Resources and Strategies for Innovative Problem Based TLAs to Achieve ILOs in Problem Solving Courses with the use of Computers

Project Number: 6000143

Principal Investigator: Dr Chung Keung POON

Grant Type: TDG

Abstract:

Skills in problem solving with computers are an essential part of gateway education. Currently such courses are offered to hundreds of students each year from a variety of disciplines ranging from Creative Media, Humanities and Business to Mathematics, Science and Engineering. These students come from very diverse background, including local students, those from the Mainland, and visiting/exchange students. We have recently piloted the adoption of the OBTL approach in several such courses. Preliminary evidences have clearly demonstrated the benefits of OBTL, and significant improvements in students' performance are seen. These benefits can be attributed to the introduction of various innovative TLAs. However, one imminent challenge that critically determines whether our early success can be sustained or extended to other courses is the need for more extensive support in terms of resources and strategies. This project attempts to consolidate and leverage our recent success in courses that emphasize problem solving with the use of computers. We propose to develop problem-based and context-relevant resources to address the diversity of student needs and background, and to explore and experiment with new strategies for the design and implementation of various TLAs, including different incentive schemes to motivate students' interests for success.