

Android-Based Digital Media through Green Marketing in the Lake Toba Area on English Language Skills

Author:

Idawati Situmorang¹

Muhammad Sakban²

Afiliation:

AMIK Parbina Nusantara^{1,2}

Corresponding email

idadawatisitumorangpasca@gmail.com

Histori Naskah:

Submit: 2025-07-18

Accepted: 2025-08-10

Published: 2025-08-12



This is an Creative Commons License This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License

Abstract:

The low level of public awareness, especially in small towns, about the importance of equipping ourselves with foreign language skills. Students are still often afraid to make mistakes when using English. Digital media offers various advantages that can increase the effectiveness of English learning, one of which is the Android smartphone, which can be used as an alternative medium to obtain learning about various English language skills. Students can use it as an English learning tool. Improving English skills through green marketing is an effort to train English communicatively through marketing Lake Toba tourism using English so that students interact directly with foreign tourists and help to promote Lake Toba globally. Collaborative classroom action research with the Kemmis & McTaggart model. The subjects of the study were 23 students of AMIK Parbina Nusantara. The instruments used in the observation were assessment sheets and documentation. The indicator of success in this study is when the average English speaking ability has reached 80%. The results of this study indicate an increase in English speaking skills. This is evidenced by an increase in the average English speaking skills of students in the Pre-action of 60.04%, increasing to 78.08% in the Cycle I action, and reaching 90.51% in the Cycle II action. The English speaking skills of students increased after researchers provided action through android-based digital media through green marketing in the Lake Toba tourist area.

Keywords: Android; English; Digital_Media; Green_Marketing; Lake_Toba

Introduction

Education is one of the keys to achieving the SDGs, where quality education is not only a goal of achievement but also a strong foundation for realizing other sustainable development goals (Sukandar & Giyoto, 2024)(Sutirna, 2021). In the context of education, especially in English language learning, the implementation of SDGs is very relevant to equip students with the knowledge and skills needed to face global challenges in the future (Ardila et al., 2024)(Sofyan et al., 2025). Unfortunately, the facts about education in Indonesia show that English language proficiency is still very low and tends to decline annually (up to 28%) in the 2019-2023 period. Not to mention the geography of Indonesia's territory which makes it difficult to equalize quality education. In an effort to realize the development of Golden Indonesia 2045,

the most important pillar is the acceleration of education evenly, including increasing English language competency which is still far from ideal (Press, 2021). Digital media offers various advantages that can increase the effectiveness of English language learning (Melati, 2024). First, digital media provides unlimited access to various learning resources, ranging from e-books, learning videos, language applications, to online discussion forums (Adedo & Deriwanto, 2024). These resources allow learners to access materials according to their needs and learning styles (Urba et al., 2024)(Lestari & Kurnia, 2023). Second, digital media can facilitate more interactive and engaging learning. For example, the use of videos and animations can help explain difficult concepts in a more visual and understandable way (Annisa et al., 2023)(Saman, 2023). In addition, interactive language learning applications can provide adaptive practice and immediate feedback to learners, so they can correct their mistakes quickly and effectively (Rohmawaty et al., 2024)(Ramadhan, 2023).

Green marketing has variables that affect the purchase of products from tourists visiting Lake Toba. Analysis of the green marketing system is an important part of efforts to develop agro-based tourism. In line with the traditional marketing mix, the green marketing mix has four dimensions, namely green product, green price, green place, and green promotion (distribution) (Triana, 2021). Therefore, the green marketing mix refers to institutional efforts in designing products, setting prices, promoting, and distributing environmentally friendly products. Green marketing can also help build better relationships with local communities (Febriane, 2022). Green marketing will involve students directly through activities that make active communication with foreign tourists (Pratama et al., 2023).

The use of language will be very important as a global delivery medium (Putri, 2019)(Sa'ban et al., 2023). The current condition of Lake Toba tourism shows that the use of information still dominates Indonesian for tourism promotion. In addition to the problems found in the use of language, there are also other problems, namely regarding the use of English to convey promotional messages that can arouse the interest of tourists to visit the Lake Toba Destination. Thus, through green marketing as part of public relations communication management in the tourism industry, it provides a direct English learning experience.

The formulation of the problem in this study is whether android-based digital media through green marketing in the Lake Toba tourist area can improve English speaking skills? and does it have any effect on students' English conversation?

Literature Study

Green marketing is a marketing practice that pays attention to the environment. This marketing strategy is implemented to build a positive brand image and promote environmentally friendly products. Green marketing makes environmental issues a strategy developed to introduce or market products. Green marketing indicators cover four main aspects referred to as the "4Ps" in traditional marketing, namely green product, green promotion, green price, and green place (UMSIDA). The following is a brief explanation of each aspect: (1) Green Product (environmentally friendly product), namely a product that is designed, produced, and packaged by considering the positive impact on the environment; (2) Green Promotion (Environmentally Friendly Promotion). A marketing strategy that emphasizes environmental values and practices to attract consumers; (3) Green Price (Environmentally Friendly Price), is a pricing strategy that takes into account sustainable business practices and promotes environmental awareness; (4) Green Place (Environmentally Friendly Place), namely building distribution channels and sales outlets that support sustainable practices. The implementation of these four indicators will help companies build a sustainable brand image, support environmental conservation efforts, and meet the expectations of consumers who are increasingly concerned about environmental issues (Yandi et al., 2023).

Media as a teaching aid is developing rapidly in line with technological advances. The variety and type of media are quite numerous so that they can be utilized according to time, finances, and the material to be delivered. One example of a telecommunications tool that is currently developing is telecommunications that uses Android. Android is one of the mobile devices that uses Linux developed by Google and developed together with other companies that are members of the Open Handset Alliance. Android provides an open platform for developers who create their own applications that can be used by various mobile devices. The use of mobile applications in the teaching process also raises learning motivation and has a psychological effect on students. With mobile applications, they can be utilized as a tool in an interactive learning process because it is more fun where learning is a combination of several elements, namely text, images, audio, video and animation (Pratama et al., 2023).

The use of digital media in language learning is essential in global, business, and academic communication. Digital media offers various advantages that can increase the effectiveness of English learning (Marzuki, 2023). Several studies support that Android-based educational games can improve English vocabulary skills (Rokhman & Ahmadi, 2020). Through interactive multimedia based on Android applications, basic English material is declared suitable for learning (Damayanti & Kristiantari, 2022). Based on several studies that have been conducted, the researcher developed a green marketing concept, which is a promotional activity in the Lake Toba tourist area. Students will promote Lake Toba using English, and students will communicate with foreign tourists. Therefore, green marketing and Android-based digital media are new in this research. The press is obtained through the Play Store and can be installed on Android. The applications recommended by the researcher are Duolingo, which is used to improve vocabulary, and the Fondi application, which can help students improve speaking.

Research methods

This research was conducted in July 2025 using the Classroom Action Research (CAR) method. This examination uses the Kemmis and Mc. Taggart (Hopkins) torsion model. In this arrangement model, a coil frame is used as shown in Figure 1. because this study explores the influence of Android-based digital media through green marketing on improving English speaking skills among Diploma 3 (D3) students. The role of Android-based digital media through green marketing in the Lake Toba area in improving students' English language skills is described in the research concept as shown in Figure 4.



Figure 1. Research concept map

Based on Figure 3, each cycle consists of four teams, namely: 1) planning; 2) acting; 3) observing; and 4) reflecting. The research was conducted in a repetitive and continuous cycle (spiral), which means that the longer it is, the more changes or achievements of the results are expected to increase.

There are two types of instruments in this study, namely observation and documentation. In this investigation, the researcher decided to collect information through an English pronunciation test through observation. This test is used to determine English speaking ability. The equation used for processing the assessment results in this study is as follows:

$$P = \frac{F}{N} \times 100\%$$

Information:

F = Repetition whose description is sought

N = Number of Cases (number of frequencies or number of people)

P = Total area

After the researcher collects the information as a whole, then, then tries to combine and characterize the information and select the information in this study. This fills in as a response to the difficult definition that has been completed. The information obtained in this examination is described in four levels, namely good, sufficient, insufficient, and not good.

The marker of success in this study is the improvement of English speaking skills of D3 Amik Parbina Nusantara students in the use of android-based digital media through digital marketing. The method is said to be effective if the normal level of students' English speaking ability considering the steps has reached 80% and can be seen from the consequences of learning exercises arranged in the action perception sheet. The achievement of activities can be known by looking at the consequences of the Exercises of each cycle completed in the learning exercise.

Results

The English speaking ability of D3 AMIK Parbina Nusantara students through green marketing in the Lake Toba tourist area at the main, second, and third meetings of Cycle I is presented in Table 1 below:

Table 1. Improving Students' English Language Skills Through Green Marketing in the Lake Toba Tourism Area in Cycle I.

No	Name	Meeting I	Meeting II	Meeting III	Total Score
1	AFR	9	9	9	9
2	CFO	5	5	6	5.3
3	AMM	5	4	6	5
4	FGT	9	9	9	9
5	AYS	4	3	6	4.3
6	HSS	7	7	9	7.6
7	HSR	5	6	4	5
8	HHS	7	9	8	8
9	PGM	7	9	9	8.3
10	PAZ	5	7	9	7

11	SPC	8	7	8	8
12	JSR	6	5	6	5.6
13	LAP	9	9	9	9
14	LBB	6	4	6	5.3
15	TFT	6	9	8	7.6
16	YKC	4	6	6	5.3
17	RID	8	9	9	8.6
18	AFJ	6	9	9	8
19	KST	6	9	9	8
20	SLB	5	7	7	6.3
21	JFS	4	4	3	3.6
22	DAG	8	9	9	8.6
23	GCS	4	7	8	6.3
Total number		143	162	172	159.27
%		69.63	79.68	80.48	78.08

Based on the above information, at each meeting in Cycle I, it was realized that there was an increase in students' English speaking ability through green marketing in the Lake Toba tourist area even though it had not reached a reasonable goal. While the expansion that occurred during the Pre-activity and after the Cycle I activity, the information obtained is presented in Table 2 below:

Table 2. Improving English Speaking Skills of Students Through Green Marketing in the Lake Toba Tourist Area during Pre-Activities and Activities.

Information	Pre-action	Cycle I
Total Score	130	159.27
Percentage %	60.04	78.08

Based on the information in Table 2 in the Percentage % above, there tends to be an increase in students' English speaking ability through green marketing in the Lake Toba tourist area during the pre-activity and activity hours in Cycle I. Figure 1 below:

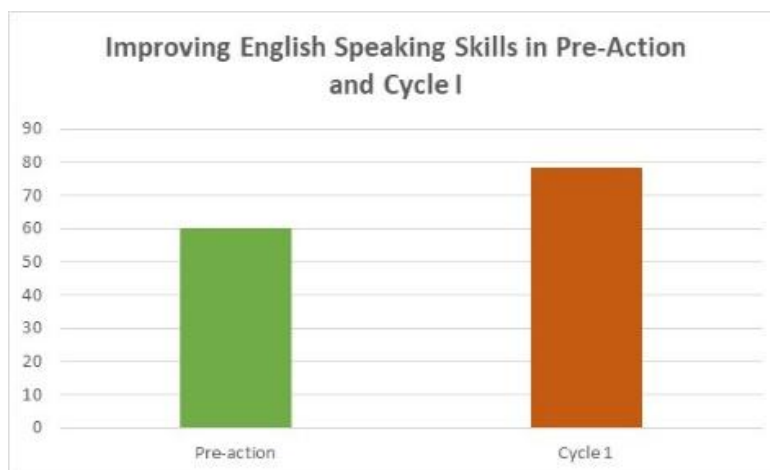


Figure 2. Diagram of Improving English Speaking Skills in Students Through Green Marketing in the Lake Toba Tourist Area in Pre-Activity/Pre-Action and Cycle I

English speaking ability of students through green marketing in the Lake Toba tourist area of D3 AMIK Parbina Nusantara students at the first, second, and third meetings of Cycle II is presented in Table 3 below.

Table 3. Improving Students' Speaking Skills Through Green Marketing in the Lake Toba Tourist Area in Cycle II Action

No	Name	Meeting I	Meeting II	Meeting III	Total Score
1	AFR	9	9	9	9
2	CFO	6	6	8	6.6
3	AMM	8	8	9	8.3
4	FGT	9	9	9	9
5	AYS	7	9	9	8.3
6	HSS	9	9	9	9
7	HSR	7	9	9	8.3
8	HHS	9	9	9	9
9	PGM	8	9	9	8.6
10	PAZ	9	9	9	9
11	SPC	7	9	9	8.3
12	JSR	6	9	9	8
13	LAP	9	9	9	9

14	LBB	9	9	9	9
15	TFT	8	9	9	8.6
16	YKC	6	7	8	7
17	RID	9	9	9	9
18	AFJ	9	9	9	9
19	KST	9	9	9	9
20	SLB	8	9	9	8.6
21	JFS	5	9	8	6.3
22	DAG	9	9	9	9
23	GCS	7	9	9	8.3
Total number		191	198	204	194.6
%		81.30	91.4	98.51	90.51

Based on the information above, the impact of improving students' English speaking ability in Cycle II shows that there is an increase in English speaking ability using android-based learning in the form of the Duolingo application through green marketing in the Lake Toba tourist area. The normal increase in students' English speaking ability through green marketing in the Lake Toba tourist area during pre-activities, Cycle I, and Cycle II is presented in Table 4 below:

Table 4. Improving Students' English Speaking Skills Through Green Marketing in the Lake Toba Tourist Area in Pre-Activities, Cycle I, and Cycle II

Information	Pre-action	Cycle I	Cycle II
Total Score	139	159.27	194.62
Percentage %	60.04	78.08	90.51

Based on the information from Table 4 above, it is often seen that there is an increase in students' English speaking skills throughout the pre-action, Cycle I, and Cycle II information from the results of improving students' English speaking skills through green marketing in the Lake Toba tourist area provided in the diagram in Figure 3 below:

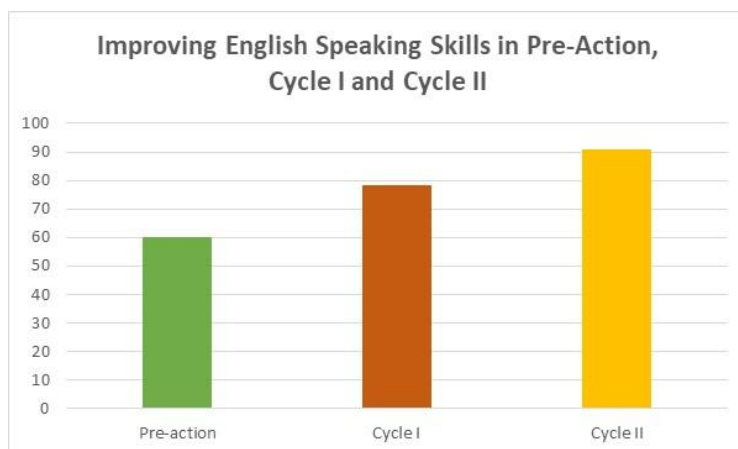


Figure 3. Diagram of Improving English Speaking Skills of Students Through Green Marketing in the Lake Toba Tourist Area in Pre-Action, Cycle I, and Cycle II.

Discussion

English speaking skills by utilizing android media in the form of Duolingo applications through green marketing in the Lake Toba tourist area before the activity of habituation of communicating in English to students, especially there are 7 students or 30.43% of the total number of students who meet the rules well, 7 students or 30.43% of the total number of students who meet the standards are bad, and 9 students or 39.13% of the total number of students who meet the rules are bad. In the ability to communicate in English of students using clear explanatory information, it was found that there were 8 students or 35.08% of the total number of students who met the requirements well, 9 students or 39.13% of the total number of students who met the requirements were bad, and 6 students or 26.08% of the total number of students who met the rules were bad.

English speaking ability of students using total sentences obtained information that 7 or 30.43% of the number of students who meet the acceptable model, 10 or 43.47% of students who passed meet the bad rules, and 6 or 26.08% of the number of students who meet the bad rules. Looking at the picture above, it tends to be seen that there are still many students who do not meet the good standards in speaking ability. In the Cycle I activities there was an increase, overall considering that there were still obstacles but due to the absence of an increase in English speaking ability through green marketing in the Lake Toba tourist area.

The movement used to inspire the English speaking ability of D3 AMIK Parbina Nusantara students is to communicate in English through green marketing in the Lake Toba tourist area. This is in accordance with the quality that is worthy of use with the assessment. Sudirman in Armida's proposal, in particular has the ability to convey messages and thoughts, giving a solid and captivating impression in terms of ease in terms of shadows, but has a certain impression, an interesting image formed and adjusted for learning reasons, and strong and dynamic.

Other achievements achieved apart from the results obtained are through field notes. In the field notes it tends to be seen that through communication in English language training through green marketing in the Lake Toba tourist area can bring another energetic environment so that students become excited to be interested in the exercise without coercion. The exercises introduced must be fun, empowering and popularity-based so that students not only pay attention to the lecturer's talk, students can also interact with

everything around them, both with goods and individuals in their current situation. In this test, towards the end of each exercise students consistently need to communicate repeatedly in English exercises through green marketing in the Lake Toba Tourist area. This shows that the interaction of this movement is in accordance with what is generally anticipated and compiled by analysts.

Conclusion

Judging from the results of the research and the conversations led, it can be said that communicating in English practice through Android-based digital media through green marketing in the Lake Toba tourist area on English language skills can improve the speaking ability of D3 AMIK Parbina Nusantara students. In accordance with the difficulty plan that has been explored, this is evidenced by the increase in normal English speaking ability in Pre-activity by 60.04%, increasing to 78.08% in Cycle I, and reaching 90.51% in Cycle II activities. English speaking skills are increasingly improving when analysts perform movements that are carried out through various stages or cycles, to be more specific:

1. The lecturer divided the students into several groups to make a green marketing video in the Lake Toba tourist area in English.
2. Students were given the task of presenting a green marketing video in the Lake Toba tourist area that they had previously made in front of the class
3. The lecturer consistently inspired students to become enthusiastic about participating in English speaking practice through green marketing in the Lake Toba tourist area using the Duolingo Android app.

Acknowledgements

The author would like to express his deepest gratitude to the Ministry of Education, Culture, Research, and Technology (Kemdikbudristek), through the Directorate General of Higher Education, Research, and Technology, for the financial support provided for this research. This financial assistance significantly contributed to the smooth and successful implementation of the research activities and the preparation of this scientific article.

Reference

- Adedo, E., & Deriwanto, D. (2024). *Perkembangan Media Digital Dan Pemanfaatannya Dalam Pembelajaran Pendidikan Agama Islam*. Institut Agama Islam Negeri Curup.
- Annisa, M. N., Rifki, M., Taufiqurrochman, R., & Anshory, A. M. A. (2023). Teknologi Media Pembelajaran Berbasis Video Animasi untuk Meningkatkan Kemampuan Berbicara Bahasa Arab Siswa di Madrasah Ibtidaiyah Negeri 2 Kabupaten Gorontalo. *Jurnal Sustainable*, 6(2).
- Ardila, I., Washfiah, K., & Sari, N. W. P. (2024). Penggunaan Teknologi Dalam Pengajaran: Sebuah Penelitian Naratif dari Calon Guru Bahasa Inggris di Sekolah. *Prosiding Temu Ilmiah Nasional Guru*, 16, 223–231.
- Damayanti, K. D., & Kristiantari, M. G. R. (2022). Multimedia Interaktif Berbasis Aplikasi Android dalam Pengenalan Bahasa Inggris Dasar Siswa Kelas VI. *Mimbar Ilmu*, 27(1), 81–89.
- Febriane, R. (2022). Analisis green marketing sebagai global strategi the Body Shop. *J-CEKI: Jurnal Cendekia Ilmiah*, 1(6), 817–826.
- Lestari, D. I., & Kurnia, H. (2023). Implementasi Model Pembelajaran Inovatif untuk Meningkatkan Kompetensi Profesional Guru di Era Digital. *JPG: Jurnal Pendidikan Guru*, 4(3), 205–222.

- Marzuki, M. (2023). Pelaksanaan Fungsi Komunikasi Administrasi Di Dinas Pendidikan Kabupaten Melawi. *Journal of Educational Review and Research*, 6(1), 1–12.
- Melati, E. (2024). Analisis Efektifitas Penggunaan Media Digital Dalam Pembelajaran Bahasa Inggris. *Jurnal Review Pendidikan Dan Pengajaran (JRPP)*, 7(3), 7080–7087.
- Pratama, Y., Fachrurazi, F., Sani, I., Abdullah, M. A. F., Noviany, H., Narulita, S., & Islam, D. (2023). *Prinsip Dasar Manajemen Pemasaran: Analisis dan Strategi Di Era Digital*. <https://digilib.iainptk.ac.id/xmlui/handle/123456789/2748>
- Press, U. G. M. (2021). *Pemikiran Guru Besar Universitas Gadjah Mada Menuju Indonesia Maju 2045: Bidang Sains dan Teknologi*. UGM PRESS.
- Putri, N. W. E. (2019). Komunikasi Pemasaran Dinas Pariwisata Kabupaten Buleleng dalam Meningkatkan Jumlah Wisatawan di Buleleng. *Jurnal Komunikasi Profesional*, 3(1).
- Ramadhan, A. R. (2023). Strategi penggunaan chatbot artificial intelligence dalam pembelajaran Bahasa Arab pada perguruan tinggi di Indonesia. *Jurnal Oase Nusantara*, 2(2), 77–86.
- Rohmawaty, E. N., Hilmi, D., Uqba, M. S. S., & Saleh, U. S. (2024). Peran Artificial Intelligence (AI) dalam Pembelajaran Bahasa Arab Mahasiswa Pascasarjana UIN Maulana Malik Ibrahim Malang. *Khatulistiwa: Jurnal Pendidikan Dan Sosial Humaniora*, 4(3), 316–328.
- Rokhman, N., & Ahmadi, F. (2020). Pengembangan Game Edukasi si Gelis Berbasis Android untuk Meningkatkan Kosakata Bahasa Inggris Siswa. *Edukasi*, 14(2), 166–175.
- Sa'ban, L. A., Ilwan, I., & Rosita, R. (2023). Promotion Tourism Wawoangi Village. *Jurnal Inovasi Penelitian*, 3(8), 7271–7280.
- Saman, S. (2023). Tinjauan Teoritis Media Pembelajaran Matematika Dengan Aplikasi Tiktok. *Jurnal Saintifik (Multi Science Journal)*, 21(2), 79–88.
- Sofyan, R., Rosa, R. N., Zein, T. T., & Ginting, J. S. (2025). Peningkatan Mutu Pendidikan Bahasa Inggris melalui Pelatihan Content and Language Integrated Learning (CLIL). In *Talenta Conference Series: Local Wisdom, Social, and Arts (LWSA)*, 8(2), 238–243.
- Sukandar, S., & Giyoto, G. (2024). *Pengembangan Kewirausahaan Santri pada Balai Latihan Kerja Komunitas Pesantren Al-Istianah Pati Jawa Tengah*. UIN Surakarta.
- Sutirna, H. (2021). *Pendidikan Lingkungan Sosial, Budaya Dan Teknologi*. Deepublish.
- Triana, N. (2021). *Faktor-Faktor yang Mempengaruhi Keberlanjutan Agrowisata (Studi Kasus: Di Desa Sayum Sabah, Kecamatan Sibolangit, Kabupaten Deli Serdang*.
- Urba, M., Ramadhani, A., Afriani, A. P., & Suryanda, A. (2024). Generasi Z: Apa Gaya Belajar yang Ideal di Era Serba Digital? *DIAJAR: Jurnal Pendidikan Dan Pembelajaran*, 3(1), 50–56.
- Yandi, A., Mukhlis, I., & Zagladi, A. N. (2023). Penerapan konsep green marketing dalam menghasilkan produk yang ramah lingkungan: sebuah kajian konseptual sebagai panduan bagi peneliti. *J-MAS: Jurnal Manajemen Dan Sains*, 8(2), 1941–1954.