


# Chapter 7


## Application of Artificial Intelligence for Inclusive Education

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### ABSTRACT

*Until now, many schools still lack the necessary resources and support to provide inclusive education, including trained teachers, accessible infrastructure, and adapted curriculum and students with disabilities still face significant barriers to accessing education, including stigma, discrimination, and lack of accessibility. One of the major challenges facing inclusive education is the lack of trained teachers and support staff. To address these challenges, studies have shown that Artificial Intelligence (AI) may provide some opportunities for inclusion but still, the infusion of AI for inclusive pedagogies still in emerging phase particularly in developing countries. To provide teachers in inclusive schools with required information, this chapter advanced the inter-section between inclusive education and AI vis-a-vis various models of how AI can be infused for inclusive pedagogy. The study further present readers with workable and realistic strategies for implementing AI-powered tools in inclusive education settings.*

### INTRODUCTION

According to UNESCO (2017), inclusive education is a method of teaching that celebrates diversity and encourages all students to participate, regardless of their skills or disabilities. Booth and Lim (2021) opined that inclusive education entails establishing classrooms that are friendly and encouraging to all kids as well as giving them the chance to engage and learn. Access to education for children with disabilities is only one aspect of inclusive education; another is fostering an atmosphere in the classroom that celebrates and encourages diversity in all of its manifestations (Florian & Beaton 2017). In addition, Adaka

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et al. (2022) and Adigun et al. (2025) posit that inclusive education is laid on a foundation that ensures comprehensive educational provisions for persons with disabilities with full support and strategies that eliminates all potential barriers that can impeded effective teaching and learning engagements. Adigun et al. (2025) note that through effective inclusive educational programmes, persons with disabilities can reach their full educational potential leading to higher quality of life. It is impossible to exaggerate the significance of inclusive education. According to research, inclusive education can benefit all students' social and intellectual development, irrespective of their skills or disabilities (Kuyini et. Al., 2018). Inclusive education can also help to promote social inclusion and reduce stigma and discrimination against students with disabilities (Adebileje, 2018). Furthermore, inclusive education can help to prepare all students for an increasingly diverse and globalized society (Gay, 2018).

Inclusive education fosters equality, diversity, and equity for all students, these is essential to creating a more just society (Hardy & Woodcock, 2023). Adigun et al. (2023) and UNICEF (2014) postulated that inclusive education is a continuous process that promotes diversity and lowers obstacles to instruction. Every student is valued and appreciated, and their individual needs are met while advancing educational equity (UNESCO, 2023). Therefore, the overarching goal of inclusive education is to ensure quality and unhindered learning opportunities for learners with disabilities. Additionally, inclusive education is aimed to ensure that educational marginalization is eroded and enthronement of equality in educational provisions in line with the principles of social justice. Apparently, the current state of inclusive education is characterized by a growing recognition of the importance of inclusive education in promoting social justice, equity, and human rights (Kourkoutas et al., 2017). Hence, many countries in Africa and beyond have made and still making significant progress in promoting inclusive education, including the development of policies and laws that support inclusive education (Tili et al., 2020).

For instance, in Nigeria, the National Council on Education have factored in the principles and philosophies of inclusive education all facet of basic education and beyond. The effort of the Federal Government of Nigeria (FGN) has led the development of the National Policy on Inclusive Educational Policy in Nigeria with emphasizes on advancement of fundamental human rights which embodies diversity and the acknowledgement of unique needs and strengths of every learner (FGN, 2013). Therefore, inclusive education policy in Nigeria provides guidelines for the successful implementation of inclusive education philosophy in schools. According to Adaka et al. (2023), inclusive education particularly within the Nigerian educational system, is a buffer for new pedagogical strategies which motivates the adaptation of new system of teaching. The complete implementation of inclusive education is nevertheless hampered by several issues and obstacles, notwithstanding these advancements. Adaka et al. (2023) remarked that there is still an existence of challenges facing the implementation of inclusive education policy due to lack of sufficient political will; lack of adequate, reduced capacities of human resources for the implementation of inclusive education and relevant human and material resources to drive effective and efficient implementation of inclusive educational frameworks. Many schools and educators lack the training and resources needed to implement inclusive education and may not have the support of policymakers and administrators (Adigun, 2021).

Observable challenges of inclusive education which has been associated with diminished political wills have led to reduced availabilities of infrastructure, including ramps, elevators, and accessible restrooms (Kumar & Rajitha, 2022). Until present, many teachers still lack the necessary training and support to provide inclusive education using high technological applications and devices. In the study of Adigun et al. (2022), teacher preparation institutions are guilty of training teachers for inclusive education with curriculum that is not technologically invasive. Hence, teachers of learners with disabilities who are

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