

Unlocking Mathematical Proficiency: Exploring Digital Platforms as Catalysts for Overcoming Learning Barriers

DOBRI JOVEVSKI*, TATJANA A. PACHEMSKA[†],
ALEKSANDRA PESEVSKA[‡]

*"Ilinden" Municipality Primary School, Kriva Palanka

[†]Goce Delčev University, Štip

[‡]"Ljuben Lape" Municipality Primary School, Skopje,

This research explores the utilization of digital platforms as a means to overcome learning barriers in mathematics for students with learning difficulties, particularly dyscalculia and dyslexia. The study focuses on strategies that connect mathematical concepts with real-life situations and world problems, such as green math and financial math. Additionally, it investigates the effectiveness of peer support through math debates and interdisciplinary connections with other STEM subjects. Digital platforms offer various advantages, including enhanced visualization, dynamic learning experiences, and independent exploration of mathematical concepts. By contextualizing math within real-world contexts, students with learning difficulties can develop a deeper understanding and practical application of mathematical principles. The incorporation of peer support through math debates promotes collaborative learning environments, facilitating confidence-building, critical thinking, and problem-solving skills. Connecting mathematics with other STEM disciplines provides students with a holistic perspective, emphasizing the interdisciplinary nature of scientific knowledge. The research is conducted in primary education settings, specifically at OOU "Ilinden" Kriva Palanka, OOU "Vera Jovic" Gazi Baba - Skopje, and OOU "Ljuben Lape" Skopje. The findings of this study contribute to the existing knowledge on leveraging digital platforms to enhance mathematics education and provide valuable insights into strategies for overcoming learning barriers faced by students with dyscalculia and dyslexia, ultimately promoting engagement, understanding, and application of mathematical concepts in real-world contexts.