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Leveraging AI to Enhance Literacy in Students with ASD: Insights and Applications

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ABSTRACT

Students with autism spectrum disorder (ASD) face unique challenges in literacy development, often requiring more individualized support than traditional interventions can provide. This paper explores the potential of generative artificial intelligence (AI) tools, such as AI-powered notetaking, natural language processing (NLP) applications, image generation, and AI-powered tutoring, to enhance literacy outcomes for students with ASD. Drawing on both research evidence and clinical practice, the paper highlights how AI tools can offer personalized, adaptive learning experiences that promote key literacy skills such as reading fluency, vocabulary acquisition, and writing organization. These tools provide a flexible and engaging approach to learning that can increase confidence and reduce anxiety, particularly for students who struggle with traditional methods. The paper also offers practical strategies for educators, therapists, parents, and policymakers to effectively integrate AI tools into educational and therapeutic settings, ensuring a collaborative approach to supporting students with ASD. However, the author stresses that while AI offers promising support, it is most effective when used alongside traditional literacy strategies and continually assessed to ensure it meets the evolving needs of students with ASD.

KEYWORDS

autism spectrum disorder; literacy; artificial intelligence; interventions; educational settings

Autism spectrum disorder (ASD) is a neurodevelopmental difference characterized by persistent challenges in social communication, restrictive behaviors, and repetitive patterns of activity (American Speech-Language-Hearing Association, 2020). This definition was selected as it emphasizes the communication aspects of ASD, which are directly related to literacy development and central to my work as a speech-language pathologist. Students with ASD, regardless of age, often face unique literacy challenges, including difficulties with reading comprehension, summarizing information, and understanding text (American Speech-Language-Hearing Association, 2020). These challenges can significantly impact their learning, particularly in the areas of literacy development. This paper specifically focuses on preschool-aged (ages 3–5) and school-aged children (ages 6–18) with ASD as they navigate literacy in educational settings. Traditional literacy strategies—such as phonics-based programs, comprehension drills, and small group instruction—have long been employed. However, these approaches may not always align with the needs of students with ASD, as they often do not address sensory sensitivities, rigid thinking, or challenges with social communication (Iannone, 2023).

Generative artificial intelligence (AI) has recently emerged as a promising tool for enhancing literacy instruction. Unlike traditional AI, which focuses on tasks like data analysis, generative AI can create human-like text, engage in dynamic conversations, and adapt to learners' needs, making it especially suited for environments where individualized support is critical (Solari

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et al., 2021). In education, generative AI holds the potential to reshape how students interact with content by offering flexible, adaptive learning experiences (Arciuli & Bailey, 2021). For students with ASD, this technology offers the potential to address specific literacy development challenges. While promising, the empirical research on the effectiveness of generative AI tools for students with ASD is still limited. Most existing studies focus on general education contexts, with little research exploring how these tools impact literacy outcomes for students with ASD (Yim, 2024). Moreover, concerns about biases in AI models exist, which could unintentionally reinforce stereotypes or fail to meet the diverse learning needs of students with ASD (Li et al., 2024). These gaps highlight the need for further research into how AI tools can be effectively designed and implemented to support literacy development in students with ASD. This paper explores the potential of generative AI tools in addressing these challenges and provides practical strategies for educators and therapists to implement them effectively.

Author's Perspective

As a school-based speech-language pathologist, I have worked with students with autism spectrum disorder (ASD) for many years and have observed firsthand the difficulties they face in literacy development. Traditional literacy methods often fall short because they do not consider the unique cognitive and social-emotional needs of these students. For instance, some students struggle to connect text to their personal experiences, while others find it challenging to process complex language or abstract concepts. In my practice, I've begun incorporating generative AI tools to support literacy development, and I have observed promising results. AI offers a personalized, adaptive learning experience that traditional methods often cannot provide. These tools help students remain engaged, practice literacy in dynamic ways, and receive immediate, context-specific feedback, essential for students with ASD. This isn't just about innovation for its own sake—it's about finding real, effective solutions to the literacy challenges my students face every day. I am eager to share these insights and help others in the field explore how generative AI can transform literacy education for students with ASD.

Target Audience and Relevancy

This paper is intended for professionals working with students with autism spectrum disorder (ASD), including educators, therapists, parents, and policymakers. It provides valuable insights into the integration of generative AI tools to support literacy development in these students. General and special education teachers will find practical guidance for implementing these tools in classrooms, while therapists, such as speech-language pathologists, can explore how AI enhances therapy sessions. Parents and caregivers will receive strategies for reinforcing literacy skills at home, ensuring consistent support beyond the classroom. Policymakers will benefit from evidence-based recommendations on incorporating AI into educational settings for students with special needs.

The literature review offers a comprehensive overview of AI tools in education and their potential to address literacy challenges for students with ASD. It identifies existing gaps in research while exploring AI's benefits, limitations, and practical applications. The review first discusses the context of ASD and literacy challenges, then examines AI's role in education, including specific tools like Grammarly, ChatGPT, and Otter.AI. It concludes with evidence and recommendations for how educators, therapists, and policymakers can effectively utilize these tools to meet the needs of students with ASD. By addressing the research gaps, this paper aims to

guide future studies and practices that can enhance educational experiences and outcomes for these students.

Method

I used a comprehensive and systematic approach to identify relevant studies on AI tools in literacy interventions for students with autism spectrum disorder (ASD). I searched academic databases such as Google Scholar, PubMed, and ERIC, using keywords like "AI in education," "literacy interventions for ASD," "generative AI tools," and "technology in special education." Selection criteria focused on peer-reviewed articles published within the past ten years, prioritizing research on the impact of AI on literacy outcomes for students with ASD and the efficacy of specific tools (e.g., Grammarly, ChatGPT, Otter.AI). Additionally, I included studies on personalized learning and data-driven instructional strategies in special education. After screening, I narrowed down sources based on relevance, methodological rigor, and empirical data to ensure a comprehensive and up-to-date review.

AI Tools for Literacy Development in Students with Autism Spectrum Disorder: Literature Review and Practical Applications

Artificial intelligence (AI) technologies have garnered attention in educational settings for their potential to provide personalized learning experiences, especially for students with autism spectrum disorder (ASD; see Table 1 below) Students with ASD often face unique challenges in communication, social interaction, and academic performance, which traditional literacy instruction may not fully address (Popenici & Kerr, 2017). AI tools, by offering customized interventions and real-time feedback, present a promising solution for enhancing literacy outcomes (Gillon et al., 2017). Research highlights their potential in improving reading fluency, vocabulary acquisition, and writing skills (Solari et al., 2021), although research on their effectiveness in special education remains in the early stages (Rose et al., 2016). This paper explores how various AI tools—such as Otter.AI, Microsoft Word, Grammarly, Turnitin, ChatGPT, DALL-E 2, and Khanmigo—can be implemented to support literacy development in students with ASD.

AI-Powered Notetaking Tools

AI-powered notetaking tools like Otter.AI and Microsoft Word offer significant benefits for students with ASD. These tools can improve engagement and participation, particularly for those with learning difficulties (Provenzani et al., 2019). For example, Otter.AI's speech recognition system aids with reading fluency by providing real-time feedback on pronunciation and sentence structure (Knight et al., 2019). In one case, an eighth-grade student of mine with ASD, who experiences fine motor difficulties and struggles with handwriting, uses Otter.AI to transcribe spoken content during our virtual therapy sessions. Not only does the tool capture the verbal information, but it also summarizes key takeaways and breaks down the material into manageable sections (Bannur, 2023). This feature is particularly helpful for students with ASD, who often experience information overload and may struggle to prioritize essential details by organizing the material into clear, digestible segments, ensuring better comprehension and sustained engagement (Pangriptaningrum & Hermanto, 2022). The improvements in my student's ability to recall and apply key points were evident after a semester of using Otter.AI. The student showed a 25% increase in their ability to summarize and recall reading comprehension material, as measured by pre- and post-reading comprehension probes. Additionally, the student and their parent expressed increased independence in the sessions.

Educators can allow upper elementary to high school students to use Otter.AI during writing assignments to help them dictate their thoughts, which are then transcribed into text. As students become more comfortable using Otter.AI, they can gradually take on more independent tasks, completing writing assignments alongside their peers. During therapy sessions, therapists can provide a series of prompts, and the student dictates their responses to Otter.AI. The therapist can then review the text with the student, focusing on ways to improve clarity, organization, and grammar. By focusing on improving the quality of the written output, the therapist helps the student become more aware of how to structure and organize their ideas more effectively. Parents can also use Otter.AI to assist their child with dictation exercises, such as short stories or journaling. The child can dictate their thoughts aloud, focusing on generating ideas and expressing themselves verbally, rather than struggling with the mechanics of handwriting. This helps alleviate stress around writing and allows the child to feel more confident in their ability to communicate. However, challenges related to background noise, unclear speech, and specialized vocabulary remain. Despite these limitations, the overall impact of Otter.AI on the student's literacy development has been positive.

Similarly, Microsoft Word offers several AI-powered tools like Editor and Dictation, which are invaluable for students of various grade levels with ASD who have difficulty with writing composition, grammar, and organization. A sixth-grade student of mine, who struggles with writing structure, finds the Editor tool especially helpful for restructuring sentences for clarity and flow. The Dictation feature also eliminates the physical challenge of typing, allowing the student to focus more on generating ideas rather than on the motor difficulties associated with writing (Mukherjee et al., 2022). Over the course of two months, this student demonstrated a 40% improvement in writing organization and clarity, as evidenced by pre- and post-intervention writing samples. The student also reported feeling more independent in her writing process and less anxious about spelling and grammar. Teachers observed increased assurance and a reduction in avoidance behaviors typically associated with writing tasks.

Like Otter.AI, educators can use Dictation to help students express their ideas verbally, allowing them to focus on content rather than the mechanics of writing, and then refine their work using Editor for grammar and clarity. Therapists can incorporate Dictation for students who struggle with writing by transcribing their verbal responses, while Editor can guide students through grammar corrections and improve written expression. At home, parents can use these tools to assist with homework and creative writing activities, helping their child express ideas freely without the stress of writing by hand. By reviewing the Editor's feedback, stakeholders can reinforce grammar lessons in a supportive, non-judgmental way. While Microsoft's AI tools are beneficial, challenges remain. Over-reliance on AI suggestions can sometimes hinder the development of critical thinking skills and an understanding of writing conventions (Chen et al., 2022). Additionally, AI-generated feedback may not always be contextually appropriate, which emphasizes the importance of teacher or therapist oversight to ensure that students' intended meaning is preserved (Barrios-Fernandez et al., 2020).

Natural Language Processing (NLP)

Natural Language Processing (NLP) tools, which use machine learning techniques to understand and generate human language, have become increasingly important in literacy development. They have often been integrated into literacy platforms to support comprehension and text analysis (Ghilain et al., 2016). These tools, including Grammarly, TurnItIn, and ChatGPT, offer personalized, real-time feedback that helps students improve their writing skills (Dai et al., 2020).

For instance, Grammarly is an AI-powered writing assistant that provides feedback on grammar, syntax, vocabulary, and overall clarity. It helps students refine their writing by suggesting improvements in sentence structure, word choice, and punctuation (Cardon et al., 2021). Another sixth-grade student of mine with ASD, who struggles with grammar and sentence construction, showed significant improvement after using Grammarly. Over the course of their Individualized Education Plan (IEP), this student exhibited a 30% improvement in syntactical accuracy and a 40% improvement in overall clarity, as measured by pre- and post-assessments. The student reported feeling more confident in writing tasks, citing that immediate feedback helped them feel in control of their work (Fiok et al., 2021).

Educators can incorporate Grammarly to assist students with ASD across various grade levels who struggle with grammar, sentence structure, and writing organization. Students can type their thoughts into a word processor, and Grammarly will automatically highlight errors, offering suggestions for corrections. Therapists can use Grammarly to identify areas for improvement in grammar, punctuation, and sentence structure. At home, parents can integrate Grammarly into the child's daily homework routine. As the child writes their assignments, they can use Grammarly to revise their work, receiving immediate, receptive feedback on grammar, spelling, and sentence structure.

Similarly, Turnitin—known for its plagiarism detection capabilities—also offers powerful NLP tools that assist students in improving writing coherence and syntax. The platform's feedback encourages students to focus on clarity and flow, which are essential components of literacy development (Hemment, 2023). My twelfth-grade student with ASD, who struggles with writing organization, improved in both overall organization and coherence of his writing, showing a 35% improvement in writing structure, as observed in teacher assessments and writing samples. For middle and high school students, teachers can assign essays and encourage students to submit drafts to Turnitin for feedback. The tool will check for plagiarism and originality and offer writing suggestions, helping students refine their work before final submission. This encourages students to engage with their writing more critically and become more aware of the importance of academic integrity.

ChatGPT, a generative AI tool, further supports students in creative and conversational contexts. Research suggests that AI models like ChatGPT can improve writing skills and reading comprehension (Zhou et al., 2020). I used ChatGPT with a student who struggles to write cohesive stories. The tool helped him generate ideas for characters, settings, and plot development, ultimately producing more structured narratives. Engaging in this interactive writing process allowed him to expand his vocabulary and improve the quality of his writing drafts. This approach is particularly effective for students with ASD, who often struggle with traditional social interactions and written communication (Kreinsen & Schulz, 2023).

Educators can allow students in middle and high school with ASD who struggle with organizing their thoughts to use ChatGPT to help them with narrative writing. For example, the tool can provide structured guidance by asking questions like, "Tell me about the main character," or "Describe the setting of your story." This interaction helps students generate coherent narratives while fostering independent thinking and creativity. In a therapy session, if a student struggles with generating ideas for a story, the student can provide a brief description of the story they want to write, and ChatGPT will offer suggestions for plot twists, character development, and settings. Parents can work alongside the child, using ChatGPT to refine ideas and guide them through the writing process. Over time, as the child becomes more comfortable with the tool, they can begin using ChatGPT independently to brainstorm and develop future writing assignments. This gradual

increase in autonomy helps build confidence in the child's writing abilities. However, while NLP tools like ChatGPT are effective in generating contextually relevant responses, they sometimes fail to provide detailed, targeted feedback on grammar and syntax unless specifically prompted by the user (Song, 2023). Therefore, these tools are best used as part of a broader curriculum that includes direct language instruction and teacher or therapist guidance (Lund, 2023).

Image Generation

Image generation tools, such as DALL-E 2, can also enhance literacy development, particularly for students who benefit from visual aids. Research shows that combining visual and textual learning can improve comprehension and recall, especially for students with ASD who may struggle with abstract concepts or verbal expression (Lurtz, 2021). These tools allow students to generate images from text prompts, bridging the gap between abstract and concrete thinking. For instance, my kindergarteners love using image generation, and one student in particular, with whom I worked, generated an image of a forest described in a story passage. This exercise helped her connect the details in the text to a visual representation, which improved her comprehension of the key story elements. After using DALL-E 2, the student demonstrated a 20% improvement in her ability to describe key elements of the story and an increase in vocabulary usage as she described the images she created.

Educators can ask students of any age to write descriptive passages about an imaginary scene or character and then use DALL-E 2 to generate images based on their descriptions. This visual representation of their writing helps students connect words to imagery, improving comprehension and stimulating creative thinking. In therapy, the therapist can prompt the student to describe their favorite place or a dream vacation and then use DALL-E 2 to generate images based on the student's descriptions. Parents can prompt the child to write a short story or describe a scene in detail and then use DALL-E 2 to generate images based on the child's descriptions. Incorporating both writing and visual elements into storytelling makes the writing process for students more interactive, enjoyable, and effective. While this tool can support comprehension, they do not directly address writing structure or grammar, making it important to integrate it with other literacy tools. Additionally, the quality of generated images depends heavily on the specificity of the prompt, which may require guidance to ensure the output aligns with the student's understanding (Derevyanko, 2023).

AI-Powered Tutoring

Khan Academy's Khanmigo is another AI tool that tailors responses based on student input, offering personalized feedback to support literacy development. Research suggests that AI tutors can improve engagement and learning outcomes by delivering immediate, context-specific feedback (McDowell, 2024). Khanmigo has helped my students break down complex passages by prompting them with questions that encourage critical thinking about the text. For example, my first-grade student with ASD, who struggled with analyzing character motivations, benefited from Khanmigo's guidance to explore character choices and their broader implications. After using the tool for several months, the student showed steady improvement in writing structure and the ability to articulate ideas more clearly. Despite its strengths, Khanmigo has limitations. It does not address non-cognitive barriers, such as drive or emotional regulation, which are often present in students with ASD (Pitt & Carless, 2021). Although Khanmigo helped one student improve his reading fluency and engagement by 18% over six weeks, the student still required additional support to manage emotional responses and build classroom confidence. AI tools like Khanmigo can play a

crucial role in fostering academic progress. However, they should be considered part of a broader, more comprehensive learning plan that includes teacher or therapist support (Rovagnati et al., 2021).

Educators can use Khanmigo for any grade level to tailor assignments to provide step-by-step guidance, breaking tasks and readings into smaller, manageable pieces. Therapists can use Khanmigo as a self-paced learning tool. If the student encounters difficult vocabulary or has trouble understanding key concepts in a passage, they can ask Khanmigo for explanations or clarifications. For practicing both math and reading skills at home, parents can use Khanmigo to work through practice problems in math or reading exercises. This individualized support allows the child to learn at their own pace, building confidence in their abilities while reinforcing foundational skills in a way that feels engaging and supportive.

Table 1: Overview of Generative AI Tools for Literacy

AI Tool	Description	Key Features	Potential Benefits for ASD Students	Studies/References
Otter.AI	Speech-to-text transcription and note-taking tool	Real-time transcription, customizable vocabulary, supports multilingual inputs	Provides students with ASD a way to transcribe speech to text, aiding in writing tasks, improving comprehension, and note-taking	Positively received by educators and therapists, who note its effectiveness in supporting children with neurodevelopmental disorders, including ASD (Barua et al., 2022).
Microsoft AI	A suite of AI-powered educational tools for reading support	Text-to-speech, translation, syllable highlighting, customizable fonts, and backgrounds	Assists students with reading fluency and comprehension; helps those with dyslexia or attention difficulties	Can facilitate a more inclusive learning environment, allowing educators to tailor their instruction to meet the unique needs of each student (Barua et al., 2022).
Grammarly	AI-powered writing assistant for grammar and style improvements	Grammar checks, writing style suggestions, tone detection, translation	Supports students with writing challenges; helps students with ASD improve their grammar, clarity, and expression	Research indicates that the use of such tools can lead to improved writing outcomes, as students become more aware of their writing mechanics and develop greater confidence in their abilities (Wiggins et al., 2019).
Turnitin	Plagiarism detection and writing feedback tool	Grammar checks, originality reports, and feedback from instructors	Helps students with ASD improve writing through feedback; teaches proper citation practices	Helps students understand the importance of proper citation and ethical considerations, which is particularly relevant for children with ASD who may require additional support in these areas (Barua et al., 2022).
ChatGPT	AI chatbot for personalized tutoring and conversation	Text generation, language comprehension, and problem-solving capabilities	Can engage students with ASD in personalized learning, offer real-time feedback, and adapt to different literacy levels	Can be used to facilitate low-pressure writing tasks, allowing children with ASD to generate and refine their ideas in a structured manner (Dixon et al., 2019).

Limitations and Future Directions

While integrating AI tools into literacy instruction for students with autism spectrum disorder (ASD) holds significant potential, several limitations must be addressed to optimize effectiveness (see Table 2 for a concise summary of these generative AI tools). Technological challenges include the varying quality, accessibility, and adaptability of AI tools and the requirement for stable internet and hardware, which may not be available in all educational settings. Many tools are not explicitly designed for ASD students, limiting their applicability for certain needs. Moreover, the implementation of these tools can differ widely across educational contexts due to factors such as classroom size, teacher familiarity, and support staff availability. AI tools may not be equally effective for all students with ASD, as their cognitive and emotional profiles vary widely, necessitating research into how these tools can be more effectively tailored to individual needs.

Ethical and privacy concerns are also significant, as AI tools often require the collection of sensitive student data, raising questions about data security, consent, and privacy. Since students with ASD may be particularly vulnerable to misuse of their data, clear guidelines for safeguarding privacy while utilizing the benefits of AI tools are crucial. Policymakers play a critical role in advocating for equitable access to these tools, ensuring adequate school funding, and training for educators and therapists. Moreover, they must address data privacy issues by implementing robust safeguards to protect students' sensitive information and ensure the development of best practices accessible to all students, regardless of socioeconomic status or disability.

Future research should focus on several areas: longitudinal studies to track the long-term effects of AI on literacy, academic progress, and social-emotional development; comparative research to identify the most effective AI tools for specific subgroups within the ASD population; and research into customizing AI systems to accommodate individual student strengths, challenges, and learning preferences. Additionally, ethical guidelines for data security and the integration of AI tools in educational settings need further exploration. Training programs for educators and therapists will be crucial for effective tool integration, while studies on integrating AI into holistic educational frameworks that blend traditional methods with AI interventions will help support both literacy and social-emotional growth.

Table 2: Summary of Generative AI Tools

AI Tool	Type of Tool	Age/Grade Level	Applicability for ASD Literacy	Limitations
DALL-E 2	Image generation	Preschool to high school (PreK-12th grade)	Assists in visualizing abstract concepts in reading or writing	The images generated may not accurately represent the intended concepts, which can be problematic for children with ASD who rely on visual aids for understanding (Saharia et al., 2022).
Khanmigo	AI-powered tutoring	Preschool to high school (PreK-12th grade)	Provides one-on-one tutoring, including literacy skills	Potential to suppress critical thinking and communication skills by providing answers without encouraging deeper engagement with the material (Huang, 2023).
Otter.AI	Speech-to-text	Elementary to high school (Grades 3-12)	Supports students in converting speech to text for written assignments	Reliance on clear audio input; background noise or unclear speech can lead to inaccuracies in transcription, which may confuse students who depend on accurate text representation for learning (Abouammoh et al., 2023). Additionally, it does not inherently teach

				social skills or contextual understanding, which are crucial for children with ASD (Sallam, 2023).
Microsoft AI	Reading support	Elementary to high school (Grades 3-12)	Enhances reading fluency, comprehension, and engagement	Suggestions may not always align with the individual learning styles or needs of children with ASD, potentially leading to frustration or disengagement (Sallam et al., 2023). Furthermore, students may become overly dependent on technology for generating ideas and structuring their writing (Hung, 2023).
Grammarly	Writing assistant	Middle school to college (Grades 6-12, higher education)	Helps improve writing quality for students with ASD	Children with ASD may struggle with nuanced language use, and Grammarly's algorithms may not fully grasp the subtleties of their writing intentions (Derevyanko, 2023). Additionally, the tool does not address the emotional or social aspects of writing, which are particularly important for children with ASD who may need support in expressing their thoughts and feelings effectively (Truong, 2023).
Turnitin	Plagiarism detection	Middle school to college (Grades 6-12, higher education)	Supports writing improvement through feedback	This emphasis on compliance with academic standards can lead to anxiety and may stifle the creative expression that is essential for students' engagement and learning (Alneyadi & Wardat, 2023).
ChatGPT	Conversational AI	Middle school to college (Grades 6-12, higher education)	Personalized tutoring, helps with communication and comprehension	Additionally, the quality of responses generated by ChatGPT can vary, and it may not always provide accurate or contextually appropriate information, leading to confusion (Choudhry, 2023).

Conclusion

Integrating AI tools into literacy interventions for students with autism spectrum disorder (ASD) offers significant promise for enhancing educational outcomes. Both research and clinical experience highlight AI's potential to address the literacy challenges faced by students with ASD, particularly in areas such as reading fluency, vocabulary acquisition, and comprehension. AI tools provide personalized, adaptive learning experiences that engage students in ways traditional methods may not fully achieve. However, it is essential that AI complements, not replaces, established intervention methods. While AI can enhance traditional approaches, human interaction, direct literacy instruction, and ongoing assessments remain foundational for success.

A key takeaway from the literature is the necessity for customization and personalization in AI tools. Given the diversity within the ASD population, AI tools must adapt to individual learning profiles to be effective. This calls for dynamic systems capable of meeting students' unique needs. Moreover, the collaborative role of educators, therapists, and parents is crucial for ensuring the effective use of these tools and alignment with students' evolving needs.

AI's ability to analyze large datasets is another promising aspect for improving literacy outcomes. By tracking student performance in real-time, AI tools can identify specific literacy challenges and offer data-driven insights, helping educators and therapists tailor instructional strategies accordingly. This approach ensures that interventions remain personalized and responsive, fostering long-term literacy growth. For educators, therapists, and policymakers, the

next step is to adopt a holistic approach that integrates AI tools with traditional methods. By continuously adapting and refining AI-driven strategies, we can create more equitable, engaging learning environments for students with ASD, helping them overcome literacy challenges and improve academic outcomes. Thoughtful integration of AI into special education holds exciting possibilities, and with careful planning, we can ensure these tools contribute to the long-term success and well-being of students with ASD.

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