

The Effectiveness of ICT-Assisted PBL on College-Level Nano Knowledge and Learning Skills

Authors : Ya-Ting Carolyn Yang, Ping-Han Cheng, Shi-Hui Gilbert Chang, Terry Yuan-Fang Chen, Chih-Chieh Li

Abstract : Nanotechnology is widely applied in various areas so professionals in the related fields have to know more than nano knowledge. In the study, we focus on adopting ICT-assisted PBL in college general education to foster professionals who possess multiple abilities. The research adopted a pretest and posttest quasi-experimental design. The control group received traditional instruction, and the experimental group received ICT-assisted PBL instruction. Descriptive statistics will be used to describe the means, standard deviations, and adjusted means for the tests between the two groups. Next, analysis of covariance (ANCOVA) will be used to compare the final results of the two research groups after 6 weeks of instruction. Statistics gathered in the end of the research can be used to make contrasts. Therefore, we will see how different teaching strategies can improve students' understanding about nanotechnology and learning skills.

Keywords : nanotechnology, science education, project-based learning, information and communication technology

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