

Student motivation to learn is an essential component for the design, development and implementation of technology-mediated learning environments. Engagement learning strategies have been devised to assist students as they learn in a constructivist-based blended learning environment (CBLE). This study investigates the relationship between students' motivational factors and their engagement learning strategies in a CBLE in Tanzanian Universities. Specifically, the study examines a) student motivational factors to learn, b) gender differences in motivational factors, and c) relates motivational factors with students' engagement learning strategies.

The study is built on theoretical foundations of engagement learning and constructivist-based blended learning. We used a self-report student motivational factors and engagement learning strategies survey (SMFELSs) to obtain data from 1010 undergraduate students from three universities. The results indicate that students are positively motivated to learn in CBLE. Our results also reveal that there is a statistically significant correlation between motivational factors and students' engagement learning strategies.

The results, on the one hand, enhance our understanding of students' motivational factors to learn in a CBLE, and on the other hand expand knowledge on which student engagement learning strategies should be adopted and implemented in the context of challenging learning environments. Furthermore, the results are important for instructional designers, university teachers and curriculum developers. Our study further helps to improve the design of blended learning courses, constructivist learning environment and learning activities concerning students' motivational factors and engagement learning strategies