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# Bridging Perspective: Educator's and Parent's Views on Interactive Apps for English Vocabulary Acquisition in Malaysian Preschoolers

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**Abstract**

In recent years, the integration of technology into early childhood education has significantly transformed language learning, particularly in non-native English-speaking contexts like Malaysia. This study investigates the impact of interactive mobile applications on English vocabulary development among preschool children and evaluates the benefits of incorporating such digital tools into early language education. Interactive applications offer multimedia-rich and highly engaging learning experiences, utilizing features such as animations, gamified tasks, sound effects, and speech recognition. These elements are designed to capture young learners' attention and facilitate deeper learning through play-based strategies. Recognizing the essential role that both educators and parents play in early childhood education, this study centers on their perspectives to understand how interactive apps are perceived, implemented, and evaluated in real-world preschool settings. A mixed-methods research design was employed, involving the collection of quantitative and qualitative data through structured questionnaires, focus group discussions with educators and parents, and analysis of user reviews from app platforms. The study aims to generate a comprehensive understanding of the educational value of such applications, highlighting their strengths and limitations. Findings from this research are expected to inform best practices in integrating interactive digital tools into the preschool English language curriculum and pedagogical decisions in early education.

**Keywords:** English Vocabulary Acquisition, Interactive Apps, Preschoolers, Perspective, Early Childhood Education

## Introduction

The rapid advancement of digital technology has transformed early childhood education worldwide, particularly in the teaching and learning of English as a second language. Interactive mobile apps have emerged as promising tools, offering rich multimedia and game-based experiences that combine visuals, sounds and interactive features to make vocabulary learning more engaging and effective for young children. Globally, these apps are

recognized for their potential to enhance language acquisition by creating a multisensory environment that supports retention and comprehension.

In Malaysia, English is introduced at the preschool level as part of early literacy development, reflecting its importance as a national priority and global lingua franca. However, traditional vocabulary teaching methods—such as rote memorization and flashcards—often fail to sustain children's interest or provide meaningful contexts for language use. While interactive apps are increasingly available in preschool classrooms, their integration remains limited and inconsistent. Many educators have only basic knowledge of multimedia tools, resulting in superficial applications. Furthermore, empirical evidence comparing the effectiveness of interactive apps with traditional methods in the Malaysian preschool context is limited, leaving stakeholders uncertain about their true pedagogical value.

This study addresses this gap by examining educators' and parents' perspectives on the role of interactive apps in supporting English vocabulary acquisition among preschool children. By gaining insights from those directly involved in children's learning, this study identifies characteristics of apps that are pedagogically sound, culturally relevant, and can be practically implemented in local preschool settings.

The novelty of this study lies in its dual focus on educators' and parents' perspectives in Malaysia, offering one of the first empirical investigations into the design of interactive apps for early vocabulary growth. Its contribution to the social science field is to bridge technology design with stakeholder perceptions, providing evidence-based recommendations that inform curriculum innovation, teacher training, and policy development for the integration of digital learning in early childhood education.

**Problem Statement**

Despite Malaysian preschool teachers' growing awareness of interactive multimedia tools, their actual use in classroom settings remains basic and limited. This suggests a disconnect between knowledge and practice, possibly due to challenges such as a lack of training, insufficient infrastructure, or limited pedagogical support. Teachers may understand the potential of these tools to enhance learning experiences, but without the necessary resources or guidance, their integration remains superficial. (Welly & Rani, 2024).

Although interactive media is believed to enhance English vocabulary learning more effectively than traditional methods, there is still a lack of experimental studies to substantiate this claim. Most existing research is either theoretical or observational, which limits its applicability in real-world educational settings. More rigorous, data-driven studies are needed to validate the effectiveness of these tools and to guide evidence-based implementation in preschool classrooms (Nazar et al., 2022)

Mobile learning, including the use of apps and devices, holds great potential for supporting early English acquisition. However, within the Malaysian preschool context, this area remains significantly under-researched. There is a need to explore how mobile learning can be effectively integrated into early childhood education, taking into account local cultural,

linguistic, and technological contexts. Such research could inform the development of tailored mobile learning strategies that better support young learners (Chung & Hew, 2023).

**Significance of Study**

English proficiency is increasingly important in Malaysia, not only as a language of instruction but also as a gateway to global communication and competitiveness. Vocabulary acquisition during preschool years forms the foundation for literacy, reading comprehension and long-term academic success. In today's digital society, preschoolers grow up surrounded by smartphones, tablets and educational apps, making the integration of technology in early education inevitable and necessary.

Vocabulary acquisition in early childhood is a cornerstone of language development and literacy. A strong vocabulary base supports reading comprehension, cognitive development, and academic achievement across subjects. This study emphasizes the importance of building foundational language skills during the preschool years, a critical period for brain development and learning. By focusing on vocabulary learning, the research aims to support long-term educational outcomes and reduce future literacy gaps (Narayan & Goundar, 2024).

The increasing presence of digital devices in children's lives has transformed the way they learn and interact with information. Preschoolers today are growing up in environments rich with smartphones, tablets, and educational apps, which shape their learning experiences both at home and in school. This study recognizes the relevance of digital integration in early education and explores how technology can be harnessed to support language learning in developmentally appropriate ways (Laranjeiro, 2021).

Interactive applications offer a unique blend of entertainment and education, making learning more engaging and accessible for young children. These tools can motivate learners through gamified experiences, visual stimuli, and immediate feedback, which are especially effective for vocabulary acquisition (Sharma, 2025). The study investigates how such apps can enhance learning outcomes by making the process enjoyable and tailored to the needs of preschoolers, potentially increasing retention and interest in language learning.

This study is novel in bridging the perspectives of educators and parents to assess the characteristics of interactive apps for vocabulary acquisition among Malaysian preschoolers. By combining stakeholder insights with empirical analysis, it contributes to the social science field by offering context-specific evidence that informs curriculum design, teacher training and policy development. The findings highlight how technology can be harnessed responsibly

*Research Objectives*

To explore educators' and parents' perspectives on how interactive apps support English vocabulary learning among preschoolers.

*Research Questions*

How do educators and parents perceive the role of interactive apps in supporting English vocabulary learning among preschoolers?

## Review of Literature

*Technology in Early Childhood Education*

Research suggests that digital tools can significantly help improve English language learning for young children (Hung, 2021). Studies have shown that technology-enhanced learning creates engaging and multimodal experiences that enhance vocabulary retention and comprehension (Gençten & Aydemir, 2023). In the Malaysian context, digital learning resources are increasingly being integrated into the preschool curriculum to complement traditional teaching methods (Jein et al., 2022). By incorporating technology in early childhood education, it can help preschoolers in acquiring critical thinking skills and digital literacy which are important to success in the growth of digital society. Therefore, according to Ong et al., (2024), technology can provide chances to explore and cultivate passion in learning and build a solid foundation for their academic achievement in the future. Interactive learning apps, educational games and digital tools can make preschoolers' learning engaging and fun. Besides, it is also able to improve preschooler's learning experiences and fulfill individual needs (Adewusi et al., 2024).

*Interactive Apps and Language Development*

Interactive apps use a variety of features, such as real-time feedback, gamification, and speech recognition, to enhance language learning (Procel et al., 2024). Research by Lee & Aspirant, (2023) shows that preschoolers learn best in multimodal environments where text, images, and sounds work together to create meaningful vocabulary exposure. Studies of language learning apps such as Duolingo and Lingokids have shown improved word recognition and pronunciation in young children (Bauer, 2024). According to Bright et al., (2023), interactive apps that emphasize reading and literacy can strengthen vocabulary and phonemic awareness. Interactive apps can significantly boost a preschooler's vocabulary through engaging activities and context-rich games. In addition, it is a valuable tool for early childhood development which offers activities that build foundational learning skills of preschoolers. Furthermore, these interactive apps can be free or paid for, however the quality is important which we should choose the apps that fulfil preschooler's interest and align with the educational goals.

*Challenges and Ethical Considerations*

While interactive applications offer promising benefits for early English vocabulary development, several challenges and ethical concerns must be addressed. One major issue is limited access to technology, particularly among children from lower socio-economic backgrounds, which can lead to unequal learning opportunities (Larsson et al., 2024). Additionally, screen time management remains a persistent concern. Without proper guidelines, excessive use of digital devices may negatively impact children's attention spans, physical health, and social development.

Researchers such as Radesky et al. (2021) advocate for a balanced approach to digital learning. This includes implementing structured screen time policies and ensuring that interactive apps are used to complement—not replace—traditional instructional methods. Ethical use of technology in early education also involves selecting developmentally appropriate content, safeguarding children's privacy, and promoting meaningful engagement rather than passive consumption.

**Theoretical Framework**

This study is grounded in Krashen's Input Hypothesis, which emphasizes the importance of comprehensible input in language acquisition. According to Gao (2022), children learn best when they are exposed to language that is meaningful and contextualized. Interactive apps align with this theory by providing multimedia-rich environments that combine visuals, audio, and interactive elements to deliver language input in an engaging and accessible way.

These apps offer opportunities for children to encounter new vocabulary in contextual settings, such as animated stories, games, and interactive exercises. This not only supports vocabulary retention but also enhances comprehension, as learners are able to connect words with actions, images, and sounds. By delivering input that is both understandable and stimulating, interactive apps serve as effective tools for supporting early language development in line with Krashen's theoretical principles.

**Conceptual Framework**

This study is conceptually framed around the role of interactive mobile apps as digital tools for enhancing English vocabulary acquisition in early childhood education. Interactive apps are designed to engage preschoolers through features such as audio-visual pairing, contextual animation, gamified activities, voice recognition, and repetitive reinforcement, all of which contribute to a multisensory, game-based learning experience. These features are theorized to support vocabulary development by making abstract language concepts more concrete, memorable, and accessible. The framework positions these apps not only as entertainment tools, but as pedagogically purposeful resources that can complement traditional teaching methods. By examining the perceptions of educators and parents, this study aims to understand how these stakeholders evaluate the effectiveness, usability, and educational value of interactive apps in real-world preschool settings. Their insights are critical to identifying the most beneficial app features, which may be disruptive, and how digital tools can be meaningfully integrated into early language learning environments.

**Research Methodology**

A mixed-methods research approach is employed to examine educators' and parents' perspectives on the effectiveness of interactive applications in English vocabulary learning.

*Research Design*

This study adopts a mixed methods approach, combining both qualitative and quantitative techniques to gain a comprehensive understanding of the effectiveness of interactive apps in early English vocabulary acquisition. By integrating multiple data sources and perspectives, the methodology allows for a richer and more nuanced analysis of how digital tools are perceived and utilized in Malaysian preschool settings. This approach is particularly suitable for educational research, where both measurable outcomes and subjective experiences are important.

*Participants and Setting*

The research involves educators and parents from selected preschools and institutions located in the Klang Valley, Malaysia. This region was chosen due to its diverse demographic and relatively high exposure to digital learning environments. Participants include a total of

47 individuals, comprising educators, parents, and those who serve in both roles. Their insights are crucial for understanding the practical realities of app usage in early childhood education, as well as the expectations and concerns from both teaching and parenting perspectives.

*Qualitative Data Collection*

To explore in-depth perspectives, focus group discussions were conducted with 6 participants, following the method outlined by Akyildiz & Ahmed (2021). These discussions provided a platform for participants to share their experiences, opinions, and suggestions regarding the use of interactive apps for language learning. The qualitative data gathered through these sessions is instrumental in identifying recurring themes and uncovering contextual factors that influence app effectiveness and engagement.

*Quantitative Data Collection*

Structured questionnaires were distributed to the broader participant group, based on the framework by Mazhar et al. (2021). These surveys collected standardized responses on various aspects of app usage, including frequency, perceived benefits, and challenges. Quantitative data enables statistical analysis and comparison across different participant categories (parents, educators, and combined roles), offering insights into general trends and correlations.

*Supplementary Data and Analysis*

In addition to direct participant input, the study also includes an analysis of user reviews from app platforms, covering 7 selected apps. This method, inspired by Newman et al. (2021), provides external validation and broader user feedback on app performance and engagement. All collected data will undergo thematic analysis, focusing on patterns related to app effectiveness, engagement levels, and perceived educational benefits. This analytical approach ensures that both qualitative narratives and quantitative metrics are synthesized to draw meaningful conclusions.

**Findings and Discussion**

This section presents findings from a survey conducted to explore educators' and parents' perspectives on how interactive applications support English vocabulary learning among preschool children. The data collected provides insights into participants' views on the effectiveness, engagement, and educational value of using interactive digital tools in early language development. The findings highlight the extent to which these applications are seen to enhance vocabulary acquisition, maintain children's interest in learning, and complement traditional teaching methods as well as reveal both the strengths and weaknesses of using interactive apps in early English learning. In addition, the analysis reveals similarities and differences between educators' and parents' perspectives, offering a comprehensive understanding of the role of technology in supporting early English language learning experiences.

Table 1
*Perceived Role of Interactive Apps in Early English Vocabulary Development (N = 47)*

| Response Option | Frequency | Percentage (%) |
|---|---|---|
| They offer engaging, multisensory learning experiences that support vocabulary acquisition | 39 | 83.0 |
| They primarily serve as entertainment tools with limited educational value | 5 | 10.6 |
| They replace the need for teacher-led instruction in language development | 1 | ~2.1 |
| They are only suitable for older children who can read and navigate apps independently | 1 | ~2.1 |
| In my view, interactive apps play a significant role in supporting early English vocabulary development | 1 | ~2.1 |

Out of 47 respondents, the majority—83%—believe that interactive apps provide engaging, multisensory learning experiences that help preschoolers learn English vocabulary effectively. A smaller group (10.6%) sees these apps mainly as entertainment tools with limited educational value. Very few respondents think apps can replace teachers, are only suitable for older children, or gave general supportive comments.

Most people agree that interactive apps are useful for helping young children learn vocabulary, especially because they combine visuals, sounds, and touch to make learning fun and memorable. However, some still worry that not all apps are educational enough and may just entertain. A few also believe that apps shouldn't replace teachers or that they're better for older kids. This shows that while apps are helpful, they should be used wisely and alongside other teaching methods.

Table 2
*Examples of How Apps Have Helped Children Learn New English Words (N = 46)*

| Response Option | Frequency | Percentage (%) |
|---|---|---|
| A child used an app like Endless Alphabet, which combined animation, sound, and interaction | 29 | 63.0 |
| A child watched English cartoons without subtitles and immediately began using new words | 8 | 17.4 |
| A child used a flashcard app with minimal interaction and quickly mastered new words | 5 | 10.9 |
| A child played unrelated mobile games and showed strong improvement in English vocabulary | 2 | 4.3 |
| A 4-year-old child using Endless Alphabet showed noticeable improvement | 1 | 2.2 |
| (Other responses not specified) | 1 | 2.2 |

Out of 46 responses, the majority (63%) selected the example where a child used an app like Endless Alphabet, which combined animation, sound, and interaction to support vocabulary learning. This suggests that apps with multisensory and engaging features are perceived as most effective. Smaller percentages chose other examples: 17.4% noted improvement from watching English cartoons without subtitles, 10.9% from using a flashcard

app with minimal interaction, and a few selected examples involving unrelated mobile games or general improvement from using Endless Alphabet.

The results highlight that interactive and well-designed educational apps—especially those like Endless Alphabet that combine visuals, audio, and touch—are seen as powerful tools for vocabulary acquisition in young children. These apps provide a playful yet structured learning experience that supports retention and engagement. In contrast, passive methods like watching cartoons or using basic flashcards are viewed as less effective, likely due to their limited interactivity and lack of reinforcement.

The findings also suggest that not all digital experiences lead to meaningful learning. Apps must be purposefully designed with educational goals in mind to truly benefit language development. This reinforces the importance of selecting high-quality apps that align with pedagogical principles and are developmentally appropriate for preschoolers.

Table 3
*Perceived Strengths and Weaknesses of Vocabulary Apps in Early Childhood Education (N = 47)*

| Response Option | Frequency | Percentage (%) |
|---|---|---|
| Apps make learning fun and interactive, but excessive screen time and poor-quality apps can be detrimental | 37 | 78.7 |
| Apps offer competitive learning environments, but they are often too difficult for young children | ~3 | ~6.4 |
| Apps replace the need for teacher interaction, but they are helpful for advanced learners | ~2 | ~4.3 |
| Apps are mostly passive tools, but they are useful for children who already know how to read | ~2 | ~4.3 |
| Interactive and Fun | ~2 | ~4.3 |
| Gamified elements—like rewards, animations… | ~1 | ~2.1 |

Out of 47 responses, the majority (78.7%) selected the statement: "Apps make learning fun and interactive, but excessive screen time and poor-quality content can be problematic." This reflects a widely held view that while educational apps are engaging and beneficial for vocabulary learning, they also come with risks if not properly managed. Other options received minimal support, including concerns about apps being too competitive, replacing teacher interaction, being passive tools, or relying heavily on gamified elements.

The findings highlight a key duality in the use of educational apps for young children: they are highly engaging and interactive, which makes vocabulary learning enjoyable and effective, but they also pose risks such as excessive screen time and exposure to low-quality content. This suggests that while apps can be powerful learning tools, their use must be carefully monitored and balanced with other forms of instruction.

The limited support for other options—such as apps replacing teacher interaction or being mostly passive—reinforces the idea that most respondents see apps as supplementary tools, not substitutes for human-led learning. The concern about poor-quality content also

points to the need for educators and parents to select apps thoughtfully, ensuring they are developmentally appropriate and aligned with learning goals.

Overall, the discussion emphasizes the importance of guided and intentional use of educational apps in early childhood settings to maximize their strengths while minimizing potential drawbacks.

The focus group discussions revealed strong consensus among participants regarding the value of interactive apps in early English vocabulary development. One of the most prominent themes was the fun and engaging nature of these apps. Educators and parents noted that the joyful and attractive design of interactive applications helps reduce boredom and increases children's willingness to participate in vocabulary learning activities. This aligns with the broader understanding that engagement is a key factor in successful early childhood education.

*Perceived Role of Interactive Apps in Early English Vocabulary Development*

Participants consistently viewed interactive apps as valuable tools for supporting vocabulary acquisition among preschool children. Several key themes emerged from the discussion, including engagement, multisensory learning, and the importance of balancing digital exposure with real-world interaction.

*Engagement and Motivation*

Many participants emphasized that interactive apps make vocabulary learning enjoyable and engaging for young children. P1 described them as *"helpful and attractive to my children,"* while P2 noted that learning through apps is *"joyful and enjoyable."* P3 elaborated, *"Apps are helpful for kids learning English because they make it fun and engaging and not boring*. *You can play games and hear how words sound."* Similarly, P5 stated, *"Interactive apps help children learn English words in a fun and engaging way, using games, sounds, and pictures."*

*Multisensory and Play-Based Learning*

Participants highlighted the value of combining visual, auditory, and tactile elements to support vocabulary development. P4 explained*, "They work best when they combine play, visual cues, and sound to create an engaging, multisensory learning experience… Features like touch-based responses, animations, and immediate feedback keep them motivated and make the learning process feel like a game rather than a lesson."* P6 echoed this view, noting that apps *"make learning English vocabulary more fun and engaging… because they can play games and see pictures."*

*Supportive Role in Broader Language Exposure*

While apps were seen as beneficial, participants also acknowledged their limitations. P4 emphasized that *"the role of these apps should be to support and extend vocabulary exposure children already get from face-to-face conversations, storytelling, songs, and real-world experiences."* Apps were described as tools for reinforcement and practice, not replacements for human interaction.

Another significant insight was the effectiveness of multisensory learning. Apps that integrate visuals, sounds, touch, and feedback were praised for creating immersive learning experiences. These multisensory elements support better word recognition and memory retention, reinforcing the idea that young children benefit from varied sensory input when acquiring new language skills.

Participants also highlighted the role of motivation and enjoyment, particularly through gamification and animations. These features transform learning into a playful experience, making it feel less like formal instruction and more like entertainment. Immediate responses and rewards were seen as effective in maintaining children's interest and encouraging continued use of the apps.

*How Interactive Apps Help Children Learn New English Words*

Participants described various ways in which interactive apps support early English vocabulary development. The responses revealed three key themes: engagement and enjoyment, multisensory learning, and reinforcement of vocabulary in meaningful contexts.

*Engagement and Enjoyment*

Most participants emphasized that interactive apps make vocabulary learning fun and motivating for young children. P1 described apps as *"helpful and attractive to my children,"* while P2 noted that learning vocabulary through apps *is "joyful and enjoyable."* P3 added, *"Apps are helpful for kids learning English because they make it fun and engaging and not boring. You can play games and hear how words sound."* P6 echoed this, stating that apps *"make learning English vocabulary more fun and engaging… because they can play games and see pictures."*

*Multisensory and Play-Based Learning*

Several participants highlighted the importance of combining visual, auditory, and tactile elements to enhance vocabulary acquisition. P5 explained, *"Interactive apps help children learn English words in a fun and engaging way, using games, sounds, and pictures to make vocabulary easier to understand and remember."* P4 elaborated that apps *"work best when they combine play, visual cues, and sound to create an engaging, multisensory learning experience,"* helping children connect new words to real-life objects, actions, and emotions.

*Reinforcement and Contextual Learning*

While apps were seen as effective tools, P4 emphasized that their role should be complementary to other forms of language exposure*. "An app can help reinforce words, introduce new ones in context, and allow for repeated practice at a child's own pace,"* they noted, *"but the richest language learning still comes from human interaction and meaningful communication."*

Six participants in the focus group shared examples of how interactive apps have supported English vocabulary learning among Malaysian preschoolers. Their responses highlighted a range of app features that promote engagement and retention. Children played word games, word searches, and crossword puzzles that helped them learn spelling and, in some cases, word meanings. One participant described an app that assessed a child's English level and adapted tasks, accordingly, offering translations and pronunciation practice to

support understanding. Another shared how their niece learned advanced words like "enormous" through a playful monster-themed app. The *Endless Alphabet* app was praised for its animated phonics and storytelling, which helped a child learn and apply the word "giggle" in real life. Apps like ABC Kids were also mentioned for their use of image-word matching and repetition, enabling children to recognize and say words like "apple" and "ball." Overall, the participants emphasized that interactive apps make vocabulary learning fun, personalized, and effective for preschool-aged children.

**Strengths and Weaknesses of Using Apps for Vocabulary Learning**

Participants identified a range of strengths and weaknesses associated with using interactive apps for early vocabulary development. The discussion revealed four key themes: accessibility and flexibility, engagement and multisensory learning, risks of overuse and distraction, and limitations in contextual language development.

*Accessibility and Flexibility*

Apps were praised for their convenience and availability. P1 noted that apps are *"mobile and available anytime for kids' access,"* while P5 emphasized that they *"can be used anytime and anywhere for flexible learning."*

*Engagement and Multisensory Learning*

Participants consistently highlighted the engaging nature of apps. P3 stated that apps *are "fun, easy to use, and you learn without even realizing it."* P4 elaborated *that "bright visuals, animations, and sound effects can capture a child's attention in ways traditional flashcards cannot,"* and that *"instant feedback and repetition… helps reinforce word recognition and pronunciation."* P6 added that apps allow children to *"release their stress, have fun, and learn many things such as words or vocabulary."*

*Risks of Overuse and Distraction*

Several participants expressed concern about excessive screen time and addictive behaviors. P1 described apps as *"addictive,"* while P5 warned that *"too much screen time can affect health and attention span."* P3 observed that *"kids just tap stuff without paying attention," and P6 noted that "children spend too much time on their screen time."*

**Limitations in Contextual and Social Learning**

Some participants felt that apps lacked depth in promoting real-world language use. P4 cautioned that *"over-reliance on screen time… can reduce opportunities for real-world conversation and social interaction,"* and that *"rote memorisation without context"* may hinder natural language use. P5 added that *"without adult guidance, children may not use the words in real-life situations."* P2 also noted that some apps *"did not come out any improvement… such as attaching children, different topic and subjects."*

The focus group participants identified several strengths and weaknesses of using interactive apps to support English vocabulary learning among Malaysian preschoolers. A key strength is the accessibility of mobile apps, allowing children to learn anytime and anywhere. Participants emphasized that these apps are fun, easy to use, and often teach vocabulary without children realizing they are learning. Engaging features such as bright visuals, animations, sound effects, and interactive games help capture attention and reinforce word

recognition and pronunciation through repetition and instant feedback. Apps also offer stress relief and promote independent learning. However, notable weaknesses were also discussed. Several participants expressed concern about excessive screen time, which may lead to addictive behavior and reduced opportunities for real-world interaction. Some apps lack meaningful updates or diverse content, and children may engage passively without focus or failing to apply new vocabulary in daily conversations. Without adult guidance, the educational value of these apps may be limited, and rote memorization without context can hinder deeper language understanding.

*Analysis of Users Reviews from Apps Platform*

Table 4

*Comparison of Educational Apps for Early Vocabulary Development*

| App | Strengths | Limitations | Sources |
|---|---|---|---|
| Lineopolis | Fun & engaging; curriculum-based (Oxford); creative animations & puzzles | Expensive subscription; limited free version; billing/tech issues; limited phonics content | NYPost; Reddit |
| Endless Alphabet | Creative animations & puzzles; kids love characters & sounds | Only uppercase letters; limited word options; phonics concerns | Macworld; ComplaintsBoard.com |
| Epic! | Teacher-recommended; themed interactive games; kids love it; ad-free; broad content; free trial | Updates caused bugs; limited offline access | Chrome Stats; First in 3 Months; App Store reviews |
| Khan Academy Kids | Free; ad-free; broad learning content; child-friendly | Limited depth; needs parental guidance | App Store & Google Play reviews; Common Sense Media |
| ABC Kids | Simple; free; child-friendly; no ads; good speech recognition | Limited phonics depth; less suitable for older preschoolers | Common Sense Media |
| Dueling ABC | Playful mini-games; supports special needs | Tricky navigation; flashcard-style; limited flexibility | Common Sense Media |
| Starfall ABCs | Widely used in schools; strong phonics & vocabulary foundation | Outdated interface; subscription needed | Common Sense Media; App Store reviews |

Another key finding is the importance of curriculum alignment. Apps that follow structured learning paths or are explicitly designed to complement early childhood education curricula tend to be more effective. These apps ensure that content is age-appropriate and that vocabulary development progresses in a logical, scaffolded manner. This alignment not only supports classroom learning but also provides consistency between home and school environments.

The reviews also reveal a practical concern regarding cost versus value. While many apps offer free versions, the most feature-rich and pedagogically sound options often require paid subscriptions. This presents a challenge for parents and educators who must balance budget constraints with the desire for high-quality educational content. It underscores the

need for transparency in pricing and for developers to offer meaningful free trials or tiered access.

Additionally, the analysis points out that while many apps include vocabulary as part of broader literacy development—such as phonics, alphabet recognition, and early reading—those with a focused approach to vocabulary tend to be more effective for targeted language goals. This suggests that apps designed specifically for vocabulary acquisition may yield better outcomes than those with a more generalized literacy focus.

Overall, the user review analysis reinforces the idea that effective vocabulary learning apps must be engaging, educationally grounded, accessible, and purpose driven. These insights can guide both app developers in refining their products and educators in selecting tools that best support early language development.

**Recommendation**

To address these challenges and enhance the effectiveness of interactive educational apps, several practical recommendations are proposed. First, it is important to encourage the balanced integration of technology in early childhood education. The use of apps should complement not replace the traditional teaching and play-based learning, thereby ensuring that children continue to benefit from rich interpersonal communication. Second, collaboration between educators and parents is essential to establish clear, age-appropriate screen-time guidelines that promote purposeful use and prevent overexposure.

Third, there is a need to support localized app development. Developers should work closely with educators and curriculum experts to create content that reflects local languages, cultural values, and educational standards, making the apps more relevant and effective. Fourth, fostering multi-stakeholder collaboration—including educators, parents, policymakers, and developers can lead to better-informed decisions regarding app selection, usage strategies, and monitoring of learning outcomes.

Finally, promoting digital inclusion is critical. Policymakers and institutions must invest in infrastructure and support initiatives that ensure all children have equitable access to quality digital learning tools. This includes providing devices, internet connectivity, and training for both educators and families, so that every child can benefit from the opportunities offered by educational technology.

**Conclusion**

This study emphasizes the increasing importance of interactive educational apps in supporting early English vocabulary development among preschoolers. These digital tools offer engaging, multisensory experiences that enhance learning by making it more enjoyable and effective. When thoughtfully integrated, they serve as valuable additions to traditional and play-based teaching methods, helping to boost motivation and retention through features such as animations, sound, and interactive feedback.

Nevertheless, the findings also raise several concerns that warrant attention. One major issue is the potential over-dependence on technology, which may limit opportunities for meaningful human interaction an essential element in language development.

Additionally, managing screen time remains a challenge, requiring careful oversight to ensure that digital engagement is both purposeful and age appropriate. The study also highlights a lack of cultural and curriculum alignment in many available apps, which can reduce their relevance in local educational settings. Furthermore, digital equity continues to be a significant concern, as unequal access to devices and internet connectivity may widen learning gaps among children from different socio-economic backgrounds.

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