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Constructivist Legacy in the Digital Age: Implementing Active and Collaborative Learning through an Original Standalone Digital Platform for Anonymous Peer Review in RTU ESP Courses

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ABSTRACT

The present research aims to reinterpret constructivist legacy in the context of a digital era, considering epistemological tendencies in online education and presenting a local technological initiative. An independent online platform for anonymous peer review sessions was created at Riga Technical University in 2020 to implement active learning and collaborative learning approaches grounded in constructivist theories. Through the constructivist lens learning is seen as an active process of building new knowledge structures through the reevaluation and recreation of schemata – pre-existing cognitive frameworks of a person. Students' background, reflective engagement and peer-to-peer connections are given great importance in this regard. The initiative seeks to promote learner-driven and peer-mediated instruction in Latvian higher education, where these practices are adopted but not yet brought to fruition (compared to countries such as Sweden, Estonia, Lithuania and Netherlands). The study was conducted among 130 students using the platform within the framework of ESP courses at Riga Technical University. Applying quasi experimental research design and mixed methods, the author juxtaposed the pre-test and post-test academic performance of students from twelve ESP course groups, incorporating both individual-level criteria assessment and the examination of overarching patterns across groups. Preliminary empirical data tends to reveal strong correlation between the implementation of tech-driven constructivist practices and improvement in learning outcomes. The data was reinforced by students' feedback: in open-ended surveys, platform users reflected on their study progress along with the reduction in foreign language anxiety using anonymity features.

Keywords: Constructivist legacy in the digital classroom; Tech-driven constructivist teaching; Active learning; Collaborative learning; Peer-mediated instruction