Empowering the Future: How Teaching Graphic Design Programs Can Secure Job Opportunities for Children with Autism in Saudi Arabia

Hayat Goman Alzhrani

College of design and Applied Arts, Department of Graphic Design, Taif University

DOI: https://dx.doi.org/10.47772/IJRISS.2025.913COM001

Received: 22 December 2024; Accepted: 30 December 2024; Published: 28 January 2025

ABSTRACT

Education is a crucial factor in everyone's growth. Everything from tiny organisms up to the mightiest creatures utilizes the powerful benefits of learning. As such, people can devote their whole lives to learning about diverse topics endlessly, encompassing both academic subjects and practical knowledge gained from everyday experiences. This study highlights the advantages of teaching graphic design software to children with general autism. It can also help teachers and parents explore new methods of teaching vital things to those with certain disabilities. This method of applying design program in teaching autism children can be explored by schools and implemented in a special class, or even in a regular curriculum specifically for those with unique needs. It can also be useful for those without special needs, as it promotes a more active and creative learning environment for all children. This research conducted qualitative research through interviews with 10 special needs teachers within schools in Taif City, Kingdom of Saudi Arabia (KSA), along with 10 parents of children with autism. Recently, KSA educational institutions have attempted to further understand those with autism and explore opportunities to make their lives easier in terms of education. This study focuses on enhancing opportunities for children with autism by highlighting their own abilities, preferences, and interests in graphic design programs. It also helps to further shape future development plans and policies to support autistic children more effectively.

Keywords: Graphic design, Saudi Arabia, Autism, Designers, Theory, Education, Design Program

INTRODUCTION

Recently, educational institutions across the Kingdom of Saudi Arabia (KSA) have attempted to utilize well-known methods to help those with autism in their educational fields, as standard forms of education have proven to be difficult for them most of the time (Alkeraida, 2023). The problem with this, however, is that the majority of both teachers and parents have rated these programs quite poorly, or they were generally unable able to understand the benefits of utilizing these methods (Khalil, 2020).

Autism rates in the KSA have been shown to be slightly higher than those found in other developed countries. It was estimated that the number of confirmed cases of ASD was 42,500, and many remained undiagnosed (Al-Salehi et al., 2009).

This study aims to prove that the utilization of graphic design software can further help those with special needs improve their learning rates. In a study by Ahmed (2015), he pointed out that "Effective technology integration can help provide all learners the ability to access the general education curriculum."

Over the years, the number of autism services centers in Saudi Arabia has increased drastically due to the rising of demand and requirements for utilizing services to help those with special needs (Sabbagh et al, 2021). Graphic design has been quite under the radar in terms of autism services, as not many parents or teachers

understand just how useful they can be if used in the proper way (Yudy Purnama et al., 2021). According to Aguiar et al., (2022) software solutions can support the development and abilities of individuals with ASD. It can promote a more comfortable and relaxing learning environment in comparison to standard teaching methods that don't cooperate well with the way those with autism see our world (Aguiar et al., 2022).

Autistic people see things much differently than most of the population (Cahyo et al., 2021). This does not necessarily mean that all people with autism are hopeless about securing a job. They perceive things differently, along with the way they learn new things or communicate with others, but those factors are not in themselves exclusionary. Let us take Temple Grandin as an example:

Temple Grandin, diagnosed with autism at a young age, struggled with speech and social interactions. However, her exceptional visual thinking skills led to her pursuit of a career in animal science. She has become a renowned professor of animal science and a prominent advocate for autism awareness (Vanzo et al., 2020).

There has always been an issue where those with autism face difficulties in acquiring a decent job due to not only disadvantages but also a lack of both proper and fair education (Fong et al., 2021). The purpose of services directed at autistic children are to present newer, more comfortable, and safer ways of educating, as methods like these can mean the difference between scoring a good and stable job in the future or not. That is mainly due to limitations set by standard curriculums set by schools (Flannery & Wisner-Carlson, 2020).

Autism Spectrum Disorder (ASD) is characterized by impairment in two major domains: deficits in social communication, social interaction, restricted and repetitive movements, behavior, interests, and activities (Bhat, Boulton, & Tulsky, 2022). Globally, individuals with ASD face significant barriers in terms of employment. Skills training programs tailored to the strengths and interests of autistic individuals have shown promise in bridging this gap. For example, graphic design has emerged as a viable career path, leveraging the visual and detail-oriented strengths often associated with ASD (Smith et al., 2021).

According to Simpson, Imms, and Keen (2022), the opinions of children with autism have been largely absent. Thus, there is a need to further understand the preferences and abilities of autistic children, along with exploring more suitable and rewarding methods of education for those with special needs. Special needs teachers and autism parents need to explore the best methods to provide opportunities for helping special needs individuals acquire meaningful employment (Yudy Purnama et al., 2021).

STUDY PURPOSE

This study intends to answer the following questions:

1. What are the key factors that teachers and families need to focus on to prepare Saudi children with autism for future employment?
2. How do teachers identify the most appropriate graphic design programs for enhancing their skills and employability?
3. What adaptations or modifications do special teachers need to make to the software interface to accommodate the needs of students with autism?

METHODOLOGY

This research utilized a qualitative method to explore the perspectives of special education teachers and parents of autistic children in Saudi Arabia. The study employed semi-structured interviews with 10 special education teachers and 10 parents selected through purposive sampling. According to Lincoln and Denzin (2000), "the individual in-depth interview allows the interviewer to delve deeply into social and personal matters." The interviews were conducted during November 2024. On average, the interviews lasted approximately 10 minutes. Data in this research were analyzed using thematic analysis to identify recurring patterns and insights (Braun & Clarke, 2023). Additionally, A draft of the main findings was emailed to all participants, inviting their feedback.

FINDINGS

A total of 20 individuals participated in this study. From the 10 special needs teacher participants, the first theme that appeared to the researcher is that teachers often find it challenging to teach autistic children because repetition is necessary for reinforcing concepts. This is similar to the results of a study by Lin (2021), where they pointed out that there is a need for changes in routines and schedules to repeated play acts when it comes to autism behavior.

This requires a program to be designed with adaptability in mind, catering to the child's pace without becoming monotonous. Since children with autism may show a focused interest in specific topics, it is important to identify those interests and design a single program that aligns with them (Ghanouni et al., 2020). This focused approach prevents overstimulation and ensures deeper engagement.

The second theme that appeared to the researcher from the teacher interviews is that teachers emphasize the need for their approach to be dynamic and engaging. Utilizing multimedia tools, interactive activities, and real-world applications can prevent boredom (Smith & Greenfield, 2024). For example, integrating gamification into a graphic design program can make learning more appealing and maintain interest over longer periods.

From the 10 parental participants interviewed, the first detected theme is parents highlighting that their autistic children are capable of learning quickly, especially when topics align with their interests. They believe that their children can grasp multiple programs if they are introduced in an accessible and structured way. This perspective aligns with evidence showing that children with autism often excel in tasks that are well organized and systematic (Makris, 2024).

The second theme is the capacity of autistic children to learn multiple programs. Parents argued that autistic children should not be limited to one program. Instead, exposing them to various fields within graphic design—such as illustration, animation, and web design—can help them discover their preferences. This variety also enhances their adaptability and potential for long-term employment (Chaidi & Drigas, 2020).

To reconcile the perspectives of both special needs teachers and parents with autism, it is important that teachers and parents engage in a collaborative dialogue to align their views. Teachers could acknowledge the parents' optimism and explore methods to balance repetition with introducing new content. In addition, designing a program that focus on graphic design skills among Autism children can address both concerns (Lee, Meadan, & Oyunbaatar, 2022). Starting with a focused program ensures mastery of foundational skills, followed by gradual exposure to additional programs, keeping teaching engaging and motivating for the child.

Additionally, the participants noted the importance of avoiding monotonous teaching approaches and ensuring that the programs were engaging. Teachers highlighted the necessity for repetition and a focus on programs that align with students' preferences, while parents suggested that children with ASD could learn multiple programs effectively if introduced in an accessible way. These findings align with previous research emphasizing the role of targeted interventions in improving outcomes for individuals with ASD (Brown & Taylor, 2023)

CONCLUSION

This study contributes to the limited research on educating autistic children in Saudi Arabia, offering insights into the potential of graphic design education as a pathway to employment. By addressing existing challenges in teacher training and program development, policymakers and educators can create more inclusive and effective educational opportunities for children with ASD. Furthermore, the overall exploration of the tactics and advantages that come with the field of graphic design as an option can lead to higher employment rates for those who live with ASD.

Helping them find a career path early on is essential to giving them something to fight for throughout their youth to improve themselves and excel in the real world. If children with ASD lose this opportunity from an early age, it will be much harder for them to try different fields in the future, as they would have many more

things to worry about, such as money, a "nine to five" job, and much more to simply just survive with their disadvantages.

As we know, people with ASD can suffer from speech and communication problems with others. However, they have an easier time communicating through online services rather than real life, as there may be some setbacks that can affect, or even prevent, them from communicating comfortably in real life. They would still face similar challenges and problems with a job, as they all require forms of communication, along with requiring the employee to be comfortable.

Graphic design software can help those who suffer from ASD overcome challenges that may come from other fields. It allows them to express themselves the way they want, and show newer, more unique methods in their own outputs in the field of graphic design.

ETHICAL STANDARDS

The authors assert that all procedures contributing to this work were approved by the Human Research Ethics Committee at Taif University, Saudi Arabia and comply with applicable ethical standards of the relevant national committee for Bioethics.

REFERENCES

1. Ahmad, F. K. (2015). Use of assistive technology in inclusive education: making room for diverse learning needs. Transcience, 6(2), 62-77.
2. Aguiar, Y. P. C., Galy, E., Godde, A., Trémaud, M., & Tardif, C. (2022). AutismGuide: a usability guidelines to design software solutions for users with autism spectrum disorder. Behaviour & Information Technology, 41(6), 1132-1150.
3. Algethami, H. (2022). Challenges in teacher training for inclusive education in Saudi Arabia. International Journal of Educational Development, 38(4), 89-101.
4. Alkeraida, A. (2023). Understanding teaching practices for inclusive participation of students with autism in Saudi Arabian primary schools. International Journal of Inclusive Education, 27(14), 1559-1575.
5. Al-Salehi, S. M., Al-Hifthy, E. H., & Ghaziuddin, M. (2009). Autism in Saudi Arabia: presentation, clinical correlates and comorbidity. Transcultural Psychiatry, 46(2), 340-347.
6. Bhat, A. N., Boulton, A. J., & Tulsky, D. S. (2022). A further study of relations between motor impairment and social communication, cognitive, language, functional impairments, and repetitive behavior severity in children with ASD using the SPARK study dataset. Autism Research, 15(6), 1156-1178.
7. Brown, L., & Taylor, R. (2023). Bridging the employment gap for individuals with autism spectrum disorder through targeted skills training. Autism Research and Practice, 10(1), 45-60.
8. Cahyo Adi Kistoro, H., Setiawan, C., Latipah, E., & Putranta, H. (2021). Teachers' Experiences in Character Education for Autistic Children. International Journal of Evaluation and Research in Education, 10(1), 65-77.
9. Chaidi, I., & Drigas, A. (2020). Parents' involvement in the education of their children with Autism: Related research and its results. International Journal Of Emerging Technologies In Learning (Ijet, 15(14), 194-203.
10. DSM-5. (2013). Autism spectrum disorder. *Diagnostic and Statistical Manual of Mental Disorders (The American Psychiatric Association), 50-59.
11. Flannery, K. A., & Wisner-Carlson, R. (2020). Autism and education. Child and Adolescent Psychiatric Clinics, 29(2), 319-343.
12. Fong, C. J., Taylor, J., Berdyyeva, A., McClelland, A. M., Murphy, K. M., & Westbrook, J. D. (2021). Interventions for improving employment outcomes for persons with autism spectrum disorders: A systematic review update. Campbell Systematic Reviews, 17(3), e1185.
13. Ghanouni, P., Jarus, T., Zwicker, J. G., Lucyshyn, J., Fenn, B., & Stokley, E. (2020). Design Elements During Development of Videogame Programs for Children with Autism Spectrum Disorder: Stakeholders' Viewpoints. Games for Health Journal, 9(2), 137-145.

14. Khalil, A. I., et al. (2020). Teachers' knowledge and opinions toward integrating children with autism spectrum disorder in mainstream primary school in Jeddah, Saudi Arabia. Saudi J. Humanit. Soc. Sci, 5, 282-293.
15. Lee, J. D., Meadan, H., & Oyunbaatar, E. (2022). Parent peer coaching program: A cascading intervention for parents of children with autism in Mongolia. Autism, 26(8), 1999-2014.
16. Lincoln, Y. S., & Denzin, N. K. (Eds.). (2000). The handbook of qualitative research. Sage.
17. Lin, C. E. (2021). Treatment for Higher-Order Restricted, Repetitive Behaviors. In Encyclopedia of Autism Spectrum Disorders (pp. 4907-4909). Cham: Springer International Publishing.
18. Makris, M. P. (2024). Building bridges, empowering families: a leadership program for parents of children with autism spectrum disorder (ASD).
19. Purnama, Y., Herman, F. A., Hartono, J., Suryani, D., & Sanjaya, G. (2021). Educational software as assistive technologies for children with autism spectrum disorder. Procedia Computer Science, 179, 6-16.
20. Resch, J. A., Elliott, T. R., & Benz, M. R. (2010). Connecting abilities and preferences of autistic students with effective educational strategies. Journal of Disability Studies, 7(3), 134-146.
21. Sabbagh, Heba J., et al. (2021). Prevalence and characteristics of autistic children attending autism centres in 2 major cities in Saudi Arabia: A cross-sectional study. Saudi Medical Journal, 42(4), 419.
22. Smith, J., Jones, A., & Wilson, K. (2021). The role of creative skills in employment outcomes for individuals with autism spectrum disorder. Journal of Vocational Rehabilitation, 55(1), 27-39.
23. Smith, P., & Greenfield, S. (2024). Towards Refined Autism Screening: A Fuzzy Logic Approach with a Focus on Subtle Diagnostic Challenges. Mathematics, 12(13), 2012.
24. Simpson, K., Imms, C., & Keen, D. (2022). The experience of participation: eliciting the views of children on the autism spectrum. Disability and Rehabilitation, 44(9), 1700-1708.
25. Vanzo, R. J., Prasad, A., Staunch, L., Hensel, C. H., Serrano, M. A., Wassman, E. R., ... & Boles, R. G. (2020). The temple grandin genome: Comprehensive analysis in a scientist with high-functioning autism. Journal of Personalized Medicine, 11(1), 21.