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Perceptions of University of the East Students on Labster's Software Quality and Its Effects on Academic Performance

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Abstract

The rapid advancement of digital technologies has significantly reshaped educational landscapes, positioning digital learning solutions as essential tools for strengthening student engagement and academic performance. This study examined the effects of Labster, a virtual laboratory simulation platform, on the perceptions and self-reported academic performance of Senior High School students at the University of the East, Caloocan Campus. Specifically, it explored students' views on the platform's convenience, usability, and contribution to their learning, as well as potential differences in perceptions between STEM and non-STEM strands. Using a descriptive survey design, data were collected from 380 students who had utilized Labster in their coursework. Findings revealed that students across both academic tracks consistently regarded Labster as easy to navigate, user-friendly, and supportive of their learning needs. Respondents emphasized the platform's accessibility, efficiency, and capacity to enhance their understanding of complex laboratory concepts. Moreover, the results showed minimal perceptual differences between STEM and non-STEM students, suggesting that Labster provides equitable learning benefits regardless of academic background. Overall, the study underscores the positive impact of virtual laboratory tools in promoting meaningful and engaging learning experiences. These findings highlight Labster's potential as a valuable digital learning solution that aligns with institutional goals of innovation, improved instructional delivery, and sustained educational quality.

Keywords: Digital learning, Labster, student perception, academic performance, virtual laboratories