تأثير تطبيقات الهواتف الذكية على تحسين مهارات اللغة الإنجليزية لدى الطلاب: التحدث والكتابة

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ملخص:

يبحث هذا البحث في أهمية تطبيقات الهواتف الذكية في تعزيز مهارات الطلاب في اللغة الإنجليزية، وخاصة في التحدث والكتابة. وتؤكد الدراسة على أهمية الميزات التفاعلية في هذه التطبيقات، وقدرتها على جذب المستخدمين وتمكينهم من ممارسة تعلم اللغة الإنجليزية في مواقف واقعية. يهدف البحث إلى تحديد التطبيقات الفعالة، وتحليل خصائصها، وتقييم تأثيرها على نتائج اللغة. اتبع الباحثون منهجية بحثية كمية في هذه الدراسة. وُزّع الاستبيان إلكترونيًا على 20 طالبة من كلية التربية بالجامعة الأسمرية الإسلامية، ضمن الدراسة المعنية. صئمم الاستبيان بعناية لمساعدة المشاركات على مشاركة أفكار هن وتجاربهن حول تطبيقات الهواتف الذكية، وخاصة في تعلم اللغة الإنجليزية. حُللت البيانات باستخدام برنامج SPSS لدراسة العلاقة بين استخدام التطبيقات وتحسين الكفاءة اللغوية لدى المتعلمين. أظهرت النتائج أن غالبية الطلاب يستخدمون تطبيقات الهواتف الذكية لأغراض أكاديمية، مثل تعلم اللغات. علاوة على كانت تطبيقات تعلم اللغة الأكثر استخدامًا من قبل الطلاب (Duolingo ذلك، كانت تطبيقات التواصل الاجتماعي.

الكلمات المفتاحية: تطبيقات الهواتف الذكية - تعلم اللغة الإنجليزية - التأثير - التحسين

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Abstract

The study investigates how the smartphone applications (apps) are important in enhancing students' productive English skills, particularly in speaking and writing. It emphasizes how interactive features in these apps draw users in and enable practice the English language learning in real-world situations. The research aims to identify effective apps, analyze their features and assess their impact on language outcomes. The researchers conducted a quantitative research method in this study. The questionnaire was distributed online to 21 participants: female students at the college of Education in Al-Asmarya Islamic University of the concerned study. It was carefully designed to help the participants to share their thoughts and experiences about smartphone applications specifically in learning English. The collected data were analyzed by using SPSS to investigate the connection between apps usage and improvements in language competency by learners. The findings were the majority of students use smartphone apps for the academic purposes such as learning languages. Moreover, the most commonly used language learning apps by students were (Duolingo, Babbel) and Social Media Platforms.

Key words: smartphone applications- Learning English – impact – improvement

1. Introduction

In today's digital era, mobile technology has transformed the way we obtain information, engage with one another, and learn new things. As highlighted by Selwyn (2016), Technology is becoming more integrated into the learning experience, offering both fresh opportunities and challenges for education. The emergence smartphone apps has provided new educational avenues, especially in the area of language learning. With globalization increasing the need for proficiency in English, there is an urgent demand for effective resources students' that can improve English language abilities. Among these resources. smartphone applications are particularly notable because of their accessibility, convenience, and interactive elements (Burston, 2014).

This paper concentrates on the ability of smartphone apps to improve students' productive skills, specifically speaking and writing, in learning the English language. These productive skills are crucial for effective communication and expression, significantly impacting students' overall language proficiency. According to Hyland (2003), the capacity to generate language in both speaking and writing is essential for effective communication. Despite the growing number of apps designed for language learning, not all prove equally effective in developing these skills (Moussi & Yousfi, 2020).

Anderson (2020) highlights that mobile applications act as conduits between learners and content, promoting immediate interaction and feedback, which emphasizes the significance of technology in improving productive skills. This research aims to explore how smartphone applications can aid in the development of productive skills in English, focusing on the various features and functions that support effective language practice. By examining

students' experiences and the teaching strategies integrated into these digital tools, this study aspires to offer insights into the wider effects of mobile-assisted language learning on language development.

This study seeks the integration of technology in education and its effects on language learning, app developers, and policymakers involved in English language education. By delving into this topic, the researchers aim to uncover the transformative capabilities of smartphone applications in helping learners enhance their confidence as English communicators.

2. Literature Review

In this part, the researchers are presenting the literature review relevant to the topic of the study.

2.1 Enhancing Speaking Skills through Smartphone Applications

Many studies have highlighted the effectiveness of smartphone applications to improve students' speech skills. For example, Muborok et al. (2020) conducted a study, in which he implemented language learning programs among students and found that "mobile apps have increased the efficiency of talking about students by providing immediate reactions and opportunities for practice" (Muborok et al., 2020, p. 245). This immediate response loop given by applications encourages students to participate in repetitive practice, which is important for language collection.

In addition, Viana and Silva (2021) emphasize that the inclusion of apps such as Spicly and Helotock provides a meaningful interaction between students, making the practice of speaking more attractive. They argue, "These applications create authentic communication landscapes that help students to be more comfortable using English under real life conditions" (Ibid, p. 112). Such interaction not only improves the flow, but also creates self-confidence, an essential aspect of speech skills.

2.2 Improving Writing Skills via Mobile Applications

The research indicates that smartphone apps also play an important role in improving students' writing skills. Chen and Cheng (2023) examined

the effect of writing applications on writing students on writing skills. They reported, "Writing apps, when used as a tool for intelligence, draft and modification, have shown improvement in the quality of writing and general performance for students" (Ibid, 2023, p. 67). The functionality provided by these applications, such as grammar samples and style suggestions, gives students the opportunity to produce more consistent and accurate written texts.

In addition, Alhari (2022) discussed the role of collaborative writing programs such as Google Docs, which allows comrades to provide feedback on each other's work. Alhari said, "The affiliated nature of these platforms promotes the spirit of society and encourages colleagues' review, which plays an important role in strengthening writing skills" (Ibid, 2022, p.154). This shared learning environment not only helps in skills development, but also promotes significant thinking and reflection among students.

2.3 Student Engagement and Motivation

The relationship between smartphone applications and students who use high levels of engagement that is a common discussion in literature. Berguelo (2006) states that digital tools that include interactive and gamified elements not only increase the engagement, but also to a large extent promote motivation to learn languages, emphasizes that gaming-based learning can have deep cognitive participation and better educational consequences. This is in line with the findings from Huang and SU (2016), which indicates that such techniques can create a more student-centric environment, which increases constant interest in learning (ibid 2016). Since it promotes a strong commitment to the material, the engagement is an important component of the learning language.

 $\bf 3$. $\bf M$ e t h o d o l o g y o f t h e $\bf S$ t u d y This part of the study is concerned with the methodology used to fulfil the study.

3.1 The significance of the Study

The study emphasizes how important smartphone apps are for improving students' productive English language skills, especially speaking and writing. Through interactive features, these applications draw users in and offer chances for real-world language practice. Muhammad (2014) points out that using a smartphone to learn English is becoming more and more successful. By promoting personalized learning and enhancing vocabulary and grammar, the programs let students concentrate on their individual needs and advance at their own speed. These apps' instant feedback facilitates prompt error correction and fosters skill growth. Their availability makes it possible to practice at any time and from any location, developing crucial communication skills for success in the classroom and in the workplace in today's worldwide society.

3.2 Questions of the Study

- **1.** Which smartphone applications are perceived as the most effective by users in enhancing their English speaking development?
- **2.** What specific feathers of these apps contribute most significantly to enhancing user productivity in language learning?
- 3. What are the effects of using these apps on students' English speaking a n d w r i t i n g o u t c o m e s?
- **4.** How can pre- and post- test evaluation be utilized to assess students' progress in speaking and writing skills?

3.3 The objectives of the Study

These objectives can be achieved and students are able:

- 1. To determine which smartphone apps are the most effective to help target students improving their English speaking and writing abilities.
- **2**. To pinpoint the features of these applications that greatly improve their productivity.

- **3**. To examine the effects of their use of these applications on their speaking and writing outcomes.
- **4**. To use pre- and post- test evaluations to measure their progress in speaking and writing skills.

3.4 The participants

These students frequently use smartphone applications. A variety of apps designed specially to help them gain a better understanding for language. This group was randomly selected to provide experiences about the particular conditions surrounding students in language learning by the use of smartphone apps.

3.5 Instrument

The purpose of the questionnaire is to evaluate students' opinions and experiences with using smartphone apps, in order to improve their writing and speaking abilities. It includes questions that evaluate the frequency of application usage, types of applications used, and the perceived effectiveness of these tools in enhancing language proficiency.

4. Data Analysis

The data collected from the questionnaires will be analyzed by using SPSS, enabling thorough investigation of the connections between the use of smartphone apps and gains in productive English abilities.

4.1 Statistical Analysis

This section presents the results from the quantitative analyses aimed at addressing the research questions established at the outset of this study. The aim of this research is to identify which smartphone applications are most effective in aiding students to enhance their English speaking and writing abilities, to explore the features of these applications, and to assess the impact of their usage on these skills. The data from the target students were gathered

through a questionnaire, and the findings were analyzed statistically using SPSS-25.

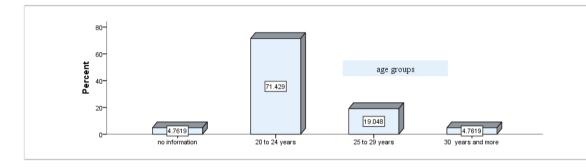
The results were expressed using descriptive statistics, graphs, and the chi-square test to analyze students' responses. The predictive value (P-value) was used, which indicates statistical significance if it is less than 5% (P<0.05). * Demographic Information: Twenty-one student samples were collected. Through descriptive analysis of the research data shown in Table (1) and Figure (1), it was found that the entire sample was female, representing 21 (100) %. The typical age of the students was around 22 years. The students were categorized into three age groups: the first group consisted of those aged 20 to 24 years, the second group comprised students between 25 to 29 years, and the third group included those aged 30 and above. It was discovered that 15 (71%) of the students were in the 20 to 24 age range, 4 (19%) was the 25 to 29 age group, and 1 (5%) was aged 30 or older, and no data was available for the remaining 1 (5%). Regarding the semester variable, it was determined that more than half of the sample, 11 (52%), were enrolled in the eighth semester, with the remaining percentages allocated as 19%, 9%, 5%, and 5% for those studying in the seventh, sixth, ninth, and tenth semesters, respectively. As for the percentage 2 (9) %, no information was available about them.

Table1: Demographic Data of students

		U 1	0
Age			P-value
Mean± Std. Deviation	21.70	6±5.585	
Median	2	2.00	
Minimum- Maximum	2	0-31	0.000
Age Groups	n	%	
no information	1	4.8	

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20 to 24 years	15	71.4	
25 to 29 years	4	19.0	
30 years and more	1	4.8	
Total	21	100.0	
Semester of Study	n	%	
no information	2	9.5	0.001
6	2	9.5	
7	4	19.0	
8	11	52.4	
9	1	4.8	
10	1	4.8	
Total	21	100.0	



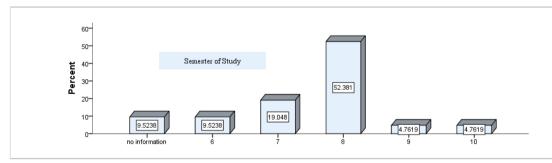


Figure 1 : Demographic Data of students

* Smartphone Usage

- The everyday usage duration of students' smartphones: At least 42% of students spend 3 to 5 hours daily using their smartphones. While, both 1-3 hours and over 5 hours daily use share the same number of 29%. Which was no statistically significant (P-value > 0.05), have been found among the students' responses, table (2) & Figure (2).

* Using smartphone applications for language learning:

The majority of students by 95% use smartphone applications for language learning. Whereas the rest 5% do not use them, which was statistically significant (P-value < 0.05), have been found among the students' responses, table (3) & Figure (3).

* Using smartphone for academic purposes:

By 67% of the students, often and very often use their smartphone for academic purposes. The rest 33% do not use them, which was no statistically significant (P-value > 0.05), have been found among the students' responses, table (4) & Figure (4).

- * Types of applications that use to improve English skills: The results revealed that 43% language learning apps used (Duolingo, Babbel), and social media platforms (Facebook & Twitter). 19 % of students used social media platforms (Facebook & Twitter) for language learning. Then followed by language learning apps (Duolingo & Babbel), which 14% of students used for language learning. Which was statistically significant (P-value < 0.05), have been found among the students' responses, table (5) & Figure (5).
- * Frequent use of language-learning apps: The results revealed more than half the sample by 52% several times a week used language learning apps for language learning, and 33% daily used language learning apps for language learning. The rest sample by 10% and 5% really and once a week used language-learning apps for language learning, respectively. Which was

statistically significant (P-value < 0.05), have been found among the students' responses, table (6) & Figure (6).

Table2: How many hours do you use your smartphone daily?

	n	%	P-value
1-3 hours	6	28.6	0.651
3-5 hours	9	42.9	
More than 5 hours	6	28.6	
Total	21	100. 0	

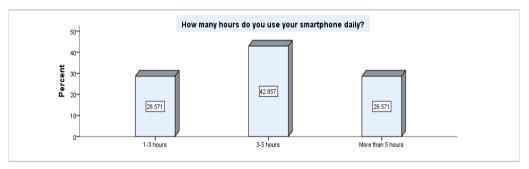


figure2: How many hours do you use your smartphone daily?

Table3: Do you use smartphone applications for language learning?

	n	%	<i>P</i> -
No	1	4.8	value 0.000
Yes	20	4.0 95.2	0.000
Total	21	100.0	

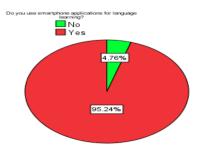


Figure 3: Do you use smartphone applications for language learning?

Table4: How often do you use your smartphone for academic purposes?

	n	%	P- value
Sometime s	7	33.3	0.867
Often	6	28.6	
Very Often	8	38.1	
Total	21	100.0	

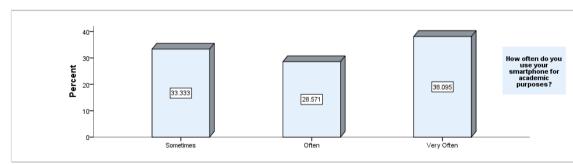


figure4: How often do you use your smartphone for academic purposes? Table5: Which types of applications do you use to improve your English skills?

	n	%	P-value
Language Learning Apps (e.g., Duolingo, Babbel)	3	14.3	0.011
Social Media Platforms (e.g., Facebook, Twitter)	4	19.0	
Communication Apps (e.g., Skype, WhatsApp)	1	4.8	
Language Learning Apps (e.g., Duolingo, Babbel) & Social Media Platforms (e.g., Facebook, Twitter)	9	42.9	
Language Learning Apps (e.g., Duolingo, Babbel) & Writing Assistance Apps (e.g., Grammarly, Hemingway)	1	4.8	
Language Learning Apps (e.g., Duolingo, Babbel) & Communication Apps (e.g., Skype, WhatsApp)	1	4.8	
Communication Apps (e.g., Skype, WhatsApp) & Other	2	9.5	
Total	21	100.0	

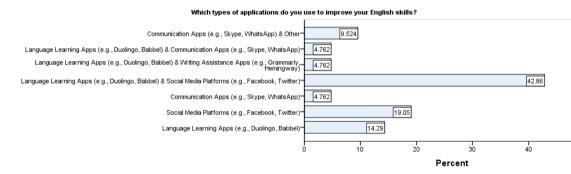


figure 5: Which types of applications do you use to improve your English skills?

Table6: How frequently do you use these applications?

	N	%	P-value	
Rarely	2	9.5	0.006	
Once a week	1	4.8		

Several times a week	11	52.4	
Daily	7	33.3	
Total	21	100.0	

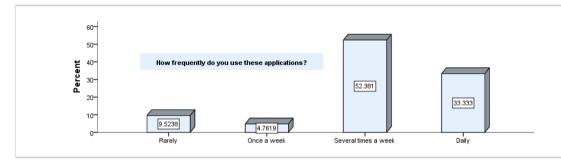


figure6: How frequently do you use these applications?

* The impact of smartphone applications on speaking skills

- The extent of the smartphone applications on improving speaking skills: The results revealed majority the sample by 62% very significantly believe these applications have improved their speaking skills. 33 % believe to a certain extent, and the rest by 10% do not believe that much. Which was statistically significant (P-value < 0.05), have been found among the students' responses, table (7) & Figure (7). On the other hand, relative weight result confirmed most majority of the sample by 94% believe these applications have improved their speaking skills.
- The confidence of speaking English after using smartphone **applications:** The results revealed the majority of the sample 62% agree and 19% were strongly agree that they feel more confident speaking English after using smartphone applications. Whereas both %10 were neutral and don't agree. Which was statistically significant (P-value < 0.05), have been found among the students' responses, table (8) & Figure (8). On the other hand,

relative weight result confirmed most majority of the sample by 78% feel more confident speaking English after using smartphone applications.

* Frequent practice of speaking English after using smartphone applications: The results revealed the sample by 42% strongly agree and 33% agree they feel practicing speaking English was more frequently because of smartphone applications. Whereas 19% were neutral and only 5% do not agree. Which was no statistically significant (P-value>0.05), have been found among the students' responses, table (9) & Figure (9). On the other hand, relative weight result confirmed most commonly the sample by 83% practice speaking English more frequently because of smartphone applications.

Table 7 To what extent do you believe these applications have improved your speaking skills?

	n	%	P- value	mean	Std. Deviation	Relative weight
Not much			0.006	3.571	0.5976	weight 94%
Somewhat	7	33.3		1		
Very significantly	13	61.9				
Total	21	100. 0				

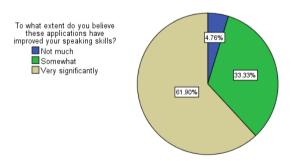


figure7: To what extent do you believe these applications have improved your speaking skills?

Table8: I feel more confident speaking English after using smartphone applications.

			T T			
	n	%	P-value	Mean	Std. Deviation	Relative weight
Disagree	2	9.5	0.001	3.9011	0.8309	78%
Neutral	2	9.5				
Agree	13	61.9				
Strongly Agree	4	19.0				
Total	21	100.0				

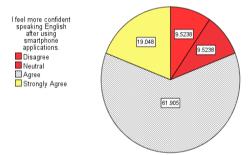


figure8: I feel more confident speaking English after using smartphone applications.

Table9: I practice speaking English more frequently because of smartphone applications.

	n	%	P-value	Mean	Std. Deviation	Relative weight
Disagree	1	4.8	0.072	4.1401	0.9101	83%
Neutral	4	19.0				
Agree	7	33.3				

Strongly Agree	9	42.9	
Total	21	100.0	

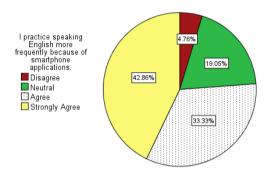


figure9: I practice speaking English more frequently because of smartphone applications.

* The impact of smartphone applications on pronunciation skills

The results revealed the sample by 62% strongly agree and 33% agree, both confirmed the smartphone applications provide effective tools for improving their pronunciation. Whereas 5% their replies were neutral. Which was statistically significant (P-value < 0.05), have been found among the students' responses, table (10) & Figure (10). On the other hand, relative weight result confirmed most commonly the sample by 91% confirmed the smartphone applications provide effective tools for improving their pronunciation.

Table10: Smartphone applications provide effective tools for improving my pronunciation

	n	%	P-value	Mean	Std. Deviation	Relative weight
Neutral	1	4.8	0.006	4.5701	0.5977	91%

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Agree	7	33.3
Strongly Agree	13	61.9
Total	21	100.0

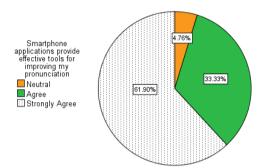


figure 10: Smartphone applications provide effective tools for improving my pronunciation

* The impact of smartphone applications on writing skills

- The extent of the smartphone applications on improving the writing skills: The results revealed the sample by 38% somewhat believe that these applications have improved their writing skills, 28% very significantly, 28% not much, and 5% not at all have improved their writing skills. Which was no statistically significant (P-value > 0.05), have been found among the students' responses, table (11) & Figure (11). On the other hand, relative weight result confirmed commonly the sample by 73% confirmed these applications have improved their writing skills.

Table11: To what extent do you believe these applications have improved your writing skills?

	n	%	P-value	mean	Std. Deviation	Relative weight
Not at all	1	4.8	0.165	2.9022	0.8886	73%
Not much	6	28.6				

Somewhat	8	38.1
Very significantly	6	28.6
Total	21	100.0

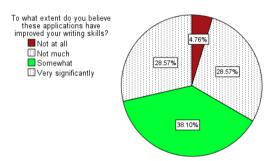


figure 11: To what extent do you believe these applications have improved your writing skills?

- Improving the writing skills using smartphone applications: The results revealed the sample by 24% agree and 14% strongly agree that their writing skills have improved using smartphone applications, and 42% neutral but 19% disagree. Which was no statistically significant (P-value > 0.05), have been found among the students' responses, table (12) & Figure (12). On the other hand, relative weight result confirmed the sample by 67% agree that their writing skills have improved using smartphone applications.

Table 12: I have improved my writing skills by using smartphone applications.

	applications.						
	n	%	P-value	mean	Std. Deviation	Relative weight	
Disagree	4	19.0	0.267	3.3333	0.9661	67%	
Neutral	9	42.9					
Agree	5	23.8					
Strongly Agree	3	14.3					

21

100.0

Total

I have improved my writing skills by using smartphone applications.

■ Disagree
■ Neutral
■ Agree
☑ Strongly Agree

figure 12: I have improved my writing skills by using smartphone applications.

- Organizing thoughts and writing using smartphone apps: The results revealed the sample by 33% agree and 24% strongly agree both find that it easier to organize their thoughts when writing due to smartphone applications, and 19% neutral but 24% disagree. Which was no statistically significant (P-value > 0.05), have been found among the students' responses, table (13) & Figure (13). On the other hand, relative weight result confirmed the majority of the sample by 71% find that it easier to organize their thoughts when writing due to smartphone applications.

Table13: I find it easier to organize my thoughts when writing due to smartphone applications.

	n	%	P-value	mean	Std. Deviation	Relative weight
Disagree	5	23.8	0.824	3.5666	1.1209	71%
Neutral	4	19.0				
Agree	7	33.3				
Strongly Agree	5	23.8				

Total 21 100.0

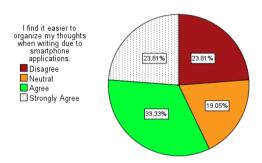


figure 13: I find it easier to organize my thoughts when writing due to smartphone applications.

* Valuable feedback on writing through smartphone applications: The results revealed the sample 48% agree and 19% strongly agree that they receive valuable feedback on their writing through smartphone applications, but 28% their replies were neutral and 5% disagree.

Which was statistically significant (P-value < 0.05), have been found among the students' responses, table (14) & Figure (14). On the other hand, relative weight result confirmed the majority of the sample by 76% they receive valuable feedback on their writing through smartphone applications.

Table 14: I receive valuable feedback on my writing through smartphone applications.

			арриса	uons.		
	n	%	P-value	mean	Std. Deviation	Relative weight
Disagree	1	4.8	0.043	3.81	0.8143	76%
Neutral	6	28.6				
Agree	10	47.6				
Strongly Agree	4	19.0				

Total 21 100.0

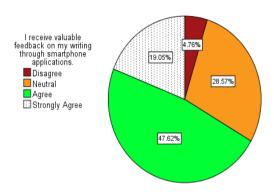


figure 14: I receive valuable feedback on my writing through smartphone applications.

* Satisfaction Level with smartphone apps and language learning:

The results revealed the sample 57% satisfied and 38% very satisfied that the smartphone applications for language learning, but 5% their replies were neutral. Which was statistically significant (P-value < 0.05), have been found among the students' responses, table (15) & Figure (15). On the other hand, relative weight result confirmed the most majority of the sample by 87% they satisfied the smartphone applications for language learning.

Table15: Rate your overall satisfaction with the smartphone applications you use for language learning

	n	%	P-value	mean	Std. Deviation	Relative weight
Neutral	1	4.8	0.012	4.3333	0.5765	87%
Satisfied	12	57.1				

Very satisfied	8	38.1		
Total	21	100.0		

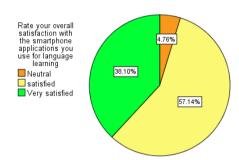


figure 15: Rate your overall satisfaction with the smartphone applications you use for language learning

4.2 Conclusion:

Smartphone usage and application usage

The most widely used language learning apps by students are Duolingo and Babbel, as well as social media platforms Facebook and Twitter, and they use these apps weekly to learn English.

From the results, it is clear that:

- 1. The majority of students use smartphone applications for academic purposes such as learning languages for at least 3 hours per day.
- 2. At least 72% of students spend 3 hours and more daily using their smartphones.
- 3. The vast majority of students by 95% use smartphone applications for language learning.
- 4. By 67% of the students, often and very often use their smartphone for academic purposes.
- 5. The most commonly used language learning apps by students were (Duolingo, Babbel) and Social Media Platforms (Facebook & Twitter) by 43%.

6. More than half the sample by 52% they use language-learning apps for language learning several times a week.

Impact on Skills

In terms of speaking skills: Language learning apps have significantly contributed to improving students' speaking skills by providing them with tools to improve their pronunciation. This has positively influenced their confidence in these apps and their daily use of them for conversation practice. In terms of writing skills: Language learning apps have significantly improved students' writing skills. They emphasized that they made it easier for them to organize their thoughts while writing. This has positively influenced their confidence in these apps, which in turn has enabled them receive feedback on their writing, thereby enhancing their writing skills.

From the results, it is clear that:

- 1. Most majority of the sample by 94% believe these applications have improved their speaking skills.
- 2. Most majority of the sample by 78% feel more confident speaking English after using smartphone applications.
- 3. Most majority of the sample by 83% practice speaking English more frequently because of smartphone applications.
- 4. Most majority of the sample by 91% confirmed the smartphone applications provide effective tools for improving their pronunciation.
- 5. Majority of the sample by 73% confirmed these applications have improved their writing skills.
- 6. The sample by 67% agree that their writing skills have improved using smartphone applications.
- 7. The majority of the sample by 71% find that it easier to organize their thoughts when writing due to smartphone applications.
- 8. The majority of the sample by 76% they receive valuable feedback on their writing through smartphone applications.

Satisfaction Level with smartphone apps and language learning:

The majority of the sample reported a high level of satisfaction with smartphone language learning apps. From the results, it is clear that the most majority of the sample by 87% they satisfied the smartphone applications for language learning.

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