



**The College of Graduate Studies and the College of Information Technology Cordially Invite
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Master Thesis Defense**

Enhancing Autism Education: Exploring Interactive Videos and AI Integration for Effective Teaching

by

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Abstract

Teachers should be aware of how to develop effective teaching methods for students with autism. To achieve the best results, teachers need to thoroughly understand autism and the teaching methods and modifications that work best for these students. Adapting classwork & homework and helping students with language difficulties are effective teaching methods. Teachers can use books to get the necessary information and guidance or take training courses. Keeping students organized and focused is one of the needs of children with autism, as well as the use of visual strategies. Some teachers rely on fixed routines in teaching autistic children. Therefore, they must find a way to make their daily routine clear, comfortable, and predictable. The traditional method currently in use is face-to-face attendance for teachers training to come in person to instruct them or attend workshops and lectures, which can be costly and time-consuming. This thesis is concerned with training teachers' methods of teaching autistic children, using interactive videos to improve the level of education. The main objective of this thesis is to improve teachers' training in teaching autistic children using interactive videos. Interactive video in an e-learning system allows proactive and random access to video content. Designing videos will contribute to training teachers. The proposed solution is to train teachers in innovative and effective ways to educate autistic children using interactive video technology. Also, others who have no experience with autistic students. The interactive video will include tips and strategies for the teachers on How to communicate with autistic children to make the child's learning environment better. Interactive videos give teachers control over their experience by allowing them to interact with the video content in many ways, such as making decisions and answering questions. The content of these videos will be designed based on various real scenarios taken from the social reality in the education of children with autism. Designers can use several programs and websites available online to create interactive videos. Canva and mindstamp were used for the creation of the video prototype. Each interactive video will end with a survey asking how much the teacher has gained from it. The study fits the suggested method effects of interactive video on teachers' training outcomes and satisfaction in an autistic children's environment. Providing a service that is an interactive video for the teachers; this service will contribute to keep autistic children engaged in the learning process. Interactive videos are cost-effective and, deliver high-quality education, also improve students' performance and satisfaction levels with the least material. A prepared survey will include teachers' suggestions for assessing autistic children. The most common type of teacher training reported is attending a full-day or half-day workshop. Training using interactive videos provides a better understanding of how to teach autistic children efficiently.

Keywords: Autism Spectrum Disorders (ASD), Interactive Videos, Teacher's Training.

