Chapter 9
The Role of Generative AI in Curriculum Development and Its Impact on Well-Being

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ABSTRACT

This chapter explores the integration of Generative AI (GenAI) in curriculum development and its impact on students' well-being. The chapter used Taba curriculum development model, discussing GenAI role in diagnosis of needs, formulation of objectives, selection of content, organization of content, selection of learning experiences, organization of learning activities and evaluation. The analysis indicates that GenAI can be valuable and helpful at the various stages of curriculum development with teacher agency and oversight. Moreover, it can have positive and negative impacts on students' health and psychological well-being depending on its usage.

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It is not GenAI technology itself, but the manner of its use that determines its impact. The chapter underscores the need for its effective integration to promote quality education and safeguard learner mental health.

1. INTRODUCTION

GenAI has quickly become a disruptive innovation in any education system worldwide. It can autonomously generate novel content, including text, images, audio, video, simulations, or computer code. GenAI is increasingly being considered an assistant tool and a partner that can help redesign personalized learning (Monib, Qazi, Apong, Azizan, et al., 2024; Shimizu et al., 2023). There is a growing research interest in AI tools such as ChatGPT in various fields, including education (Monib, Qazi, Jain, et al., 2025). Traditionally, curriculum development has been a complex task comprising many stakeholders, such as educators, policymakers, students, and accrediting bodies. This is resource-intensive, bound by context, and time (Padovano & Cardamone, 2024). The uptake of GenAI into the learning environment offers quite different affordances: rapid generation of content, individualized pathways for learning, and dynamic strategies for assessment. These can be quite innovative in reducing the instructional workload, increasing access to the content, and supporting differentiated instruction aligned with the diversity of learner profiles.

The implementation of GenAI in education does not come above board. An ongoing conversation on the issues of biased algorithms, privacy of data, ownership, authorship, and academic integrity is still very much alive among researchers and practitioners (Monib, Qazi, & Mahmud, 2025). Even though there is currently expertise simulation possible with GenAI, it is provided without pedagogical intentionality and the enormous emotional intelligence and ethics that are held by human teachers (Chan & Tsi, 2024). These tensions create urgent issues about the proper place of GenAI in formal education on such a level as concerns the curricula and learning. This chapter aims to discuss GenAI in curriculum development and its impact on students' health and psychological well-being.