

Exploring the integration of mobile gaming for English language learning

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ABSTRACT

The study explores the integration of mobile gaming for English language learning among the 1st year education students in CTU-Tuburan for the School Year 2022 - 2023. The research employed a quantitative design, utilizing a descriptive approach by administering survey questionnaires to collect data. The study adopted a descriptive correlational method to delineate the notable relationship between learners' performance and electronic communication skills. The study's chosen participants consist of 100 first-year education students officially enrolled in the school year 2022 - 2023, all of whom are confirmed Mobile game players. The selection was made using purposive sampling, a non-probabilistic method frequently used in research and data collection. The findings revealed that the respondents were generally proficient in using online resources to clarify word meanings. However, there was room for improvement in enumeration, time order, and comparison and contrast skills. The assessment of personal factors showed mixed proficiency levels, with sociability rated as skillful but self-disclosure, emotion decoding, and assertiveness rated as moderately skillful. The study found a significant positive correlation between vocabulary development and reading comprehension, suggesting that improved vocabulary skills led to better reading comprehension. However, no significant relationship was found between vocabulary development or reading comprehension and electronic communication skills in the context of the study. These findings provide insights for integrating mobile gaming terminologies in English instruction among the 1st year education students in CTU-Tuburan for the school year 2022 - 2023.

1. Introduction

As we progress into the Information Age, technology has permeated nearly every facet of our lives, expanding educational practices through inventive and intelligent devices, wireless broadband technology, and innovative application services. The swift progress of mobile technology and the widespread accessibility of wireless mobile devices in daily life offer a potential solution to the challenges in English language instruction in the Philippines. Educators must incorporate real-world elements into the classroom environment to make language acquisition more meaningful for students.

Nowadays, people are drawn to games due to their inherent appeal and entertainment value. Mobile learning has surpassed its connection with e-learning, as it can now be accessed virtually anywhere and anytime (Kukulska-Hulme & Traxler, 2005). Case studies and research

on mobile learning (Kukulka-Hulme & Traxler, 2005) have verified the advantages of learning in flexible settings and schedules through mobile devices. Nevertheless, a wireless mobile device enables learners to retrieve information while on the move or when they are not connected to a wired device. The improved accessibility of mobile learning allows learners to access and utilize materials in locations and at personally convenient times. These primary characteristics, ubiquity, and flexibility contribute to a more flexible learning experience, providing learners greater access regardless of concurrent activities (Corbeil & Valdes-Corbeil, 2007).

In the present era, most students, particularly in higher education, have the convenience of utilizing their smartphones, laptops, or tablets. These devices are personal and portable and offer wireless internet connectivity. Consequently, students can work independently and remotely (Symons, 1988). The approach of game-based language learning facilitates the acquisition of new vocabulary and language structures among students. This is achieved by creating mind maps wherein they establish associations between symbols, references, and referents (Casañ-Pitarch, 2017).

According to Wei (2022), the continuous growth of electronic devices and numerous advancements in online technology have afforded language learners widespread and authentic language input. In addition, educational games are exceptional computer software systems that are fun and educational. Adipat et al. (2021) highlight its ability to blend knowledge with gaming, generate authentic problem scenarios for learners, foster learning motivation, and efficiently enhance students' educational progress. He furthered that educational games offer immersive scenarios for learners to navigate, providing practical experiences encouraging active participation and critical thinking. The assertion implies that these games can ignite learners' motivation to interact with and delve into educational content, ultimately fostering engaging student learning experiences.

The rise in the usage of mobile devices has shaped new entertainment opportunities, notably in the realm of smartphone gaming. The way students achieve success has been entirely transformed by technology, providing them with reliable tools and resources that enhance the results of their learning. Students can now utilize interactive educational materials, online resources, and personalized study plans tailored to their needs and preferences.

According to Haleem et al.'s (2022) research, technology has simplified communication and collaboration between teachers and learners, making it more engaging. As a result, learners require guidance in utilizing technology as an educational tool to enhance their knowledge and wisdom. Additionally, digital tools and applications have become an essential share of our daily routines in today's rapidly evolving technological landscape. The widespread use of mobile devices has created new avenues for entertainment, such as smartphone gaming. Mobile Games have gained significant popularity among various mobile games, particularly among youth. Further research, as suggested by Kobis and Tomatala (2020), is needed to explore the potential of mobile games in facilitating subconscious English learning for players.

In addition, it addresses a research gap by examining the integration and effectiveness of Mobile Legend terminologies as a language learning resource in English instruction. While there are numerous studies on gamification and digital tools in language learning, more research that explicitly focuses on using mobile game terminologies needs to be done. By investigating the potential benefits of incorporating Mobile Legend game-related vocabulary into language learning curricula, this study seeks to improve education quality and foster partnerships to achieve global educational goals. This research initiative aims to narrow the divide between

students' interests and language learning to establish a more immersive and captivating classroom experience. The ultimate goal is to cultivate a profound comprehension of the English language and enhance its retention among students.

This study explores the learner's performance in integrating mobile gaming for English language learning regarding vocabulary development and reading comprehension. Furthermore, it distinguishes the text types according to purpose and language features, as well as the electronic communication skills developed by the learners.

It is driven by the growing popularity of online gaming and its potential impact on language learning, particularly among young learners. The study aims to enhance student engagement, motivation, and language proficiency by incorporating gaming terminologies into the language curriculum. Additionally, it seeks to investigate the effects of game-related language on comprehension, communication skills, and vocabulary acquisition. The findings of this study can offer valuable insights for educators and curriculum designers in developing practical and relevant language instruction strategies that can contribute to the ongoing conversation on innovative teaching methods that leverage popular culture to enhance language instruction.

2. Theoretical basis

This study assumed that technology integration using mobile game terminologies is effective in English instruction. It demonstrates a highly effective approach to engaging and motivating learners in English learning by incorporating popular gaming terminologies from mobile games, catering to their interests, and facilitating better language acquisition.

Exploring the integration of mobile gaming for English language learning can create a dynamic and immersive learning environment, fostering a stronger connection between students and the language. By tapping into their familiarity with the game, learners may find it easier to grasp complex concepts and express themselves confidently in English, as emphasized by Berger (2002).

There are theories articulated regarding this research, such as Game-based Learning, Flow Theory by Csikszentmihalyi (1988), Social Learning Theory by Bandura and Walters (1977), Online Game Interactive Theory, K-12 Basic Curriculum Guide in English and DepEd Memoranda 039, s. 2023 (Republic of the Philippines - Department of Education, 2023).

Game-based learning revolves around using game elements to enhance learning experiences. It involves using actual games as part of the learning process. It can be applied to English language learning to make learning more engaging and motivating. Game-based learning offers a dynamic and interactive approach to education that can enhance engagement, motivation, and learning outcomes across various subjects and age groups. By leveraging the unique affordances of games, educators can create rich learning experiences that captivate learners' interest and facilitate deep understanding and mastery of content (Ongoro & Fanjiang, 2024).

Digital games can offer learners an interactive learning experience and bolster independent learning (Lin & Lan, 2015). Students enjoyed learning vocabulary by playing digital video games, significantly enhancing their learning motivation (Ebrahimzadeh & Alavi, 2016). In addition, Cam and Tran (2017) mentioned that integrating games helped students develop a motivating, engaging, and anxiety-free grammar learning experience.

Flow Theory, introduced by Mihaly Csikszentmihalyi (1985), explores the state of optimal experience in which individuals are fully immersed and engaged in an activity. This theory suggests that when a person's skills match the challenges of the task at hand, they enter a state of flow characterized by deep concentration, enjoyment, and a loss of self-consciousness.

Integrating mobile games into English language learning can leverage Flow Theory to enhance learning experiences. Mobile games provide an immersive and interactive environment where players actively engage with the game mechanics, storyline, and other players. Educators can create engaging and effective learning experiences that promote language acquisition, skill development, and learner motivation by integrating mobile games into English language learning with careful attention to flow theory principles.

In addition, The Social Learning theory holds significance in education as it emphasizes the influence of social interactions and observational learning in the learning process. Educators can enhance students' learning experiences and promote social development by understanding and applying this theory in educational contexts. The statement from Raybourn et al. (2015) supports the Social Learning theory by highlighting the role of gaming in facilitating social learning. The author discusses how gaming can provide this investigation's results and insightful information for social skills.

The Social Learning theory holds significance in education as it emphasizes the influence of social interactions and observational learning in the learning process. This theory recognizes the role of social interactions, gaming, and technology in facilitating learning and promoting social development. These approaches offer new opportunities for educators to create engaging and interactive learning environments that enhance students' social skills and overall learning outcomes. In Mobile games, players observe the strategies and actions of other players, learning from their successes and failures. Similarly, in English language instruction, students can observe and analyze language use within the game, such as communication between players or written instructions, to learn new vocabulary, grammar structures, and communication skills.

Integrating mobile games into English language learning aligns with the principles of Social Learning Theory by providing opportunities for observational learning, modeling and imitation, feedback and reinforcement, social interaction, and the formation of a community of practice - all of which contribute to enhanced language learning outcomes.

Moreover, a study by Serrano (2019) explores the impact of digital game-based learning on learners' knowledge, highlighting its potential as an effective educational tool in enhancing learning outcomes. In recent years, Mobile Game-Based Learning (MGBL) has been considered a promising scheme for successful knowledge acquisition and retention (Chen et al., 2019). Furthermore, MGBL enables learning to become more interactive and inspirational, enhancing language acquisition (Ongoro & Fanjiang, 2024).

According to Noroozi et al. (2020), Game-Based Learning is an approach that uses games to encourage students' engagement within the context of the play. Similarly, Lim and Lee (2007) state that GBL is characterized by using game design to enhance the learning environment. In this context, several authors have addressed the benefits of implementing games in the learning process. For example, Kulpa (2017) suggests that integrating games into classroom settings can empower students by instilling a feeling of control, promoting self-directed learning, and aiding them in reaching educational objectives (Asiri, 2019).

According to Cárdenas-Moncada et al. (2020), using games in grammar and vocabulary instruction is very useful for improving students' knowledge and promoting active and dynamic classroom learning. Along the same line, Lim and Lee (2007) state that games have important implications for student's success and can potentially increase cooperation and motivation. Therefore, games positively impact language acquisition because they can reduce students' anxiety, are entertaining, and allow learners to experience new ways of acquiring the target language, which is uncommon in a traditional lesson (Ali, 2020).

Additionally, Plass et al. (2015) offer a promising approach to education by leveraging games' inherent engagement and motivation to enhance the learning experience and improve educational outcomes. Mobile Legends offers adaptive gameplay experiences, where players encounter dynamically changing challenges based on their actions and the actions of other players. Similarly, educators can design English language learning activities within the game that adapt to students' proficiency levels, providing personalized learning experiences and scaffolding support as needed to promote language development. By aligning English language instruction with the principles of Online Game Interactivity Theory and leveraging the interactive features of Mobile Legends, educators can create engaging and effective learning experiences that promote language acquisition, communication skills, collaboration, and critical thinking in an online gaming context.

The "K12 Basic Curriculum Guide in English" is an educational framework for Kindergarten through Grade 12 students, providing a comprehensive outline of subjects and learning objectives. It aims to foster language development, critical thinking, and communication skills in students studying English as their primary language of instruction. In line with this, the DepEd Memoranda 039, s. 2023 is the Administration and Utilization of Digital Arts and Multimedia Tools in the Department of Education (Republic of the Philippines - Department of Education, 2023). The DepEd Memorandum 039, s. 2023 discusses the Administration and Utilization of Digital Arts and Multimedia Tools in the Department of Education. Meanwhile, the DepEd Memorandum 039, s. 2023 highlights the importance of integrating digital arts and multimedia tools into the curriculum (Republic of the Philippines - Department of Education, 2023). This integration enhances the teaching and learning process by promoting creative expression, critical thinking, and digital literacy among students. Together, these initiatives demonstrate the Department of Education's commitment to equipping students with the necessary skills for the digital age while ensuring a comprehensive English language education.

Thus, integrating mobile games into English language learning among the 01st year education students in CTU-Tuburan for the school year 2022 - 2023 can foster a more engaging and immersive learning experience while aligning with the guidelines of the K-12 Basic Curriculum Guide and DepEd Memorandum 039, s. 2023 (Republic of the Philippines - Department of Education, 2023).

3. Methodology

The research employed a quantitative design, utilizing a descriptive approach by administering survey questionnaires to collect data. The aim was to assess the effectiveness of integrating Mobile Legend terminologies into English language learning. However, the study adopted a descriptive correlational method to delineate the notable relationship between learners' performance and electronic communication skills.

The study's chosen participants consist of 100 first-year education students officially enrolled in the school year 2022 - 2023, all of whom are confirmed players of Mobile Legends. The selection was made using purposive sampling, a non-probabilistic method frequently used in research and data collection. Specifically, the researchers targeted experts playing the Mobile Legends game as respondents to the survey questionnaire. To gather the required data for the research, the researchers personally distributed the survey questionnaire to the learners, who subsequently provided their responses.

Informed consent was obtained from all participants before their involvement in the study, and steps were taken to ensure the confidentiality and anonymity of their data. Institutional review

board approval was obtained before the commencement of the study, and all procedures were conducted with the utmost respect for the rights and well-being of the participants.

The survey questionnaire created by the researcher was comprised of three sections. In Part I, demographic information about the learners was gathered, including age, gender, time spent playing, and their parents' combined monthly income. Part II assessed learners' proficiency in incorporating Mobile Legend terminologies into English. This section covered vocabulary development through online resources, dictionaries, and thesauruses, inferring meanings of roots, affixes, and context clues, and reading comprehension skills like enumeration, time order, comparison, and contrast. Part III evaluated the learners' Electronic Communication Skills (ECS), utilizing Likert Scale questions ranging from 5 (highly skillful) to 1 (not skillful). The dry run procedure of the questionnaire was conducted on the selected 1st year BAEL (Bachelor of Arts in English Language Studies as Discipline) and BAL (Bachelor of Arts in Literature) students. To assess the questionnaire's validity and reliability, the researchers calculated a Cronbach's Alpha value of 0.75 for vocabulary learning efficiency from digital games. This result suggests that the instrument is appropriate for our research, indicating a reasonable level of reliability in measuring the intended constructs.

The study employed simple percentages, weighted mean, and Pearson R for various analyses. A simple Percentage was utilized to ascertain the profile of the respondents concerning age, gender, and the frequency of using online games. Weighted mean was applied to assess the effectiveness of integrating Mobile Legend terminologies into English instruction and Electronic Communication Skills. Finally, Pearson R was employed to investigate the significant relationship between learners' performance and their Electronic Communication Skills. To test the null hypothesis at a 0.5 level of significance, Pearson R was used to determine whether a positive or negative correlation existed.

4. Result and discussion

The goal of this study was to assess the effectiveness of Mobile Legend terminologies in English instruction among the 1st year BEED, BSED Math, BSED English, BTLED, and BEED (Evening) students in Cebu Technological University-Tuburan for the School Year 2022 - 2023. Specifically, it sought to check the demographic profile of the respondents, their performance in the integration of Mobile Legend in English instruction, the electronic communication skills of the learners in the use of the Mobile Legends online game, and the significant relationship between their Performance in English and electronic communication skills in using the Mobile Legends terminologies in English Instruction.

Table 1

Profile of Respondents in Terms of Age and Gender

n = 100

Age	Male		Female		Total	
	f	%	f	%	f	%
20 and above	4	4.00	1	1.00	5	5.00
19	12	12.00	5	5.00	17	17.00
18	50	50.00	19	19.00	69	69.00
17	7	7.00	2	2.00	9	9.00
Total	73	73.00	27	27.00	100	100.00

Note. Data analysis result of the research

The table presents the demographic breakdown of respondents based on age and gender, with one hundred participants ($n = 100$). It reveals that among male gamers, fifty individuals (50 percent) are aged eighteen, representing the highest proportion within the male category. In contrast, the lowest number, four individuals (4 percent), fall in the age group of fourteen and above. Among female gamers, the majority (19 percent) are aged twelve, while only one respondent (1 percent) is in the fourteen and above category. In summary, there are 73 male gamers and 27 female gamers, with the majority across both genders being twelve years old, totaling 69 respondents. Understanding the demographics of mobile gamers is crucial for developing social features and community-building initiatives within mobile games. Recognizing the age and gender distribution allows game developers to create environments that encourage social interactions and provide a sense of belonging for players. The data indicates that most male gamers are aged twelve, with a decline in numbers for ages fourteen and above. Similarly, most female gamers are under twelve, with a smaller percentage in the fourteen and above category. These findings align with Newzoo's (2020) report, indicating that the highest concentration of mobile gamers is in the 10 - 19 age group, with males dominating the space.

Additionally, Ferguson (2017) suggests that while mobile gaming is more prevalent among males, and they tend to spend more time gaming, the gender gap is smaller than other gaming platforms, emphasizing the inclusive nature of mobile gaming where both genders actively participate. The Ipsos (2018) survey further supports the idea that mobile gaming extends across different age groups, including older adults, demonstrating the broad appeal of mobile games beyond young individuals. Overall, understanding the age and gender distribution of mobile gamers is essential for game developers to create engaging and inclusive experiences. Tailoring game design, content, and social features to the preferences of different age groups and genders can enhance player engagement, foster a sense of community, and contribute to the overall success of mobile gaming.

Table 2

Profile of Respondents in Terms of Frequency of Using Online Games

$n = 100$

Time	f	%
More than 05 hours a day	9	9.00
03 - 04 hours	29	29.00
01 - 02 hours a day	62	62.00
Total	100	100.00

Note. Data analysis result of the research

The information in the table underscores the prevalence of online game usage among the respondents. The majority, accounting for 62%, reported dedicating 01 - to 02 hours to playing online games, while a mere 9% indicated spending more than 05 hours daily. This data implies that online gaming is predominantly perceived as a recreational pursuit during individuals' leisure time, suggesting that respondents allocate their time to other activities or responsibilities apart from online gaming.

These findings are consistent with the idea that online gaming is a source of entertainment and stress relief, as corroborated by Djannah et al.'s (2021) study. This research suggests that online games contribute to enjoyment and happiness during leisure, particularly for teenagers. Prasetio (2023) also proposes counseling techniques to mitigate online game

addiction, highlighting potential risks associated with excessive gaming, including challenges in time management and self-control, as well as possible impacts on social and academic performance. Recognizing the frequency of online game usage becomes crucial for promoting responsible gaming habits and addressing potential addiction concerns.

Acknowledging that online gaming often serves as a recreational activity during free time allows for implementing appropriate measures to ensure a healthy balance between gaming and other facets of life. In essence, the provided data offers valuable insights into the online gaming patterns of the respondents, underscoring the necessity for responsible gaming practices and emphasizing the importance of considering other activities and responsibilities beyond the gaming realm.

Table 3

Profile of Respondents in Terms of Time-played of Using Mobile Legend Game

n = 100

Time	f	%
Everyday	26	26.00
Almost everyday	17	17.00
03 - 04 days a week	21	21
01 - 02 days a week	36	36.00
Total	100	100.00

Note. Data analysis result of the research

The table presents the frequency of playing the game among 100 respondents. It shows that 36% play 01 - to 02 days a week, indicating they can manage their time effectively and balance their gaming habits with other responsibilities. This reflects a responsible approach to gaming, where individuals can engage in the game without negatively affecting their daily routine.

On the other hand, the lowest percentage of respondents (17%) reported playing the game almost daily. This raises concerns about excessive gaming and its potential consequences on individuals. The study by Mubarak (2022) highlights some reasons individuals may engage in extensive gaming, such as seeking entertainment, filling spare time, and avoiding social relationships.

While understandable, it is crucial to recognize that these motivations can lead to a lack of prioritization in daily tasks and potential negative impacts on individuals' productivity and social interactions. Understanding the motivations behind excessive gaming can help inform interventions and strategies to promote healthier habits and mitigate possible negative consequences.

The literature from Anas (2020) also suggests that behavioral counseling approaches, such as the self-management technique, can be effective in addressing online game addiction in students. This approach emphasizes self-reflection, problem-solving, and building self-confidence, ultimately supporting individuals in managing their gaming habits and achieving personal goals. Having a balanced perspective on gaming and its potential impacts is crucial. While gaming can provide enjoyment and entertainment, excessive gaming can lead to negative consequences.

Table 4*Profile of Respondents in Terms of their Parent's Monthly Income*

n = 100

Amount	f	%
Income (but not rich) at least 182,000	1	1.00
Between 109, 200 - 182, 000 (upper)	3	3.00
Between 63, 700 - 109, 200 (upper middle)	6	6.00
Between 36, 400 - 63, 700 (middle-income class)	2	2.00
Between 18, 200 - 36, 400 (middle income)	12	12.00
Between 9,100 -18, 200 - low income (but not poor)	22	22.00
Less than 9, 100 (poor)	54	54.00
Total	100	100.00

Note. Data analysis result of the research

The findings from Table 5 regarding the profile of respondents based on their parents' monthly income shed light on the financial stability of the respondents and its potential impact on their educational outcomes. Most respondents (54%) come from families with an income of less than 9,100. This suggests that many respondents face financial challenges and may be living in poverty or experiencing economic instability. This can have wide-ranging effects on students' academic performance and overall well-being. Research by Taylor (2017) supports the notion that low-income children may face physical and cognitive development difficulties, as well as healthcare access and key resources essential for their success. These disparities can have long-term consequences, with low-income students being more likely to drop out of school and less likely to graduate on time than their high-income counterparts.

Table 5

Learners' English Performance in Integration of Mobile Legend in English Instruction as to Vocabulary Development

n = 100

Competencies	\bar{x}	VD
Clarify the meaning of words using online resources	72.4	(FS)
Clarify the meaning of words using dictionaries	95.4	(O)
Infer the meaning of borrowed words and content-specific terms using context clues, affixes, and roots	79.1	(FS)
Total	82.3	(S)

Note. Legend: 90 - 100: Outstanding (O); 85 - 89: Very Satisfactory (VS); 80 - 84: Satisfactory (S); 75 - 79: Fairly Satisfactory (FS); Below 75: Did Not Meet Expectation (DNME). Data analysis result of the research

The table indicates that the learners excel in clarifying the meaning of words using dictionaries, achieving outstanding performance. This suggests that traditional practices, such as using dictionaries, are more commonly adopted by the respondents to understand unfamiliar words. On the other hand, the use of online resources for clarifying word meanings received a reasonably satisfactory rating, implying that learners less commonly utilize it. Furthermore, the learners' English performance in vocabulary development through the mobile legend game is

acceptable. This suggests that the game provides a platform for learners to expand their vocabulary and enhance their English skills, albeit with room for improvement. The literature supports these findings by highlighting the benefits of game-based learning for vocabulary acquisition. Dananjaya (2019) mentions that playing games like Mobile Legends can increase learners' vocabulary knowledge as they come across new words related to spelling, pronunciation, use, and meaning in the game. Exposure to foreign players and the motivation to understand the game's system and communicate effectively can drive learners to improve their English proficiency. Diantoro et al. (2020) further support that the Mobile Legend game significantly affects vocabulary mastery. The study suggests that the game can be an alternative teaching medium, providing opportunities for students to enhance their vocabulary skills. The findings indicate the mobile legend game's potential to contribute to learners' English vocabulary development. It offers an interactive and engaging platform for learners to encounter and learn new words. Integrating game-based learning into English language education can be a valuable strategy for enhancing vocabulary acquisition. Incorporating game-based learning, such as using Mobile Legends, into English language education can potentially engage and motivate learners while promoting vocabulary acquisition.

Table 6

Learners' English Performance in Integration of Mobile Legend in English Instruction as to Reading Comprehension n = 100

Competencies	\bar{x}	VD
Enumeration	40.5	DNME
Time order	69.8	DNME
Comparison and contrast	64.5	DNME
Total	82.3	DNME

Note. Legend: 90 - 100: Outstanding (O); 85 - 89: Very Satisfactory (VS); 80 - 84: Satisfactory (S); 75 - 79: Fairly Satisfactory (FS); Below 75: Did Not Meet Expectation (DNME). Data analysis result of the research

The outcomes displayed in Table 7 provide insight into the English performance of learners within the mobile legend game, particularly in the realm of reading comprehension. Notably, the time order category stands out with the highest average weighted mean of 69.8, indicating a relatively strong performance by learners in this aspect. Conversely, the enumeration category records the lowest average weighted mean of 40.5, signaling a need for improvement. Overall, the English performance of learners in the mobile legend game, specifically in reading comprehension, falls below expectations, as reflected in the average weighted mean of 58.27. This underscores the existence of room for improvement in the learners' reading comprehension skills.

To address this, Rasinski (2017) underscores the significance of teaching students to comprehend what they read, mainly as they engage with more intricate texts in higher grades. There is merit in considering integrating technology devices and online games into language learning activities, as Kobis and Tomatala (2020) suggested, who propose their potential efficacy for language learners. Based on the findings in Table 7, it is imperative to devote additional attention to enhancing the learners' reading comprehension skills within the mobile legend game context. This improvement can be achieved by implementing effective instructional strategies emphasizing understanding and incorporating technology-based language learning activities.

Table 7*Learners' Electronic Communication Skills as to Sociability*

n = 100

Statement	\bar{x}	VD
1. Suggest providing a system (chatroom)	3.56	S
2. Favor chatting publicly with a large group of people	3.00	MS
3. Propose new things to interesting people	3.31	MS
4. Widen the circle of online friends	3.71	S
5. Invite new acquaintances to do activities	3.57	S
Average Weighted Mean	82.3	S

Note. Legend: 5-Highly Skillful (HS); 4-Skillful (S); 3-Moderately Skillful (MS); 2-Low Skillful (LS); 1-Not Skillful (NS). Data analysis result of the research

The presented results in the table illuminate the electronic communication skills of learners, particularly in terms of sociability. The statement regarding expanding the circle of online friends achieved the highest mean of 3.71, indicating a skillful level. Conversely, the statement favoring chatting with a large group of people received the lowest mean of 3, categorized as moderately skillful. However, the overall average weighted mean of 3.43 suggests the respondents' skill level. These findings carry significant implications for formulating policies and guidelines to safeguard adolescents in online spaces. Implementing age-appropriate restrictions, content moderation, and educational programs focused on digital literacy and responsible online behavior becomes crucial to addressing adolescents' needs and safety online. The study contributes valuable insights to our comprehension of the intricate dynamics involving online communication, identity development, and sexual exploration in adolescents.

Furthermore, the study's implications extend to parenting, education, policy-making, and promoting safe and healthy online environments for adolescents. A survey conducted by Subrahmanyam et al. (2016) explores the relationship between identity presentation and sexual exploration in online chat rooms among teenagers, acknowledging the unique opportunities online platforms offer for self-expression, social connection, and information exchange, which are particularly attractive to this age group. Similarly, Valkenburg and Peter (2016) focus on online communication between adolescents, presenting a cohesive model illustrating its attractions, chances, and dangers. By acquiring an all-inclusive understanding of the factors influencing adolescents' engagement in online communication, policymakers and educators can effectively address potential consequences for their well-being. Understanding is paramount in addressing adolescent online communication.

In addition, a study by Wang et al. (2016) delves into the associations between personality factors, confidence, self-love, and the use of social networking sites among university students in China. This research provides valuable insights into understanding individuals' motivations and behaviors in using social networking sites, enabling the development of personalized interventions. Tailoring interventions based on personality traits and motivations can effectively promote the positive use of social networking sites while mitigating potential risks. In summary, the findings revealed in the table underscore the learners' electronic communication skills in terms of sociability, and the study's implications extend across various domains, including policy-making, education, and the cultivation of safe online environments. A comprehensive understanding of the complex relationships involving online communication, identity development, and individual traits informs interventions, educational programs, and policies to promote healthy and responsible use of social networking sites.

Table 8*Learners' Electronic Communication Skills as to Self-Disclosure*

n = 100

Statement	\bar{x}	VD
1. Disclose things that scare me	2.77	MS
2. Disclose things that I'm ashamed of	2.66	MS
3. Easily share my emotions	3.00	MS
4. Difficult to hide my emotions	2.94	MS
5. Write long texts	2.89	MS
Average Weighted Mean	2.85	MS

Note. Legend: 5-Highly Skillful (HS); 4-Skillful (S); 3-Moderately Skillful (MS); 2-Low Skillful (LS); 1-Not Skillful (NS). Data analysis result of the research

The findings from Table 9 indicate that the learners have moderately skillful electronic communication skills regarding self-disclosure. The highest average weighted mean of 3 for statement 3, "Easily share my emotions," suggests that learners are relatively comfortable expressing their emotions with their peers. On the other hand, the lowest average weighted mean of 2.66 for statement 2, "Disclose things that I'm ashamed of," indicates a moderately skillful response, suggesting that learners may feel less inclined to share things they find embarrassing or shameful.

Moreover, the average weighted mean of 2.85 further supports the notion of a moderately skillful level of self-disclosure among the learners. This implies that while they are relatively open in sharing their emotions, they may be less comfortable disclosing information in certain areas or topics. It is worth noting that acceptance by friends, frequent interpersonal interactions, and active participation in social activities can contribute to feelings of happiness and support among individuals, as Chen (2017) stated. These factors may affect the learners' willingness to disclose their emotions.

In addition, cultural backgrounds and life experiences can shape individuals' perceptions of self, others, and the relationship between oneself and others. For instance, in individualist cultures, people prioritize their autonomy and independence from the group, basing their actions on individual values rather than group norms. Thus, the findings show a moderately skillful level of self-disclosure among the learners regarding electronic communication skills. The results highlight the importance of considering factors such as acceptance, cultural backgrounds, and individual experiences when examining self-disclosure patterns in electronic communication.

Table 9*Learners' Electronic Communication Skills as to Emotion Decoding*

n = 100

Statement	\bar{x}	VD
1. Rarely wrong when thinking someone is happy	2.84	MS
2. Easily realize when someone is angry	3.24	MS
3. Sense the sadness of others, even if hidden	2.93	MS
4. Shield in identifying the emotions of others	3.11	MS
5. Pay attention to emoticons	3.19	MS
Average Weighted Mean	3.06	MS

Note. Legend: 5-Highly Skillful (HS); 4-Skillful (S); 3-Moderately Skillful (MS); 2-Low Skillful (LS); 1-Not Skillful (NS). Data analysis result of the research

The findings presented in the table indicate that learners' electronic communication skills in emotion decoding were assessed among 100 respondents. The statements evaluated covered a range of emotions, with statement two relating to the ability to quickly realize when someone is angry, receiving the highest mean of 3.24. On the other hand, statement one, regarding rarely being wrong when perceiving someone as happy, received the lowest mean of 2.84. The overall average mean was 3.06, indicating a moderately skillful rating for the learners' electronic communication skills in emotion decoding. These findings suggest that there is room for improvement in learners' ability to perceive and respond to emotions in electronic communication accurately. However, the study also highlights the potential for instructional interventions to enhance these skills through activities, prompts, discussions, explicit feedback, guidance, and practice opportunities. By integrating these strategies, educators can help learners improve their ability to recognize and interpret emotions in online communication. The study conducted by Li and Ranieri (2015) further explores learners' emotion-decoding skills in computer-mediated communication and examines the influence of various factors on emotion-decoding accuracy. Their mixed methods approach provides valuable insights into how learners interpret and understand emotions conveyed through electronic communication. This research contributes to a better understanding of the existing techniques and technologies used for emotion recognition in CMC. The review article by Q. Zheng et al. (2015) also contributes to the field by providing an overview of different approaches and technologies utilized for emotion recognition in CMC. The article discusses text-based, audio-based, and multimodal approaches, highlighting the challenges and future directions for research in this area. These studies emphasize the importance of improving learners' emotion decoding skills in electronic communication and highlight the potential for advancement in emotion recognition technologies. By integrating effective instructional interventions and leveraging emerging technologies, educators and researchers can work towards enhancing learners' ability to perceive and respond to emotions in electronic communication accurately.

Table 10

Learners' Electronic Communication Skills as to Assertiveness

n = 100

Statement	\bar{x}	VD
1. Do not express opinions if different from others	3.35	MS
2. Tell me when I disagree with someone	3.18	MS
3. Friends are considered assertive	3.24	MS
4. It is important to communicate my needs and boundaries	3.40	MS
5. Practice active listening and respect the opinions of others	3.92	S
Average Weighted Mean	3.42	S

Note. Legend: 5-Highly Skillful (HS); 4-Skillful (S); 3-Moderately Skillful (MS); 2-Low Skillful (LS); 1-Not Skillful (NS). Data analysis result of the research

The findings of Table 11 reveal the learners' electronic communication skills in assertiveness. Statement 5, which emphasizes practicing active listening and respecting the opinions of others, received the highest average weighted mean of 3.92, indicating skillful. In contrast, statement 2, which focuses on expressing disagreement with others, had the lowest average weighted mean of 3.18, indicating a moderately skillful stance. It was shown that the learners' electronic communication skills in assertiveness were rated with an average weighted

mean of 3.42, indicating skillful. This suggests that the learners are assertive and actively consider the opinions of their peers in their communication. Encouraging assertiveness among students can foster positive communication skills and contribute to their overall growth and development. Assertiveness is a skill tightly linked with self-confidence, self-esteem, and managing anxiety Ghodrati et al. (2016). Developing assertiveness skills can empower teenagers to navigate their interactions effectively, positively impacting their self-efficacy, trust-building, and self-esteem. Conversely, a lack of assertiveness can present challenges for young people, particularly when facing peer pressure and other social dynamics during adolescence. By focusing on fostering assertiveness skills among students, educators can help them navigate their peer group, communicate their needs and opinions effectively, and build healthy relationships. This can positively impact their personal and social development during this critical phase of their lives.

Table 11

Summary Table on the Electronic Communication Skills

n = 100

Factors	\bar{x}	VD
Sociability	3.45	S
Self-Disclosure	2.85	MS
Emotion Decoding	3.06	MS
Assertiveness	3.42	S
Factor' Weighted Mean	3.42	MS

Note. Legend: 5-Highly Skillful (HS); 4-Skillful (S); 3-Moderately Skillful (MS); 2-Low Skillful (LS); 1-Not Skillful (NS). Data analysis result of the research

The findings in the summary table on electronic communication skills highlight the average weighted mean of 3.42, which is verbally described as moderately skillful. This suggests that the overall electronic communication skills of the participants fall within a moderately skillful range. Among the factors examined, sociability had the highest mean of 3.45, indicating skillful, while self-disclosure had the lowest mean of 2.85, indicating a moderately skillful stance. The increasing importance of electronic communication in the lives of adolescents is evident in the proliferation of digital technologies and social media platforms. These platforms have become integral to adolescents' social interactions, making it essential to understanding how electronic communication skills relate to their offline social skills. Exploring this relationship is crucial for comprehensively understanding adolescents' social development in the digital age. Mantzouranis et al. (2019) conducted a study that recognized the significance of electronic communication for adolescents and aimed to understand its connection to their social skills. They developed the Real and Electronic Communication Skills Questionnaire (RECS-Q) to capture the complexity of communication skills in different contexts. The study's implications highlight the need to acknowledge and study the role of electronic communication in the social skills development of adolescents. This research lays the groundwork for future studies and interventions considering the multidimensional nature of communication in the digital era. Overall, the discussion emphasizes the importance of understanding electronic communication skills and their impact on adolescents' social development. By recognizing the nuances of communication in online and offline contexts, researchers and educators can better support adolescents in navigating the digital landscape and developing their social skills.

Table 12

Significant Relationship Between the Learner's Performance in English and Electronic Communication Skills in the Use of the Mobile Legends Terminologies in English Instruction

n = 100

	Vocabulary Development	Reading Comprehension	Electronic Communication Skills
Vocabulary development	1		
Reading comprehension	.412**	1	
Electronic communication skills	0.22	0.104	1
Factor' Weighted Mean	3.42		MS

Note. **. Correlation is significant at the 0.01 level (2-tailed). Data analysis result of the research

The correlation analysis revealed a significant positive correlation between vocabulary development and reading comprehension ($r = .412$, $p < .01$). This finding suggests that when students enhance their vocabulary development skills, their reading comprehension abilities also tend to improve. However, no significant correlation was found between vocabulary development and electronic communication skills ($r = .022$, $p > .05$), indicating a weak relationship between these two variables. Similarly, there was no significant correlation between reading comprehension and electronic communication skills ($r = .104$, $p > .05$), indicating a lack of strong association between students' reading comprehension abilities and their electronic communication skills in the study context. These results provide insights into the unique relationships between the variables examined in this study. Several previous studies have supported the positive correlation found between vocabulary development and reading comprehension (Smith et al., 2018).

This suggests that improving vocabulary skills can contribute to enhanced reading comprehension abilities. Regarding the relationship between vocabulary development and electronic communication skills, the lack of significant correlation aligns with the findings of Jones et al. (2019). Their study focused on integrating technology into language learning and found no strong association between vocabulary development and electronic communication skills. Similarly, the absence of a significant correlation between reading comprehension and electronic communication skills is consistent with the findings of Kim and Park (2019). Their research also examined the impact of electronic communication skills on reading comprehension and found no significant relationship between the two variables. These supporting studies reinforce the current findings of the study, which suggest that vocabulary development and reading comprehension are positively correlated. At the same time, electronic communication skills do not have a significant relationship with either vocabulary development or reading comprehension in the context of integrating Mobile Legends in English instruction among the 1st year education students in CTU-Tuburan.

In addition, these findings provide valuable insights for educators and researchers seeking to design effective interventions and instructional strategies to support language learning among the 01st year education students in CTU-Tuburan. The importance of this study lies in its contribution to understanding the relationships between vocabulary development, reading comprehension, and electronic communication skills in the context of integrating Mobile

Legends in English instructions. Examining these variables provides valuable insights into the factors influencing language learning and literacy development among this specific group of learners. These findings highlight the need for educators to prioritize vocabulary development and reading comprehension in English instruction for the 1st year education students.

Thus, the study's findings can inform educators and researchers in designing more targeted and effective instructional strategies to enhance vocabulary development and reading comprehension skills. With a better understanding of the correlations and lack of correlations found in this study, educators can focus on areas that directly impact language and literacy development, potentially leading to improved academic outcomes and language proficiency among first-year students. This study's findings empower educators to enhance language instruction, focusing on key areas and adapting strategies for academic success.

5. Conclusions and recommendations

The study aimed to assess the effectiveness of integrating Mobile Legends terminologies in English instruction among the 01st year education students in CTU-Tuburan. The researcher collected data through questionnaires and focused on evaluating vocabulary development, reading comprehension, and social interaction skills. The findings revealed that the respondents were generally proficient in using online resources to clarify word meanings. However, there was room for improvement in enumeration, time order, and comparison and contrast skills. The assessment of personal factors showed mixed proficiency levels, with sociability rated as skillful but self-disclosure, emotion decoding, and assertiveness rated as moderately skillful. The study found a significant positive correlation between vocabulary development and reading comprehension, suggesting that improved vocabulary skills led to better reading comprehension. However, no significant relationship was found between vocabulary development or reading comprehension and electronic communication skills in the context of the study. These findings provide insights for integrating Mobile Legends terminologies in English instruction among the 01st year education in CTU-Tuburan for the school year 2022 - 2023.

NO CONFLICT OF INTEREST STATEMENT

All authors declare that they have no conflict of interest.

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