

Impact of Experiential Learning on Students: Service-learning Project of Ecotourism in a Rural Region

Introduction

Extensive research has been carried out on the differences between surface and deep learning approaches (Biggs, 1999; Cannon & Newble, 2000). Surface learning is a more passive style of learning in which students rely on memory to learn. Deep learning is more active and students must search for information, make connections and draw conclusion by themselves. Saunders (1997) suggested that there should be a paradigm shift from the “instruction paradigm” to a “learning paradigm”. This is similar to Brandl’s (2002) proposal to move from “teacher-centered” to “student-centered” education. Estes (2004) opined experiential education should be student-centered instead of teacher-centered.

Experiential education refers to learning activities that engage the learner directly in the event or activity being studied (Cantor 1997). A study using Honey and Mumford’s instrument (1982) revealed that most students of Higher Diploma and Bachelor degrees preferred activist learning styles to learn by acting, experimenting, and gaining new experiences in the learning process. Cooper and Shepherd (1997) claimed that tertiary educators teach theories and abstract concepts, whereas employers look for practical skills. According to Ruhanen (2005), experiential learning can bridge the gap between theory and practice. Furthermore, Lashley and Barron (2006) uncovered that Asian students studying in Australia and the United Kingdom are more likely to respond positively to abstract and reflective approaches, but negatively to active and concrete strategies.

The research of experiential learning theory has been highly interdisciplinary. The research of bibliography on experiential learning conducted by Kolb and Kolb (2000) found that this concept had been applied to management, education, computer studies, psychology, medicine, nursing, accounting and law.

With reference to Furco (2011), one of the experiential education endeavors is service-learning. Furco (2011) put forward that service-learning includes a wide range of experiential education endeavors such as volunteer and community service projects. As quoted in Furco's (2011: 71) article, The National Society for Experiential Education defines service-learning as "any carefully monitored service experience in which a student has intentional learning goals and reflects actively on what he or she is learning throughout the experience." Furco further argued that the confusion of the term "service-learning" is one of the reasons why it is difficult to conduct research on the impact of service-learning. Hence, it is worthwhile to examine the impact of service-learning experience on students' learning. This study aims to: (i) measure the impact of the experiential learning through the service-learning (SL) experience on the development of students' generic competencies including interpersonal effectiveness, teamwork, problem-solving and social responsibility; and (ii) evaluate students' perception of the service-learning experience.

Literature Review

Experiential Learning Theory and Related Research

"Experiential learning" has some key elements, they are "student direct involvement" (Kendall et al., 1986), "learner actively engaged" (Estes, 2004) and "work-based applied

learning opportunities” (Lee, 2007:38). Kolb (1984) developed a holistic model of experiential learning by drawing on the work of previous scholars who argued that experience is a central role of human learning and development. Through the transformation of experience, knowledge is created and learners learn (Kolb & Kolb, 2005).

Kolb and Kolb (2009) wrote about the meta-cognitive aspects of experiential learning and suggested the learning self-identity, the learning spiral, learning styles, and learning spaces can enhance the effectiveness of learning. Through experiential learning, students are engaged and participated actively in work-based scenarios so that they can apply what they have learned in class to the real life. Kolb (1984) stated that active experimentation is “learning by doing”. It can be combined with the “learning by watching and hearing” style of traditional mass lectures. The formats of experiential learning methods are broad and include role playing (Ruhanen, 2005), games (Wong & Tang, 2012), field trips (Wong & Wong, 2009) and co-operative education (Lee & Dickson, 2010). Dressler, Cedercreutz and Pacheco (2011) found that experiential learning, in the form of cooperative education or internships, strengthened the curriculum and improved student learning outcome assessments.

Kolb (1984) developed the four learning modes of experiential learning theory and combined them to form two learning dimensions. One dimension consists two dialectical modes that governing how learners capture experience — Concrete Experience (CE) and Abstract Conceptualization (AC); another dimension includes two dialectical modes that

control the transformation of experience — Reflective Observation (RO) and Active Experimentation (AE). With reference to Kolb's (1984) fundamental modes, in service-learning courses, students have to gain concrete experience (CE) of the community service, and then by regular reflection and observation (RO), students internalize the learned experience into an abstract conceptualization (AC). Students then transform and generalize the concepts into knowledge and finally apply them into a similar situation and make modifications if necessary (AE).

The benefits of using experiential learning methods include the development of critical thinking skills (Papamarcos, 2002), improved interpersonal skills (Hawkins and Weiss, 2004; Papamarcos, 2002), and self-confidence (Mosser, 1989; Papamarcos, 2002) and increased engagement to be a lifelong learner (Sibthorp et al., 2011).

Experiential Learning in Hospitality and Tourism Education

Lashley (1998) argued for the need to develop Theorist and Reflector learning styles by introducing an integrated cross-modular approach into curriculum design which experiential learning approach fits smoothly into the hospitality program for its people-orientated and vocational nature. The experiential learning method is not new to the hospitality and tourism education. Field trips for tour guiding and co-operative education in the form of internships are common in hospitality curricula around the world (Xie, 2004; Wong & Wong, 2009).

Corbett (2005) linked experiential learning with entrepreneurship in which the four processes of entrepreneurship, viz. preparation, incubation, evaluation and elaboration, can match with the four learning styles (converger, assimilator, diverger and accommodator) developed by Kolb's (1984) experiential learning theory respectively. Hsu (1999:19) discovered that hospitality and tourism students are mainly convergers "who perceive their environments through analytic thought or abstract conceptualization and transform that information through action."

Lee (2007:50) suggested seven major benefits of experiential learning for hospitality students. These benefits are: 1) increased understanding of how organization function; 2) increased ability to view career expectation realistically; 3) increased professional network; 4) willing to take initiative; 5) increased ability to adapt to change; 6) increased leadership; and 7) increased financial management skills. Dickerson and Kline (2008) also found that the more structure of the experiential learning opportunities within the hospitality management curriculum, the stronger the impacts on career factors. Research on the impact of service learning for hospitality and tourism students is lacking.

Service-learning Concept

As part of the experiential learning attempt, service-learning is different from the traditional educational model. Students can learn from their experiential service with an innovative and effective education methodology. Service-learning is a kind of experiential learning (Seifer & Connors, 2007) that:

- is developed, implemented, evaluated and conducted in close collaboration with the community;
- responds to community-identified concerns;
- attempts to balance learning goals and service outcomes;
- enhances the curriculum by extending learning beyond the lecture and allowing students to apply what they have learned in real-world situations; and
- provides opportunities for critical reflection to enhance social responsibility.

Background of Service-learning at The Hong Kong Polytechnic University (PolyU)

The Hong Kong Polytechnic University has committed to providing quality education and has pledged itself to promote the all-round development of its students. The Community Service Learning Programme (CSLP), launched in 2004 by the Student Affairs Office, is one of the initiatives aimed at achieving these goals and is the starting point of service-learning. PolyU Students and staff from over 20 academic departments have participated in the CSLP to serve the community through the application of their professional knowledge and skills. Service-learning cultivates students' sense of social responsibility in the strategic plan and creates a culture of serving the community with their professional knowledge and skills.

PolyU is the first university in Hong Kong to require students in the four-year undergraduate degree programs to complete a credit-bearing service-learning course before

graduation starting from 2012-13. The overarching goal is to develop graduates into “responsible global citizens”. In 2012, the Office of Service Learning was formed to promote service-learning extensively.

At The Hong Kong Polytechnic University, service-learning is defined as an experiential learning pedagogy that integrates meaningful community service with academic study and reflections to enrich students’ learning experience, in order to achieve the intended institutional or program learning outcomes. It is expected that service-learning at PolyU will not only enhance students’ sense of civic responsibility and engagement, but also benefit the community at large. It emphasizes learning through engagement in services. Pedagogically, service-learning gives academic learning, service-experience and reflection central roles in learning.

The Service-learning Project in Qing Ping, China

In 2013-14 academic year, the service-learning course of Ecotourism in Rural and Developing Regions was offered to students of different disciplines in PolyU. The service-learning projects were designed to develop students’ generic competencies of innovative problem-solving, teamwork and communication, and enhance students’ sense of social awareness, responsibilities and engagement. Its service project was taken place in Qing Ping, Sichuan, in the Chinese mainland from May 26 to June 3, 2014. Students have delivered at least 40 direct service hours in the community. Students were required to:

- 1. research and study materials related to the project site*
- 2. implement the project (duration: about 5-7 days depending on the destination/location/client needs)*
- 3. serve target clients including poor villages /rural areas in a developing country*

4. *provide their knowledge and skills to help the local community to develop sustainable ecotourism such as:*
 - (i) *Assess/review the potential ecotourism resources for ecotourism development*
 - (ii) *Meet and live with local families to experience their daily life*
 - (iii) *Carry out interviews and observations to understand the local culture and customs*
 - (iv) *Design innovative ecotourism activities for eco-tourists*
 - (v) *Plan itineraries for different targeted markets*
 - (vi) *Design brochures/website to promote the project site*
 - (vii) *Provide plan and suggestions to market the project site*
 - (viii) *Provide various types of training to the local community such as: basic food safety and hygiene, basic English to communicate with tourists, basic nursing care for injury, basic service skills, basic ecotourism guiding skills*

At the end of the course, students were asked to reflect what they have learned and how well they achieved the intended learning outcomes as planned by means of an individual reflective journal.

Method

Both quantitative and qualitative approaches were used in examining the impact of experiential learning on students' experience.

Survey Design

Questionnaire surveys were conducted at the beginning and the end of the semester. The pre-project survey questionnaire asked students to indicate the reasons for taking the ecotourism service-learning course (Part 1), and followed by 20 generic/soft skills questions in Part 2 to analyze students' generic competencies including interpersonal effectiveness, teamwork, problem-solving and social responsibility. In addition, two questions (Q21 and Q22) were asked about students' understanding of the life and major issues of concerns in the community in Chinese mainland. The post-project survey

questionnaire contains the same 20 generic/soft skills questions and the two questions about students' understanding of the life and major issues of concerns in the community of Chinese mainland for comparison.

Students were asked to respond to the 20 statements concerning the four generic competencies and two statements of the understanding of the community in Chinese mainland by selecting “always”, “usually”, “sometimes”, “rarely” and “never” in the pre- and post-project surveys. To determine the statistical significance of changes on the four generic competencies before and upon completion of the service-learning course, summation rating method was initially performed under each domain to reconstruct a new scale to capture students' attitudes. Each domain contains five sub questions in response to each generic competency. Then, the paired sample t-tests were performed on students' learning mean scores on the four generic competencies.

In order to obtain the overall perception of students' performance of the service-learning project upon the completion of the service-learning project, Part 3 of the post-project survey asked students to rate their self-perceptions of their performances on 12 questions which are on a Likert-scale of 1 to 5.

Data Collection

Students who enrolled on the service-learning course, Ecotourism in Rural and Developing Regions, offered in the 2013-14 academic year, were invited to complete the pre-and-post surveys. The total number of students enrolled in the course was 29; and 28

students filled both of the pre- and post-project questionnaires (response rate: 97%). As part of the assessment of the course, students were required to submit reflective journals to teachers at the end of the semester. Students were asked to write reflective journals and reports both during and after the service-learning project to demonstrate their ability to: (a) link their service-learning experiences with the academic focus/discipline-specific content of the course; (b) reflect on their service-learning experience to identify their learning gains as well as areas for future improvements; and (c) reflect on their roles and social responsibilities. Content analysis was carried out to identify the impact of service-learning on students.

Findings and Discussions

Students were asked to indicate reasons (can choose more than one item) for taking the service-learning course at the beginning of the semester. It was found that students would like to broaden their horizon on understanding the life of the underprivileged people and want to lend them a hand even though taking a service-learning course is mandatory requirement for graduation. Students would also like to gain experiential learning experience from the course. Besides, a number of students indicated that taking the course because of their interest in ecotourism. (See Table 1)

Insert Table 1 here

Students' Perception of Service-learning Experience

Students were asked to rate their self-perceptions of their performances based on a Likert-scale of 1 to 5, where 1 represents “strongly disagree” and 5 represents “strongly agree”. It is believed students gained some concrete experience of the community service from the

service-learning course. They treasured the service project learning experience and opined that they learned better from the service project than classroom mode. Students believed the service-learning project made them aware of the needs in the service community where they have made contribution to the betterment of the community and this matches to the main reasons, understanding the underprivileged and help those in need, for taking service-learning course. However, some students conceded that they will not participate in service-learning activities in the future. Students did not have passion in service-learning because they were required to take a service-learning course to fulfill the graduation requirement. Results are summarized in Table 2.

Insert Table 2 here

When comparing students' generic competencies before and after completing the service-learning project, it was noted that the findings show a statistically significant improvement in two of the four generic competencies measured, i.e. teamwork and social responsibility. However, improvement in interpersonal effectiveness and problem-solving are not statistically significant. Students' participation, involvement and group setting in delivering service at the designated community could explain why there is improvement in the areas of social responsibility and team work. Perhaps the service nature and the overall setting of the service project render limited room for problem solving, it was found that the mean score of problem solving skills decreased after the completion of the service-learning project. The comparison of students' interpersonal communication skills shows no significant difference before and upon completion of the service-learning course which does not support the proposition of interpersonal skills improvement proposed by Hawkins and Weiss (2004) and Papamarcos (2002). Results are summarized in Table 3.

Insert Table 3 here

Questions 21 and 22 of the questionnaire were asked to capture the changes of students' understanding towards the community they served. The findings show that changes of students' understanding toward the community they served in Qing Ping are not statistically significant. A possible reason for this is that students may have learned from different sources about the poverty and underprivileged situation, and the major issues of concerns of the culture of the community in China before taking the course. Results are summarized in Tables 4 and 5.

Insert Table 4 here

Insert Table 5 here

Impacts of service-learning project on students' learning

The Qing Ping service-learning project required students to stay with the locals and also provide different types of service and training to the locals, including woman's groups and children. In return, the locals, in particular the woman's groups provided different services to our students to experience the local culture. Through various interactions with the locals, students built their perceptions of the locals and their attitudes toward life and work. These have impact on their own attitudes toward life and future career. For example, they learned that the locals have gone through twice of the disastrous earthquakes. However, local residents could still very optimistic and positive toward their life. Students thought that they should learn from locals on this attitude towards life. In addition, through their stay with the local family and observation of how they work and live, they realized that one could just live simple and joyful. For example, one of the students comments that:

“We’ve learned a lot from them, especially their positive living attitude. They sent us a clear message: Life is simple and joyful if you treasure what you have”

Another student commented that:

“I remember that their beautiful dances and happy faces. It seems that tragedy only makes them stronger and their passion of life have never faded away. I feel lucky that I had the chance of staying with them, because their courage and passion are such an inspiration to me.”

Through the different activities and group tasks, the Qing Ping service-learning course and the service delivery trip provided them a very valuable and unforgettable experience. They thought that they have learned a lot that could not be learned from books or in the classroom. It tallies with the questionnaire survey results in Table 2. The trip has opened up their horizon. They also felt that they become active learners rather than passive learners. They enjoyed the learning experience and thought that they learned with fun. For example, one of the students commented that:

“In short, this service-learning experience is valuable and exceptional..... More importantly, I was given an opportunity to experience an entirely different lifestyle, which is something I cannot gain from attending ordinary classes.”

Throughout the whole learning process of the course, students thought that they have learned or improved their personal competences. The most important skill is “Team work”. The group tasks provided them plenty of opportunities to build team spirit within their own group members but with all other groups as well. For example, the Itinerary Planning group has to work closely with the Tour Guide Training group. The latter group needed to know what kind of itinerary that they needed to familiar with their tour guides. The Itinerary Planning group also needed to work closely with and provide information to the Publicity group for the design of the website. All groups have to work with the Event Planning group,

because this group coordinated and planned all activities. Other groups have to support them to carry out or execute all event activities.

One of the members from the Event Planning group indicated the importance of team work through the activity in the last day which was a carnival for local community:

“Although our team was responsible for the event, other groups contributed a lot. They helped us modify games.... They also prepared very wonderful presentation and exhibition materials.... I very appreciate their cooperation and contribution. We couldn't finish our event but for their help. I really felt the power of the big team.”

Though the mean score of problem solving skills decreased after the completion of the service-learning project, some students found that they have improved their “Problem solving skills”. When providing services to the local community they encountered different problems, for example, one member from the Tour Guide Training group recalled that:

“I understand that my weakness is in problem solving. Before I went to Qing Ping, we planned to provide a three-day workshop and three hours each day. However, when we got there, we realized that we only had two days and each day with only two hours. My first response was that ‘our plan doesn't work’. However, my team member said, ‘Don't worry, we can shorten our workshop. It isn't a big problem.’ I learned that team work is important once again.”

Some students mentioned that they have enhanced their “Self-confidence” after the project that supports the observation made by Mosser (1989) and Papamarcos (2002). For example, a group member from the Event Planning group expressed that:

“The experience in event planning made me enthusiastic in this service.... I wrote a schedule and arranged the work of our team. It helped me and my teammates to understand about our progress and duty. This practice would also make me feel confident because I clearly understand my progress after listing the work needed to be done.”

Lastly, some students indicated that one of the reasons for taking the course was their interest in ecotourism. A member of the Tour Guide Training group expressed that she had a better understanding of ecotourism through carrying out their task:

“From my experience in Qing Ping, I have a better understanding of the meaning of Ecotourism. In this project, we wrote some code of ethics for ecotourism guides and design some signage to remind the tourists to protect the environment. In addition, we talked with the local residents to understand what they want to develop ecotourism in Qing Ping.”

Conclusion

Undoubtedly, experiential learning method can enhance students’ competencies but service-learning course may not be able to enjoy some major benefits suggested by Lee (2007) such as increased understanding of how organization function; increased ability to view career expectation realistically; increased professional network; and increased financial management skills through a service-learning project in underprivileged community. Service-learning course may have limited contribution to the development of students’ critical thinking skills as proposed by Papamarcos (2002) and problem solving skills. Apart from competencies, service learning can be an agent of change in students’ personal value. It is interesting to note that students were affected by the local community and somehow rethink about personal value and life. The limitation of this study is the sample size (the class size) which was set by the University induced bias. Future research could examine whether experiential learning will increase students’ engagement to be a life-long learner (Sibthorp, 2011).

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