

Cultivating Research Skills among Undergraduate: A Research Methodology Toolkit

Nor Mazlina Ghazali; Shahren Ahmad Zaidi Adruce; Fitri Suraya Mohamad; Hasbee Usop; Abd Halim Busari; Prashanth Talwar Rusli Ahmad; Monica Simon

Universiti Malaysia Sarawak, Kota Samarahan, Malaysia

Abstract

The purpose of this study is to develop the "Research Methodology Toolkit" which enable to assist for front-line staff that enables them to learn about an issue and identify approaches for addressing them. Toolkits can help translate theory into practice, and typically target one issue or one audience. A toolkit is a become tool importance for lecturers or instructors to engage and interact with students in class. In this study, the "Research Methodology Toolkit" is a toolkit for supporting lecturers in teaching research methodology to students whether in class or research supervision. There is a Quantitative research design. This study is consisted two (2) phases of development. First phase is "Content Development" and second is "Toolkit Development". Aims of this study are (i) identify the gaps in comprehension which affect the conduct of small-scale research projects among the final year students; (ii) develop a research methodology toolkit for students and lecturers; and (iii) examining the effectiveness of the research methodology toolkit. For the First phase, researcher come out the toolkit content using Inquiry based learning and Gamification approach in process of executing the questions to students. Then, the Second phase development comprises the keyword cards, keyword manual of answers, leader board, score board, game based, games regulations and role of game master. In answering the first research objective study found students has difficulties to understand the concept and application of research methodology as well as lecturers/supervisors also have issue in explaining the research methodology concept as well as application to students/supervisees. Then, the second objective is development of toolkit which consisted seven (7) components which are the keyword cards, answers booklet, leader board, score board, game based, games regulations and role of game master. Hence, in examining the effectiveness of the "Research Methodology Toolkit" the first usability stated 94% participants mentioned they are satisfied with interface and content of the toolkit and the second usability test is described majority of participants understand on the keyword questions. Practical implication showed the "Research Methodology Toolkit" is enabled to increase the engagement and interaction between lecturers and students in class as well as supervisor and supervisees in supervision process. Future researcher is advised to expand this research to the postgraduate students.

Keywords

- Research methodology
- toolkit
- Gamification method
- Inquiry based Learning
- Constructivist Learning Model