

DIGITAL-BASED LEARNING TRANSFORMATION: INNOVATION AND CHALLENGES IN THE SOCIETY 5.0 ERA

Saepullah *

SMP Islam Ramah Anak Kota Depok, Indonesia
Email: sae71083@gmail.com

Muhammad Yusup

SMK PGRI 4 Surabaya, Indonesia
Email: yusup1116@gmail.com

Nashihun Amin

MAS YSPIS Gandrirojo, Rembang Indonesia
Email: nashih.kampus@gmail.com

Deni Rudini

Varianto Willardi
Sekolah Tinggi Ilmu Ekonomi IEU, Surabaya Indonesia
Email: denirudini90@gmail.com

Kasmin

Universitas Bina Sarana Informatika, Jakarta Indonesia
Email: kasmin.ksm@bsi.ac.id

Abstract

The rapid development of digital technology has significantly transformed the education sector, particularly in the Society 5.0 era, which emphasizes human-centered innovation through advanced digital integration. Digital-based learning has emerged as a crucial innovation, enhancing educational accessibility, flexibility, and efficiency. This study examines the transformation of digital-based learning, highlighting both its innovations and challenges. Using a mixed-method research approach, quantitative data from educational institutions and surveys are analyzed to assess improvements in learning outcomes, while qualitative insights from interviews with educators and students provide a deeper understanding of opportunities and obstacles in digital learning implementation. The findings indicate that digital-based learning has expanded access to quality education through e-learning platforms, artificial intelligence-driven personalized learning, and virtual reality-enhanced interactive experiences. Additionally, it has facilitated adaptive learning, enabling students to progress at their own pace and fostering collaborative learning environments through digital communication tools. However, challenges such as digital divide, technological disparities, cybersecurity risks, and resistance to change remain significant barriers. Addressing these challenges requires collaborative efforts from governments, educational institutions, and technology providers to establish policies and infrastructures that ensure inclusive and sustainable digital