

## THE IMPACT OF DIGITAL TECHNOLOGIES ON STUDENT MOTIVATION IN ENGLISH MEDIUM INSTRUCTION: EVIDENCE FROM UZBEK HIGHER EDUCATION

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### ABSTRACT

*The expansion of English Medium Instruction (EMI) across non-Anglophone higher education systems has intensified the need to address student motivation in linguistically demanding learning environments. This study investigates the extent to which digital technologies enhance student motivation in EMI classrooms in Uzbekistan. Drawing on Self-Determination Theory, the study employs a mixed-method design involving 120 undergraduate students and 15 interview participants across three universities. Quantitative findings reveal significant positive correlations between digital technology use and student engagement, autonomy, and perceived competence. Qualitative evidence further indicates that digital tools facilitate comprehension, reduce language-related anxiety, and support self-regulated learning. However, the findings also point to persistent challenges, including uneven digital literacy and cognitive overload. The study contributes to EMI and educational technology research by offering empirical insights from a Central Asian context and argues that the motivational benefits of digital technologies depend primarily on pedagogically informed integration rather than mere technological availability.*

**Keywords:** *English Medium Instruction, student motivation, digital technologies, higher education, Uzbekistan.*

### INTRODUCTION

The internationalization of higher education has led to the rapid proliferation of English Medium Instruction (EMI), particularly in countries seeking to enhance their global academic integration. Uzbekistan represents a notable example of this trend, as national education reforms increasingly prioritize English as a medium of instruction in universities. EMI is widely perceived as a pathway to improved academic quality and global competitiveness; however, its implementation has exposed a range of pedagogical and linguistic challenges.

Among these challenges, student motivation emerges as a critical concern. Learners operating in EMI contexts frequently encounter difficulties related to

limited language proficiency, which may result in reduced participation, lower confidence, and diminished academic engagement. These issues are particularly pronounced in contexts where students transition abruptly from first-language instruction to English-medium learning without sufficient preparation.

In parallel with the rise of EMI, digital technologies have become deeply embedded in higher education. Learning management systems, interactive applications, and multimedia resources have transformed instructional practices, offering new possibilities for engagement and personalization. In theory, such technologies can mitigate some of the motivational challenges associated with EMI by providing multimodal input, flexible access to content, and alternative modes of participation.

Despite growing interest in digital education, there remains limited empirical research examining how digital technologies influence student motivation specifically within EMI contexts, particularly in Central Asia. This study addresses this gap by investigating the relationship between digital technology use and student motivation in Uzbek higher education. Grounded in Self-Determination Theory, the study explores how digital tools shape students' sense of autonomy, competence, and engagement, while also identifying the challenges that accompany their use.

### **Literature Review**

EMI has been widely adopted as a strategic tool for academic internationalization, yet its pedagogical implications remain contested. While it provides access to global knowledge and academic networks, EMI simultaneously imposes additional cognitive and linguistic demands on students. Research in applied linguistics has consistently shown that these demands can undermine motivation, particularly when students perceive a mismatch between their language abilities and academic expectations.

In emerging EMI contexts such as Uzbekistan, this issue is further compounded by systemic factors, including uneven language preparation at the pre-university level and limited teacher training in EMI pedagogy. As a result, students often adopt passive learning strategies, avoiding participation due to fear of linguistic errors. This disengagement highlights the need for instructional approaches that actively support motivation.

Self-Determination Theory (SDT), developed by Edward L. Deci and Richard M. Ryan, provides a robust framework for understanding student motivation. According to SDT, motivation is sustained when three basic psychological needs are satisfied: autonomy, competence, and relatedness.

In EMI settings, these needs are often disrupted. Students may feel a lack of autonomy due to dependence on teacher explanations, reduced competence due to language barriers, and limited relatedness if interaction is constrained. Consequently, instructional interventions that restore these dimensions are essential for maintaining motivation.

Digital technologies have been widely associated with increased student engagement and motivation. Their interactive nature enables active participation, while their flexibility supports individualized learning pathways. Research has shown that digital tools can enhance intrinsic motivation by making learning more accessible, relevant, and enjoyable.

Importantly, digital technologies also offer affordances that are particularly valuable in EMI contexts. Multimedia resources can support comprehension by combining visual and auditory input, while asynchronous tools allow students to process information at their own pace. Furthermore, online platforms can reduce anxiety by enabling less face-threatening forms of participation.

However, the literature also cautions against uncritical adoption of technology. Without pedagogical alignment, digital tools may lead to superficial engagement or cognitive overload. Thus, the effectiveness of digital technologies depends on how they are integrated into teaching practices.

## **METHODOLOGY**

This study adopts a mixed-method research design to capture both measurable trends and nuanced student experiences. The quantitative component provides an overview of motivational patterns, while the qualitative component offers deeper insight into students' perceptions.

The study was conducted across three universities in Uzbekistan where EMI programs are actively implemented. A total of 120 undergraduate students participated in the survey, representing disciplines such as economics, engineering, and linguistics. The participants had varying levels of English proficiency, reflecting the diversity of EMI cohorts.

Data were collected using a structured questionnaire designed to measure engagement, autonomy, perceived competence, and attitudes toward digital technologies. Responses were recorded on a five-point Likert scale. In addition, fifteen students participated in semi-structured interviews, which explored their experiences with digital tools in EMI classrooms.

Quantitative data were analyzed using descriptive statistics and correlation analysis, while qualitative data were coded thematically. This combination allowed for triangulation of findings and increased the reliability of the results.

## **RESULTS**

The quantitative findings indicate a generally positive relationship between digital technology use and student motivation. Students reported high levels of engagement when digital tools were incorporated into EMI lessons, with a mean score exceeding four on a five-point scale. Similarly, measures of autonomy and perceived competence were above average, suggesting that digital technologies support key dimensions of motivation.

Correlation analysis revealed statistically significant relationships between digital technology use and all three motivational constructs. The strongest relationship was observed with engagement, followed by autonomy and competence. These findings suggest that digital tools play a particularly important role in encouraging active participation.

The qualitative data provide further insight into these patterns. Many students described digital technologies as making lessons more interactive and accessible. They emphasized the value of multimedia resources in understanding complex content, particularly when language barriers were present. Recorded lectures and online materials were frequently mentioned as enabling independent learning, allowing students to revisit content and improve comprehension.

At the same time, students highlighted several challenges. Some reported difficulties related to internet connectivity, while others noted that excessive use of digital tools could lead to fatigue. A number of participants also expressed the need for better guidance in using certain platforms, indicating that digital literacy remains an issue.

## **DISCUSSION**

The findings of this study support the argument that digital technologies can significantly enhance student motivation in EMI contexts. From the perspective of Self-Determination Theory, digital tools contribute to all three core dimensions of motivation. They promote autonomy by enabling self-paced learning, enhance competence through multimodal support, and facilitate engagement through interactive features.

However, the results also underscore the importance of pedagogical design. The mere presence of digital technologies does not guarantee improved motivation. Instead, their effectiveness depends on how they are used to support learning objectives. When implemented strategically, digital tools can bridge the gap between language limitations and content understanding. When used excessively or without clear purpose, they may have the opposite effect.

In the context of Uzbekistan, these findings have important implications. As EMI continues to expand, digital technologies can serve as a valuable support mechanism. However, their successful integration requires investment in infrastructure, teacher training, and curriculum design.

### CONCLUSION

This study demonstrates that digital technologies play a significant role in enhancing student motivation in EMI classrooms in Uzbek higher education. By supporting engagement, autonomy, and comprehension, digital tools contribute to more effective learning experiences. At the same time, the challenges identified in this study highlight the need for thoughtful and pedagogically informed integration.

The study contributes to the growing body of research on EMI and educational technology by providing empirical evidence from a relatively under-researched region. Future research should build on these findings by exploring longitudinal effects and incorporating teacher perspectives.

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