

Seeking Sustainability on Service Learning Projects

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1. ABSTRACT

Service-learning courses across disciplines in higher education have gained tremendous attention among students where they are engaged in complex and oftentimes time-intensive activities aimed at assisting the community. This gives students an opportunity to develop competencies essential for their career. These projects expose students to practical learning opportunities outside a classroom setting. However, there are several challenges associated with these projects which question the sustainability of the same. This study identifies issues like depth of interaction between service providers and the recipients leading to execution of some undesirable projects, effects of involving multidisciplinary students in group work and their inability to cope with the requirements and students focus on results and GPA rather than service to the community. All these effects are further strained by the limitation of time where merely one semester of involvement expects the student to inculcate the feeling of community service along with the learning. The finding of the study exposes the flaw in the system and suggests a path towards attaining sustainability by addressing the above mentioned problems.

Key Words: Sustainability; Engineering Projects; Service Learning; Multidisciplinary approach

1. INTRODUCTION

There is greater emphasis now a more rounded development (informal learning) of students that factors in community exposure and involvement, in assessing quality of education. This component of community engagement represents the “informal” component of learning. Although over the years, this has been institutionalized and known as “service-learning” — the application of classroom-based education in meeting social needs particularly of marginalized sectors. This is a unique element that allows for students to make use of theoretical knowledge towards their better understanding of social issues encompassing the society [Jacoby B, 1996, Duffy J. 2000 and Islam El-adaway 2015]. In the process, service-learning enhances students’ social and leadership skills, increases students’ awareness of their social responsibilities, and facilitates better integration within the society. But while service-learning aids in the holistic development of students, there are fundamental issues attached to it that compromise its lasting impact and viability. These issues include limited resources in terms of funds and time, limited interaction between students and community recipient, insufficient coordination between and among group members.

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The main objective of this study is to identify the flaw in the current system and propose solution so that the sustainability of meaningful courses like service learning can be maintained. Firstly, the problem identified is that when service centers or community partners are approached for student projects they let the end users decide on what they need which results in very few out of the many projects provided/facilitated by Service

centers being useful from the learning point of view. Frequently, owing to the nature of some projects, for example, in the field of engineering, the students land up simply buying readymade products and make primitive changes to the same before handing them over to the service recipient which certainly does not fulfill the concept of service learning. Secondly, according to this research, the researcher ascertains that one of prominent element that hinders the effectiveness of this course is the fact that largely the course is designed to include the involvement of multidisciplinary students in projects [Angela R, 2016]. Such an approach is believed to help students prepare for future situations where large and complex undertakings require a mix of skills and talents. While the intention is good to include a multidimensional element, however the practical situation does not favor multidisciplinary mixing. This approach demotivates the students and has a negative impact on their learning and team work. Finally, the students focus more on their GPA and overall results rather than being inclined towards the social element that learning encompasses.

2. LITERATURE REVIEW

Service-learning is a form of informal learning that has been a part of the student curriculum since the early 1920's where civic education was considered to be a key element in developing a democratic society [Underwood 2000 and Carver, R. L. 1997]. Service learning is included as a part of learning almost all over the world e.g. the United States includes the concept of experiential learning [Dewey, J 1997]. It was believed that inclusion of both formal as well as informal learning was the most appropriate and ideal mode of learning and the practical application of knowledge must be made available outside the formal learning environment. It is argued [Underwood 2000] that learning as a human activity is largely linked to the individuals' involvement in the society as a whole. The phenomenographic approach is adopted to analyze how the stakeholders experience, perceive, conceptualize, and comprehend the implementation and outcomes of service learning. Developed by Marton (1986), phenomenography as a qualitative research methodology is a "research method adopted for mapping the qualitatively different ways in which people experience, conceptualize, perceive, and understand various aspects of the world around them...." (Marton, 1986, p. 31) This study is interested in identifying how service learning is perceived by stakeholders.

3. METHODOLOGY

This research employed a qualitative phenomenological approach in understanding the motivations of students while in the service-learning. The author propounds that in order to nurture socially caring leaders, grade or a higher GPA should not be the intrinsic motivation in service-learning. This research subject is complex and social in nature, and it does not readily lend itself to quantification [Liebscher P, 1998]. This study was conducted among 27 students from different disciplines who are taking service learning in different universities in Hong Kong. The respondents were identified by means of purposeful random sampling. Of them, 15 students were enrolled in the course on an inter/multidisciplinary mode. Three supervisors including the researcher were involved in the observation.

The main research questions of this study were targeted at assessing the sustainability of service learning courses, and the challenges associated with them. Data collection was done through focus group semi-structured, face-to-face interviews and observations. Observations occur as the supervisor formally and informally evaluates service learning class through assessment of student achievements [Bringle, R. G, 1995]. Supervisor

observed the student involvement and commitment towards the community they served and their willingness to indulge and serve beyond the minimum requirement. Reflective journal entries on their service-learning experiences submitted by the respondents were also used in assessing both challenges met and the learning gained.

4. RESULTS AND DISCUSSION

The results discussed here are on the basis of focus group interviews conducted. In the service learning subject for example, in an engineering curricula, service centers are approached for projects. Projects are given to the service providers where students are expected to build and assemble prototypes for the service recipients. Extreme variations in the nature of projects are identified and can be defined as complexity in conducting projects on one hand while effortless found on the other side. It is recommended that accessibility of more service centres will help make decision on choosing the appropriate projects for students. Moreover, a prior discussion with service centres on viable projects should be held. Decision between the service center staff and the student's service learning supervisor will help develop innovative ideas that will result in benefiting both the service recipients, and supervisors, as a consequence student learning can be generated. Moreover, one of the concern that has been highlighted by the interviewee is that getting community partners is often a contest thus it is recommended that organizations or faculties join hands with prospective partners under one umbrella. The different departments could choose from the pool available thus enhancing the choice hence addressing the problem.

In these multidisciplinary student projects, students work as a team and are engaged on multi-levels interacting with their team members, supervisors, and the service centres (recipients). The reason to have a team of students from multidisciplinary academic background is to broaden their team and project management skills through engagement in design projects. But real-world situation in the study does not support multidisciplinary mixing of students. In turn, such an approach is found to discourage the students. Those possessing technical knowledge are discouraged when their group members don't possess the same technical background. This is consistent with the previous study [Felder R, 2001] where the authors advocate the importance of homogeneity amongst group members. To solve such problems, it is important to have team members from the same discipline to make the projects successful.

Students also tend to be more motivated by grades than the actual benefit they can offer to the community. This indicates lack of intrinsic motivation towards service learning thus the effect is highly temporary. It is a consequence of chain reaction. Disparity in technical knowledge of students within a group leads to a situation where students from both categories (with and without technical know-how) start chasing the grades. Either they want to have higher grades due to their upper-hand on a project or somehow pass the subject (attitude of weaker students). The composite role that teaching faculty/supervisors have in service learning program needs closer examination. Exemplary programs are advisable for planning and evaluation.

The course structure normally lacks flexibility as it has to follow an approved course outline which limits the involvement of the community partners and end users that results in the absence of estimating the effectiveness of the study. This explains why "(s)tudents often receive truncated understandings of the nature of social problems and strategies of social change", Kaupins and Bodie (2011). The course structure should be like an internship program where the company supervisor has an equal role to play in

the supervision and marking of the student performance. Such an approach can help keep focus and protect any derailment of the objectives.

5. CONCLUSION

Service learning is a valued component in the higher education curriculum and has high potential to enhance the quality of teaching and learning. It not only enhances the quality of education but also gets the students involved and interprets the society's needs and contributes towards it. It is important to understand at a greater depth the issues raised in this paper to determine the outcomes of service learning. If the challenges above are addressed, then the sustainability of service learning in engineering curricula and across disciplines can be ensured.

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