

THE EFFECTIVENESS OF CROCODILE CHEMISTRY 605 IN E-LEARNING EDUCATION 2021 IN KUWAIT

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ABSTRACT

As conventional learning is transforming into new virtual forms, there seems to be a concern of how much virtual labs are effective in terms of developing science process skills of the students. This study, therefore, aims to evaluate the effectiveness of Virtual Chemistry Labs Programme, named Crocodile Chemistry 605 in E-learning Education 2021 in the College of Health Sciences (HSC) in The Public Authority for Applied Education and Training in Kuwait (PAAET) Kuwait. 150 students of the programme have participated in this and share their experiences. The results suggest that Crocodile Chemistry 605 was found effective in terms of successfully simulating realistic Lab tools, easier to change experiment parameters, enhancing the experiment safety while observing the elements interact, and allow students to repeat experiments without substantial resources wastage. The students, however, needs more time using and understanding the program to improve their skills, related to the chemical reactions, reports, and presentations to further enhance their skills and take fully advantages of the program's effectiveness. These finding are important for the overall theory and practice of using virtual labs and highlighting the areas of success as well as the areas which need improvements.

Keywords: *Chemistry, Visual Learning, Traditional Laboratory, E-Learning, Virtual Laboratory, Virtual Simulation Program (Crocodile Chemistry 605)*