

# Is implementing digital learning media beneficial in stimulating early childhood literacy skills?

**Erna Budiarti**

Panca Sakti University Bekasi, Indonesia

[bbbudiartt54gi@gmail.com](mailto:bbbudiartt54gi@gmail.com)

**Rani Darmayanti**

Assyfa Learning Center (YALC) Foundation Pasuruan, Indonesia

[ranidarmayanti1990@gmail.com](mailto:ranidarmayanti1990@gmail.com)

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**Abstrak** Bahasa merupakan aspek penting dari perkembangan anak usia dini yang memerlukan keterlibatan terus-menerus untuk menjamin anak-anak memperoleh keterampilan verbal yang kuat. Kemampuan anak dalam mengekspresikan diri dan berkomunikasi secara efektif dengan lingkungannya erat kaitannya dengan bahasa. Penelitian ini bertujuan untuk mengkaji secara komprehensif pemanfaatan media pembelajaran digital untuk meningkatkan kemampuan membaca dini anak. Teknik ini menerapkan metode penelitian Kuantitatif dan memanfaatkan publikasi dan artikel resmi secara nasional sebagai alat pengumpulan data dan sumber referensi. Fokus utama penelitian ini adalah untuk mengkaji penggunaan alat pendidikan digital untuk mengembangkan kemampuan membaca penting pada anak-anak. Keterampilan literasi mencakup indikator penting pengenalan kata, seperti keahlian dalam identifikasi huruf, asosiasi bunyi-huruf, kesadaran fonemik, dan pemahaman aturan penulisan. Studi ini mengeksplorasi solusi “permasalahan literasi” dengan menggunakan “aplikasi digital” yang dapat diakses oleh seluruh pemangku kepentingan, termasuk guru, orang tua, dan siswa. Penelitian ini tergolong penelitian kualitatif dan menggunakan teknik studi kasus, khususnya dengan melakukan tinjauan literatur pada tahun 2010 hingga 2018. Temuan penelitian menunjukkan bahwa penggunaan media pembelajaran digital dapat meningkatkan keterampilan literasi anak usia dini di lembaga PAUD secara signifikan dengan membekali guru dengan materi yang sesuai. sumber daya untuk memanfaatkan alat pendidikan ini. Penelitian ini menunjukkan bahwa penggunaan sumber daya pendidikan digital dapat meningkatkan kemampuan literasi anak usia dini di lembaga PAUD.

**Kata kunci:** *Anak Usia Dini, Kemampuan Literasi, Kemampuan Membaca, Media Digital, Pembelajaran Digital.*

**Abstract** Language is an essential aspect of early childhood development that requires constant engagement to guarantee young children gain solid verbal skills. A child's ability to express themselves and communicate effectively with their environment is closely connected to language. This study aims to comprehensively examine the use of digital learning media to enhance children's early reading abilities. This technique applies the Quantitative research method and utilizes nationally authorized publications and articles as data-gathering tools and reference sources. The main focus of this study is to examine the use of digital educational tools for developing essential reading abilities in youngsters. Literacy skills include important indicators of word recognition, such as expertise in letter identification, letter-sound association, phonemic awareness, and understanding of writing rules. This study explores solutions for literacy problems using digital apps that all stakeholders, including teachers, parents, and students, can access. This study is classified as qualitative research and utilizes a case study technique, specifically by doing a literature review from 2010 to 2018. The research findings suggest that using digital learning media can significantly improve early childhood literacy skills in PAUD institutions by providing teachers with the appropriate resources to utilize these educational tools. This study indicates that using digital educational resources can augment early childhood literacy abilities in PAUD institutions.

**Keywords:** Early Childhood, Literacy Ability, Reading Ability, Digital Media, Digital Learning.



## Introduction

Language plays a vital role in the development of young children and requires active stimulation to promote the acquisition of excellent language skills in infants (Sugianto et al., 2017). The linguistic aspect refers to a child's ability to express themselves and engage with their environment (Budiarti & Darmayanti, 2018). Improving children's language skills might begin with learning how to read and write. Before children start primary school, they need to have basic literacy abilities, which are sometimes referred to as emergent literacy. According to Vidyastuti et al., (2018), a child's literacy skills have a substantial influence on their academic performance in school.

In February 2018, the Director of Family Education Development at the Directorate General of Early Childhood Education and Community Education emphasized the crucial importance of foundational reading skills in all domains of the 21st century. Reading is the fundamental basis for developing children's literacy skills, which include important abilities like identifying letters, reading and pronouncing them accurately, being aware of the sounds in words, and reproducing letters correctly. The talents mentioned have been investigated in studies undertaken (Spencer, 2015; Stone et al., 2018; Tso, 2018). This can serve as the basis for developing early literacy skills in young children. Children must acquire essential literacy skills from the beginning, as this may result in favorable consequences. An important aspect is to streamline communication and improve understanding of the content presented by the teacher during classroom lessons.

Participating in actions that foster children's linguistic abilities, such as overseeing and encouraging them during their formative years, might augment their language acquisition and establish a crucial groundwork for their subsequent linguistic advancement (Fajriati et al., 2018; Hillman, 2014; Yulianeta, 2002). Developing linguistic skills in early infancy requires an engaging and effective approach for young children (Durachman et al., 2006; Yulianeta et al., 2016). The techniques utilized may involve the application of music and communal singing. In addition, there are various alternative methods available, such as using flashcards, explicitly discussing language, and employing storytelling strategies, among others. One effective approach to improve children's language development is by utilising appropriate educational resources.

The use of educational media has a considerable impact on the effectiveness of teachers in delivering instructional content to students (Ridwan et al., 2017). Conveying information or ideas through verbal or written means: Using learning media helps educators efficiently communicate information or material to students, as well as assist in explaining educational subjects (Latukau & Yulianeta, 2018). Teachers already have access to a range of instructional materials that can be used to promote creativity and improve the efficacy of online learning, especially when it comes to developing children's basic literacy abilities. The instructional medium needs rectification. The only accessible choice is to use digitally rendered fairy tales that can be obtained from the Google Play Store.

Learning media encompasses the methods via which information providers communicate messages to users by actively involving their cognitive processes, emotions, attention, and inquisitiveness (Ferdiansyah & Yulianeta, 2018). The employment of media as a tool can stimulate young children. To actively participate in the process of acquiring knowledge. Amidst the era of the Fourth Industrial Revolution, the accessibility of knowledge is increasingly facilitated by the progress of various educational technologies. Digital learning media represents a groundbreaking innovation in the realm of education.



Channels and mediums for mass communication Digital learning is the use of technological breakthroughs to produce an educational platform that integrates images, audio, and videos into a unified digital format (Sakti & Yulianeta, 2018).

Central Connecticut State University maintains that there is an indisputable fact in the domain of early childhood literacy: the competence in these abilities remains relatively deficient. This is supported by the substantial number of students in educational institutions who have challenges in achieving effective communication and precise pronunciation. This is supported by the results of a study carried out by Central Connecticut State University that assesses global literacy. According to the survey results, Indonesia is ranked 60th out of 61 countries (Agustisa & Yulianeta, 2018). These statistics highlight the imperative for Indonesia to improve its literacy rate. One underlying factor that contributes to this difficulty is the necessity for the book to be more appropriate for its intended audience, specifically young readers. A viable strategy to tackle this problem is employing interactive digital learning tools to improve children's fundamental literacy skills through education delivered via digital platforms.

Previous studies have shown that using interactive flashcard learning media can effectively involve children in various activities, hence enhancing the development of reading skills (Zakaria & Yulianeta, 2018). The study additionally discovered that digital image storybook media is suitable for young children. This is based on the procedure of studying, assessing for accuracy, and carrying out user trials. Research has conclusively shown that utilizing digital-based picture storybook media can significantly improve the digital literacy skills of young children. This information is obtained via statistical analyses conducted by a small team of researchers. Yulianeta, (2013) conducted a study that specifically targeted young children.

Preschool teachers commonly employ a variety of educational materials, such as books and electronic gadgets like televisions, smartphones, and computers, to improve children's literacy skills (Ehwanudin et al., 2018; Subandi et al., 2018). The creation of a digital media library will allow specialized media to access digital learning materials through YouTube channels, fairy tale books, Big Book storybooks, and digital comics (Choirudin et al., 2017). Supplementary types of media, such as music and posters, can be utilized to augment fundamental literacy skills in young children. Teachers predominantly employ several types of resources, such as printed books, flashcards, and digital media like story books, illustrated fairy tales, and digital comics. The user's text is not provided. Stories conveyed using digital media or modern adaptations of traditional fairy tales Illustrations are essential in helping youngsters improve their reading abilities and are particularly effective in fostering their basic literacy development (Beardslee et al., 2014; Maier et al., 2012). Evidence from research suggests that the use of digital learning platforms can greatly improve academic achievement. Research young individuals to enhance fundamental literacy abilities. Therefore, this study aims to examine the influence of previous studies on digital learning media on improving children's basic reading skills.

The objective of this study was to tackle literacy problems by utilizing digital applications that may be used by educators, parents, and children alike. The digital program employs fairy tales that are specifically tailored for young children, with the aim of improving their literacy abilities in both educational environments and at home. The digital application was conceived by its pertinence and utility. This research project seeks to assess the efficacy of utilizing digital learning materials to improve the literacy abilities of young children. The approach will involve doing a literature review.



## Method

This study utilizes the systematic literature review (SLR) methodology to identify, evaluate, and analyze all relevant research to address research inquiries using the 7P technique (Budiarti & Darmayanti, 2018). Figure 1 illustrates the sequential phases of the Systematic Literature Review (SLR) study using the 7P approach.



Figure 1. SLR Method using 7P Teknik

Figure 1 illustrates the step-by-step procedure of the 7P approach in a Systematic Literature Review (SLR). The term "P1" refers to the stage of formulation. The formulation is to establish the precise research enquiries to be undertaken. The subsequent stage is denoted as "P2", commonly known as Search. Searching entails actively seeking solutions from the literature, with a specific emphasis on step "P1". In the third phase, precise criteria are established. The determination of "P3" relies on the utilisation of inclusion and exclusion criteria. Step "P4" involves the identification and selection of pertinent resources, whereas step "P5", known as data presentation, focuses on the presentation of the gathered data. Step "P6" involves the processing and analysis of data, whereas Step "P7" is specifically dedicated to drawing conclusions from the processed information.

Initially (P1), the enquiry centres on persons who have employed vlog media for instructional intentions. (Q1) What are the beneficial effects of utilising digital applications as educational tools for teaching early childhood literacy skills? Question 2/Q1: What are the adverse consequences or hindrances to utilising digital applications as educational tools for teaching early childhood literacy skills? (Question 3/Question 1). Subsequently, a comprehensive literature search (P2) was conducted on the Google Scholar database utilising the Publish or Perish tool. The designated keywords are "digital applications" and "early childhood literacy skills," with a restriction on submissions submitted between 2010 and 2018.



The objective is to identify literature studies that explicitly investigate the utilisation of digital applications as an educational instrument for instructing early childhood literacy skills to students and teachers. Only consider research results that are published in reputable scholarly journals, available in open access, and provided as complete PDFs, including articles, theses, dissertations, and dissertation proposals. Additionally, include relevant bibliographies with a minimum of 20 citations, as well as articles presented at national seminar sessions. Furthermore, the literature that was acquired underwent meticulous selection and evaluation, adhering to suitable criteria for inclusion and exclusion. A grand total of 714 articles were gathered, with a particular emphasis on keywords. The articles were chosen according to certain criteria for inclusion and exclusion. To accomplish this, one must merge the terms "early childhood literacy skills" and "digital media" and subsequently input "media innovation" into the search field. Consequently, a grand total of 7 articles were chosen. The subsequent phase entails documenting the objects inside a tabular framework. Subsequently, perform a thorough evaluation and study of the document, with particular emphasis on the segment that displays the research outcomes. Upon concluding the investigation, proceed to compare the data and present a definitive and decisive conclusion.

## Results and Discussion

This study utilises the systematic literature review (SLR) methodology, which aims to identify, evaluate, and analyse all relevant research to address research inquiries using the 7P strategy (Vidyastuti et al., 2018). The first stage, P1 Fourth (P4), entails selecting and analysing content according to predefined criteria. To accomplish this, one must search for English articles on a publishing platform or website using the keyword " early childhood literacy skills ", as illustrated in Figure 2.

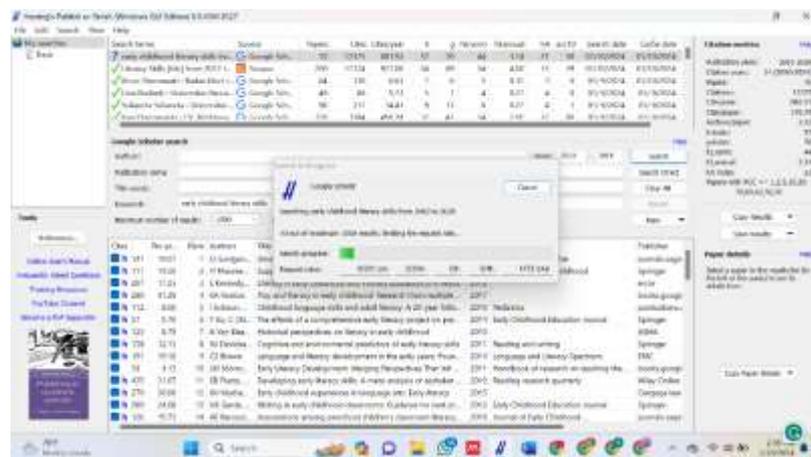


Figure 2. First Stage P1 Selecting and analysing content

Step 4 is equivalent to Figure 2. utilising 830 articles gathered, with a specific emphasis on keywords-related data. The articles were selected based on precise criteria for inclusion and exclusion. This entailed using the keywords " early childhood literacy skills " and "digital media", subsequently combining " early childhood literacy skills " and "digital media" with "media innovation" and, ultimately, with " childhood ". The application of these criteria led to the selection of 7 articles, which will be further examined in the subsequent section:



### ***1. Instructional media has a crucial role in facilitating early childhood learning***

Media learning should be given importance in learning activities as it is a crucial component. The utilisation of learning media aims to expedite the transmission of knowledge from teachers to pupils, hence enhancing their comprehension of the information (Neumann, 2018a; Quick, 2018). In addition, the utilisation of educational resources should be implemented through a range of innovative and creative approaches by teachers in order to introduce novel concepts to children, hence enhancing their motivation to learn. The learning medium, Well, is related to media learning and can assist teachers in effectively conveying information (Churchyard, 2018; Puranik, 2018).

To design effective learning media, teachers must first do an analysis to determine the urgency and relevancy of the material they will provide. In addition, teachers must possess the ability to incorporate developed learning media into the instructional process. The concept of matter is highly significant since it primarily refers to the role of media as a mediator between educators and learners. Media refers to any form of communication that can be effectively utilised by teachers in the educational process (Neumann, 2018b).

Regarding this matter, learning media holds great significance in early childhood education. This is because the cognitive abilities of young children are not yet fully developed to comprehend abstract concepts. Consequently, if they are compelled to do so, they will have challenges in comprehending the teachings presented by the teacher. Therefore, young children require educational resources to aid their comprehension of concepts or materials, which might be provided to the teacher. Various types of learning media, including visual, auditory, traditional, and digital technology learning media, can be utilised in early childhood education (Katzir, 2018a).

### ***2. Utilising digital learning media is crucial for teachers to enhance the learning process***

Utilising educational media can facilitate children's comprehension of the information conveyed by the teacher. Therefore, the use of educational media is a crucial and integral component of the learning process in order to attain the desired learning objectives. In relation to this matter, the learning process has seen substantial transformations due to the progressive advancements in science and technology (Katzir, 2018b).

In current period of significant technical advancement, the learning process is not only feasible but also carried out in a traditional manner. Furthermore, contemporary education is facilitated by a multitude of technology that might enhance the calibre of the learning experience. Thus, technology in education can be regarded as a medium that enhances the quality and streamlines the process of learning, making it more effective and efficient. In summary, it can be inferred that technology has had numerous beneficial effects on education (Napoli & Purpura, 2018).

Regarding this matter, it is crucial to recognise that the recurrence of this issue can be prevented by the utilisation of technology. Technology-enhanced learning can enhance teachers' and students' comprehension of educational material, utilising tools such as computers, the internet, and electronic devices that have been demonstrated to improve children's learning endeavours. Improved. Furthermore, technology-driven education can empower both educators and learners to delve further into educational pursuits. The utilisation of technology in education can facilitate the transformation of learning activities into more engaging and impactful experiences for teachers. Furthermore, the use of



technology in education is pertinent to the specific circumstances of contemporary children, commonly referred to as the alpha generation. This generation is growing and evolving with technological advancements, making the incorporation of technology in education align with the requirements of these children.

### ***3. Utilising digital learning media Infancy Literacy refers to the ability to read and write proficiently***

In the early stages of infancy, it is advantageous to foster literacy skills by regularly engaging young children with storybooks or fairy tales through reading. While reading books to children may seem simple, it serves as an important first step in introducing them to the world of literacy. By encouraging curiosity in the beginning, the youngster will gradually adapt to it, ultimately developing a greater understanding and seeing literacy as a crucial skill. Prior to enrolling in primary school, it is essential to expose children to a favorable learning environment at both home and school in order to foster the development of early literacy skills.

The age range of 3-6 years is a pivotal stage in which youngsters initiate and enhance their cognitive capacity, psychosocial aptitude, and physical motor skills. This stage is commonly known as early childhood. At this period of development, adults can introduce youngsters to core literacy skills. Parents, family, and pre-school (PAUD and Kindergarten) serve as sources for acquiring essential literacy skills. It is expected that young children would acquire basic literacy skills in their early years. According to Colliver & Arguel, (2018), basic literacy refers to the ability to participate in activities involving hearing, speaking, reading, writing, and counting. It also includes analytical skills for calculations, understanding information, and the ability to express and explain knowledge through sketching. By use of personal understanding and deduction.

There are some straightforward exercises that young children can participate in to increase their love for literacy. Adults, encompassing both parents and preschool teachers, can aid in achieving this objective. An effective approach is to utilize compelling educational resources that can captivate the attention of young children. According to Lawrence, (2018), learning media refers to the tools or devices that aid in the communication of knowledge to young children. Given the heavy reliance on learning media in early childhood education, it is imperative that these tools successfully excite all facets of child development and adequately handle boredom to achieve optimal learning outcomes.

Books are the most effective educational tool for young children. An investigation conducted by a division of the United States Department of Education disclosed that young children who received regular reading sessions from older persons exhibited accelerated acquisition of the alphabet. Further surveys indicate the aptitude of young children in the early stages of literacy, encompassing their capacity to independently write their own names, participate in reading or activities related to books, and count up to ten. The choice of books should be customized to correspond with the child's age. Parents can employ captivating material, such as illustrated storybooks.

According to Conner, (2018), picture tale books are a kind of communication that combines textual text and images to convey various concepts. Young children are especially attracted to picture storybooks because of their plentiful illustrations, vivid colors, and uncomplicated storylines. These books are specifically crafted to enthrall young readers by their visually alluring presentation. Furthermore, parents have the choice to examine their children's stories before bedtime. Parents can foster children's passion for literacy by reciting fairy tales or simple stories to young children in the evening before they go to sleep.



This can be achieved by introducing children to the practice of actively participating in storytelling, thereby fostering a habitual propensity towards it. Reading can foster the development of children's vocabulary, listening skills, and understanding ability.

In line with the claim put forth by Liu et al., (2018) are aggressively improving their technology skills and literacy levels to ensure that they can provide their children with education that meets the demands of the current era. Parents can familiarize themselves and other family members with reading activities inside the confines of their own home. Children's passion for literacy can be nurtured through routine activities, such as shopping, which is especially attractive to them. Parents may direct their children to document the items they desire to purchase at the store or to calculate the quantity of items they are shopping for. Engaging young individuals in this matter cultivates a sense of gratitude and excitement, so amplifying their interest in literacy.

#### ***4. Utilising digital learning media in promoting early childhood literacy***

The importance of digital learning media in promoting early childhood literacy is vital in the current educational environment, as it needs to adjust to the fast-paced progress in technology. According to Pyle et al., (2018), digital media learning is effective not just in elementary, middle, and high school settings, but also in early childhood education. The use of multimedia technology has brought about a new era in the use of media for instructional purposes in kindergarten settings. This multimedia technology possesses the capacity to amalgamate diverse types of media, such as text, voice, photos, numbers, animation, and video, within a solitary computer software. This corresponds to the multimodal learning concept, which seeks to augment the various sensory experiences of children.

Digital-based learning media is frequently used during the Fourth Industrial Revolution. This is consistent with the claim made by Witt & Lessing, (2018) suggests that digital media that facilitates literacy can enhance the initial development of children's reading skills. The adoption of digital learning resources has had a profound effect on both individuals and society. Due to their shown efficacy and effectiveness, digital tools have evolved from being perceived as a fleeting fad to becoming an essential component of educational methods. Digital learning tools can effectively meet the varied and constantly changing learning requirements of individuals (Harris et al., 2017; Lynch, 2017; Werfel, 2017). Technological progress motivates educators to overhaul instructional and learning methods, promoting creative education (Kuby & Rowsell, 2017; Schmidt, 2017).

The progress of Information and Communication Technology (ICT) in 2018 has the capacity to greatly influence the domain of education, specifically in the process of acquiring knowledge (Serret, 2017a, 2017b). Nevertheless, the current utilization of ICT for educational purposes, particularly for children with learning difficulties, has not yet reached its maximum potential. Animated films, created utilizing information technology, are a sort of instructional media that can effectively boost children's passion for studying at PAUD institutions. By utilizing YouTube as a platform, students can access appealing audiovisual information that stimulates their interest in studying (Alothman, 2017). Furthermore, YouTube material not only provides knowledge but also serves as a source of entertainment, effectively avoiding students from experiencing boredom throughout the learning process (Piasta, 2017). Integrating media, such as educational films on YouTube, can undeniably aid teachers in delivering the subject matter more effectively, leading to improved understanding and acceptance by students. Previous research supports this assertion by demonstrating that animated fantasy story videos on the YouTube Channel



"Riri Interactive Children's Stories" can improve children's literacy abilities (Georgieva, 2017).

An effective approach to improving children's literacy skills is by utilizing YouTube channels as a means of leveraging digital media. Currently, there is an increasing inclination towards digital advancement, and YouTube channels have become a vital platform for young individuals to acquire language skills. Regularly utilized YouTube channels can also function as a great resource for improving children's literacy skills through educational videos specifically designed for early childhood education. This is supported by previous research suggesting that children can get advantages from digital learning possibilities, such as actively participating in digital media platforms like YouTube, during their early developmental years. These platforms can facilitate language development, especially in the context of children's literacy (Carello, 2017).

Furthermore, educators can also make use of classroom television as a medium to enhance the literacy skills of young children, in addition to utilizing YouTube as a digital platform. According to Wee et al., (2017) asserts that classroom TV is a powerful medium for disseminating information to society in a simultaneous manner. School TV not only functions as a medium for communication, but it also has the potential to improve instructor creativity. This is exemplified in a research conducted by (Lonigan, 2017), which urges educators to utilize ingenuity in creating compelling video presentations that captivate young learners and create significant learning encounters. Previous research has shown that incorporating educational television into schools is highly effective in functioning as a medium for digital literacy. School television significantly enhances the ability of schools to continuously present instructional materials without being limited by time constraints (Su, 2017). Furthermore, when contemplating the strategic integration of digital literacy in young children, it is imperative to optimize the selection of television programs and other instructional media. Television broadcasts and other media, including radio, are valuable sources of knowledge for family members, especially young people. Parents has an inherent obligation to choose a broadcasting program that is appropriate and worthy of their child's focus (Westerveld, 2017).

A digital media library is available that can improve children's literacy by including them in digital comic media and illustrated stories or fairytales, also referred to as Big Books. Mongillo, (2017) suggest that this medium can act as a catalyst for parents and educators to encourage digital literacy in children and improve their language development. Smith, (2017) suggests that digital storybooks and fairy tales have the ability to engage children by featuring characters that they find attractive, thereby promoting a strong interest in reading as an essential aspect of literacy development. In a previous study, Runnion, (2017) found that the Big Book product had a significant and effective effect on improving the literacy skills of children in group A at Tunas Bangsa Kindergarten.

Furthermore, there exists digital comic media that showcases a multitude of characters and visuals, thereby captivating the younger audience to a considerable extent. This type of media also integrates language and storyline that is more readily understandable. A study conducted by van Bergen, (2017) has shown that digital comic medium (e-comic) effectively stimulates children's motivation and enhances their interest in learning. The study determined that the advancement of digital comics significantly enhances the educational progress of children, encompassing both their emotional and physical aspects. The user's input is devoid of any content. McLachlan & Arrow, (2017) also highlighted that the use of engaging, efficient, and influential learning technologies is essential for developing digital educational resources based on comics. The rationale for utilizing digital comics as an educational tool is supported by their intrinsic advantages,



such as their capacity to provoke children's inquisitiveness, augment the attractiveness of instructional content, and facilitate the understanding of complex subjects.

Music, as an alternative kind of media, can significantly increase children's language development for basic literacy skills. Using the singing strategy has proven to be advantageous. Music is a pleasurable medium and a powerful instructional tool that is valued by individuals of all age groups. Children can improve their ability to remember and retain vocabulary by memorizing song lyrics that are accompanied by music, rhythm, and physical movement. This claim is supported by a study conducted by (Ramani, 2016), which showed that training children in music activities that incorporate rhythm and movement improves their language development and early literacy skills. This phenomena can arise from music's capacity to amplify children's incentive for learning and its intrinsic simplicity, which strongly resonates with children's inclination for music.

The results of multiple examined studies demonstrate a compelling need to incorporate digital media into early childhood education, namely in the realm of online learning (Amorsen & Wilson, 2016). Further research findings suggest a direct relationship between the level of skill in utilizing the digital social media platform YouTube and early childhood reading, as indicated by (Rowe & Miller, 2016). Further research findings suggest that digital media can be utilized to review and reinforce material while learning, hence increasing children's involvement. Consequently, this enables the achievement of learning goals in an efficient manner (Lonigan, 2016). Based on the research analysis and supporting previous studies, it can be inferred that digital learning media can positively influence and improve children's learning activities and outcomes.

## Conclusion

The utilisation of digital learning media can effectively enhance early childhood literacy abilities in PAUD institutions by equipping instructors with the necessary tools to implement these educational resources. Literacy skills encompass crucial markers of word reading, such as letter recognition, familiarity with letter sounds, phonemic sensitivity, and comprehension of writing principles.

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