Student Community Engagement: Insight from Australia

Ellen Chung[1] and Hamish Coates[2]
[1]Faculty of Business and Management, Universiti Teknologi MARA,
Kota Samarahan, Sarawak, Malaysia
[2]Centre for Study of Higher Education, The University of Melbounrne, Australia

[1]ellencsm@sarawak.uitm.edu.my; [2]h.coates@unimelb.edu.au

ABSTRACT

Student community engagement is a form of experiential education where students engage in activities that address community needs. This form of learning emphasizes collaboration between students, faculty, and the community partner. By using Student Community Engagement Benefits Questionnaire, data was collected from 151 students in four Australian universities. This study has identified the various community engagement activities they participated either in Australia or overseas; whether voluntary or compulsory. Analysis of variance and paired sample t-test showed that there was a statistically significant gain in Career, Diversity, Interpersonal and Civic skills among the respondents after the community engagement activities. By incorporating three demographic and contextual characteristics, analysis of covariance showed that the changes after community engagement in these four skills were not significant between the two types of projects (compulsory and voluntary projects). When data was analysed by age group-of respondents, there was a significant difference after community engagement only in Civic skills. Analysis by community engagement durations also showed that there was a significant difference in Career skills, Interpersonal Skills and Civic skills. This paper sheds light on what students learn from community engagement in the context of Australian higher education.

INTRODUCTION

There is an intimate link between a university and its communities, directly and indirectly. The presence of a university in a specific location is a form of community engagement as it creates employment, business and other opportunities to enhance the economy of the host area. In many countries around the world, a university and/ or university affiliated hospital is the most significant local employer (Maurrasse, 2001). Not only will the economic activities become more vibrant, the existence of a university also improves the infrastructure and social facilities such as transportation, housing, and health care in the vicinity. This benefits not only the communities within the university, but also the local communities external to the university. In the context of higher education, community engagement is often described as a cluster of activities that include, among others, service learning, programs and research that address specific social, economic and political needs (Hall, 2010). It was posited as an extension of the historic civic role of universities (Boyer, 1990; Ostrander, 2004), a revision of 'service' that is more equitable and consultative in purpose. Through strategies such as community partnerships, consultation and facilitation, it is argued, universities provide tangible contributions to the communities around them, and thus do the public good.

There are various ways how a university can serve the surrounding as well as the international communities. One of them is through its students via "student community engagement". Student community engagement is a form of experiential education where students engage in activities that address community needs. This form of learning emphasises collaboration between students, faculty, and the community partner. Through these community engagement activities, university students in Australia learn to provide service to others in needs, while at the same time gaining various benefits. In United States of America there has been much research into this phenomenon since the 1980s; yet Australian higher education has been rather slow in catching the wave. Community engagement has been an on-going activity among universities in Australia for many years, as recorded in various University annual reports (e.g. The University of Melbourne, 2017; Royal Melbourne Institute of Technology, 2017, Australian Catholic University, 2017). However, there is limited published document that discuss the benefits for students as participants of these activities (e.g. Chung &

Coates, 2016). The purpose of this paper is to investigate the skills university students gained through their participations in community engagement. This study is steered by the following research questions:

Research Question 1:
What activities did university students take part in as part of their community engagement?

Research Question 2:
To what extent did university students' skills improve after taking part in community engagement activities?

LITERATURE REVIEW

Community Engagement in Australia

Community engagement is defined as a mutualistic symbiotic relationship between an institution and its external communities, initiated, planned and coordinated by either side or in partnership, involving activities that cut across the missions of teaching, research, and service (Chung & Coates, 2016). With the significant changes in the role of institutions of higher learning around the world, many universities in Australia see engagement with the community as an important part of their activities, alongside teaching and research. Different institutions handle the relationships with the communities differently. For some institutions, it is a key focus and a defining part of their mission and founding legislation. To others, it is one of the strong aspects of their identity. Yet for others, community is simply contextual. One research-intensive university views community engagement as when the University "engages in public debate, influences policy of government, links research and teaching with industry and communities, develops deep beneficial relationship with alumni and performs as a truly international institution" (The University of Melbourne, 2017:14). To another university, community engagement is through collaborative relationships leading to productive partnerships that yield mutually beneficial outcomes. Its initiatives span the full range of university endeavor, from engaged research, learning and teaching, student experiences to social responsibility (Royal Melbourne Institute of Technology, 2017). Yet

another university, nestled among many migrant groups, views community engagement as a process through which the University brings the capabilities of its staff and students to work collaboratively with community groups and organizations to achieve mutually agreed goals that build capacity, improve wellbeing, and produce just and sustainable outcomes in the interests of people, communities, and the University (Australian Catholic University, 2017). Moving parallel along the acknowledgement that universities play a crucial role in the development of their communities through community engagement, universities in Australia have expanded their connections with their local, regional and international communities over the last decade. Institutions of higher learning are increasingly applying their intellectual and other resources to address pressing local, national and global issues, while seeking to unite faculty, students and the public as members of a shared community. This is evident through, among other activities, the incorporation of a national alliance, the Australian Universities Community Engagement Alliance (AUCEA) in 2001, which was later renamed as Engagement Australia. It was formed under the leadership of University of Western Sydney and has 25 university members.

Although Australian universities are introducing, or promoting existing experiential learning or work-based learning programmes as a strategy of community engagement, they have, in contrast to their United States counterparts, a relatively understated commitment to values such as citizenship and social. This is largely due to historical factors in the development of Australian culture more broadly, which has tended to be pragmatic in orientation, as well as become suspicious of intellectualism and highly bureaucratic (Duke, 2004).

Community Engagement Benefits

Astin and Sax (1998) in their longitudinal studies have studied more than 3,400 students from 42 institutions in America. They find that service-learning has shown to produce both academic and non-academic outcomes for college students. Among the areas include graduate degree aspiration, retention, degree completion, increased grade point average, critical thinking skills, conflict resolution skills, civic responsibility, social self-confidence, and understanding of national and community problems. These beneficial

effects occur for all types of service, whether the activities are concerned with education, human needs, public safety or the environment. These studies also resulted in empirical findings that service-learning has unique contributions beyond those of voluntary community service. Subsequent to that, Vogelgesang and Astin (2000) conducted a study involving 22,000 students that compared service-learning and generic community service. Their findings once again confirmed that service-learning has benefits over and above those of generic community service in the development of cognitive skills among students. On top of that, Vogelgesang and Astin (2000) also find that students engaged in service-learning gain a glimpse of the real world by engaging with the community, apart from gaining benefits from the opportunity to connect the service experience to the intellectual content of the classroom. Eyler, Giles, Stenson and Gray (2001) identified a number of positive student outcomes associated with student participation in service-learning. Among them are personal development (personal efficacy, leadership, and communication skills), academic development (mastery of discipline material, problem solving, and critical thinking), social development (reducing stereotypes, facilitating racial and cultural understanding, and social responsibility), and career development (confidence, networking, and 'real world' experience).

Rama, Ravenscroft, Wolcott and Zlotkowski (2000) in a cross-disciplinary survey of research on service-learning and student outcomes, highlight the potential of service-learning to enhance technical and cognitive capabilities and citizenship skills among students. Further to that, engagement in service-learning projects also has shown to increase students' commitment to service (McCarthy & Tucker, 2002), preparedness for careers (Gray, Ondaatje & Fricker, 2000), personal growth, self-esteem, and personal efficacy (Primavera, 1999), communication skills and social issue awareness (Leung, Liu, Wang & Chen, 2006), citizenship (Lester, Tomkovick, Wells, Flunker & Kickul, 2005), and commitment to social justice and social change (Roschelle, Turpin & Elias, 2000).

Apart from the large-scale studies above, other smaller case studies conducted over the years have shown the significant impact of service-learning in enhancing student competencies (Friedman, 1996), team building, leadership, conflict resolution, communication, organisation and time management (Tucker, McCarthy, Hoxmeier & Lenk, 1998),

promoting self-efficacy (Moore & Sandholtz, 1999), increased personal development, social responsibility, interpersonal skills, tolerance, learning, and application of learning (Eyler & Giles, 1999). It was also recognised that service-learning has the effect of enhancing student competencies through providing theory to real world linkages, with the ability to change with the environment and foster innovation (Govekar & Rishi, 2007). Toncar, Reid, Burns, Anderson and Nguyen (2006) identified four benefits of service-learning, namely practical skills, interpersonal skills, citizenship, and personal responsibility.

From the review of literature above, it is evident that community engagement in the form of service-learning has yielded many benefits in the American context. In the context of Australian higher education, among the benefits are increased in Career skills, Diversity skills, Interpersonal skills Civic skills (Chung & Coates, 2016).

METHODOLOGY

Data was collected using a three-stage cluster sampling method from four universities in Australia. First stage of sampling involved choosing universities which were members of AUCEA within the state of Victoria. The second stage involved choosing faculties which have community engagement components. From there, the final stage involved choosing students who had taken part in community engagement activities, either carried out on a voluntary basis, or as part of their course such as industrial training, internship or practicum. Data was collected over a period of four weeks from these four universities via direct-administration to ensure a high return rate. Respondents from Institution 1 completed the questionnaire at the Closing Ceremony Event of Community Engagement Project. As for Institution 2, data was collected during one of the evenings where they had engagement activity. For Institution 3, respondents were undergraduates from the Faculty of Education. Data was collected after they had completed a semester of tutoring refugee children living in the State Housing areas in Carlton. Institution 4 was a Regional University in Victoria, Australia. Data was collected from a group of Nursing undergraduates who had regular engagement with patients in the hospitals. In all these four sessions, the respondents were briefed before they completed the questionnaire.

Student Community Engagement Benefits Questionnaire (SCEBQ) developed by Chung and Coates (2016) was used to collect data for the current study. This 32-item questionnaire measures four skill constructs – career, diversity, interpersonal and civic skills. The questionnaire consisted of pre-community engagement and post-community engagement sections, which required only one administration. Respondents were asked to rate themselves before and after community engagement in the areas presented in the questionnaire. The response scales ranged from 1 being "poor" to 5 being "excellent". The questionnaire also sought information on the various types of community engagement activities respondents took part in, via open-ended questions. There were also items on respondents' background information. Data was analysed using both descriptive and inferential statistics such as analysis of variance (ANOVA) and analysis of covariance (ANCOVA). Each of the scale has a Cronbach's alpha reliability of between 0.79 and 0.91, as shown in Table 1.

Table 1: Scale Statistics for Career, Interpersonal, Diversity and Civic Skills

	Scale	Item	Cronbach's Alpha Coefficient for Before Engagement	Cronbach's Alpha Coefficient for After Engagement	Mean(Sd) Before Community Engagement	Mean (Sd) After Community Engagement	Changes
1	Career skill	10	0.89	0.91	3.13 (0.64)	3.91 (0.63)	0.78
2	Diversity skill	8	0.89	0.89	3.31 (0.65)	4.00 (0.60)	0.69
3	Interpersonal skill	8	0.84	0.81	3.35 (0.62)	4.00 (0.57)	0.65
4	Civic skill	6	0.84	0.79	2.97 (0.64)	3.86 (0.66)	0.89

RESULTS AND DISCUSSION

After checking the 191 responses received from four institutions, 40 were discarded because they were incomplete responses. Out of the 151 respondents, 29.8% were male. Close to half of the respondents were between 21 and 23 years old, a quarter between 18 and 20, the remaining were 24 years old or older. Fifty-five percent of respondents participated in voluntary community engagement projects while the others took part in compulsory community engagement projects which was part of their study programs. All of the students surveyed were undergraduates. Some of them were mature aged students with several years of working experience. Nearly half of the respondents surveyed had finished two years of studies.

Close to 40% had 50 hours or less of community engagement experience, 23.2% with 51 to 99 hours, while the remaining clocked 100 hours or more in one academic year. Two third of the students surveyed took part in community engagement activity conducted within the university, while 83.4% had their activities outside the university but within Australia, and 11.9% outside Australia.

Research Question 1 for this study was to investigate the types of activities the respondents took part in. The activities are listed in Table 1. Generally, these activities were either carried out within Australia or overseas. Types of project could be divided into either voluntary activities or as part of their study program. These activities were not listed by the different Institutions as many of them shared some similarities across the four institutions.

Table 2: List of Community Engagement Activities Students Participated In

1	Organising Water Safety Awareness event, targeting international students to build awareness of safety rules, regulations and procedures at Australian beaches.
2	Organising activities and entertainment for the Carlton Neighbourhood Day aimed at providing information on health, education and work to the University's surrounding communities, especially those of Somalian refugee background. Raises funds for Nectar Home, an orphanage in Ghana to ensure their sustainability.
3	Helping disadvantaged youths from the local communities gain job skills and confidence to look for jobs and personal development.
4	Hosting a community radio station at the suburb on a weekly basis in a Chinese community. It involved reporting, gathering community news and interviewing people in the community.
5	Volunteering at a Foundation, taught Grade 5 and 6 students at Richmond West Primary School how to take photographs of the community they live in and how to express their ideas in writing. Also created a program to motivate students at Sunshine College tertiary education. Had several speakers talking about the various fields and opportunities available upon completion of year 12.
6	Volunteering at Northern Hospital, delivered books to patients and had small talks with patients.
7	Devising and executing a week long program of lectures, fairs and workshops in relation to the topic of sustainability. Planned and run events including marketing, finance, manpower planning and public relation.

cont.

8	Establishing "In your shoes" program to educate primary and secondary students regarding sustainability issues. Created sustainability brochure, pamphlet, poster and an event. The event sets up to collect old shoes. Those shoes would then be transported and sold in Kenya and other third world countries in a cheap price.
9	Working to promote healthy eating amongst disadvantaged students in low socio-economic status areas. Ran a self-devised nutrition program for under privileged primary schools to counter problems of childhood obesity in these areas. Gave the school a mobile trolley to make healthy food.
10	Working with Sudanese Australian Integrated Learning (SAIL) and organised excursions to Science Work and the Museum and helped with their tutoring programs.
11	Doing market research, data analysis, examined new business opportunities, made recommendations, prepared and presented a comprehensive report to the senior executives in a Legal Professional Service Firm.
12	Teaching Science in a high school classroom once a week, used my background as a science student to assist them with their class work, leverage my position as a student to add value in some ways such as organising a visit, encouraging them to pursue their interest in schools to higher levels.
13	Teaching Shakespeare texts to the Sudanese teenager communities in Carlton.
14	Implementing a sustainable water treatment system for a community garden near Frankston and installed a drip irrigation system.
15	Building stoves in mud huts in Madagascar under Green Peace project.
16	Teaching and assisting disabled and children with learning difficulties in a primary school.
17	Mentoring first year international students as part of the cross cultural communication process.
18	Taking part in Student Leadership Program, involved in career planning, volunteered at a non-profit organisation.
19	Visiting patients at their homes.
20	Performing nursing duties similar to a Division 1 registered nurse.
21	Attending to patients who come to the hospital for a variety of treatment needs.
22	Clinical placement for nursing course caring for patients in hospital, community health clinic.
23	Carrying out nursing care for dementia patients and patients in a surgical ward.
24	Performing aged care nursing at high dependency care facility, accident and emergency, acute care nursing, day procedure.

Table 3: Analysis of Variance for Career, Diversity, Interpersonal and Civic Skills

Measure: Career Skills

Source		Type III Sum of Squares	df	F	Sig.	Partial Eta Squared, η^2
Time	Sphericity Assumed	45.56	1	355.31	0.00	0.70
	Greenhouse-Geisser	45.56	1	355.31	0.00	0.70
	Huynh-Feldt	45.56	1	355.31	0.00	0.70
	Lower-bound	45.56	1	355.31	0.00	0.70
Error (Time)	Sphericity Assumed	19.23	150			
	Greenhouse-Geisser	19.23	150			
	Huynh-Feldt	19.23	150			
	Lower-bound	19.23	150			

Measure: Diversity Skills

Source		Type III Sum of Squares		df	F	Sig.
Time	Sphericity Assumed	36.25	1	278.43	0.00	0.65
	Greenhouse-Geisser	36.25	1	278.43	0.00	0.65
	Huynh-Feldt	36.25	1	278.43	0.00	0.65
	Lower-bound	36.25	1	278.43	0.00	0.65
Error (Time)	Sphericity Assumed	19.53	150			
	Greenhouse-Geisser	19.53	150			
	Huynh-Feldt	19.53	150			
	Lower-bound	19.53	150			

Measure: Interpersonal Skills

Source		Type III Sum of Squares	df	F	Sig.	Partial Eta Squared, η^2
Time	Sphericity Assumed	32.05	1	267.83	0.00	0.64
	Greenhouse-Geisser	32.05	1	267.83	0.00	0.64
	Huynh-Feldt	32.05	1	267.83	0.00	0.64
	Lower-bound	32.05	1	267.83	0.00	0.64
Error (Time)	Sphericity Assumed	17.95	150			
	Greenhouse-Geisser	17.95	150			
	Huynh-Feldt	17.95	150			
	Lower-bound	17.95	150			

cont.

Measure: Civic Skills						
Source		**Type III Sum of Squares**	**df**	**F**	**Sig.**	**Partial Eta Squared, η²**
Time	Sphericity Assumed	59.46	1	399.56	0.00	0.73
	Greenhouse-Geisser	59.46	1	399.56	0.00	0.73
	Huynh-Feldt	59.46	1	399.56	0.00	0.73
	Lower-bound	59.46	1	399.56	0.00	0.73
Error (Time)	Sphericity Assumed	22.32	150			
	Greenhouse-Geisser	22.32	150			
	Huynh-Feldt	22.32	150			
	Lower-bound	22.32	150			

Research Question 2 was to investigate to what extent university students' skills improved after taking part in community engagement activities. Further analysis using One-way within subject analysis of variance (ANOVA) was conducted to determine whether the respondents perceived any difference in the four skills after the community engagement activity. A paired sample t-test was then conducted to find out if the changes were significant. The results of ANOVA in Table 3 and paired sample t-test shown in Table 4 indicated that the Career, Diversity, Interpersonal and Civic skills scores were significantly higher after the community engagement activities as compared to before the activities ($p < 0.05$). The eta squared statistics of 0.70, 0.65, 0.64 and 0.73 respectively indicated a large effect size. Therefore, it could be concluded that there was a statistically significant increase in Career, Diversity, Interpersonal and Civic skills among the respondents after the community engagement activities.

Table 4: Paired Samples t-test for Career, Diversity, Interpersonal and Civic Skills

	Mean	N	Std. Dev.	Std. Error Mean
Mean Career Skills (before) (MeanCrSb)	3.13	151	0.64	0.05
Mean Career Skills (after) (MeanCrSa)	3.91	151	0.63	0.05
Mean Diversity Skills (before) (MeanDSb)	3.31	151	0.65	0.53
Mean Diversity Skills (after) (MeanDSa)	4.00	151	0.60	0.50
Mean Interpersonal Skills (before) (MeanISb)	3.35	151	0.62	0.05
Mean Interpersonal Skills (after) (MeanISa)	4.00	151	0.57	0.05
Mean Civic Skills (before) (MeanCvSb)	2.97	151	0.64	0.05
Mean Civic Skills (after) (MeanCvSa)	3.86	151	0.66	0.05

Paired Samples Test								
	Mean	Std. Dev.	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
MeanCrSa – MeanCrSb	0.78	0.50	0.04	0.70	0.86	18.85	150.00	0.000
MeanDSa – MeanDSb	0.69	0.51	0.04	0.63	0.79	16.68	150.00	0.000
MeanISa – MeanISb	0.65	0.48	0.04	0.55	0.71	16.36	150.00	0.000
MeanCvSa – MeanCvSb	0.89	0.55	0.04	0.77	0.95	19.99	150.00	0.000

To further address Research Question 2, descriptive analyses and analysis of covariance (ANCOVA) by types of community engagement projects, age groups of respondents, and duration of community engagement were conducted to investigate if there was a significant difference in the four skills after community engagement activities.

Analysis Based on Types of Engagement

The following analysis is to investigate the changes in the four skills based on two types of community engagement projects - compulsory and voluntary. In Career skills, students who participated in compulsory community engagement reported a mean score of 3.22. The mean score after community engagement was 4.00 with an average improvement of 0.88. This is depicted in Table 5. They perceived the highest gain in the area of ability to build contact and networks for future career and ability to cope with challenges. For students who participated in community engagement on a voluntary basis, they reported a mean score of 2.98 before participating

in community engagement and 3.81 after, with a mean gain of 0.83. They perceived the highest gain in readiness for a career, and skills in learning from experience. Statistically, the average gain of between 0.83 and 0.88 do not indicate any significant difference in itself. In order to explore if the changes were statistically significant, further analysis using ANCOVA was conducted. This is discussed in a later section.

With regard to Diversity skills, students who participated in compulsory community engagement reported a mean score of 3.25 in diversity skills before taking part in community engagement and a mean score of 3.85 after the engagement, with a mean gain of 0.60. They reported the highest gain in their ability to adapt to different environments and working cooperatively in groups of people different to them. Conversely, students who participated in voluntary community engagement also reported about the same range mean scores of before and after engagement activities, with a mean gain of 0.75. They perceived the highest gain in working cooperatively in groups of people different from them and understanding cultural differences. The mean scores for Interpersonal skills before community engagement for the voluntary and compulsory projects were quite close, 3.45 and 3.17. Likewise, mean scores for after community engagement for both groups were 4.05 and 3.93 respectively. The mean gains were 0.60 and 0.76 respectively. Both compulsory and voluntary students reported their highest gain in leading a group project followed by their ability to work in teams and understanding themselves. As for civic skills, the mean score for students before taking part in compulsory community engagement projects was 2.65 and 3.78 after the community engagement. They reported an average improvement of 1.02. For students who participated in community engagement on a voluntary basis, the mean score before engagement was 2.88, and after the engagement was 3.85, with an average improvement of 1.10. The areas where the highest gain was recorded for both cohorts were their ability to make a difference in the community and their awareness of issues facing their country.

**Table 5: Summary of Mean Scores and Mean Gain Before and
After Community Engagement for the Four Skills Based on Three
Independent Variables among Respondents**

	Mean Before	Mean After	Mean Gain
Career skills			
Compulsory	3.22	4.00	0.88
Voluntary	2.98	3.81	0.83
100 hours and more	3.14	4.05	0.91
18 to 20 years old	3.08	3.83	0.75
21 to 23 years old	3.15	3.87	0.72
24 years old and more	3.14	4.05	0.91
Diversity skills			
Compulsory	3.25	3.85	0.60
Voluntary	3.25	4.00	0.75
100 hours and more	3.26	4.06	0.80
18 to 20 years old	3.27	3.94	0.67
21 to 23 years old	3.37	4.00	0.63
24 years old and more	3.26	4.06	0.80
Interpersonal skills			
Compulsory	3.45	4.05	0.60
Voluntary	3.17	3.93	0.76
100 hours and more	3.26	4.25	0.99
18 to 20 years old	3.40	3.99	0.59
21 to 23 years old	3.38	3.99	0.61
24 years old and more	3.26	4.25	0.99
Civic skills			
Compulsory	3.10	3.94	0.84
Voluntary	2.80	3.74	0.94
100 hours and more	2.97	4.11	1.14*
18 to 20 years old	2.82	3.78	0.96*
21 to 23 years old	3.00	3.79	0.79*
24 years old and more	3.04	4.06	1.02*

* Mean difference is significant at 0.05 level

From the analysis above, there were two clear observations. First of all, students who participated in community engagement activities on a voluntary basis perceived higher gains in all the four skills constructs compared to the other group. This finding is contrary to findings by Astin, Vogelgesang, Ikeda and Yee (2000) who find students are more likely to achieve desired outcomes when service is performed as part of a course rather than as a separate volunteer activity. Secondly, among the four benefit constructs, students reported higher gains in civic skills. These results

show that students gained more in terms of learning how to contribute to the community, making a difference in other people's live, understanding the issues facing the country and becoming a more civic minded person.

Analysis Based on Age Group of Respondents

The following analysis is to investigate the changes in the four skills based on age groups of respondents. The different age groups were 18 to 20, 21 to 23 and 24 years and more. Generally, the older respondents perceived they had gained more in Career skills compared to the younger respondents, with an average gain of 0.91, compared to 0.72 and 0.75 for the other two groups. Respondents between 18 and 20 years old as well as 21 and 23 years old reported the highest gain in learning from experience, followed by readiness for a career. As for respondents who were 24 years old and more, they reported the highest gain in ability to build contact and networks for future career, followed by ability to cope with challenges. There was an interesting finding among the 18 to 20 years old respondents. They reported higher average item gains compared to the two older age groups, in almost all areas of career skill. This could be due to the excitement of taking part in community engagement, and also the fact that they felt that they had gained much from this engagement activity.

For Diversity Skills, respondents of 24 years old and above perceived the highest gain in the area of ability to adapt to different environments, followed by working cooperatively in groups of people different from them. As for the 21 to 23 years old group, their highest reported gain was relating to people from different background and ability to adapt to different environment. As the youngest group, the gain was mostly in the area of tolerance of others' differences and knowledge of different culture. This is so perhaps because it was their first opportunity to be exposed to people of different cultures. As for Interpersonal Skills, respondents between 18 and 20 years old had the highest gain in understanding themselves. As for respondents between 21 and 23 years and 24 years old and above, they reported the highest gain in leading a group project. This suggests that students who reported improvement in ability to lead a group was related to their age group; more matured students perceived they have gained more in leadership skill. For Civic Skills, respondents between 21 and 23 reported

the highest gain in their awareness of issues facing their country. As for the other two age groups, they reported the highest gain in their ability to make a difference in the community.

In summary, respondents of 24 years and above perceived higher gain in all four skills constructs compared to the other age groups. In terms of skill constructs, respondents between 18 and 20 years old perceived the highest gain in the area of civic skills. This group of respondents is in their early tertiary education years and is excited about community engagement and is keen in helping others in need. As for respondents between 21 and 23 years old, they perceived the highest gain in the area of career skills. This could be due to the fact that this group of students is preparing themselves to start a career soon, thus viewing community engagement as a pathway to prepare them for a career. As for respondents of 24 years and above, they reported the highest mean gain in civic skills. This could be due to the possibility that they are preparing to enter the working world, with some who already had prior work experience, and are looking at creating changes in the community, thus they found that community engagement activities helped them to be more aware of what they could do.

Analysis Based on Duration of Community Engagement

The following analysis is to investigate the changes in the four skills based on duration of community engagement. The analysis concentrates only on the engagement duration of 100 and more hours, as this group of respondents reported higher gains in all the four benefit constructs. For career skills, respondents reported mean gains of between 0.62 and 1.20. The most notable gain areas were in their ability to build contact and networks for future career, their readiness for career, their capacity to enhance résumé, skills in learning from experience and ability to cope with challenges. For Diversity skills, respondents who clocked 100 or more hours reported the highest gain in working cooperatively in groups of people different from them, followed by the ability to adapt to different environments and relating to people from a wide range of backgrounds. The gains were between 0.65 and 1.07, with a mean gain of 0.81. As for interpersonal skills, respondents who clocked 100 or more hours reported gains between 0.76 and 1.17, with a mean gain of 0.88. The highest mean gain was in leading a group project,

followed by understanding themselves, and ability to work in teams. For civic skills, respondents reported mean gain of above 1.00 for most items, except for understanding problems facing this country. In this civic skills construct, respondents reported the highest gain in their ability to make a difference in other people's lives.

In summary, respondents who spent 100 hours and more in community engagement in an academic year recorded higher gains, in all four benefit constructs, compared to respondents who spent 51 to 99 hours, and 50 hours or less. This is supported by Eyler and Giles (1997) who held duration of community engagement as one of the key variables in determining the benefits for students. Irrespective of the number of hours spent on community engagement, respondents reported the highest gain in civic skills.

Effects of Types of Projects, Age Groups and Duration of Engagement on the Four Skills

A one-way between-groups analysis of covariance (ANCOVA) was conducted to compare the effects of the types of projects, age groups and duration of engagement for 'after community engagement' on the four skills. Respondents' 'before community engagement' scores for the four benefit constructs were used as the covariate in this analysis, and is therefore controlled. Preliminary checks were conducted to ensure that there was no violation of the assumption of normality, linearity, homogeneity of variances, homogeneity of regression slopes and reliable measurement of covariate. After adjusting for 'before community engagement' Career skill scores, it was found there was no significant difference between compulsory and voluntary community engagement projects on 'after community engagement' scores, with $F(1, 147) = 0.38$, $p = 0.68$; Diversity skills, with $F(1, 147) = 0.72$, $p = 0.49$; Interpersonal Skills, with $F(1, 147) = 0.34$, $p = 0.71$, and Civic Skills, with $F(1, 147) = 0.39$, $p = 0.96$. This showed that different types of projects did not have any effect on difference between before and after engagement scores in the four skills constructs. This suggests that although students who participated in voluntary community engagement reported higher gains, the gains between these two types of projects were not significantly different for all the four skills. However, analysis by age group showed that there was a statistically significant difference between

before and after community engagement in Civic skills, with $F_{(2, 147)} = 3.34$, $p < 0.05$. On the contrary, there was no significant difference between the different age groups in Career Skills after community engagement, $F_{(2, 147)} = 2.22$, $p = 0.11$; Diversity Skills, $F_{(2, 147)} = 1.74$, $p = 0.18$; and Interpersonal Skills, $F_{(2, 147)} = 1.63$, $p = 0.20$. Further to that, analysis by engagement durations also showed that there was a significant difference in Career skills after community engagement, $F_{(2, 147)} = 10.59$, $p < 0.05$; Interpersonal skills, $F_{(2, 147)} = 10.43$, $p < 0.05$; Civic Skills, $F_{(2, 147)} = 15.76$, $p < 0.05$. But, no significant difference was found for Diversity skills after community engagement, $F_{(2, 147)} = 1.68$, $p = 0.65$.

DISCUSSION AND CONCLUSION

A search in literature yielded limited documentations on the specific activities carried out as part of community engagement among university students. The findings in this study have successfully contributed to this scarce pool of knowledge in the literature. The community engagement activities carried out by university students in Australia could be divided into voluntary project and compulsory project. By incorporating demographic background and contextual characteristics, analyses found that students who are 24 years old or more, who have spent 100 and more hours in voluntary community engagement activities have their perceived highest gain in all four benefit constructs. This finding supports the findings by Gray, Ondaatje and Fricker (2000) where students over the age of 25, who had spent more than 20 hours showed greater improvement from engaging with community. However, their finding that students whose engagement activity was part of a course gained greater improvement was not supported in this study. When a comparison was made on the four skills constructs, it was found that respondents, regardless of their demographic backgrounds, perceived higher gain in civic skill, followed by career skills. Further analyses showed that the mean gain after the engagement in all the four benefit constructs did not show any statistically significant difference when it was analysed by types of engagement (compulsory and voluntary). However, when data was analysed by age groups, the mean gain after engagement for Civic skills showed a statistical significant difference. There was also statistically significant differences between the amount of the time spent on community engagement on Career Skills, Interpersonal Skills, and Civic Skills after community engagement.

Career skills construct has emerged as one of the most significant skill constructs in this study. Apart from having the potential to integrate university with its community, community engagement activities also help prepare students for careers (Gray, Ondaatje & Fricker, 2000). The result of this analysis confirms the claim in literature that community engagement activities indeed prepare students for career through the gaining and enhancement of their career skills. This skill construct is made up of non-technical skills acquired or enhanced during the community engagement activities. They include a host of knowledge, skills, ability and understanding students have gained, or improved, in relation to preparing themselves to kick start their career. With employers becoming increasingly more demanding of graduates to meet the challenges of a job these days, students who have equipped themselves with career skills have the advantage over others in securing a job. It is also desirable to have graduates who have career skills even before they step out into the employment market. These skills revolve around students' ability to make use of what they have experienced and learned during the engagement activities to build contacts and network for their future career. These skills also enhance students' understanding of what their potential future career expect of them. Through students' interaction with the world beyond the four walls of the university where they gain most of their theoretical knowledge, engaging with the community has provided them with an opportunity to translate that knowledge into practice. It is clear from this study that some students perceived to have these career skills prior to community engagement activities; engaging with community have enhanced or improved these skills.

Diversity skills construct in this study focuses on students' ability to understand and deal with people from different ethnic backgrounds, ability to adapt to different environments; knowing, understanding and respecting different cultures; respecting and tolerating difference among people. The finding in this study suggests that students perceive that they have gained benefits in this aspect of their lives as a result of community engagement, albeit to a lesser extent compared to career skills. The finding above is confirmed by Blyth (1997) and Yates and Youniss (1996), that community engagement influences students' understanding of and attitudes toward diverse groups in society. As a result of migration and globalisation, demographic landscapes in some countries across the world are constantly evolving. The same phenomenon applies to higher education and workplace

in general. As such, diversity skills are becoming increasingly important in every aspect of a student's life. Such skills equip students with an added advantage to be mobile, to be adaptable in different cultural settings, and to be a global citizen. Students in the current study have indicated that student community engagement activities have provided an avenue for them to improve their diversity skills. Engaging with people from an unfamiliar culture presents students with the challenges and opportunities to interact with people whose experiences and perspectives differ from their own. Ultimately they can develop a sense of community with people whom they come in contact with, and gain an insight of the issue that drive their lives. They can see and act on the problems these communities face, engage in dialogues and find ways to mitigate, if not help solve problems encountered by the people most affected by the issues. Along the way, they might question why the problems exist. Through this process, they begin to see how theories that they learn apply to real-world issues and to recognise the interdisciplinary nature of problems and solutions.

Interpersonal skills are perhaps among the most desirable skills to be acquired by every student. It is the basic skills needed in their day-to-day interaction with others. From a search through the literature, researchers have various definitions of interpersonal skills. Some of the researchers use the term interpersonal skills as a construct with several items under this heading (e.g. Toncar et al., 2006), while Astin and Sax (1998) see interpersonal skill as communication skill, an item that constitute 'life skills' construct. Regardless of how interpersonal skill is grouped, defined or interpreted by various researchers, it all boils down to the same concept – skills needed to get along with others on a day-to-day basis, and to work with others in a productive manner. In this study, interpersonal skills construct covers communication skills, ability to work in teams, getting along with others, being trusted by others, leadership skills, critical thinking skills and ability to build a caring relationship. The findings in the study are supported by Gray, Ondaatje and Fricker (2000) who find that students who engaged in community engagement in the form of service-learning perceived an increase in their current or expected level of involvement in community affairs. They also find students felt that they had improved in their life skills, particularly skills at dealing with other people. Respondents in this study in general showed the least gain in this construct, regardless of being analysed by age groups, types of engagement, or by duration of engagement.

One plausible explanation for this finding is that students who took part in community engagement had a relatively high level of interpersonal skills to begin with, therefore perceived little gain, compared to other skill constructs. It is noted that since there was no control group designed for the current study, the explanation above is still open to various possible explanations. To substantiate the plausible reason highlighted above, an examination of the mean score for 'before community engagement' was carried out. It showed that students indeed self-reported higher interpersonal skills compared to the other three skill constructs.

Civic skills appeared to be the beneficial outcome in which students have perceived the highest gain in the current study. By comparing the mean scores, students reported the highest gain in this area compared to the other three constructs. Civic skills construct is the only construct that appeared constantly and consistently in every single literature on outcomes of community engagement involving students. Civic skills in this study captured students' awareness and understanding of the issues facing this country, their ability to make a difference in other peoples' lives, sensitivity to the plights of others and serving people in need. Students who participate in community engagement on a voluntary basis tend to report higher gains in all these areas. So do students who have spent 100 and more hours in engagement, and students who are 24 years old and above.

In the United States of America, one of the explicit goals of student community engagement was to create a nation that is civic-minded. Although there were no uniformed goals for student community engagement among Australian universities thus far, the study has found that students perceived they have gained the most in the area of civic skills. Student community engagement in Australian higher education has also produced one of the common outcomes similar to students attending American higher education.

The potential connections between community engagement and personal outcomes can be mapped using Eyler and Giles (1999) theoretical discussion. First, while engaging in community engagement, students may meet people from other cultures or with differing points of view. Making sense out of these new experiences can help students develop greater self-awareness and appreciation of and tolerance of others. Another major function of community engagement may be to provide students with a greater

understanding of the world, the diverse people with whom they work, and, ultimately, themselves (Eyler & Giles, 1999). This is covered in diversity skills in the present study. Second, community engagement activities may help students to develop relationships with external coordinators, site supervisors, faculty, and other students. These relationships can increase students' feelings of connection to community, which can encourage them to become more civic-minded and more concerned about social justice. Students become more aware of a variety of issues and more confident in their own ability to act and make a difference. The above outcomes are covered in civic skills. Finally, with their exposure to people from all walks of lives, and working together in groups of peers from different background, students enhance their interpersonal skills, teamwork spirit, communication skills and their leadership skills.

As with all studies, the findings and limitations when put together create opportunities for future research ideas. Given the many experiences gained over a student's lifetime, it is likely to affect his/her intention to help others; a mere 100 hours in an academic year embedded in a student's lifetime is a relatively minor thing. One question that arises is whether this impact will recede quickly. Future studies could look into the longitudinal research by investigating the effect of the experience on students' intention a year or two later. Also, data in this study was collected only using questionnaire. It is suggested that future research could look into combining journal entries from respondents to complement the use of questionnaire as a data collection method. Journal entry is an important part of community engagement and it serves as a way for students to reflect upon what they have learnt. The act of reflection itself could help students to realise and internalise what they have learned through service-learning. Also, students reported an increase in the career skills, civic skills, diversity skills and interpersonal skills. These skills include a host of knowledge, abilities and understanding, to varying extend. But what exactly do they know and 'how much' they know about the above issues remained unknown. Future research might combine the use of the SCEBQ with other forms of inquiry such as group reflection, journal entry and in-depth interviews to further enhance the triangulation in order to elicit a more comprehensive picture of student community engagement experience in contemporary Australian higher education. Lastly, much of the literature in this area is dated. This is due to the fact that student community engagement in its various forms has

been a well-researched topic in the context of higher education in United States since the 1990s. However, this area remains under-explored in the context of Australian higher education. Future research can be conducted in other countries where student community engagement is often practiced but its benefits not measured.

REFERENCES

Astin, A. W., & Sax, L. J. (1998). How undergraduates are affected by service participation. *Journal of College Student Development, 39*(3), 251-263.

Astin, A. W., Vogelgesang, L. J., Ikeda, E. K., & Yee, J. A. (2000). *How service-learning affects student*. Los Angeles: University of California.

AUCEA (2001). Australian Universities Community Engagement Alliance. Retrieved from http://www.aucea.org.au/about/

Australian Catholic University (2017). Retrieved on April 3, 2018 from http://www.acu.edu.auabout_acu/community_engagement/ce_at_acu/definition/

Blyth, D. A. (1997). A quantitative study of the impact of service-learning programs (pp. 39-56). In A. S. Waterman (Ed.). *Service-learning: Application from the research*. Mahwah, NJ: Lawrence Erlbaum Associates.

Boyer, E. L. (1990). Scholarship reconsidered: Priorities of the professoriate. *The Carnegie Foundation for Advancement of Teaching*. Willey: Jossey Bass.

Chung, E., & Coates, H. (2016). A Journey to measure student community engagement benefits: Evidence from Australia. *International Journal of Service Management and Sustainability*, *1*(1), 16-36.

Duke, C. (2004). Is there an Australian idea of a university? *Journal of Higher Education Policy and Management, 26*(3), 297-314.

Eyler, J., & Giles, D. E. Jr. (1999). *Where is the learning in service-learning?* San Francisco: Jossey-Bass.

Eyler, J., Giles, D. E. Jr., & Braxton, J. (1997). The impact of service-learning on college students. *Michigan Journal of Community Service-Learning, 4*, 5-15.

Eyler, J. S., Giles, D. E. Jr, Stenson, C. M., & Gray, C. J. (2001). *At a glance: What we know about the effects of service-learning on college student, faculty, institutions and communities, 1993-2000*. Vanderbilt University.

Friedman, S. D. (1996). Community involvement projects in Wharton's MBA curriculum. *Journal of Business Ethics, 15*, 95-101.

Govekar, M. A., & Rishi, M. (2007). Service-learning: Bringing real-world education into the B-School classroom. *Journal of Education for Business, 83*(1), 3-10.

Gray, M. J., Ondaatje, E. H., & Fricker, R. D. (2000). Assessing service-learning: Results from a survery of "Learn and Serve America, Higher Education". *Change, 32*(2), 30-39.

Hall, P. (2010). Community engagement in South African higher education. *Kogisano (6)*, 3-53 South African Council on Higher Education.

Maurrassee, D. (2001). *Beyond the campus: How colleges and universities form partnership with their communities.* New York: Routledge.

Moore, K. P., & Sandholtz, J. H. (1999). Designing successful service-learning projects for urban schools. *Urban Education, 34*, 480-498.

McCarthy, A. M., & Tucker, M. L. (2002). Encouraging community service through service-learning. *Journal of Management Education, 26*(6), 629-647.

Ostrander, S. A. (2004). Democracy, civic participation, and the university: A comparative study of civic engagement on five campuses. *Non Profit and Voluntary Sector Quarterly, 33*(1), 74-93.

Lester, S., Tomkovick, C., Wells, T., Flunker, L., & Kickul, J. (2005). Does service learning ad value? Examining the perspectives of multiple stakeholders. *Academy of Management Learning and Education, 4*(3), 278-294.

Leung, K., Liu, W., Wang, C., & Chen, C. (2006). Factors affecting students' evaluation in a community service-learning Program. *Advance Health Science Theory Practice, 12*(4), 475-490.

Primavera, J. (1999). The unintended consequences of volunteerism: Positive outcomes for those who serve. *Journal of Prevention & Intervention in the Community, 18*(1/2), 125-140.

Rama, D. V., Ravenscroft, S. P., Wolcott, S. K., & Zlotkowski, E. (2000). Service-learning outcomes: Guidelines for educators and researchers. *Issues in Accounting Education, 15*(4), 657-692.

Roschelle, A. R., Turpin, J., & Elias, R. (2000). Who learns from service learning? *American Behavioral Scientist, 43*, 839-847.

Royal Melbourne Institute of Technology (2017). Retrieved May 1, 2018 from http://www.rmit.edu.au/browse/Our%20Organisation%2FDesign%20 and%20Social%20Context%2FSchools%20and%20 groups%2FRMIT%20Hamilton%2FCommunity%20engagemen/

The University of Melbourne (2017). *Strategic plan*. Parkville: The University of Melbourne.

Toncar, M. F., Reid, J. S., Burns, D. J., Anderson, C. E., & Nguyen, H. P. (2006). Uniform assessment of the benefits of service-learning: The development, evaluation, and implementation of the SELEB Scale. *Journal of Marketing Theory and Practice, 14*(3), 223-238.

Tucker, M. L., McCarthy, A. M., Hoxmeier, J. A., & Lenk, M. M. (1998). Community service learning increases communication skills across the business curriculum. *Business Communication Quarterly, 61*(2), 88-99.

Vogelgesang, L. J., & Astin, A. W. (2000). Comparing the effects of community service and service-learning. *Michigan Journal of Community Service, 7*, 25-34.

Yates, M., & Youniss, J. (1996). Community service and political-moral identity in adolescents. *Journal of Research in Adolescence, 6*(3), *271-284.*