

# The Role of Canva in Supporting the Development of Self-Care Skills in Children with Autism: Challenges and Design

Sumathi Annamalai, Nurbietta Abd Aziz\*

Special Education Department, Faculty Human Development

\*Correspondence Author

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## ABSTRACT

Children with Autism Spectrum Disorder (ASD) often struggle with self-care skills, such as dressing and grooming, due to communication, sensory, and executive functioning challenges. Visual supports, such as visual schedules and social stories, are effective in promoting independence and reducing anxiety. Therefore, this review synthesizes 30 recent studies to explore how Canva, a user-friendly design platform, helps daycare educators create engaging, individualized visual aids. While Canva offers practical solutions, limitations, examples, and varying child responses highlight the need for further research on the long-term effectiveness of digital tools.

## INTRODUCTION

Autism Spectrum Disorder (ASD) is a lifelong neurodevelopmental condition marked by challenges in communication, social interaction, and repetitive patterns of behavior. These core characteristics often hinder a child's ability to develop independence in daily routines, particularly in self-care skills such as dressing, grooming, toileting, and hygiene (Herman & Cahyadi, 2023; Istiqomah et al., 2023). Children with ASD frequently experience difficulties with executive functioning, including challenges in initiating tasks, sequencing actions, and sustaining attention. These deficits demand structured, predictable, and visually supported interventions that align with their cognitive processing strengths (Ding & Toran, 2024). Unlike auditory instructions, visual information is often more accessible and easier to retain for children on the spectrum, making visual strategies a cornerstone of effective special education practices.

Visual aids such as picture cards, schedules, flowcharts, and Video Modeling (VM) are especially effective in teaching self-care routines. These tools offer a clear, sequential presentation of steps, helping to reduce anxiety and increase comprehension. For instance, a visual chart illustrating the steps of brushing teeth or washing hands provides a concrete and repetitive learning experience, encouraging mastery through practice (Saputra & Hidayati, 2024). In certain studies, VM, particularly when implemented by caregivers or occupational therapists, has emerged as an evidence-based method to teach essential self-care and social skills to children and adolescents with special needs, including those with ASD. VM capitalizes on the strengths of visual learning by allowing children to observe target behaviors repeatedly in a structured, predictable format. This approach has been shown to significantly improve performance in daily living skills such as hand washing, grooming, and dressing (Abd Aziz et al., 2021).

Furthermore, VM, as a powerful learning strategy, is demonstrated in the broader scope of video-based interventions, which integrate peer models, adult narrations, or self-modeling techniques to reinforce behavior. When combined with accessible tools like Canva, these interventions can be enhanced in clarity and appeal, further increasing engagement among young learners with ASD (Aziz et al., 2021). Their adaptability and clarity are especially vital in early intervention, where daycare educators play a crucial role in supporting children and their families. As the earliest external caregivers, daycare teachers can consistently implement these aids in daily routines, creating a more structured environment for learning. However, the design and dissemination of high-quality visual materials often pose challenges due to time constraints and a lack of access to design expertise among educators.

To address these barriers, digital platforms like Canva have gained recognition for their potential to revolutionize the development of visual aids in early childhood education. Canva, a user-friendly graphic design tool, enables educators, even those with minimal design skills, to create personalized visual materials using templates, icons, illustrations, and multimedia elements (Herman & Cahyadi, 2023; Istiqomah et al., 2023). Its intuitive interface supports the creation of step-by-step visual instructions, social narratives, and daily routine charts tailored to a child's specific learning needs. Moreover, Canva's collaborative features allow educators to share and modify resources collectively, ensuring consistency while reducing workload. This is particularly beneficial in daycare settings, where time is limited and the need for engaging, individualized supports is high.

Empirical studies further support the application of Canva in inclusive learning environments. Research has shown that Canva-based visual aids can increase children's engagement, enhance task comprehension, and promote independence in performing daily routines (Ding & Toran, 2024; Saputra & Hidayati, 2024). Teachers using Canva reported improved efficiency in developing materials and observed greater participation among children with ASD. As digital literacy becomes an essential skill for educators, integrating platforms like Canva offers a practical and scalable solution for bridging gaps in self-care instruction. This introduction highlights the importance of visual strategies and accessible technologies, such as Canva, in empowering daycare educators to support the development of self-care skills in children with ASD.

The literature increasingly supports the integration of Canva-based visual tools with established intervention strategies, such as VM. As shown in the occupational therapy domain, VM has yielded promising results in enhancing daily living skills in children with ASD (Abd Aziz et al., 2021). By aligning these interventions with modern, customizable design platforms, such as Canva, educators and therapists can offer more dynamic, individualized, and evidence-informed support in early intervention settings.

## **Problem Statement**

Despite the potential benefits of Canva, several gaps remain in the literature. While there is a growing body of research on Canva's general applications in education, few studies have explicitly examined its use for supporting self-care skill development in children with ASD. Moreover, this lack of specific research makes it difficult to draw definitive conclusions about its effectiveness in this particular context. Additionally, several challenges need to be addressed to ensure the successful implementation of Canva in daycare settings. One challenge is internet dependency. Canva is a web-based platform, and its use requires a stable internet connection, which may not always be available in all daycare settings. Another challenge is the potential for underutilization of Canva's advanced features.

While the platform is user-friendly, educators may not be fully aware of its more advanced capabilities, which could limit its potential impact. Herlita and Meisarah (2024) noted this issue in their study on the utilization of Canva in teaching English to students with autism, highlighting the need for training and support. Furthermore, the need for educator training is paramount. To effectively utilize Canva to create high-quality visual supports,

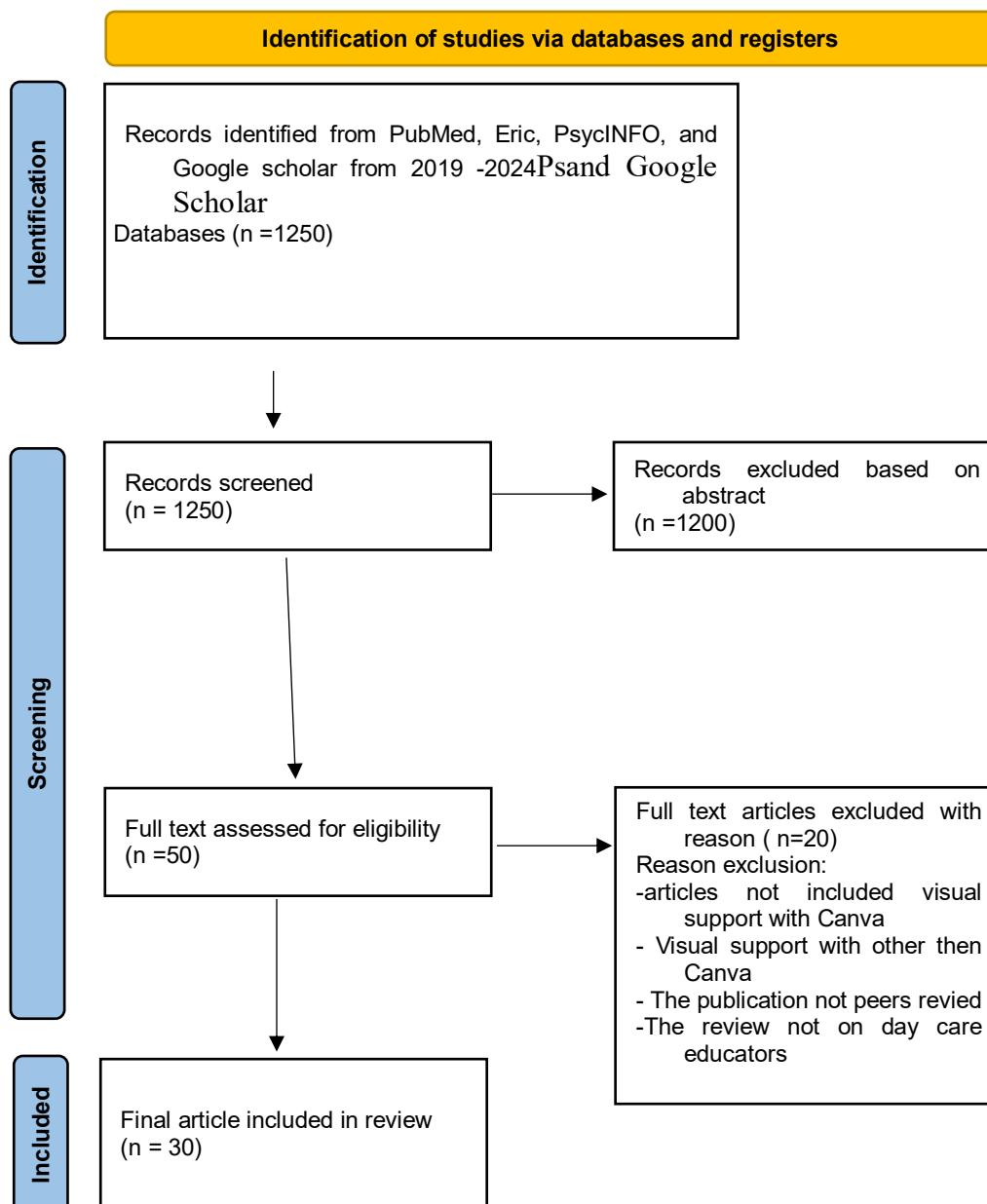
educators require adequate training and ongoing support. Roemah et al. (2025) emphasized the importance of training in their work on using Canva for flipped classroom learning. This concept shares similarities with the need for effective technology integration in special education settings. The entire review aims to identify the challenges faced by daycare educators.

## METHODOLOGY

To explore the role of Canva-based visual support in nurturing self-care skills among children with ASD, this systematic literature review was conducted through an extensive search of reputable academic databases and scholarly sources. The review was guided by specific keywords including “Canva,” “visual support,” “autism,” “self-care skills,” “early childhood education,” and “daycare.” These search terms were strategically selected to capture literature that intersected technology-based instructional tools with the developmental needs of young children on the autism spectrum. The inclusion criteria emphasized peer-reviewed studies that addressed visual interventions for children with ASD aged 3 to 6 years, particularly within daycare or early learning environments. Articles that examined Canva’s integration into teaching practices, as well as studies highlighting the real-world challenges educators face in promoting independent self-care, were prioritized for analysis. This targeted focus enabled the review to develop a comprehensive understanding of current trends, gaps, and opportunities in the use of visual aids and technology in early childhood education for individuals with autism.

Consequently, the research process was conducted systematically across multiple academic platforms, including ERIC, PsycINFO, PubMed, Scopus, and Google Scholar, to ensure comprehensive coverage and credibility of sources. Utilizing multiple databases allows researchers to access a broad range of interdisciplinary studies, which is particularly crucial when exploring complex topics such as autism, self-care skill development, and the integration of digital tools like Canva in early childhood education. Each database offers unique strengths: PubMed for medical and developmental psychology research, ERIC and PsycINFO for educational and psychological studies, Scopus for peer-reviewed multidisciplinary literature, and Google Scholar for grey literature and emerging academic trends (Gusenbauer & Haddaway, 2020). This diversified search strategy minimizes the risk of publication bias and enhances the validity of the literature review. By triangulating findings from these varied sources, the study gains a richer, more balanced perspective, ensuring that the conclusions drawn are evidence-based and reflective of current scholarly discourse.

Note that databases were queried using Boolean operators and keyword combinations such as "Canva AND autism," "visual support AND self-care skills," and "early intervention AND technology tools." Each search result was screened for relevance, with abstracts reviewed to ensure alignment with the research objective. Studies published within the last five years were given preference to ensure currency and relevance, though seminal works in the field were also included where appropriate. A total of selected studies was then evaluated in-depth, with particular attention given to their methodology, theoretical frameworks, population focus, and the nature of visual tools utilized. This review process was iterative and collaborative, enabling a thorough thematic synthesis that reflects the evolving intersection between digital design platforms and inclusive education practices. The outcome provides both practical and scholarly insights that can inform the development of future training modules, such as Canva Visual Support for Self-Care Skills (CaViSS), for educators in early childhood intervention settings.



\* Figure 1: Summary of Outlining Article Selection using Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) Flow Diagram

Therefore, the search was limited to peer-reviewed articles published between 2019 and 2024 to ensure the inclusion of current evidence and emerging trends in the field. Inclusion criteria were carefully designed to select studies that specifically addressed the use of visual supports for children with autism, applications of Canva in educational settings, and challenges faced by educators in supporting children with ASD (Ding & Toran, 2024). After an initial screening of 1,250 articles, 30 studies met the final inclusion criteria. They were subjected to detailed analysis using thematic synthesis methods. The thematic synthesis enabled the systematic identification of recurring themes and patterns across the selected studies, providing a comprehensive overview of the existing literature on the topic.

## FINDING

To systematically explore the potential of Canva-based visual support in enhancing self-care skills among children with ASD, a comprehensive thematic analysis was conducted using selected peer-reviewed articles. The review aimed to identify key trends, recurring pedagogical strategies, and innovative practices employed in early

childhood intervention. Thematic analysis, as a qualitative research tool, enables researchers to uncover implicit meanings and cluster findings into meaningful categories, which is especially valuable in multidisciplinary studies that involve education, psychology, and digital learning. By systematically reviewing scholarly contributions, this study sought to understand how Canva, as a visual aid platform, aligns with educational needs and supports ASD-specific learning outcomes.

Six dominant themes emerged across the literature, revealing both the breadth and depth of current research: Effectiveness of Canva Visual Support, Challenges in Teaching Self-Care Skills, Daycare Educator Training Needs, Integration of Technology in Early Intervention, Design Principles for Visual Tools, and Impact on Children with Autism (Aged 3-6). Each theme reflects an intersection between visual learning theory, inclusive education practices, and digital pedagogy. For example, several studies have highlighted Canva's success in creating engaging visual routines for daily tasks, such as handwashing or dressing. In contrast, others emphasize the need for teacher training to fully leverage such tools. These themes provide a structured lens through which the utility of Canva in daycare and early intervention settings can be understood.

The theme of the Effectiveness of Canva Visual Support was consistently supported across articles that demonstrated improved task acquisition, attention, and independence among ASD learners when exposed to customized visual aids. Research also highlighted the Challenges in Teaching Self-Care Skills, noting difficulties such as a lack of visual routines, communication breakdowns, and inconsistent reinforcement practices. The literature emphasized the need for Daycare Educator Training, particularly in digital content creation, to ensure that teachers can confidently produce and implement Canva-based materials. Furthermore, the Integration of Technology in Early Intervention was explored, showing how Canva, alongside other apps and digital tools, offers an adaptable and cost-effective method to personalize instruction while maintaining visual clarity and consistency.

The following table presents a synthesis of how each reviewed article aligns with the six thematic categories, listing their titles and authors to facilitate traceability and citation. This thematic mapping illustrates the diverse applications and research insights surrounding the use of Canva in autism education, reinforcing the tool's growing relevance. Importantly, these themes reflect research findings and directly inform the design and content of future training modules, such as the CaViSS module. By aligning empirical evidence with thematic priorities, this research strengthens the foundation for developing practical, scalable solutions to support self-care learning in children with ASD, especially within daycare settings.

Authors	Article Title	Theme
Rony Herman & Dwi Cahyadi	Canva Application Training to Support Teaching at Kindergarten Tunas Rimba I, Samarinda	Effectiveness of Canva Visual Support
Pujiarto, Rachmasari Aulia, Nina Afrianti, Nurhasanah Canna, Nurhasanah, Iis Ismawati, Erma Catur Wulansari, Maimunah	Inovasi Penggunaan Canva Edu dalam Mengembangkan Media Pembelajaran Interaktif Anak Usia Dini pada Guru PAUD (Innovation in Using Canva Edu to Develop Interactive Learning Media for Early Childhood Education Teachers)	Interactive Media Development
Muhamad Hafiz Hassan, Wan Juliana Emeih Wahed, Rainal Hidayat Wardi, Mohamad Hariri Abdullah, Badrul Isa, Muhammad Fakhruddin Ahmad	"Help me help you": Designing Visual Teaching Tools for The Autism Spectrum Disorder (ASD) Children	Challenges in Teaching Self-Care Skills
Yang Ding & Hasnah Toran	Assessing the Need for a Teaching Module on Self-Care Skills for Children with Autism Aged Three to Six Years Old	Self-Care Training Needs for Autism (Age 3–6)
Rony Herman & Dwi Cahyadi	Canva Application Training to Support Teaching at Kindergarten Tunas Rimba I, Samarinda	Daycare Educator Training Needs



Pujiarto, Rachmasari Aulia, Nina Afrianti, Nurhasanah Canna, Nurhasanah, Iis Ismawati, Erma Catur Wulansari, Maimunah	Inovasi Penggunaan Canva Edu dalam Mengembangkan Media Pembelajaran Interaktif Anak Usia Dini pada Guru PAUD	Interactive Learning Media for PAUD
Nurul Khairani Ismail, Hasrul Hosshan, Nurbietta Abd Aziz, Abdul Halim Mashan, Norsayyidatina Che Rozubi, Mohd Muslim Md Zalli, Siti Roshaiddai Mohd Arifin	Inovasi Penggunaan Canva Edu dalam Mengembangkan Media Pembelajaran Interaktif Anak Usia Dini pada Guru PAUD	Technology Innovation in Early Childhood Education
—	The use of video-based interventions to teach activity of daily living to children with autism spectrum disorder - scoping review	Integration of Technology in Early Intervention
Muhamad Hafiz Hassan, Wan Juliana Emeih Wahed, Rainal Hidayat Wardi, Mohamad Hariri Abdullah, Badrul Isa, Muhammad Fakhruddin Ahmad	“Help me help you”: Designing Visual Teaching Tools for The Autism Spectrum Disorder (ASD) Children	Visual Support Tools for ASD
Nurbietta Abd Aziz, Masne Kadar, Dzalani Harun, Hanif Farhan Mohd Rasdi	Canva Application Training to Support Teaching at Kindergarten Tunas Rimba I, Samarinda	Canva Training Implementation
—	Implementation of video modeling in the occupational therapy intervention process for children and adolescents with special needs: A scoping review	Design Principles for Visual Tools
Kara Hume, Jessica R. Steinbrenner, Samuel L. Odom, Kristi L. Morin, Sallie W. Nowell, etc.	Evidence-Based Practices for Children, Youth, and Young Adults with Autism: Third Generation Review	Evidence-Based Intervention Practices
Yang Ding & Hasnah Toran	Assessing the Need for a Teaching Module on Self-Care Skills for Children with Autism Aged 3–6 Years	Impact on Children with Autism (Age 3–6)

The thematic analysis of selected literature highlights several key findings related to the application of visual supports and technology in teaching self-care skills to children with ASD. Across the reviewed studies, the use of visual aids such as picture cards, visual schedules, and VM emerged as a consistent and evidence-based strategy for supporting learning in children with autism (D’Agostino et al., 2021; Hassan et al., 2023; Hong et al., 2016). These tools provide structured, concrete representations of tasks that compensate for difficulties in language processing and executive functioning often experienced by children with ASD. By facilitating more transparent communication and greater task predictability, visual supports empower children to develop independence in essential daily routines such as dressing, toileting, and grooming. Their effectiveness across diverse educational settings reinforces their critical role in early intervention programs and special education curricula.

Equally significant is the literature's emphasis on the increasing integration of technology within autism education. Studies have shown that tools such as augmented reality, social robots, mobile applications, and Artificial Intelligence (AI) based instructional platforms are gaining prominence due to their ability to personalize and engage learners (Arora et al., 2024; Hasan & Nene, 2023; McEwen, 2024). These digital interventions offer multisensory learning opportunities that are adaptable to individual needs, making them particularly suitable for young children with ASD who benefit from consistent and repetitive reinforcement. Canva, in particular, is recognized in several articles as a versatile platform that allows educators to design customized visual supports, enhancing both accessibility and engagement in self-care instruction. The evidence suggests that when educators are adequately trained and supported in using such platforms, technological tools

like Canva can bridge pedagogical gaps and improve learning outcomes. Overall, the literature advocates for a hybrid model that combines structured visual strategies with innovative technological tools to support holistic development in children with autism.

An essential yet often underemphasized dimension in the development of effective visual aids for children with ASD lies in adhering to design principles grounded in evidence-based practices. Visual supports must be aesthetically pleasing and cognitively accessible, developmentally appropriate, and culturally responsive to meet the unique processing needs of children with ASD (Hassan et al., 2023; Hume et al., 2021). Studies consistently emphasized the importance of simplicity, consistency, and clarity of sequence in the design of visual tools. For instance, clear color contrasts, predictable layout structures, and minimal distractions help children focus better on task steps, such as brushing their teeth or getting dressed (Saputra & Rohman, 2024). Canva, with its intuitive templates and icon-based visuals, empowers educators to design with these principles in mind—even without professional graphic design skills (Herman & Cahyadi, 2023). Additionally, the flexibility to adapt visuals to individual learning profiles ensures inclusivity and engagement, making thoughtful design not merely an aesthetic concern but a pedagogical imperative in early intervention contexts.

## DISCUSSION

This systematic review underscores the emerging role of Canva as a transformative visual design tool in enabling self-care skills among children with ASD, particularly within the 3-6 years age range. While traditional visual aids such as picture schedules and flowcharts have long proven effective (D'Agostino et al., 2021; Hong et al., 2016), Canva enhances these supports through its accessibility, multimedia flexibility, and personalization features, making it particularly useful for daycare educators with limited design expertise (Herman & Cahyadi, 2023; Istiqomah et al., 2023). From a design perspective, Canva enables the integration of evidence-based visual principles, such as simplicity, precise sequencing, and visual contrast, ensuring materials are cognitively accessible for children with ASD (Hume et al., 2021; Saputra & Rohman, 2024).

However, the review also reveals significant implementation challenges. These include internet dependency, underutilization of advanced features, and limited empirical research on Canva's long-term educational impact (Herlita & Meisarah, 2024; Roemah et al., 2025). Furthermore, varying digital literacy among educators may hinder practical application, especially in resource-constrained daycare environments. Addressing these issues requires a strategic focus on educator training, offline-ready resources, and longitudinal studies to measure effectiveness over time (Ding & Toran, 2024). Future research should prioritize context-sensitive design frameworks and scalable implementation models to ensure that Canva's full potential in supporting children with ASD is realized in diverse early intervention settings.

## LIMITATION

Despite the promising potential of Canva in enhancing self-care skills among children with ASD, its implementation is accompanied by several limitations that deserve thoughtful consideration. One of the foremost challenges is its reliance on consistent internet access, which is often unreliable in some daycare or rural settings, hindering educators from using the platform effectively in real time (Herlita & Meisarah, 2024). Furthermore, while Canva offers a user-friendly interface and diverse tools, many of its advanced features remain underutilized due to a lack of training among early childhood educators. Without adequate digital literacy, educators struggle to create engaging, personalized materials that meet the unique needs of children with ASD (Roemah et al., 2025). Adding to these concerns is the limited availability of rigorous, empirical research that examines explicitly Canva's efficacy in supporting self-care skill development within this population. Each child with autism presents different learning preferences and sensory sensitivities, making it crucial for visual supports to be adaptable and individualized. However, the current lack of scalable, flexible implementation strategies continues to pose a barrier. To fully harness Canva's potential, targeted professional development, reliable infrastructure,

and contextually relevant research are essential to ensure meaningful, inclusive learning experiences for all children.

## CONCLUSION

Finally, researchers discovered that Canva is being increasingly utilized in educational contexts to create customized, visually engaging learning materials (Ariska et al., 2024; Christiani et al., 2024). Multiple studies reported successful implementations where educators used Canva to design visual schedules, social stories, and instructional materials tailored to the needs of children with ASD (Herman & Cahyadi, 2023; Pujiarto et al., 2024). The platform's user-friendly interface, extensive template library, and multimedia capabilities were particularly valued by educators working in diverse settings (Hidayati et al., 2024; Saputra & Rohman, 2024). The ease of use and versatility of Canva make it a potentially valuable tool for educators with limited design experience, enabling them to create high-quality visual supports efficiently.

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