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STIMULER APPLICATION FOR SPEAKING CLASS: SENIOR HIGH SCHOOL STUDENTS' EXPERIENCES

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Abstract

This study investigates the experiences and opinions of senior high school students who use the Stimuler application to enhance their English-speaking abilities. Digital resources such as Stimuler provide dynamic and captivating methods for practicing speaking as technology continues to influence language acquisition. The study focuses on the way in which students believe the app improves their motivation, confidence, and fluency. 26 North Sumatra senior high school students who have used the Stimuler app in their speaking classes are the subjects of this qualitative case study. Thematic analysis was used to examine the data that was gathered through questionnaires, semi-structured interviews, and classroom observations. The results prove that most students thought the Stimuler app helped them feel less anxious and enjoy speaking practice. Students' participation increased as a result of the application gamification features and real-time feedback, which enhanced their speaking abilities Nonetheless, certain obstacles were noted, including problems with internet access and comprehension of specific app functionalities. These results are consistent with Krashen's Affective Filter Hypothesis, which stresses the value of a low-anxiety learning environment, and Vygotsky's Constructivist Theory, which emphasizes the role of interactive tools in language learning. This study shows that the Stimuler application is a useful resource for improving students' speaking abilities, despite certain drawbacks. Enhancements like offline access and more lucid instructional guidance The findings suggest improvements such as offline access and clearer instructional support to enhance the app's effectiveness. Future studies could examine the app's long-term effects on speaking ability as well as its use in various educational settings.
Keywords: digital learning tool; language learning; Stimuler app; speaking skills; student perceptions.

Abstrak

Pengalaman dan pendapat siswa sekolah menengah atas yang menggunakan aplikasi Stimuler untuk meningkatkan kemampuan berbahasa Inggris mereka diselidiki dalam penelitian ini. Sumber daya digital seperti Stimuler menyediakan metode yang dinamis dan menarik untuk berlatih berbicara karena teknologi terus mempengaruhi penguasaan bahasa. Penelitian ini berfokus pada cara siswa percaya bahwa aplikasi ini dapat meningkatkan motivasi, kepercayaan diri, dan kefasihan mereka. Sebanyak 26 siswa sekolah menengah atas di Sumatera Utara yang telah menggunakan aplikasi Stimuler di kelas berbicara mereka menjadi subjek studi kasus kualitatif ini. Analisis tematik digunakan untuk memeriksa data yang dikumpulkan melalui kuesioner, wawancara semi-terstruktur, dan observasi kelas. Hasil penelitian menunjukkan bahwa sebagian besar siswa berpikir bahwa aplikasi Stimuler membantu mereka merasa tidak terlalu cemas dan menikmati latihan berbicara. Partisipasi siswa meningkat sebagai hasil dari fitur gamifikasi aplikasi dan umpan balik waktu nyata, yang meningkatkan kemampuan berbicara mereka. Meskipun demikian, ada beberapa kendala yang

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dicatat, termasuk masalah dengan akses internet dan pemahaman tentang fungsi aplikasi tertentu. Hasil ini konsisten dengan Hipotesis Filter Afektif Krashen, yang menekankan pada nilai lingkungan belajar yang rendah kecemasan, dan Teori Konstruktivis Vygotsky, yang menekankan peran alat interaktif dalam pembelajaran bahasa. Penelitian ini menunjukkan bahwa aplikasi Stimuler adalah sumber daya yang berguna untuk meningkatkan kemampuan berbicara siswa, meskipun ada beberapa kekurangan. Peningkatan seperti akses offline dan panduan instruksional yang lebih jelas disarankan untuk meningkatkan keampuhannya. Penelitian di masa depan dapat meneliti efek jangka panjang aplikasi ini terhadap kemampuan berbicara serta penggunaannya dalam berbagai lingkungan pendidikan.

Kata Kunci: *digital learning tool; language learning; Stimuler app; speaking skills; student perceptions.*

1. Introduction

In the field of education fundamental role in shaping the future of individuals and societies it equips people with the skills and knowledge necessary to succeed in life (Shavkidinova etl., 2023). With the rise of technology, education has undergone significant transformations. Online courses, e-books, and interactive learning platforms are now commonly used in classrooms around the world (Hori et al. 2016). The digital shift in education has made it more flexible and accessible, enabling students to learn at their own pace (Alenezi et al., 2023). This is especially beneficial for those facing financial or geographical limitations. Technology has also enabled personalized learning experiences, allowing teachers to create engaging lessons and monitor student progress more effectively. Students can access a wide range of resources online, including academic papers and instructional videos, which supports their learning. This approach has bridged the gap between traditional and modern education systems and fostered global exchange of ideas.

In addition, technology is increasingly used in English language learning (Alakrash & Razak 2021). Various digital tools help teachers and students learn in a more engaging way. Learning applications, interactive videos, and educational games make learning English more enjoyable . With technology, students can learn anytime and anywhere without having to be in a classroom all the time. Social media can also be used to practice English with others in real-time. Additionally, many online platforms provide listening, reading, and speaking exercises. Technology also helps teachers deliver lessons more easily and effectively. AI-based applications can provide exercises tailored to each student's ability (Holmes & Tuomi 2022). Speech recognition features help students improve their pronunciation more accurately. Automatic translation tools also assist students in quickly understanding words or sentences in English. Virtual reality (VR) and augmented reality (AR) make the learning experience more interactive and exciting. With technology, learning English is no longer boring and becomes more flexible. Although there are challenges, the benefits of technology in English learning are significant. Teachers and students need to continue learning how to use technology effectively. This way, English learning can become more efficient and enjoyable.

To address the challenges in students'speaking skills, an integrated solution combining digital technologies and pedagogical innovations is proposed. First, implementing a technology-enhanced speaking approach can transform traditional oral communication instruction (Agus & Herdiawan 2024). By incorporating interactive features such as AI-powered pronunciation feedback, real-time speech analysis, and gamified speaking activities, students can be more engaged and confident in their speaking practice (Sholekhah & Fakhrurriana 2023). The platform should focus on scaffolding the speaking process through structured conversation templates, vocabulary-building tools, and visual

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prompts that help students systematically develop their fluency and coherence. Moreover, adopting a blended learning model that integrates digital speaking platforms with targeted teacher interventions can provide personalized support. Teachers can utilize speech analytics to assess pronunciation accuracy, speech rate, and fluency, allowing them to design customized speaking exercises for individual students. Professional development programs should also be introduced to train educators in effectively incorporating digital tools into speaking instruction, ensuring they can guide students in leveraging technology for oral proficiency development. Additionally, designing a curriculum that emphasizes process-based speaking activities, where students engage in structured practice, self-reflection, and constructive peer feedback, can significantly improve their communication skills. By creating a dynamic, technology-supported learning environment that addresses cognitive, motivational, and linguistic challenges, schools can effectively transform speaking instruction for digital-native students.

One of the technologies that can be used is the Stimuler App. This platform was developed to enhance students' speaking skills through interactive and engaging activities.Stimuler App was created to help students improve their speaking skills through interactive and engaging activities (Zou et al. 2023). It was developed by a team of language educators and technology experts who saw the need for a digital tool to support speaking practice. The app was first introduced in 2018 as a simple voice recognition tool for language learners. Over time, developers added more features, such as real-time feedback, conversation simulations, and gamified challenges. Research by Sniukiene et al., (2020), the app had gained popularity among teachers and students in different countries. It was designed to make speaking practice more accessible, especially for students who lacked opportunities to speak English in their daily lives. Stimuler uses artificial intelligence (AI) to analyze pronunciation, fluency, and accuracy, helping students track their progress. The app also includes interactive lessons and peer collaboration features to encourage more speaking practice. Many schools and language centers have integrated Stimuler into their curriculum to enhance classroom learning. Nowadays, Stimuler continues to evolve, making English speaking practice more fun and effective for learners worldwide.

Previous research has highlighted gaps in the use of technology-assisted learning to improve speaking proficiency. Studies by Zhang et al. (2018) and Liu et al. (2020) demonstrated that mobile-assisted language learning (MALL) can boost students' confidence in speaking, but these studies primarily focused on university students ,so not many have examined its effectiveness on high school students, especially in the EFL context in Indonesia. Moreover, most studies only address students' motivation and attitudes, without exploring more deeply the aspects of real-time interaction, automatic feedback, as well as the concrete development of speaking skills. Specific research on the use of the Stimuler App is also limited, especially regarding the improvement of fluency, pronunciation, and technical challenges faced by students. Therefore, this study aims to fill this gap by exploring high school students' experiences in using Stimuler App for speaking learning (Zhang, Ballas & Pineau 2018).

This study aims to explore how students' perceptions of using the Stimuler app to improve their English-speaking skills, with particular attention to confidence, fluency, and motivation. As digital technology becomes increasingly integrated into language learning, understanding how such applications influence learners' engagement and skill development is essential. The study also investigates what the challenges students face while using the app, including technical limitations, interface usability, and the alignment of app features with their learning needs. By examining these aspects, the research seeks to provide meaningful insights into the role of mobile-assisted language

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learning tools in speaking instruction and to offer recommendations for enhancing the use of the Stimuler app in English language classrooms.

2. Method

2.1 Research Design

This study employs a qualitative approach with a case study methodology to explore senior high school students' experiences using the Stimuler App in speaking classes. A qualitative approach is chosen because it allows researchers to gain deeper insights into students' perspectives, challenges, and engagement with the technology in an authentic learning environment (Njonge 2023). The case study method is particularly relevant as it enables an in-depth examination of how the Stimuler App influences students' speaking skills, confidence, and motivation in real classroom. Since speaking proficiency involves multiple cognitive and socio-emotional factors, a qualitative approach helps capture the nuances of students' experiences that may not be easily quantified through quantitative methods .

2.2 Participants

The participants of this study are 26 senior high school students from three schools in North Sumatra Province who have used the Stimuler App in their speaking classes . A purposive sampling strategy is applied to select students who actively engage with the app, ensuring that the study gathers meaningful and relevant data (Patton et al., 2016). This method allows researchers to include students with varied proficiency levels, offering diverse perspectives on the app's effectiveness. Before participating, students will receive detailed information about the study's objectives and procedures, and their consent will be obtained voluntarily. To ensure confidentiality, all participants' identities will be anonymized, and data will be handled according to ethical research standards (Michael & Arene, 2022).

2.3 Technique of collecting Data

This study utilizes multiple data collection instruments, including semi-structured interviews, questionnaires, and classroom observation sheets. Semi-structured interviews allow students to share their experiences with the Stimuler App, including how it affects their speaking confidence, fluency, and motivation . The flexibility of this interview format enables researchers to explore emerging themes such as students' challenges in using the app, their preferred features, and the impact of gamified elements on their learning experience.

A questionnaire will be distributed to students to gather quantitative insights into their perceptions of the app's usefulness. The questionnaire, adapted from a previous study by Smith et al. (2020) on digital learning tools in language acquisition, includes a 5-point Likert scale measuring aspects such as speaking fluency, pronunciation improvement, and engagement levels. This structured format ensures that students' opinions are systematically analyzed, complementing qualitative data from interviews.

Classroom observations will also be conducted to document student interactions with the Stimuler App, participation levels, and responses to different speaking exercises. Field notes will provide additional context by, capturing students' real-time reactions and engagement levels that might not be fully conveyed through interviews or questionnaires. To enhance the credibility of findings, data triangulation will be applied by integrating information from all three instruments (Denzin, 2012).

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2.4 Technique Data Analysis

Thematic analysis is used to interpret the collected data, focusing on identifying patterns related to student engagement, speaking confidence, and learning challenges. The analysis process follows Braun & Clarke's (2006) framework, beginning with transcription and coding of interview responses, followed by categorizing data into key themes. Additionally, questionnaire results will be analyzed through pattern calculations to determine trends in students' perceptions of the app's effectiveness. This approach enables researchers to uncover deeper insights into how the Stimuler App supports students' speaking development and what improvements may be needed to enhance their learning experience.

Data interpretation is used to interpret interview data on students' engagement, speaking confidence, and learning challenges using the Stimuler App. The analysis follows Braun & Clarke's (2006) framework, focusing on interactive features, real-time feedback, and difficulties faced. The app's effectiveness in improving speaking skills is also examined, providing a deeper understanding of the app's effectiveness.

3. Results and Discussion

This section presents the findings from data collected through questionnaires and interviews with senior high school students regarding their experiences using the Stimuler app to improve their speaking skills. The questionnaire responses were analyzed using thematic analysis, while interview data were interpreted to gain deeper insights into students' perspectives.

The results are presented in two main thematic categories based on the research questions: (1) students' perceptions and experiences using the Stimuler app to support their speaking development, and (2) the challenges they encountered during the learning process. Each theme includes both quantitative findings from the questionnaire and qualitative insights from interviews.

Table 1 ***Questionnaire Data***

NO	Question	SD	D	N	A	SA
1.	The Stimuler app helps me improve my English speaking skills and gain confidence.	0%	0%	3,8%	69,2%	26,9%
2.	The activities in the Stimuler App are fun and make learning more interesting.	0%	0%	0%	65,4%	34,6%
3.	I found the Stimuler App easy to use and navigate.	0%	0%	0%	92,3%	7,7%
4.	Learning with the Stimuler App provides a different experience compared to traditional methods.	0%	3,8%	0%	69,2%	26,9%
5.	The real-time feedback and suggestions in the Stimuler App helped me improve my speaking skills.	0%	23,1%	34,6%	26,9%	15,4%
6.	The speaking exercises and activities in the app suit my learning needs and skill level.	0%	0%	7,7%	73,1%	19,2%
7.	The game feature in the Stimuler App makes learning more exciting and motivating.	0%	0%	0%	23,1%	76,9%
8.	I sometimes experience difficulty or frustration when using the Stimuler App due to technological issues.	3,8%	7,7%	69,2%	15,4%	3,8%
9.	My internet connection affects my experience	0%	3,8%	7,7%	15,4%	73,1%

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	when using the Stimuler App.					
10.	Some features in the Stimuler App are difficult to understand or take too long to use.	0%	0%	80,8%	7,7%	11,5%

SD= Strongly Disagree; D= Disagree; N= Neutral; A= Agree; SA= Strongly Agree

The questionnaire results show that most students have a positive perception of using the Stimuler app to improve their speaking skills. They reported increased confidence, greater motivation, and a more engaging learning experience. The app's interactive features, such as real-time feedback and gamification, were seen as key elements that made speaking practice more enjoyable and effective. These findings align with Vygotsky's Constructivist Theory (1978), which highlights the role of tools and social interaction in skill development. They also support Krashen's Affective Filter Hypothesis (1982), which suggests that lower anxiety enhances language acquisition. By offering a supportive and structured digital environment, the app helps reduce speaking anxiety and promotes more active student participation in English learning.

However, despite these advantages, some challenges were identified. The main issues include unstable internet connections, occasional difficulties in understanding certain app features, and technical problems that sometimes disrupt the learning process. These findings suggest that while the Stimuler app offers significant benefits, improvements in accessibility and technical support are necessary to maximize its effectiveness.

The first major finding is that 69.2% (18/26) of students agreed that the Stimuler app helped them improve their English-speaking skills and gain confidence. Before using the app, many students were hesitant to speak due to fear of making mistakes. However, after practicing with the app, they felt more comfortable and willing to express themselves in English. The interactive activities and speech recognition technology provided instant feedback, which helped them improve their pronunciation and fluency. One student shared:

> *"I used to be afraid of speaking in English, but with Stimuler, I feel more confident because I can practice and get feedback immediately."*

The second key finding is that 65.4% (17/26) of students agreed, that the Stimuler app made learning more interesting. This suggests that all students found the app engaging, with a significant portion of them highly satisfied with its interactive features. The combination of audio-visual elements, instant feedback, and structured speaking tasks contributed to their increased enthusiasm for learning. One student explained:

> *"I used to find speaking exercises boring, but with this app, I actually enjoy practicing. The activities feel more natural and interactive."*

The third key finding 92.3% (24/26) of students found the app easy to use and navigate. Most students adapted quickly to its interface, which allowed them to focus on speaking practice without struggling with technical difficulties. The simple and intuitive design of the app made it accessible even for those who were not familiar with digital learning tools. One student explained:

> *"At first, I wasn't sure how to use all the features, but after a few tries, it became really easy. Now, I can practice without worrying about how to use the app."*

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Additionally, 69.2% (18/26) of students agreed that learning with the Stimuler app provided a different experience compared to traditional methods. Unlike conventional speaking exercises, which often involve repetitive drills, the app offered more dynamic and interactive learning. Students appreciated the variety of speaking activities and the ability to practice at their own pace. One student commented:

> *"In regular speaking lessons, we just practice with a partner or repeat sentences, but with Stimuler, it's more interactive. It feels more like a real conversation, and I can improve at my own speed."*

Despite the overwhelmingly positive feedback, some challenges were noted. 73.1% (19/26) of students reported that their internet connection affected their experience when using the app. A stable internet connection is required for optimal use, and connectivity issues sometimes disrupted speaking practice. One student expressed:

> *"Sometimes my internet is slow, and the app doesn't work properly. I wish there was an offline mode so I could still practice."*

3.1 Students' Perceptions and Experiences Using the Stimuler App in Improving Speaking Skills

a. Increased Confidence in Speaking

Confidence is a crucial factor in language learning, particularly in speaking. The questionnaire results showed that 69.2% (18/26) of students agreed that the Stimuler app helped them improve their English-speaking skills and gain confidence.
Student A shared:

> *"I used to be afraid of speaking in English, but with Stimuler, I feel more confident because I can practice and get feedback immediately."*

Student B explained:

> *"Before using the app, I was nervous about making mistakes. But now, I feel more comfortable speaking because I know the app helps me improve."*

Student C stated:

> *"The real-time feedback really helps. If I pronounce something wrong, I can correct it right away, which makes me feel more confident."*

The findings indicate that students who initially lacked confidence in speaking English benefited from the Stimuler app's interactive features. The speech recognition technology provided immediate feedback, allowing students to identify and correct pronunciation and fluency errors in real time. This responsive support helped reduce speaking anxiety and encouraged more active participation in oral communication.

These results are consistent with Vygotsky's Constructivist Theory (1978), which highlights the role of tools and feedback in socially mediated learning. Practicing in a low-pressure digital environment also boosted students' confidence and self-expression. Additionally, the findings support Krashen's Affective Filter Hypothesis (1982), which posits that language acquisition is more effective

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when anxiety is low. By offering a supportive and structured space for practice, the app helps lower affective barriers and fosters greater engagement in speaking activities.

b. Increased Interest in Speaking Activities

The questionnaire results showed that 65.4% (17/26) of students agreed that the Stimuler app made learning more interesting. The combination of audio-visual elements, instant feedback, and structured speaking tasks contributed to their increased enthusiasm for learning.
Student D explained:

> *"I used to find speaking exercises boring, but with this app, I actually enjoy practicing. The activities feel more natural and interactive."*

Student E shared:

> *"It doesn't feel like a regular lesson. The app makes speaking practice more exciting, and I don't get bored easily."*

Student A stated:

> *"I like how the app gives different types of exercises. It keeps me engaged, so I don't lose interest in practicing."*

The results indicate that students often view traditional speaking exercises as repetitive and unengaging, which negatively affects their motivation. In contrast, the Stimuler app's interactive features and diverse speaking tasks made practice more enjoyable and meaningful, encouraging greater participation. This finding aligns with Shadiev et al. (2023), who reported that mobile-assisted social language learning enhances speaking skills, self-efficacy, and cultural understanding among EFL learners. Similarly, Elaish et al. (2019) found that gamified applications like VocabGame significantly improved motivation and confidence, particularly for lower-performing students. These findings suggest that interactive digital tools, such as the Stimuler app, play a vital role in sustaining learner engagement and promoting consistent, meaningful speaking practice.

c. Improved Student Interest in Speaking Activities

The results showed that 65.4% (17/26) of students agreed, and 34.6% (9/26) strongly agreed that the Stimuler app made learning more interesting.
Student D shared:

> *"I used to find speaking practice repetitive and dull, but with Stimuler, I actually enjoy it. The app makes the exercises feel fresh and engaging."*

Student E stated:

> *"I feel like I'm participating in an interactive session rather than just repeating sentences. It makes speaking practice more enjoyable and less stressful."*

Student B explained:

> *"I used to be nervous when asked to speak in English, but the app helped me feel more comfortable. The exercises make it easier to practice without fear."*

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The results show that students perceived traditional speaking exercises as repetitive and stressful, often leading to decreased motivation. In contrast, the Stimuler app offered a more interactive and flexible learning experience, allowing students to practice at their own pace and feel more enthusiastic about speaking activities. This supports Self-Determination Theory (Deci & Ryan, 1985), which asserts that learners are more intrinsically motivated when tasks are enjoyable, relevant, and goal-oriented. The findings also align with Tabasi et al. (2024), who found that gamification increases student engagement, and with Xu et al. (2020), who emphasized that features like scoring systems and interactive challenges sustain learner motivation. Overall, these insights highlight the importance of incorporating engaging digital tools to create supportive and motivating environments in language instruction.

d. User-Friendly and Easy to Navigate

Another important finding is that 92.3% (24/26) of students found the Stimuler app easy to use and navigate.
Student C explained:

> *"At first, I wasn't sure how to use all the features, but after a few tries, it became really easy. Now, I can practice without worrying about how to use the app."*

Student D shared:

> *"I like how simple the interface is. I can easily find different exercises and practice speaking without getting confused."*

Student E stated:

> *"Some apps are difficult to use, but Stimuler is very user-friendly. I can start practicing right away without wasting time figuring out how it works."*

The findings indicate that students appreciated the app's simple and intuitive interface, which allowed them to focus on speaking practice rather than technical navigation. After a brief adjustment period, most students reported that the clear layout and structured exercises enhanced their overall learning experience. A user-friendly design reduced cognitive load and frustration, enabling students to engage more fully with the content. These results suggest that well-designed digital platforms play a crucial role in facilitating effective language learning by minimizing technological barriers and maximizing user engagement. This is consistent with research by Meliyuana et al. (2025), who found that students consistently report greater enjoyment and reduced stress when using digital tools with simple navigation systems

e. Motivation Boost through Gamification

The questionnaire results revealed that 76.9% (20/26) of students felt that the game feature in the Stimuler app made learning more exciting and motivating.
Student B stated:

> *"I love the game features in the app. They make learning more enjoyable and push me to keep practicing until I get a higher score."*

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Student A explained:

> *"The competitive elements, like points and challenges, make me want to improve my speaking skills. It encourages me to practice more."*

Student C shared:

> *"I feel motivated when I see my progress in the app. It makes me want to keep learning and improving my speaking skills."*

The findings indicate that gamification plays a key role in enhancing students' motivation and engagement in speaking practice. Features such as points, challenges, and progress tracking encouraged more frequent use of the app, as students were driven to improve their scores and unlock new levels. This aligns with Rahayu et al. (2022), who found that interactive elements in the Stimuler app created a more dynamic and motivating learning environment. These results also support Nugroho et al. (2022), who demonstrated that gamification fosters sustained learner motivation and active participation in language learning activities.

3.2 Challenges in Using the Stimuler App

a. Internet Connectivity Issues

A significant challenge identified was that 73.1% (19/26) of students reported that their internet connection affected their experience when using the app.
Student D shared:

> *"Sometimes my internet is slow, and the app doesn't work properly. I wish there was an offline mode so I could still practice."*

Student E explained:

> *"I had trouble completing some exercises because my connection was unstable. It made it frustrating at times."*

Student A stated:

> *"When my internet is slow, the voice recognition doesn't work properly. I have to repeat the same task multiple times."*

The findings reveal that some students encountered challenges while using the Stimuler app due to unstable internet connections. As the app relies heavily on online features, learners with limited or inconsistent connectivity experienced interruptions during speaking practice. This not only caused frustration but also disrupted their learning flow and reduced the overall effectiveness of the experience. Several participants expressed a desire for an offline mode, suggesting that such a feature would enhance the app's accessibility and usability, particularly in areas with poor infrastructure.

This issue underscores the critical role that technological infrastructure plays in the successful implementation of digital learning tools. It aligns with Vygotsky's Constructivist Theory (1978), which emphasizes that learning is shaped by external mediating factors, including access to tools and resources. In this case, limited access to stable internet connectivity functioned as a barrier to optimal

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learning. Supporting this view, Alenezi et al. (2023) argue that while digital tools have expanded access to education, their effectiveness is contingent upon the availability of robust technological infrastructure. Similarly, Warschauer (2006) highlights the importance of addressing digital equity to ensure that all learners benefit equally from technological innovations in education. Without adequate infrastructure, even the most well-designed digital tools may fall short in promoting meaningful learning experiences.

b. Difficulty Understanding Certain Features

The results also showed that 80.8% (21/26) of students sometimes experienced difficulties understanding certain features or felt that some exercises took too long to complete.
Student A explained:

> *"Some exercises were confusing at first, and I wasn't sure how to complete them properly. It took me a few tries to understand what I was supposed to do."*

Student B shared:

> *"I needed more instructions at the beginning because some features were not immediately clear. But after using it for a while, I got used to it."*

Student C stated:

> *"I think the app should provide more guidance or tutorials, especially for first-time users. That would help us learn faster."*

The findings indicate that while most students eventually adapted to the Stimuler app, some initially struggled due to unclear instructions on how to complete certain exercises. This lack of guidance limited their ability to fully utilize the app's features at the beginning. However, with continued use, students became more comfortable. Several participants suggested that adding tutorials or step-by-step guides would ease the learning process and improve usability.

This underscores the importance of clear instructional support in digital learning tools. It aligns with Flower and Hayes' Cognitive Process Theory of Writing (1981), which emphasizes the role of structured guidance in helping learners process and organize information. Rahimi and Zhang (2021) also found that clear step-by-step instructions enhance user experience and learning outcomes. Additionally, Sweller's Cognitive Load Theory (1988) suggests that excessive cognitive demand such as navigating a poorly explained interface can hinder learning. Providing accessible in-app guidance would help reduce this burden and allow students to focus more effectively on speaking practice.

To further situate these findings within existing research, this sudy shares key similarities with previous research in three main areas. First, the findings are consistent with those of Zhang et al. (2018) and Liu et al. (2020), who reported that mobile-assisted language learning (MALL) enhances learners' speaking confidence by providing a structured, low-anxiety environment for practice. Second, the results support Nugroho et al. (2022), who found that gamification features increase learner motivation and engagement. Similarly, the Stimuler app's use of scoring and interactive challenges created a dynamic learning experience, in line with the findings of Rahayu et al. (2022). Third, the present study aligns with Rahman et al. (2021), who emphasized the effectiveness of online speaking activities in improving student participation and willingness to speak. The positive reception of the Stimuler app confirms that digital tools can foster immersive and interactive speaking environments.

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Despite these similarities, this study also presents notable differences. Unlike Zhang et al. (2018) and Liu et al. (2020), who focused on university students, this research involved high school learners, who often possess different levels of technological familiarity and language proficiency. Moreover, while Nugroho et al. (2022) concentrated mainly on motivation, this study addresses both motivational aspects and measurable improvements in speaking fluency and pronunciation. Additionally, in contrast to Rahman et al. (2021), who examined general online speaking activities, this study focused specifically on the Stimuler app, offering a more detailed analysis of its features, benefits, and limitations in an EFL context.

Overall, the findings highlight both the potential and challenges of integrating the Stimuler app into speaking instruction. The app effectively fosters learner confidence, motivation, and active participation, supporting major theoretical frameworks such as Vygotsky's Constructivist Theory and Krashen's Affective Filter Hypothesis. However, limitations such as internet dependency, lack of clear guidance, and usability issues remain important areas for improvement. To enhance its impact, features such as offline access, step-by-step tutorials, and more intuitive navigation should be considered. This study underscores the importance of balancing technological innovation with accessibility and user-centered design to create more effective and inclusive digital language learning environments.

4. Conclusion

The findings of this study indicate that the Stimuler app is an effective tool for improving students' speaking confidence, engagement, and motivation. The app's interactive activities, real-time feedback, and gamified features provide a supportive learning environment that encourages students to practice speaking more actively. Many students who previously felt anxious about speaking in English gained confidence through structured and engaging exercises. The results also show that students found the app more enjoyable compared to traditional speaking activities, aligning with theories that emphasize the importance of interactive and low-anxiety learning environments. However, despite these benefits, challenges such as internet connectivity issues and difficulties in navigating certain features were reported. These obstacles suggest that while digital learning tools can enhance speaking proficiency, their effectiveness depends on accessibility and ease of use.

This study is limited to students' short-term perceptions and does not assess the long-term impact of using the Stimuler application on their speaking skill improvement. It does not explore factors such as speech retention, sustained skill development, or lasting effects on fluency, pronunciation, and confidence. Future research is encouraged to examine the long-term effectiveness of the application by observing students' speaking progress over an extended period, such as several months or a year, to gain a more comprehensive understanding of its impact. Based on these findings, several suggestions can be made to further improve the use of the Stimuler app in speaking instruction. First, the development of an offline mode could help students who face internet connectivity issues continue practicing without disruptions. Second, the app could incorporate more detailed tutorials or in-app guidance to assist students in understanding its features more effectively. Teachers should also receive training on integrating the app into their lessons to maximize its potential as a speaking practice tool. Additionally, a blended learning approach that combines the app with teacher-led speaking activities could provide a more balanced and structured learning experience. Future research could explore the long-term impact of the Stimuler app on students' speaking proficiency and examine its effectiveness in different educational settings.

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