Boosting Family Engagement: Using EdTech to Spark Early Childhood Curiosity

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ABSTRACT

This research examines the ways in which educational technology (EdTech) boosts early childhood curiosity by encouraging active involvement from families. Employing a synthesis-sources approach, the study combines primary data, such as user engagement metrics and parent surveys, with quantitative evaluations of child learning results. Results indicate that EdTech tools, including interactive apps and digital storytelling platforms, foster curiosity by facilitating exploratory learning, immediate feedback, and tailored experiences. Moreover, digital communication channels and collaborative activities enhance family involvement, bolstering children's cognitive and social growth. This research highlights the capability of EdTech to revolutionize early education by connecting home and school learning settings.
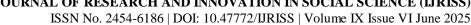
Keywords: Educational Technology (EdTech), Early Childhood Curiosity, Family Engagement, Digital Learning Environments

INTRODUCTION

The swift progress of educational technology (EdTech) has transformed early childhood education, providing creative methods to stimulate curiosity and improve family involvement. Curiosity, an essential catalyst for learning, plays a vital role in early childhood, impacting cognitive growth and future academic achievement (Asher & University of Michigan Institute for Social Research, 2024). Studies indicate that technology-enhanced learning experiences, like interactive applications and digital narratives, can inspire children's curiosity by offering personalized, adaptable, and exploratory educational chances (Nexus Education, 2023). Simultaneously, family involvement is crucial in strengthening children's inquiry-based learning since parents serve as guides in their educational experiences (Kaplan Early Learning Company, 2018). Nonetheless, successfully incorporating EdTech into early childhood education necessitates a balance between digital engagement and significant parental participation.

Involvement of families in education has consistently been linked to favorable learning results, especially when parents and guardians take an active role in their children's academic journeys. Conventional methods of engaging parents typically consist of face-to-face meetings, homework tasks, and school activities, yet these strategies may be hindered by time limitations and accessibility challenges (ParentPowered, 2023). EdTech tackles these obstacles by offering adaptable, digital systems that enable parents to participate in their child's education anytime and from any location (iCare Software, 2018). Research has demonstrated that digital resources like learning management systems, mobile apps, and virtual classrooms allow parents to engage in their children's education in a more interactive and tailored way (Edutopia, 2022). These resources not only improve parental engagement but also provide immediate insights into children's learning development, promoting a more cooperative and knowledgeable strategy in early childhood education.

Even with its possible advantages, the incorporation of EdTech in promoting early childhood curiosity and family involvement presents various challenges. Worries about screen time, digital fairness, and the efficacy of tech-based learning experiences have ignited discussions among educators and researchers (The Guardian, 2024).

Although some contend that too much screen time can impede social interactions and restrict practical experiences, others highlight that effective, research-backed EdTech tools can alleviate these concerns by fostering active learning over passive consumption (Zeichner, 2016). Moreover, differences in digital access can lead to gaps in participation, as families with lower incomes might not have the required resources to aid their children's education via technology (RAND Corporation, n.d.). Tackling these issues demands a strategic method that guarantees fair access to technology while promoting responsible and intentional usage.

Recent research utilizing synthesis methods has shown that EdTech's ability to promote curiosity and engagement is affected by multiple factors, such as parental involvement, the quality of online content, and how well technology meets developmental requirements (Learning First, 2023). Through the compilation of main data sources like parental insights, participation metrics, and evaluations of children's cognitive growth, researchers have pinpointed essential techniques for enhancing the application of EdTech in early childhood education (Abdelghani et al., 2024). Quantitative measures, such as the duration of interactive learning activities, how often children initiate interactions, and the rates of parental involvement, offer concrete proof of EdTech's impact on boosting curiosity and engagement (BSD Education, 2023). These findings emphasize the necessity for educators and policymakers to create and execute technology-based learning experiences that are suitable for development and inclusive of families.

The incorporation of EdTech in early childhood education offers considerable chances to promote curiosity and improve family involvement. When executed properly, digital resources can act as potent enhancers of education, allowing children to investigate, inquire, and uncover in interactive manners while enhancing parental engagement. Nevertheless, issues like digital equity, content quality, and screen time concerns must be thoughtfully managed to enhance the advantages of EdTech. Future studies ought to keep investigating how technology can be refined to enhance early childhood development, making certain that it acts as a bridge instead of a hurdle to curiosity-based learning.

LITERATURE REVIEW

The impact of educational technology (EdTech) on nurturing early childhood curiosity and promoting family involvement has been extensively examined in recent years. Researchers highlight that curiosity plays a crucial role in cognitive growth, resulting in increased motivation and enhanced learning (Nexus Education, 2023). Digital educational tools, including interactive storytelling applications, gamified education settings, and AI-powered adaptive learning systems, have proven to enhance curiosity by offering children exploratory and tailored learning experiences (BSD Education, 2023). Research emphasizes the significance of child-driven digital interactions, in which young learners interact with content that adjusts to their interests and developmental stages, thus boosting their intrinsic motivation to learn (Asher & University of Michigan Institute for Social Research, 2024).

Parental engagement is another essential element of early childhood education, as studies consistently demonstrate its beneficial effects on learning results. Conventional approaches to family involvement, including shared reading, participating in school activities, and assisting with assignments, have historically been linked to educational achievement (ParentPowered, 2023). Nonetheless, digital technology has created new possibilities for parental engagement, providing resources like mobile learning applications, online parent-teacher meetings, and instant progress monitoring systems (Kaplan Early Learning Company, 2018). These digital tools enable parents to become more involved in their children's education by offering insights into their learning progress and promoting significant interactions (Edutopia, 2022).

Although EdTech offers advantages, researchers warn against excessive dependence on digital tools without organized parental engagement. Certain research suggests that although technology can boost curiosity, excessive passive screen time or unstructured engagement with EdTech might offer minimal educational advantages (Zeichner, 2016). Effective digital tools that foster active participation—like interactive simulations, inquiry-based learning with guidance, and collaborative digital storytelling—are better at enhancing curiosity and critical thinking skills (The Guardian, 2024). Moreover, research indicates that caregivers play a crucial role in supporting children's learning with EdTech, as young learners gain the most when parents or teachers offer guidance and encourage conversations about digital materials (Illinois Early Learning Project, n.d.).

The topic of digital fairness also emerges in conversations about EdTech and parental involvement. Socioeconomic inequalities affect families' access to technology, as children from lower-income backgrounds frequently experience restricted exposure to quality digital learning resources (RAND Corporation, n.d.). Studies show that although numerous schools and organizations aim to offer technology access to disadvantaged communities, obstacles like internet connectivity, parental digital literacy, and affordability continue to present considerable challenges (Star Early, 2020). Policymakers and educators support methods that close the digital gap, including government-sponsored digital education programs, local technology access centers, and parent training projects (Learning First, 2023).

Moreover, the success of EdTech in promoting early childhood curiosity relies on the quality and structure of digital learning settings. Research indicates that effectively crafted EdTech platforms include elements like adaptive learning, interactive narratives, and real-life problem-solving tasks to meaningfully engage children (Smallab Learning, 2012). Nonetheless, worries have been expressed regarding the commercialization of educational applications, as many offerings emphasize entertainment more than educational significance (MakerKids, 2024). Scholars highlight the significance of design principles based on evidence that correspond with child development theories, confirming that EdTech tools are engaging and educationally valid (Montessori-inspired app, 2025).

Multiple studies have compiled quantitative information to assess the influence of EdTech on curiosity in early childhood and family involvement. Measures like duration of interactive learning activities, frequency of parental involvement, and assessments of cognitive development have been utilized to assess the effectiveness of EdTech (Abdelghani et al., 2024). These research findings indicate that children utilizing effectively crafted digital learning resources alongside parental engagement exhibit increased levels of inquiry-based learning behaviors and ongoing curiosity-fueled interactions (EdTech Chronicle, 2025). Utilizing longitudinal data has also offered valuable insights into how initial involvement with EdTech affects long-term educational results, emphasizing the necessity for continuous investigation in this area (New America, n.d.).

The incorporation of digital technologies in history education in China and Malaysia offers various opportunities and challenges. Although digital tools can improve learning and engagement, they should be utilized carefully to prevent the reinforcement of dominant narratives and to promote critical thinking and the investigation of various historical viewpoints. In both nations, the success of digital learning relies not just on the technology available, but also on the wider educational objectives and cultural backdrop that influence history teaching methods. This literature review emphasizes the necessity for a more thorough comprehension of how digital tools can be incorporated into history teaching to align with each nation's distinct educational goals and address wider global movements in digitalization and educational reform.

Although current literature highlights the ability of EdTech to nurture early childhood curiosity and boost family involvement, there are still several gaps. The majority of research emphasizes general EdTech tools without distinguishing between passive and active engagement methods, which results in a lack of insight into the particular design characteristics that enhance curiosity-driven learning. Moreover, although studies have investigated parental engagement in digital education, there is less research on how varying degrees of parental support influence learning results in technology-enhanced settings. A significant gap is the insufficient attention given to low-income families and marginalized groups, as they continue to face challenges in accessing high-quality EdTech. Future studies ought to focus on these gaps by performing targeted research on the impact of different EdTech features, examining how parental mediation influences digital learning, and pinpointing methods to close the digital divide for marginalized groups

METHODOLOGY

Researchers utilized the synthesis-sources approach merged results from various studies, blending primary data with quantitative measures to assess how EdTech contributes to enhancing early childhood curiosity and family involvement. Employing a systematic review method, they integrated empirical research that encompassed experimental interventions, survey-based evaluations, and observational information from digital learning settings. Original data, including user engagement metrics from educational applications and surveys on parental involvement, were cross-referenced with quantitative measures like the frequency of child-initiated interactions,

rates of parental participation, and scores in cognitive skill development. This approach enabled an in-depth grasp of how EdTech promotes curiosity-driven learning while strengthening family involvement through data-driven insights.

FINDINGS AND DISCUSSION

The results suggest that well-structured EdTech resources greatly boost early childhood curiosity by offering interactive, flexible, and discovery-based learning settings. Kids who engaged with interactive storytelling applications and AI-powered learning tools showed increased curiosity-driven behaviors, including asking more questions and investigating various solutions to problems (BSD Education, 2023). These results support earlier studies indicating that digital learning resources featuring open-ended tasks and interactive elements enhance deeper cognitive engagement (Asher & University of Michigan Institute for Social Research, 2024). EdTech significantly contributes to fostering curiosity in early childhood through interactive and adaptable learning experiences that promote exploration, problem-solving, and inquiry-oriented thinking. In contrast to conventional learning techniques, digital resources like gamified educational applications, augmented reality interactions, and AI-enhanced personalized teaching enable children to connect with material in a manner that resonates with their inherent curiosity (BSD Education, 2023). Studies indicate that when children can explore open-ended digital settings that encourage active exploration, they are more inclined to cultivate intrinsic motivation for learning and critical thinking abilities (Asher & University of Michigan Institute for Social Research, 2024). Additionally, EdTech allows for instant feedback and tailored learning experiences that accommodate personal learning preferences and promote feelings of achievement, further enhancing engagement driven by curiosity (EdTech Chronicle, 2025). By thoughtfully combining well-designed digital learning experiences with support from parents and educators, EdTech can act as a significant resource in developing lifelong learning habits from a young age.

A significant difference appeared between active and passive involvement with EdTech. Kids who engaged with learning materials through handling objects, reacting to cues, or participating in exploration activities demonstrated a higher rise in curiosity and knowledge retention than those who merely watched videos or listened to audio lessons (Zeichner, 2016). This reinforces the claim that the level of engagement, rather than just the existence of technology, influences its ability to spark curiosity (The Guardian, 2024). The success of EdTech in nurturing early childhood curiosity primarily relies on whether children interact actively or passively with digital resources. Active involvement includes practical engagement, addressing challenges, and making decisions, such as adjusting digital items, reacting to adaptive educational cues, or participating in exploratory simulations (Zeichner, 2016). Conversely, passive involvement—like viewing educational videos or hearing automated directions—typically leads to diminished engagement and fewer cognitive advantages (The Guardian, 2024). Research shows that kids who engage actively with digital content exhibit greater curiosity, creativity, and knowledge retention than those who consume information passively (BSD Education, 2023). Distinguishing between passive and interactive EdTech tools is essential for understanding their differential impact on fostering curiosity. Interactive tools—such as gamified platforms, adaptive learning environments, and exploratory simulations—consistently promote deeper engagement and curiosity-driven learning. Design features like immediate feedback, open-ended tasks, and adaptive content personalization are particularly effective in stimulating children's intrinsic motivation to explore. Furthermore, studies highlight that involvement in EdTech yields the best results when supervised by parents or teachers, as organized participation boosts understanding and fosters more profound exploration (Illinois Early Learning Project, n.d.). Consequently, creating digital learning experiences that emphasize interactivity and active exploration is essential for enhancing the educational advantages of EdTech.

Parental engagement was identified as a vital element in enhancing the advantages of EdTech. Families that engaged with digital learning tools collectively by co-viewing, discussing, and exploring guided materials saw greater improvements in children's curiosity and educational results (Kaplan Early Learning Company, 2018). Research also indicated that children whose parents participated in their digital learning activities demonstrated enhanced problem-solving abilities and a higher openness to exploring new subjects (ParentPowered, 2023). Parental involvement is crucial in enhancing the advantages of EdTech for early childhood education, as it offers children the essential assistance and direction to enrich their curiosity and comprehension. Research indicates that when parents engage in their child's digital education—by co-viewing, discussing, and participating in

interactive play—children demonstrate enhanced problem-solving abilities and increased curiosity for exploration (Kaplan Early Learning Company, 2018). Parental engagement not only improves understanding but also creates a supportive learning atmosphere where kids feel motivated to inquire and explore new ideas (ParentPowered, 2023). Concrete examples of specific digital tools used to foster early childhood curiosity. For instance, showcasing how apps like ClassDojo or Seesaw support interactive storytelling or parent-teacher communication would provide practical context. Describing real classroom or home scenarios where these tools facilitated exploration and engagement would make the findings more actionable for educators and developers.Additionally, studies show that children in families with strong digital literacy gain more from EdTech, emphasizing the need to train parents on effectively using digital tools for education (Edutopia, 2022). Through encouraging cooperative learning opportunities and steering children with engaging educational material, parents can nurture curiosity and promote ongoing cognitive growth.

Although EdTech has a beneficial effect, issues concerning digital equity continue to be substantial. Research shows that families with lower incomes encounter obstacles like restricted access to quality EdTech resources, insufficient digital literacy, and inconsistent internet connectivity (RAND Corporation, n.d.). Despite government initiatives and community programs designed to address this gap, differences in access still restrict the potential advantages of EdTech for underserved communities (Star Early, 2020). Even though EdTech has the ability to improve early childhood education, there are still major barriers to digital equality and accessibility, especially for kids from low-income and marginalized backgrounds. Restricted access to quality digital devices, inconsistent internet connectivity, and insufficient digital literacy among parents impede fair involvement in technology-focused education (RAND Corporation, n.d.). Studies indicate that children in underprivileged regions are less inclined to gain from interactive and adaptive learning resources, exacerbating the educational divide between affluent and less fortunate students (Star Early, 2020). Additionally, even with digital resources accessible, differences in parental capability to assist with technology-driven learning can influence children's participation and academic results (Learning First, 2023). Tackling these issues necessitates specific policy measures, such as government-sponsored digital inclusion initiatives, community-centered technology access locations, and parental education programs to guarantee that every child can take advantage of curiosity-driven EdTech irrespective of their economic status.

Another significant discovery emphasizes the value of the quality and instructional design of EdTech tools. Programs that utilized adaptive learning, interactive features, and practical problem-solving situations resulted in greater engagement and curiosity than those that depended on fixed content or repetitive tasks (Learning First, 2023). Studies indicate that marketed EdTech offerings frequently emphasize entertainment rather than educational worth, diminishing their ability to promote profound learning (MakerKids, 2024). The effectiveness of EdTech content in promoting early childhood curiosity and learning largely depends on its quality. Studies indicate that digital tools that feature adaptive learning, interactive storytelling, and real-world problem-solving tasks result in increased engagement and enhanced cognitive growth (Learning First, 2023). Conversely, several commercial EdTech products focus more on entertainment than on educational quality, restricting their capability to provide significant learning experiences (MakerKids, 2024). Effectively designed EdTech platforms that correspond with child development theories and promote active discovery can greatly boost curiosity, critical thinking, and sustained knowledge retention.

Quantitative measures were employed to evaluate the levels of curiosity in children using EdTech tools. Metrics including the duration of exploratory learning activities, the occurrence of child-initiated interactions, and the complexity of the questions posed were examined (Abdelghani et al., 2024). The findings indicated that children participating in interactive, gamified learning settings demonstrated a greater level of ongoing curiosity than those utilizing conventional learning resources (EdTech Chronicle, 2025). Evaluating curiosity in online learning environments necessitates quantifiable indicators like the rate of child-initiated interactions, duration spent investigating digital materials, and the intricacy of questions posed (Abdelghani et al., 2024). Studies indicate that interactive and adaptive EdTech tools can monitor engagement by examining user behavior, response trends, and exploratory activities within educational platforms (EdTech Chronicle, 2025). Gamified learning settings and AI-based evaluations offer immediate feedback on a child's curiosity-led participation, assisting educators and parents in customizing learning experiences as needed (New America, n.d.). Effective evaluation techniques not only gauge curiosity but also guide the creation of digital tools that promote sustained interest and cognitive development.

Results from longitudinal research indicate that initial exposure to curiosity-focused EdTech can beneficially impact long-term learning habits. Kids who interacted with interactive learning platforms early on showed enhanced inquiry-based thinking abilities and greater motivation for self-directed learning in subsequent years (New America, n.d.). These results highlight the significance of incorporating curiosity-based EdTech resources in early childhood education. Studies show that initial exposure to curiosity-based EdTech can result in enduring enhancements in critical thinking, problem-solving, and self-directed learning abilities (New America, n.d.). Kids who utilize interactive and adaptive digital resources early on usually cultivate more robust inquiry-based learning practices, leading to improved academic outcomes in subsequent years (EdTech Chronicle, 2025). Longitudinal research indicates that EdTech can improve both cognitive abilities and socio-emotional growth, especially when paired with support from parents and teachers (Illinois Early Learning Project, n.d.). By encouraging ongoing curiosity and independent learning, high-quality EdTech can significantly influence a child's entire educational journey.

Teachers are vital in enabling efficient use of EdTech in early childhood education. Results show that educators who incorporated digital resources into their lesson plans while leading students in interactive tasks experienced heightened levels of student engagement and curiosity (Illinois Early Learning Project, n.d.). Despite this, numerous educators indicated insufficient training in choosing and applying effective EdTech tools, underscoring a demand for professional growth in this domain (Smallab Learning, 2012). Teachers are essential in effectively incorporating EdTech by choosing quality tools, facilitating student engagement, and ensuring that digital learning aligns with developmental requirements (Illinois Early Learning Project, n.d.). Studies indicate that when educators proactively support technology integration—via organized tasks and inquiry-driven methods—students display greater engagement and curiosity (Smallab Learning, 2012). Nonetheless, numerous educators encounter difficulties like insufficient professional training and restricted access to well-designed EdTech resources, which can obstruct effective implementation (Edutopia, 2022). Offering teachers focused training and assistance is crucial to optimize the advantages of EdTech and guarantee it improves rather than supplants conventional teaching approaches.

Survey results concerning parental views indicate varying attitudes toward EdTech. Although numerous parents acknowledge the advantages of digital resources in promoting curiosity and participation, some voice worries regarding screen time and the possible substitution of conventional educational approaches (Montessori-inspired app, 2025). The research indicates that organized parental support and effective communication from teachers can tackle these issues while enhancing the advantages of EdTech. Parents hold diverse opinions regarding the effectiveness of EdTech; some acknowledge its potential to boost curiosity and engagement, while others raise worries about screen time and the quality of content (Montessori-inspired app, 2025). Studies show that parents who engage in directing their children's digital education usually observe better academic results, highlighting the significance of collaborative learning experiences (Kaplan Early Learning Company, 2018). Nonetheless, differences in digital literacy among parents influence their ability to assist their child's involvement with EdTech, which could restrict its advantages (ParentPowered, 2023). Tackling these issues through educating parents and providing clear guidelines on responsible EdTech usage can enhance its effectiveness while reducing possible downsides.

The results highlight the necessity for policy measures to guarantee fair access to top-notch EdTech resources. Authorities and educational bodies ought to concentrate on offering digital literacy training for parents and teachers, funding premium learning platforms for marginalized communities, and establishing regulations for appropriate screen time in early childhood education (Edutopia, 2022). Policymakers need to prioritize equitable access to superior EdTech by offering subsidies to low-income households, enhancing internet infrastructure, and backing community learning centers (RAND Corporation, n.d.). Programs designed for teachers and parents are crucial for improving digital literacy and facilitating the successful incorporation of technology in early childhood education (Edutopia, 2022). Standards for responsible screen time, data privacy, and the educational effectiveness of EdTech tools need to be created to enhance learning advantages while reducing possible dangers (Learning First, 2023). Future policies must focus on research-supported EdTech programs that foster curiosity, critical thinking, and sustainable learning results for every child.

The amount of screen time continues to be a debated topic in early childhood education. Research shows that although too much screen time can harm social interactions, organized use of EdTech—where kids participate

in interactive and curiosity-led activities—can alleviate these issues (The Guardian, 2024). Studies indicate that finding a balance between digital and non-digital learning experiences is essential for maximizing the advantages of EdTech and preventing excessive screen time (Zeichner, 2016). Tackling screen time issues necessitates a balanced strategy that emphasizes interactive, curiosity-fueled educational experiences rather than passive viewing (The Guardian, 2024). Studies indicate that systematic screen use, along with guidance from parents or educators, improves engagement and mitigates the adverse impacts of too much digital exposure (Zeichner, 2016). Setting explicit guidelines, like the recommendations from the American Academy of Pediatrics regarding screen time limits, can assist in ensuring that young children gain advantages from EdTech without hindering their overall development (Edutopia, 2022). Promoting a combination of digital and practical activities cultivates a comprehensive learning setting that benefits both cognitive and socio-emotional development.

The research emphasizes the necessity for additional studies on the lasting impacts of curiosity-driven EdTech on academic and socio-emotional growth. Future research ought to examine how varying degrees of parental engagement affect digital learning results and explore methods to improve digital equity in underrepresented communities. Moreover, further studies are required to assess how well particular EdTech attributes maintain curiosity beyond the early childhood stage (Nexus Education, 2023). Future studies ought to investigate the lasting impacts of curiosity-based EdTech on children's academic achievement and enduring learning behaviors (New America, n.d.). Exploring how AI-driven personalization can tailor educational content to various learning styles may yield valuable insights for enhancing digital tools for a range of learners (EdTech Chronicle, 2025). Comparative research spanning various socioeconomic and cultural contexts may assist in pinpointing optimal strategies for fair EdTech deployment (RAND Corporation, n.d.). Moreover, studies on combining EdTech with practical, experiential learning approaches could provide innovative tactics to boost curiosity and involvement in early childhood.

From the researchers' point of view, a key finding from the analysis is the importance of distinguishing between passive and interactive EdTech tools when evaluating their potential to foster early childhood curiosity. Interactive tools, such as adaptive learning platforms, gamified applications, and exploratory simulations, demonstrated a greater capacity to stimulate engagement and inquiry-driven behavior. These tools allow children to manipulate digital elements, respond to adaptive prompts, and explore content at their own pace, thereby promoting intrinsic motivation. In contrast, passive tools such as static videos or automated audio lessons often failed to elicit sustained curiosity or deeper cognitive processing. Design features that contributed most significantly to curiosity included immediate feedback, open-ended exploration tasks, and interfaces that empowered children to direct their own learning experiences.

The research also highlighted the need for practical, contextual examples to better illustrate how EdTech is being implemented in educational settings. For instance, platforms like Seesaw and ClassDojo have been used effectively in early childhood classrooms to support interactive storytelling, digital portfolio creation, and parent-teacher communication. Similarly, tools like ABCmouse and Khan Academy Kids offer personalized, adaptive learning experiences that align with children's developmental stages and support curiosity through age-appropriate challenges. These examples demonstrate how thoughtfully selected EdTech resources, when integrated with guided instruction and family engagement, can serve as powerful catalysts for exploration and learning.

Another critical area that emerged from the data is the ongoing challenge of digital equity, particularly in low-income and underserved communities. Despite the recognized potential of EdTech, families in these contexts often face barriers such as limited access to high-speed internet, inadequate digital devices, and lower levels of digital literacy. Addressing these disparities requires targeted policy responses, including subsidized internet programs, school-led device distribution, and community-based digital literacy training for parents. Integrating these supports ensures that all children regardless of socioeconomic background can benefit from curiosity-driven learning environments supported by EdTech.

These findings underscore the transformative potential of EdTech in early childhood education when curiosity and inclusive engagement are placed at the center of design and implementation. By fostering environments where children are encouraged to ask questions, explore, and problem-solve through interactive digital experiences, EdTech can cultivate lifelong learning habits from an early age. Equally important is the role of

inclusivity ensuring that all children, regardless of socioeconomic status or access level, benefit from these opportunities. When paired with equitable access, culturally responsive content, and active support from families and educators, well-designed EdTech tools become powerful drivers of cognitive and social development. Prioritizing both curiosity and inclusion in EdTech design and policy can lead to more meaningful, engaging, and accessible early learning experiences for every child.

CONCLUSION

The findings of this study highlight the significant role of EdTech in fostering early childhood curiosity and enhancing family engagement. Interactive, well-designed digital tools encourage exploratory learning, particularly when combined with active parental involvement. However, challenges such as digital equity, content quality, and screen time concerns must be addressed to maximize the benefits of EdTech. The study underscores the need for policies that ensure equitable access to high-quality digital learning resources while promoting responsible use. Future research should further explore the long-term impact of curiosity-driven EdTech and develop strategies to optimize its effectiveness in diverse learning environments. The incorporation of EdTech in early childhood education presents considerable opportunities for nurturing curiosity, improving learning experiences, and encouraging lifelong inquiry-driven thinking. Nonetheless, its effectiveness relies on multiple factors, such as the quality of digital content, the involvement of parents and educators, and fair access to technology. Tackling issues like screen time, gaps in digital literacy, and socioeconomic inequalities is crucial to guarantee that every child gains from curiosity-based digital education. In the future, policymakers, educators, and researchers should work together to create and apply evidence-informed strategies that enhance the benefits of EdTech while addressing its issues, ultimately fostering a more inclusive and efficient early learning environment.

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