(Review Article)

The influence of multimedia tools on enhancing English language proficiency

MERLINA CULALA GARCIA [1] and JOEY ALEDO DE LA CRUZ [2,*]

[1] Department of English Literature, Nueva Ecija University of Science and Technology, Philippines.
[2] Department of Information and Communication Technology, Nueva Ecija University of Science and Technology, Philippines.

Abstract

This study investigates the influence of multimedia tools on English language proficiency among Bachelor of Science in Information Technology (BSIT) students at Nueva Ecija University of Science and Technology. In today's digital landscape, where English serves as the global lingua franca of Internet communication, understanding how multimedia tools impact language learning has become increasingly significant. Through quantitative research methodology, we administered survey questionnaires to 64 BSIT students across all year levels, collecting digital and physical data.

The research examines students' demographic profiles and challenges in English communication (including pronunciation, vocabulary acquisition, and grammatical accuracy). It evaluates the effectiveness of various multimedia tools in addressing language barriers and supporting academic communication. Our investigation hypothesizes that interactive applications, online games, educational videos, and audio resources significantly enhance language competency, particularly in speaking fluency, vocabulary development, and listening comprehension.

Findings reveal that multimedia integration in language learning positively correlates with improved communication skills and academic performance. The results provide valuable insights for students, educators, school administrators, and developers of language learning platforms, offering practical recommendations for enhancing English teaching methodologies through technology integration. This research contributes to the growing knowledge of technology-enhanced language learning in Philippine higher education settings.

Keywords: English language proficiency; Multimedia tools; BSIT students; Language learning technology; Educational technology; Communication barriers; Language acquisition; Digital pedagogy; Academic communication; Higher education

1. Introduction

"English has become the lingua franca of the global network: where the TCP/IP protocol secures technical communication between computers via the internet, English is the "protocol" for oral and written communication across national frontiers." Hjarvard (2004).

With the constant rise of the digital age, the advancement of newer and more immersive technology has glued itself into our very society, which dictates how we see and experience the world. Technological advancements, mainly the internet, have impacted how the world interacts with each other; streaming services like Netflix, Disney+, and Paramount Plus are all directly rooted in the internet as they replaced cable TV and social media like YouTube, Twitter, and Facebook are now the primary medium of communicating with one another. Communication with different countries and

* Corresponding author: JOEY A DE LA CRUZ

nationalities is now as every day as talking with neighbors daily; knowing how to communicate with them has been beneficial in cultural exchanges, and one of the main languages used to communicate with one another is English.

Media plays a big part in culture and language; it facilitates and develops language and communication, be it English or any language used in media. Amidst media being catered to all generations, each generation is influenced differently since each has a different relationship with media. This study aims to determine how media and multimedia tools influence English proficiency among college students.

1.1. Background of the study

Younger generations, mainly Gen Alpha and later born Gen Zs, are born and already presented with technology as part of their daily lives; most kids nowadays already have their first iPads at the age of 3 or 4, and this exposes them very early in life to media, with many children already knowing how to navigate through an iPad or social media a the age of 4 or 5. Al-Harbi (2015) stated in an article that "media exposure is one means for children to receive linguistic input that can to some extent contribute to children's language development." he supported his statement with an article by Roseberry, Hirsh-Pasek, and Golinkoff (2009) where they conducted three studies that examined whether children can learn vocabulary from video and social interactions together, from video alone, and live interaction alone. The study concluded that younger children learned more vocabulary from live interactions alone, while older children learned more from video alone.

A book by Jones, Belli, and Julyan (n.d.) stated that language development among adolescents may not appear as profound as in previous developmental periods but still has a definite development during this time, mainly in grammar, syntax, and vocabulary. Now that most teens and adults are focused and are engrossed in their "internet personas" and lives and that the most common language on the internet is English, stated by a study from The Internet Society Foundation, people could have been influenced by the amount of English is used on the internet. Khan (2023) cited an article titled "Acquisition of Multiple Languages Among Children of Immigrant Families: Parents' Role in the Home-School Language Pendulum," where they said that "infants can learn languages more easily than adults who know how language structure and the world works."

1.2. Objectives of the Study

The main objective of this study is to investigate and evaluate the impact of different multimedia tools in enhancing learners' proficiency in the English language. It is a research that tries to find out how varied multimedia tools such as educational videos, software for interactive use, social media, and digital games—contribute to enhancing English learning proficiency.

The research is more specifically into multimedia tools' effects on developing listening, speaking, reading, and writing skills in a language. It will also engage in how multisensory tools energize and motivate learners in learning languages. It will also investigate how traditional learning and media-enhanced learning approaches affect themselves.

Furthermore, the impacts of multimedia tools on language learning will be assessed by respondents for the retention and implementation of language skills. It will also include an understanding of how age and education level and earlier assumptions of multimedia tools affect the outcome of language learning. These goals will facilitate new insights into what multimedia does to language education and suggest measures for improving English teaching practices to educators and policymakers.

2. Material and methods

2.1. Research Design

This research uses a quantitative method to determine and examine how multimedia tools impact students' English proficiency. Specifically, it explores respondents' perceptions regarding their challenges when communicating in English and strategies and tools to address them effectively.

The quantitative method used statistical treatment to interpret the findings numerically and describe the results through descriptive design (Eteng, 2022). This design is suited to this study as it can accurately reflect the respondents' answers.

2.2. Research Locale

The study was conducted at Nueva Ecija University of Science and Technology in Palayan City, Nueva Ecija. The university is known for its commitment to scientific research and academic excellence. It provides a conducive environment for conducting research in various fields.

Figure 1 Map of NEUST, Atate Campus

2.3. Research Participants

The participants of the study were students studying at Nueva Ecija University of Science and Technology, specifically those taking Bachelor of Science in Information and Communications Technology. These students were chosen as preferred participants due to their profile aligning with the study's purpose. A total of 64 students from the BSIT first-year to fourth-year class were asked to address the underlying problems of the study thoroughly.

The study employed the purposive sampling technique to select participants who met the study criteria. Purposive sampling is a non-probability sampling method where units are intentionally chosen based on specific characteristics required for the study (Nikolopoulou, 2022). This technique ensures that respondents are deliberately selected to provide the most relevant information to achieve the study's objectives. It is commonly used in studies that employ both qualitative and quantitative methods.

2.4. Data Collection Methods

This research aims to gather the necessary information to explore and understand the topic. The researchers will use the survey method to gather the data to answer the research questions directly. The respondents were given access through digital communication sites like Messenger and a link to a Google Form that facilitated the survey. Other than that, printed copies were also distributed to those who prefer a hard copy. All the relevant information as to when obtained will be recorded and guaranteed to be safe. There are no risks in participating in this study. Privacy will be ensured through confidentiality.

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2.5. Data Analysis Methods

This quantitative study aims to investigate the influence of multimedia tools on enhancing students' proficiency in the English language. Using a survey and questionnaire done through Google form and paper ensured the provision for measurable insight into the experience and perceptions that the students have regarding the usage of multimedia tools in enhancing learning through their perception. A non-experimental design using the observational approach highlighted some trends and relationships without an intervention that manipulated variables.

3. Results and discussion

3.1. Presentation of Data
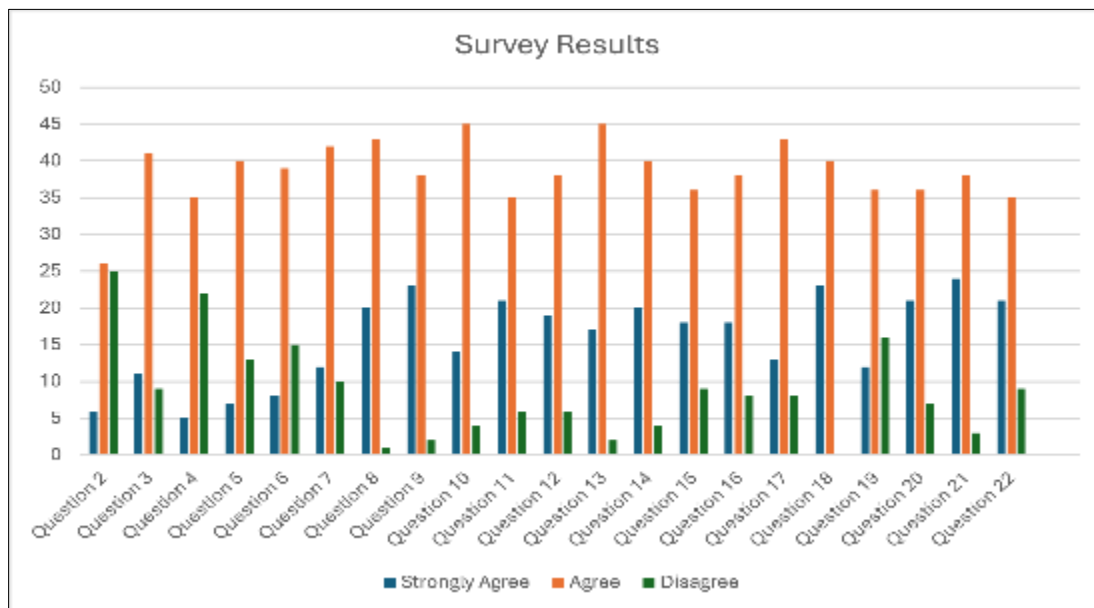
Figure 2 Survey Result Chart

3.2. Analysis of Findings

The data collected for the study consists of 64 respondents from Nueva Ecija University of Science and Technology Atate Campus students using the survey method. The researcher uses survey questionnaires and Google Forms to collect data.

Table 1 Gender

Gender	Number of Respondents	Percentage
Male	37	57.8%
Female	27	42.2%
Total	64	100%

Table 1. clearly shows the gender distribution of respondents, with males representing slightly more than half of the participants at 57.8% and females comprising 42.2%.

Table 2 Age Distribution of Respondents

Age	Number of Respondents	Percentage
18	25	39.06%
19	16	25.00%
20	13	20.31%
21	6	9.38%
22	3	4.69%
23	1	1.56%
Total	64	100%

The data shows a clear trend of younger respondents being more represented in the survey. Those below 20 constitute the majority (64.06%) of respondents, with 18-year-olds making up the largest single group at 39.06%. Participation decreases steadily with age, with only 15.63% of respondents being 21 years or older. This suggests that younger individuals (18-19) participate more actively or use multimedia than those aged 20 and above.

Table 3 Language

Language	Number of Respondents	Percentage
Tagalog	56 out of 64	87.5%
English	53 out of 64	82.8%

Table 3. Data shows that Tagalog is slightly more prevalent among the 64 respondents surveyed than English. While a large majority (87.5%) of respondents speak Tagalog, English is also widely spoken by 82.8% of the respondents. This suggests a high degree of bilingualism in the surveyed population, with most individuals likely speaking both languages. The slight difference between the two percentages (4.7%) indicates that the languages have similar usage levels within this group.

Table 4 Media Consumption and Learning Preferences

Frequency	Response Count	Percentage
Daily	52	81.25%
A few times	9	14.06%
Rarely	3	4.68%
Never	0	0%
Total	64	100%

Table 4. The data shows that most respondents (81.25%) consume media daily, indicating high media engagement. A smaller portion (14.06%) reported consuming media only a few times, while 4.68% rarely did. Notably, no respondents indicated that they never consume media. This suggests that media consumption is a regular activity for nearly all participants, with daily usage being the most dominant pattern.

Table 5 English Language Challenges

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Total
have difficulty understanding spoken English in real-life situations	6 (9.38%)	26 (40.62%)	25 (39.06%)	7 (10.94%)	64 (100%)
find it challenging to express fluently in English	11 (17.19%)	41 (64.06%)	9 (14.06%)	3 (4.69%)	64 (100%)
have trouble understanding cultural context or idiomatic expressions	5 (7.81%)	35 (54.68%)	22 (34.38%)	2 (3.13%)	64 (100%)
face challenges with pronunciation when speaking English	7 (10.94%)	40 (62.50%)	13 (20.31%)	4 (6.25%)	64 (100%)
struggle with finding the correct vocabulary when speaking or writing	8 (12.50%)	39 (60.94%)	15 (23.43%)	2 (3.13%)	64 (100%)
encounter grammar issues when constructing sentences	12 (18.75%)	40 (62.50%)	10 (15.62%)	2 (3.13%)	64 (100%)

Table 5. The data reveals significant English language challenges among the 64 respondents. Grammar issues pose the most critical difficulty, with 81.25% agreeing they encounter problems constructing sentences. A similar proportion (81.25%) struggle with expression fluency. Pronunciation challenges affect 73.44% of respondents, while vocabulary

difficulties trouble 73.44% when speaking or writing. Understanding cultural context and idiomatic expressions presents problems for 62.49%. Interestingly, real-life spoken English comprehension shows the lowest agreement at 50%, with 50% disagreeing, suggesting this may be less problematic than productive skills. The results indicate that most respondents face multiple challenges with English language skills, particularly with production aspects like grammar, fluency, and pronunciation.

Table 6 Effectiveness of Multimedia Tools for English Learning

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Total (%)
Multimedia tools help overcome language barriers in English	20 (31.25%)	43 (67.19%)	1 (1.56%)	0 (0%)	64(100%)
Multimedia tools have been effective in improving academic and professional communication in English	23 (35.94%)	38 (59.37%)	2 (3.13%)	1 (1.56%)	64 (100%)
Using multimedia tools encourages to give and receive feedback, enhancing the learning process in English	14 (21.88%)	45 (70.31%)	4 (6.25%)	1 (1.56%)	64 (100%)
Multimedia tools help self-assess and track progress in learning English	21 (32.81%)	35 (54.68%)	6 (9.38%)	2 (3.13%)	64 (100%)
Language learning apps have helped improve vocabulary and grammar	19 (29.69%)	38 (59.37%)	6 (9.38%)	1 (1.56%)	64 (100%)
Watching videos or listening to podcasts has improved listening comprehension skills	17 (26.56%)	45 (70.31%)	2 (3.13%)	0 (0%)	64 (100%)
Interactive tools like quizzes, games, and virtual tutors have helped practice English more engagingly	20 (31.25%)	40 (62.50%)	4 (6.25%)	0 (0%)	64 (100%)
feel more confident in using English in academic or professional settings after using multimedia tools	18 (28.13%)	36 (56.25%)	9 (14.06%)	1 (1.56%)	64 (100%)
Multimedia tools provide a personalized learning experience that caters to specific English language needs	18 (28.13%)	38 (59.37%)	8 (12.50%)	0 (0%)	64 (100%)
Using multimedia tools has helped improve speaking and pronunciation in English	13 (20.31%)	43 (67.19%)	8 (12.50%)	0 (0%)	64 (100%)

Table 6. The data reveals overwhelming support for multimedia tools in English language acquisition among the 64 respondents. An extraordinary 98.44% agree that these tools help overcome language barriers, with zero strong disagreement. Similarly, high approval (95.31%) exists for their effectiveness in improving academic and professional communication. Multimedia tools show particular strength in enhancing listening comprehension, with 96.87% noting improvement through videos and podcasts. Interactive tools like games and quizzes are valued by 93.75% of respondents for making practice more engaging. The tools are also highly regarded for facilitating feedback (92.19%), improving vocabulary and grammar (89.06%), and enabling self-assessment (87.49%). While still positive, slightly lower agreement appears for speaking/pronunciation improvement (87.5%), confidence building (84.38%), and personalized learning experiences (87.5%), suggesting potential areas for enhancement.

Table 7 Specific Media Usage and Preferences

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Total
have used social media platforms to practice or learn English	23 (35.94%)	40 (62.50%)	0 (0%)	1 (1.56%)	64 (100%)
prefer using multimedia tools for learning English over traditional classroom methods	12 (18.75%)	36 (56.25%)	14 (21.88%)	2 (3.13%)	64 (100%)
believe that watching movies or TV shows in English helps improve language proficiency	21 (32.81%)	36 (56.25%)	7 (10.94%)	0 (0%)	64 (100%)
often use subtitles while watching videos or movies to enhance understanding of the language	24 (37.50%)	38 (59.38%)	2 (3.13%)	0 (0%)	64 (100%)
enjoy using apps or online platforms to practice English speaking skills	21 (32.81%)	35 (54.69%)	8 (12.50%)	0 (0%)	64 (100%)

Table 7. The data demonstrates overwhelmingly positive attitudes toward multimedia approaches for English language learning. Nearly all respondents (98.44%) report using social media platforms for English practice, indicating these tools have become virtually ubiquitous in language learning. Subtitles play a crucial role in comprehension, with 96.88% of respondents utilizing them when watching videos or movies. A substantial majority (89.06%) believe watching English movies or TV shows improves language proficiency. Similarly, 87.5% enjoy using apps or online platforms to practice speaking skills. While multimedia tools are generally preferred over traditional classroom methods by 75% of respondents, this statement received the highest disagreement (25.01%), suggesting that while digital approaches are popular, a quarter of learners still value traditional instruction methods, perhaps as a complementary approach.

4. Conclusion

The study was conducted to find out how multimedia tools influence the English proficiency of college students at the Nueva Ecija University of Science and Technology (NEUST) ATATE Campus. The research highlights that multimedia resources, including apps, videos, and interactive games, are especially beneficial for improving speaking and pronunciation, vocabulary development, listening skills, and grammar proficiency. Tools such as subtitles, quizzes, and adaptive learning systems enable students to learn quickly. Multimedia resources have demonstrated their effectiveness in enhancing students' confidence to utilize English in academic and professional contexts, highlighting their essential role in contemporary language education.

The engaging characteristics of multimedia tools greatly enhanced students' enthusiasm and self-confidence. The results highlight the importance of incorporating multimedia resources into English language teaching. Their ability to meet individual learner needs, enhance engagement, and promote practical language use makes them essential in the classroom.

Multimedia resources have changed how learners acquire and enhance their English skills. These tools close the gap between conventional techniques and contemporary educational requirements by enhancing the accessibility, enjoyment, and effectiveness of learning. Incorporating them into language programs is not merely advantageous but necessary for equipping students to succeed in a growing global and digital landscape

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest is to be disclosed.

Statement of informed consent

This study obtained informed consent from all participants after thoroughly explaining its purpose, procedures, risks, benefits, and confidentiality measures. Participants were informed they could withdraw at any time.

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