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INTEGRATING FOLDSCOPIES INTO PROBLEM-BASED LEARNING

Abstract:

Skills required in the 21st century necessitate teaching methodologies that educators use to equip learners for practice. Problem-based learning (PBL) supports the development of 21st-century skills as it fosters critical thinking, problem solving, creativity and collaboration. The current research aimed to determine whether Life Sciences (Biology) methodology student teachers could integrate the use of foldscopes into PBL. The research found that student teachers experienced the foldscopes as exciting, and revealed positive responses for classroom use. Some student teachers were, however, unable to develop a PBL activity for their learners, and leaned towards traditional teaching methods. Cultural historical activity theory (CHAT) was used as lens to analyse the activity system and identify tensions within the system.

Keywords:

Cultural historical activity theory; Foldscopes; Self-directed learning; Problem-based learning; 21st-century skills

JEL Classification: I24, I29