Perceptions on- Enhancement of learning skills

Title: Changing student perceptions on their initial skill and self- image enhancement through course- based research engagement

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Abstract

Research skills are viewed as a key group of generic graduate attributes and can include communication, problem solving, and analytical skills. Student-engaged course-based research provides opportunities for students to learn while enhancing their higher order thinking, learning skills and self-image. One of the common criticisms about the university education in Social Sciences is that in-class teaching and learning activities facilitate students to obtain theoretical knowledge but fail to develop employability skills, including self-image, due to the lack of opportunity for students to engage in practical applications. Therefore, the aim of this study was to examine whether student- engaged research can change perceptions students hold on their self-image, in relation to perceived skill enhancement. Bloom's Taxonomy was applied for designing and facilitating the course-based research activity. The study population consisted of 36 third year students who followed course unit 'Human Resources Development and Labour Market planning' and student were guided to undertake a research in an urban community as a part of learning activities of the course. Six teams were formed and guided to select a research problem related to human resource development in a community. Subsequently they were guided to collect, process, analyze data, present and prepare a research report. Outcomes were assessed using student feedback questionnaires and final reports submitted by student teams. More than 80 per cent of students self-rated to strongly agree that student-engaged research have facilitated skill acquisition. More than 75 per cent of students felt that the research activity helped to develop their skills such as team work skills, communication skills, presentation skills and analytical skills. Findings suggest that student-engaged research can be used to facilitate the perception among students that initial development of research skills among university students can take place, thereby improving their self-image, results however cannot be generalized due to the shortness of the study involving only a single iteration.

Purpose/ background

The objective of this paper was to examine the question of whether student- engaged course-based research can change perceptions students hold on their self-image, in relation to perceived skill enhancement. Research skills are viewed as key group of generic graduate attributes and can include communication, problem solving and analytical skills. One of the common criticisms about the university education in Social Sciences is that in-class teaching and learning activities facilitate students to obtain theoretical knowledge but fail to develop employability skills, including self-image, due to lack of opportunity for students to engage in practical applications.

Student- engaged research provides opportunities for students to learn while enhancing their higher order thinking, learning skills and self-confidence. These skills can be created through the problem-based and self-directed learning. Rogers (1969) emphasized that "…when a student chooses (their) own direction, helps to discover(their) own problems, decides (their) own courses of action, lives with the consequences of each of these choices, then significant learning is maximized" (Rogers, 1969 cited in Macdonald, 2005, p.1). However, it is observed that in many faculties of Social Sciences, lectures, conventional modes of teaching and classroom learning are still leading. Research further reveal that in the current job market, few opportunities are available for graduates in humanities and social sciences due to lack of skills (Ariyawansa, 2008). Creating an environment for students to engage in course-based research provides important ways to improve their "natural potential for learning" (Rogers, 1969, p.114), and to develop their self-image as well as prepare students for accepting potential challenges. Such preparation is particularly important because, probably due to the changing nature of expected outcomes of the higher education in Sri Lanka, and significant educational reforms are taking place to enhance soft skills and employability specially among Social Sciences graduates trough teaching and learning.

Several research evident that when students develop their initial skills, facilitating for team-based or group learning provides an important opportunity to work together and learn as teams while enhancing their self-image (Zhou & David, 2015; Biggs and Tang, 2011; Gibbs, 1988). Burrow & Mclver (2012) also found that group assessments and collaborative learning based on teams are important to encourage students in achieving higher levels of educational outcome defined within Bloom's Taxonomy (Burrow & Mclver, 2012). Therefore, this learning activity is designed considering the level of learning presented in Bloom's Taxonomy (Bloom, 1956 cited in Anderson and Krathwohl., et al, 2001). The course-based research activity was designed to encourage student engagement and improve higher-order cognitive skills such as apply, analyze, evaluate and create from their initial skills to self-confidence development.

Methodology

The course-based research activity was implemented for Third Year Students in the Special Degree Programme for the course unit "Human resources development and labour market planning". The study population consisted of 36 third year students who followed the course unit and they had not been engaged in course-based research previously. Therefore, students were made aware about expected learning outcomes, learning activities and the method of assessment in advance. Student were guided to design a research problem related to human resource development in an urban community as part of their learning activities of the course. Six teams were formed and guided to select a research problem. First, the student teams were guided to develop research topic, research questions, methodology and a questionnaire for data collection and then they were asked to upload them into LMS. The study site was selected as Panchikawatta, Colombo-10 and students were taken to the field activity and they have gathered data that are useful for addressing their respective research problems. Subsequently students were provided sufficient knowledge on ICT based data analysis package- SPSS during the course to enable them to process, analyze and present data that they have collected. Finally, students were asked to submit research report and present research findings and to share what they have learnt from the community with other teams. Outcome of the use of this course-based research was assessed using student feedback which were taken after the implementation of the activity and quality of final reports were submitted by six student teems.

Results

Based on student feedback which was taken after completing the activity, student have shown positive influence on skills development in areas such as theoretical learning and its practical applications, identification of research problem, data analysis using SPSS, and report writing and sharing research findings. More than 80 per cent of students self-rated to strongly agree that student-engaged research have facilitated skill acquisition. More than 75 per cent of students felt that the research activity helped to develop their skills such as teamwork skills, communication skills, presentation skills and analytical skills. Results of the student feedback regarding student perception on their skills enhancement through course based research are shown in Table 1. Implementation of course-based research has been effective as majority of the students agree that they have been able to develop skills and their perceptions on self –image enhancement, it is suggested to implement similar course-based research activity for other course units as well. From the final report submitted by students also revealed that all most all groups have achieved satisfactory level skills in problem solving, data collection, data analysis using SPSS and presenting results using graphs, tables etc.

Table 1: Student perception on their skills enhancement through course based research

Key areas of skill enhancement	Descriptive Statistics			Student feedback (self-rated) % Scale (1-5) to Strongly agree				
As a result of this activity,	Number	Mean	SD	Strongly disagree (1)	Disagree (2)	Somewhat agree (3)	Agree (4)	Strongly agree (5)
I am able to acquire research skills and present myself with confidence	36	4.81	0.467	0.0	0.0	2.8	13.9	83.3
My communication skills and working in teams have improved	36	4.75	0.439	0.0	0.0	0.0	25.0	75.0
My ICT based analytical skills have improved	36	4.78	0.485	0.0	0.0	2.8	16.7	80.5
I feel confident in identifying research problem	36	4.64	0.593	0.0	0.0	5.6	25.0	69.4
I feel confident in analyzing data	36	4.78	0.540	0.0	0.0	5.6	11.1	83.3
I feel confident in writing research report	36	4.33	0.926	0.0	5.6	13.9	22.2	58.3

Source: Derived from student feedback forms

Discussion/ conclusion

Findings suggest that student-engaged course-based research can be used to facilitate the perception among students that initial development of research skills among university students can take place, thereby improving their self-image. The results further suggest that the processes involved in course based research had facilitated enhancement of student self-image through positive thinking and therefore having developed positive attitudes among students as a way of thinking and learning can make student open to a world of physical changes, understanding community diversities, change their behaviour and competencies by learning new skills. Results however cannot be generalized due to the

small sample size (N=36) and to be extended with further study. Nevertheless, it is recommended to introduce course-based research as a method of skill acquisition and self-image enhancement for the undergraduates of Social Sciences Faculties.

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