香港城市大學
City University of Hong Kong

Production of visualized protocols for teaching/learning Modern Experimental Biology

Project Number: 6000171

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Abstract:

The production of a set of visualized protocols for 6 items of advanced scientific instruments in the Department of Biology and Chemistry is proposed. The purpose is to capitalize on the power of video technology to capture the multiple facets and intricacies of life science research (in the form of "Visualized Protocols"), and efficiently transmitting the knowledge to CityU students at the undergraduate and postgraduate level. Visualized protocols are expected to facilitate the implementation and learning of many basic and complex experimental techniques in modern biology. A set of "visualized protocols" are designed in this project to help Life science students to appreciate/achieve: (1) a higher transparency and better reproducibility of biological experiments; (2) improved time and labor management in learning new experimental techniques; and (3) improved efficiency in performance of life science research. Undergraduate and postgraduate students will be recruited to assist with the production and evaluation of each set of "Visualized Protocols". Students recruited for the evaluation will take part in pre- and post-quizzes to gauge how well they understand the application and implementation issues related to each piece of advanced equipment/technique. Results from the pre- and post- quizzes will be compared to assess the improvement of students' knowledge and understanding of the relevant scientific principles.