligned with the findings of Warrior's (2023) research, which indicates that there is no difference between teachers' pedagogical methods

and their social standing. The findings indicate that the civil status of faculty members at Sulu's HEIs did not significantly mediate the relationship between evaluations of the efficacy of their teaching methods and graduation rates. The results of the research indicate that instructors' capacity to assess the efficacy of their own pedagogical strategies is not influenced by their marital status. The data provide support for the null hypothesis that there is no statistically significant difference in teaching tactics, even after accounting for the civil status of faculty members.

### ***Educational attainment***

The findings of this research indicate that there might be variations in perspectives regarding the instructional methodologies utilized by teachers in Sulu. The findings of this study suggest that there is no statistically significant difference between faculty member's level of education and their evaluations of teaching methodologies at HEIs in Sulu.

The findings of this study were consistent with Singh's (2009) findings. Upon conducting an extensive examination of the data pertaining to educational achievement in public HEIs in Sulu, it becomes evident that the instructional strategies employed by instructors to enhance English language instruction lack statistical diversity.

### ***Length of service***

Based on the results of the research, teachers having at least 21 years of teaching experience would regard the pedagogical approaches among HEIs in Sulu more favorably. Conversely, individuals with service duration of 5 years or less, 6–10 years, 11–15 years, 16–20 years, or greater or lesser, experience the inverse.

This was supported by Pearson et al. (2022). Science, Technology, Engineering, and Mathematics (STEM) department may benefit significantly from student-centered instructional transformation and the promotion of departmental community. The implementation of faculty-student teams in gateway courses represents a potential remedy for this issue. This study attempts to synthesize prior research on change techniques for undergraduate STEM programmes,

with an emphasis on instructional change teams. In this study, a similar approach can be applicable in teaching the English language.

A correlation was observed between the implementation of instructional techniques and the utilization of technology by faculty members at HEIs in Sulu, Philippines. The faculty members rated their students' technology use in the classroom as Agree or to a High Extent and were also more likely to rate their students' utilization of instructional methods as Occasional or to Some Extent.

Recent research has established a modest positive correlation between the implementation of educational technology and several outcomes. The findings align with those of Zhu (2021), whose research revealed a moderate correlation between the implementation of instructional techniques and the utilization of technology.

## **7. Conclusions**

The primary aim of this study was to analyze the perceptions of faculty members at selected public HEIs in Sulu, Philippines regarding the use of technology in teaching the English language. Additionally, the study explored their implementation of both mechanical and communicative instructional strategies.

The findings revealed that while faculty members in Sulu faced challenges in integrating technology into their classrooms, particularly among male faculty members, they held a highly positive attitude towards the usefulness, effort, support, interest, benefits, and acceptance of technology-based English language teaching. The study observed that faculty members occasionally employed both traditional methods (e.g., outlining, visuals, summarizing) and communicative strategies (e.g., cognitive linkages, questioning, experiments, role-playing). They saw potential in integrating technology with these instructional methods, including the use of multimedia, songs, music, and visuals to enhance language skills.

The study suggested an opportunity to enhance educational practices by integrating technology into both traditional and unconventional teaching meth-



ods, leveraging multimedia tools and visual aids to enhance language skills among students. However, to capitalize on these opportunities, there is a need for professional development and support mechanisms to assist faculty members, especially those less familiar with technology, in effectively integrating these tools into their teaching. By addressing these challenges and building upon the faculty's positive attitudes, institutions can create a more engaging and efficient learning environment tailored to the needs of English language learners in the digital age.

## Author Contributions

The study was conducted solely by the author, who meticulously examined the integration of educational technology among faculty members in Higher Education Institutions (HEIs) in Sulu, Philippines. As the principal investigator, the author independently designed the research, gathered and analyzed the data, and compiled the findings.

## Conflict of Interest

The author declares no conflict of interest.

## Data Availability Statement

The author will provide the data supporting the study's conclusions upon request. To obtain the data, interested parties should contact the author. Please keep in mind that, while the data are not publicly accessible, they can be made available for study purposes upon reasonable request. The author will explain any restrictions or constraints for using the data. This guarantees that the data is used appropriately and ethically, along with the study's objectives and confidentiality standards.

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