The Impact of Service-Learning (SULAM) On Civic Attitudes and Skills of Uthm Students

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Abstract

Service-Learning Malaysia – University for Society (SULAM) is a teaching pedagogy that combines academic learning with meaningful community service. This study aims to identify the effect of the service-learning program (SULAM) on the attitudes and civic skills of UTHM students. The objectives include assessing students' attitudes and civic skills before and after participating in the program and analyzing the differences that exist. A quantitative survey design was employed, utilizing pre-test and post-test to measure attitudes and civic skills changes. In this study, students taking the Sociology of Education course from the Faculty of Technical and Vocational Education participated. The Civic Attitude and Skills Questionnaire (CASQ) was used as a measuring tool. The findings reveal that after participating in the SULAM program, students' attitudes and civic knowledge significantly improved. This study demonstrates that service learning (SULAM) effectively enhances students' attitudes and civic skills, contributing to the holistic development of students and providing empirical evidence to support the integration of theoretical learning with practical applications in higher education.

1. Introduction

SULAM (Service-Learning Malaysia University for Society) is an initiative by the Ministry of Education to support Shift 1 of the Malaysia Education Blueprint 2015-2025 (Higher Education). According to the Department of Higher Education Malaysia (2019), SULAM integrates course materials with community service, enabling students to apply their academic knowledge to address local issues. Service-learning is a form of experiential education that enhances students' understanding of concepts and theories in real-world contexts (Salam et al., 2019). This approach is distinguished by its strong academic connection and complementary nature, providing benefits for all participants.

Universiti Tun Hussein Onn Malaysia (UTHM), established in 1993 and located in Johor, Malaysia, is known for its focus on engineering, technology, and technical education. UTHM aims to produce graduates who are not only technically skilled but also socially responsible. The university's mission includes fostering well-rounded individuals with strong civic and ethical values. To achieve this, UTHM integrates service-learning programs like SULAM into its curriculum to enrich students' learning experiences and promote holistic education.

UTHM students come from diverse backgrounds and disciplines, particularly in engineering, technology, and technical education. They engage in rigorous academic programs that blend theoretical knowledge with practical application. Recognizing the importance of developing socially responsible and community-oriented graduates, UTHM incorporates service-learning into its curriculum to enhance students' civic attitudes and skills.

Through SULAM, students are encouraged to apply their academic knowledge in real-world situations that require problem-solving and community interaction.

Civic attitudes involve qualities and abilities that empower individuals to actively engage with and contribute to their communities (Rico-Bordera et al., 2023; Alam et al., 2023). These include a sense of social responsibility, awareness of political processes, and a commitment to social justice and equity. Developing these attitudes fosters a sense of responsibility for the common good, promotes empathy, and encourages an understanding of diverse perspectives (Barry & Twill, 2017; Huda et al., 2018; Meadows, 2023). Civic skills, such as effective communication, critical thinking, leadership, teamwork, and problem-solving, are also essential for addressing community issues and supporting positive social change (Hebert & Hauf, 2015; Syarofa & Isnawati, 2022).

The study titled "The Impact of Service-Learning (SULAM) on UTHM Students' Civic Attitudes and Skills" aims to evaluate how SULAM affects students' civic attitudes and skills. By examining its impact on students' sense of social responsibility, civic engagement, and practical skills, the research seeks to provide insights into the effectiveness of integrated service-learning programs in higher education. The findings are expected to inform educational practices and policies that promote civic thinking and community involvement, contributing to the holistic development of future professionals who are both technically proficient and socially responsible, in line with UTHM's mission and vision.

1.1 Problem Statement

Service-learning is an effective pedagogical approach that integrates community service with teaching and reflection to enhance students' educational experiences, foster civic responsibility, and strengthen communities. Previous research suggests that service-learning positively impacts students' attitudes towards civic engagement and improves their civic skills. The Civic Attitudes and Skills Questionnaire (CASQ) has been developed to measure these effects accurately, assessing dimensions such as civic actions, interpersonal skills, problem-solving, political awareness, leadership skills, social justice attitudes, and appreciation for diversity.

However, without thorough empirical research, the perceived benefits of service-learning remain unverified, making it challenging to design effective programs. At Universiti Tun Hussein Onn Malaysia (UTHM), the specific effects of service-learning on students' civic attitudes and skills have not been extensively investigated. This study aims to address this gap by using CASQ to systematically evaluate the impact of service-learning on UTHM students. Focused on the Faculty of Technical and Vocational Education (FPTV), particularly in sociology courses, the research will provide valuable insights into how service-learning affects students' civic engagement and skills, ultimately contributing to the development of more effective service-learning programs and enhancing students' overall educational outcomes.

2. Literature Review

2.1 Service Learning

Service-learning in education has evolved through the contributions of influential educators like John Dewey, Paulo Freire, David A. Kolb, and Ernest Boyer, who emphasized the benefits of "learning by doing" (Mamat et al., 2019; Rybing, 2018). Dewey's progressive education movement, which valued experiential learning, and the Civil Rights Movement's focus on civic engagement laid the groundwork for service-learning. This approach gained traction in the 1960s and 1970s as universities began integrating community service with academic learning, coining the term "service-learning" and reflecting a global adaptation of experiential education (Gee & Johnson, 2023; Kenny & Gallagher, 2002).

The Service-Learning Malaysia (SULAM) initiative highlights a growing global emphasis on high-impact teaching strategies such as service-learning, which has seen increased adoption in recent years (Celio et al., 2011; Xu et al., 2019). This approach is part of a broader educational trend where institutions continually evaluate and refine their practices to enhance effectiveness and acknowledge the benefits of integrating community service with academic learning (Taylor, 2017; Yusof et al., 2020).

In alignment with Malaysia's national educational goals to boost graduate employability, the SULAM program has been incorporated into the country's educational framework (Pelan Pendidikan Malaysia, 2015–2025). It represents the "third mission" of higher education institutions and is guided by national guidelines that universities adapt to fit their specific contexts (Jabatan Pengajian Tinggi, 2019; Mackenzie et al., 2019). This ensures that service-learning remains dynamic and relevant across diverse settings.

SULAM integrates academic content with practical community service, creating a holistic and mutually beneficial experience. The approach combines structured academic activities with community engagement, critical reflection, and meaningful service, involving faculty, students, and community partners (Gang et al., 2020; Kementerian Pendidikan Malaysia, 2015). This model aims to balance learning outcomes with community impact, enhancing both educational and civic engagement.

2.2 Civic Attitudes and Skills

Service-learning has a substantial positive impact on students' civic attitudes and abilities, leading to a variety of advantageous results. As students get more involved with societal concerns and grow in their understanding of their place in the community, it promotes greater empathy, social responsibility, and community awareness (Huda et al., 2018; Salam et al., 2019). Students' civic involvement and personal development are enhanced when they engage in service-learning because it gives them a better knowledge of personal responsibility and community needs (Bringle et al., 2023; Gerholz & Klingsieck, 2018). Through critical contemplation of one's own ideals and societal challenges, this experiential approach fosters a more complete sense of self and boosts confidence.

Service-learning fosters critical thinking, problem-solving, public speaking, cooperation, and civic attitudes in addition to these vital civic skills (Gul et al., 2022; Solomon & Tan, 2021). Through real-world challenges and group projects, it helps students to grow as leaders and those who please others (Ngai et al., 2018; Bringle et al., 2023). Further evidence of the benefits of service-learning beyond civic participation comes from studies linking it to increased academic achievement and school attendance (Wilson, 2022; Rafzan et al., 2022). The development of these abilities is maximized when service-learning is incorporated into curricula, preparing students for successful careers and active citizenry (Saavedra et al., 2022).

3. Methodology

3.1 Research Design

To assess the impact of service learning (SULAM) on students' civic attitudes and skills at Universiti Tun Hussein Onn Malaysia (UTHM), the study used a pre-test and post-test design within a single group. To place the current study within the framework of existing knowledge, the research entails a thorough assessment of the body of literature to identify patterns, trends, and gaps. The research objectives and methodology are developed with the help of this literature review.

Using the Civic Attitude and Skill Questionnaire (CASQ), developed by Moely et al. (2002b), the quasi-experimental design assesses students' civic attitudes and skills both before and after they participate in a service-learning program. Using SPSS Version 25, data from pre- and post-tests are evaluated to determine changes that can be attributed to the service-learning intervention and to provide empirical support for its effectiveness.

3.2 Research Population and Sample

The study focuses on students enrolled in the Bachelor of Vocational Education (ISMPV) program at the Faculty of Technical and Vocational Education, Universiti Tun Hussein Onn Malaysia (UTHM). The population for this study comprises 137 students actively participating in the Sociology of Education (BBD30502) course, which incorporates service-learning (SULAM). A sample of 54 undergraduate students is chosen based on their engagement with SULAM activities, ensuring the collection of relevant and valid data for pre-test and post-test analysis (Othman, 2013; Mweshi & Sakyi, 2020; Anugraheni et al., 2023). The sample size is determined using Slovin's Formula below, with an estimated size of 57 based on a 10% margin of error. However, selecting 54 students is deemed acceptable due to the study's context and objectives, as minor deviations in sample size do not significantly affect the study's validity (Morgan, 1970). The non-probabilistic sampling method, based on specific criteria rather than random selection, is appropriate for the study's objectives (Mweshi & Sakyi, 2020; Anugraheni et al., 2023).

$$n = \frac{N}{1 + Ne^2}$$

(1)

$$n = \frac{137}{1 + 137\,(0.1)^2}]$$
$$n = \approx 57.8$$

(2)

4. Result and Analysis

4.1 Mean and Standard Deviation of Pre-Test and Post-Test

Table 1 shows, the pre-test and post-test scores for Civic Engagement, Interpersonal Skills, Leadership Skills, Social Justice Attitudes, and Diversity Attitudes were moderate. In the post-test, scores for Civic Engagement, Interpersonal Skills, and Political Awareness were high, while Leadership Skills, Social Justice Attitudes, and Diversity Attitudes showed moderate scores.

Table 1 *Mean and standard deviation of pre-test and post-test*

Variables	Mean		Standard Deviation	
	Pre-test	Post-test	Pre-test	Post-test
Civic Action	3.294	3.699	.627	.333
Interpersonal Skill	3.276	3.715	.616	.315
Political Awareness	3.948	3.559	.656	.427
Leadership Skill	2.941	3.474	.532	.423
Social Justice Attitudes	2.699	2.982	.502	.667
Diversity Attitude	2.785	3.052	.565	.658

4.2 Paired Sample T-test for Pre and Post-Test Analysis

Analytical inference for pre and post-tests involves employing statistical techniques to determine significant changes in test scores before (pre) and after (post) an intervention. This approach is essential for assessing the effectiveness of a program, intervention, or treatment by comparing scores at two distinct points in time. By analyzing these changes, researchers can conclude the impact of the intervention, evaluating whether the observed differences are statistically significant. This method provides valuable insights into the effectiveness of the intervention and informs decisions for future improvements or adjustments.

Table 2 *T-test for pre and post-test*

Pre and Post-test	Paired sample t-test		
	t	df	Sig
Civic Action	-4.754	53	<0.001
Interpersonal Skill	-5.016	53	<0.001
Political Awareness	-6.510	53	<0.001
Leadership Skill	-6.367	53	<0.001
Social Justice Attitudes	-2.838	53	.006
Diversity Attitude	-2.528	53	.014

Table 2 shows the paired t-test analyses demonstrate significant improvements across various dimensions following the intervention. Specifically, there were notable increases in Civic Action, Interpersonal Skills, Political Awareness, and Leadership Skills, with all changes being statistically significant (p < 0.001). These results validate the hypothesis that the intervention positively influenced these areas. Additionally, while improvements in Social Justice Attitudes and Diversity Attitudes were also statistically significant, the magnitude of change was smaller (p = 0.006 and p = 0.014, respectively), suggesting that although the intervention had a positive effect, further strategies may be needed for more substantial improvements in these areas.

Table 3 *Paired samples statistics t-test for overall pre and post-test*

Paired Samples Statistics					Significant, p
Pre and Post Test	Mean	Standard Deviation	T	df	*Two-sided*
Total	2.53688	2.91139	6.403	53	<0.001

The paired sample t-test results in Table 3 show a statistically significant difference between the pre-test and post-test scores. On average, scores increased by 2.54 points from the pre-test to the post-test. The standard deviation of the differences was 2.91, and the standard error of the mean difference was 0.40. The t-value was 6.40 with 53 degrees of freedom, corresponding to a p-value of .000 (two-tailed), indicating that this difference is highly unlikely to have occurred by chance. This statistical significance highlights a meaningful change between the two assessment points.

In conclusion, the results indicate a statistically significant improvement in scores from the pre-test to the post-test. This suggests that the intervention or treatment implemented between the two measurements had a positive effect on the outcomes measured, leading to higher scores after the intervention.

5. Discussion and Conclusion

5.1 The Level of Attitude and Civic Skills of UTHM Students Before Joining Service-Learning Program (SULAM).

UTHM students exhibited low levels of civic attitudes and skills before participating in the SULAM service-learning program. They showed limited engagement in activities that foster positive civic behaviors and lacked the necessary skills for fulfilling civic responsibilities. Niewiadomski et al. (2023) discovered in a similar manner that students were not very involved in service-learning initiatives that encouraged civic engagement. The absence of well-structured programs meant to improve civic attitudes and skills, time constraints in the classroom, and limited exposure to community work are all contributing factors (Till et al., 2022). Furthermore, a lot of the time, students did not understand the value of civic attitudes for their everyday lives and their future responsibilities as responsible citizens (Indriyani et al., 2023). The disconnect between academic theory and real-world application (Moore, 2021) and insufficient institutional support (Roberts & Hernandez, 2022) also contributed to these low levels. These issues highlight the urgent need for more effective civic education interventions, including engaging programs and improved integration of academic learning with practical experience, to enhance students' civic attitudes and skills.

5.2 The Level of Attitude and Civic Skills of UTHM Students After Joining Service-Learning Program (SULAM).

The SULAM program at UTHM has significantly improved students' civic attitudes and skills. By interacting directly with the community and applying their knowledge in practical settings, students gained confidence, empathy, and initiative in addressing community issues. The program effectively enhanced not only civic attitudes but also key soft skills such as problem-solving, teamwork, leadership, and communication (Rahim et al., 2023). Research indicates that such service-learning activities foster learning, cultural experience, and civic engagement (Rahim et al., 2023). Participants are also more likely to engage in future civic activities, showing long-term benefits (Johnson et al., 2022). Additionally, students developed a better understanding of diversity and inclusion through community interactions, which is crucial in Malaysia's multicultural context (Lee et al., 2021). The program also helped link academic learning with real-world applications, boosting students' motivation and interest in their studies (Campbell & Oswald, 2020). In summary, the SULAM program significantly impacts UTHM students by enhancing civic engagement and soft skills, demonstrating its effectiveness as a tool for developing responsible and skilled citizens.

5.3 Differences in Attitudes and Civic Skills Among UTHM Students Before and After the Service-Learning Program (SULAM).

The study reveals significant differences in student participation in service-learning activities and the observed changes in their civic attitudes and skills. Active participation in the SULAM program leads to greater improvements in these areas (Rahim et al., 2023; Marave et al., 2022). Students who engaged more frequently and actively in SULAM activities experienced more substantial positive changes, likely due to deeper exposure to critical thinking, problem-solving, and collaboration (Ningrum & Muthali'in, 2023). Conversely, students with lower involvement showed less noticeable improvement, indicating that the program's effectiveness is closely tied to the level of student commitment. Greater improvements in leadership, problem-solving, and teamwork skills were demonstrated by those who actively participated in the planning and execution of community service projects (Smith et al., 2021). Furthermore, because their engagement was more serious and active, students who had a positive attitude regarding the benefits of service-learning demonstrated more notable changes (Shuhei & Jitosho 2020). The program's performance was also impacted by outside variables, such as peer and instructor support, which increased student motivation and involvement (Jabor, & Hamid, 2019). In conclusion, students' civic attitudes and abilities are greatly impacted by the level of their involvement in SULAM. The program's success depends on active and consistent student involvement and their perception of the program's value, highlighting the need for strong institutional support and meaningful engagement opportunities.

6. Conclusion

The conclusions drawn in this section are based on a thorough analysis of the research objectives. Each conclusion aligns with the specific objectives outlined in the study, providing a detailed and comprehensive understanding of the findings. The study highlights significant improvements in students' civic attitudes and skills because of their participation in the SULAM program. This includes increased confidence in civic responsibilities, enhanced empathy towards community needs, and a proactive approach to solving community problems. The program has also effectively developed critical soft skills such as leadership, communication, teamwork, and problem-solving. As a result, the findings' applicability is restricted to this specific setting and set of participants, and any broad conclusions should be applied with caution. The study concludes that the SULAM program is very effective in assisting UTHM students to develop critical soft skills and improve their civic attitudes. The program's successes in these domains highlight how valuable it is as an experiential learning tool. These findings, however, are limited to the study context and participants; more research would be helpful to validate these conclusions in other contexts and with a wider spectrum of respondents.

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Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

Author Contribution

Nurul Izzati Aisyah is responsible for the following: study conception and design, data collection and manuscript preparation, meanwhile Maziana is responsible for the analysis and interpretation of results.

References

Alam, I., Ramirez, K., Semsar, K., & Corwin, L. A. (2023). Predictors of scientific civic engagement (PSCE) survey: a multidimensional instrument to measure undergraduates' attitudes, knowledge, and intention to engage with the community using their science skills. CBE—Life Sciences Education, 22(1), ar3.

Anugraheni, T. D., Izzah, L., & Hadi, M. S. (2023). Increasing the students' speaking ability through role-playing with Slovin's Formula Sample Size. Jurnal Studi Guru Dan Pembelajaran, 6(3), 262-272.

Barry, M., Lowe, L. A., & Twill, S. (2017). Academic librarians' attitudes about civic-mindedness and service learning. The Library Quarterly, 87(1), 1-16.

Bringle, R. G., Hatcher, J. A., & Jones, S. G. (Eds.). (2023). International service learning: Conceptual frameworks and research. Taylor & Francis.

Celio, C. I., Durlak, J., & Dymnicki, A. (2011). A meta-analysis of the impact of service-learning on students. Journal of experiential education, 34(2), 164-181.

Gee, M. N., & Johnson, S. K. (2023). Why do young people engage in some civic actions and not others? Exploring the roles of individual and collective civic efficacy. Journal of Community & Applied Social Psychology, 33(2), 356-373.

Green, P. M., & Johnson, M. (Eds.). (2023). Crossing boundaries: Tension and transformation in international service-learning. Taylor & Francis.

Gang, G. C. A., Hashmi, S. I., & Seok, C. B. (2020). Perceiving the Importance Of Job-Related Skills In The 4th Industrial Revolution Era From The Perspectives Of Graduates And Employers. International Journal of Advanced Science and Technology, 29(11), 702-713.

Gul, R., Ahmad, I., & Tufail, M. (2022). Understanding the Pedagogical Role of Service-Learning for Preparing Citizen Leaders in Higher Education. Africa Education Review, 19(2), 25-39.

Gerholz, K. H., Liszt, V., & Klingsieck, K. B. (2018). Effects of learning design patterns in service-learning courses. Active Learning in Higher Education, 19(1), 47-59.

Hébert, A., & Hauf, P. (2015). Student learning through service learning: Effects on academic development, civic responsibility, interpersonal skills and practical skills. Active Learning in Higher Education, 16(1), 37-49.

Huda, M., Mat Teh, K. S., Nor Muhamad, N. H., & Mohd Nasir, B. (2018). Transmitting leadership based civic responsibility: Insights from service learning. International Journal of Ethics and Systems, 34(1), 20-31.

Indriyani, D., Komalasari, K., Malihah, E., & Fitriasari, S. (2023). Promoting civic engagement among students in the preservation of local culture during a time of disruption. Jurnal Civics: Media Kajian Kewarganegaraan, 20(1), 104-113.

Jabatan Pendidikan Tinggi Malaysia, (2019). SULAM, Service-Learning Malaysia- University for Society. SULAM PLAYBOOK.

Jabor, A. I. & Hamid, A. (2019). External and Internal Factors Affecting Student's Academic Performance. The Social Sciences. 14. 155-168. 10.36478/sscience.2019.155.168.

Kementerian Pendidikan Tinggi (2016), Rubrik PNGK Bersepadu (iCGPA) Panduan Pentaksiran Hasil Pembelajaran. Kementerian Pendidikan Tinggi Putrajaya Malaysia.

Kenny, M. E., & Gallagher, L. A. (2002). Service-learning: A history of systems. Learning to serve: Promoting civil society through service learning, 15-29.

Mamat, M., Amran, N. N., Ismail, Z., Ibrahim, M., Ishak, H., & Baba, S. (2019). Service-learning in Malaysia: Practice and implementation in four public universities. International Journal of Civil Engineering and Technology, 10(4), 1682-1691.

Meadows, M. (2023). Reawakening the Heart of Civics Education: Activating Critical Civic Empathy and a Sense of Civic Responsibility in Undergraduate Students.

Mackenzie, S. L., Hinchey, D. M., & Cornforth, K. P. (2019). A public health service-learning capstone: Ideal for students, academia and community. Frontiers in public health, 7, 10.

Maravé-Vivas, M., Salvador-Garcia, C., Gil-Gómez, J., Valverde-Esteve, T., & Martín-Moya, R. (2022). How can service-learning shape the political perspectives of pre-service teachers? A program in the field of physical education. International Journal of Environmental Research and Public Health, 19(15), 9175.

Mweshi, G. K., & Sakyi, K. (2020). Application of sampling methods for the research design. Archives of Business Review–Vol, 8(11), 180-193.

Ngai, N. P., Ngai, S. S. Y., & To, S. M. (2018). Youth leadership training in Hong Kong: current developments and the way ahead. In Youth Policies and Services in Chinese Societies (pp. 103-117). Routledge.

Ningrum, S. Muthali'in, A. (2023). Development of Civic Responsibility Competence in the Implementation of the Merdeka Curriculum Putri. Edunesia: Jurnal Ilmiah Pendidikan p-ISSN 2722-5194 Vol 4 No 2 June 2023 e-ISSN 2722-7790

Rahim, A., Saleem, S., & Noman, M. (2023). A Case Study on the Effectiveness of a College Civic Engagement Program in Gulmit Gojal Hunza, Pakistan. International Journal of Social Science & Entrepreneurship, 3(2), 19-34.

Rafzan, R., Budimansyah, D., Rahmat, R., Fitriasari, S., Arzam, A., & Sulman, F. (2022, January). Civic Engagement and Higher Education Develop Student in Civic Education Through based Project Citizen Model Learning. In ICOME 2021: Proceedings of the 1st International Conference on Maritime Education, ICOME 2021, 3-5 November 2021, Tanjung pinang, Riau Islands, Indonesia (p. 49). European Alliance for Innovation.

Rico-Bordera, P., Piqueras, J. A., Soto-Sanz, V., Rodríguez-Jiménez, T., Marzo, J. C., Galán, M., & Pineda, D. (2023). Civic Engagement and Personality: Associations with the Big Five and the Dark Triad. International Journal of Environmental Research and Public Health, 20(3), 2126.

Roberts, T. & Hernandez, K. (2019). Digital Access is not Binary: The 5'A's of Technology Access in the Philippines. The Electronic Journal of Information Systems in Developing Countries. 85. 10.1002/isd2.12084.

Rybing, J. (2018). Studying simulations with distributed cognition (Vol. 1913). Linköping University Electronic Press.

Salam, M., Awang Iskandar, D. N., Ibrahim, D. H. A., & Farooq, M. S. (2019). Service learning in higher education: A systematic literature review. Asia Pacific Education Review, 20, 573-593.

Saavedra, J. A., Ruiz, L., Alcalá, L., & Saavedra, J. A. (2022). Critical service-learning supports social justice and civic engagement orientations in college students. Michigan Journal of Community Service Learning, 28(1).

Shuhei, Miwa & Jitosho, Risa. (2020). The Effect of Attitude on Engagement and Performance among Japanese University Students: Focusing on Utilizing Knowledge of English. The Journal of AsiaTEFL. 17. 1448-1457. 10.18823/asiatefl.2020.17.4.21.1448

Solomon, J., & Tan, J. (2021). The Effects on Student Outcomes of Service-Learning Designated Courses: An Exploratory Study. Journal of Service-Learning in Higher Education, 13, 58-70.

Syarofa, N., Rusmansyah, R., & Isnawati, I. (2022). Implementing a Civic Skills-Focused Problem Posing Model to Enhance Problem-Solving Competencies in Elementary School Students: A Systematic Literature Review. Jurnal Pendidikan Humaniora, 10(4), 206-221.

Shek, D. T. L., Ma, C. M. S., & Yang, Z. (2020). Transformation and development of university students through service-learning: A corporate-community-university partnership initiative in Hong Kong (Project WeCan). Applied Research in Quality of Life, 15, 1375-1393.

Taylor, A. (2017). Service-learning programs and the knowledge economy: Exploring the tensions. Vocations and Learning, 10(3), 253-273.

Till, K., Bruce, A., Green, T., Morris, S. J., Boret, S., & Bishop, C. J. (2022). Strength and conditioning in schools: a strategy to optimise health, fitness and physical activity in youths. British journal of sports medicine, 56(9), 479-480.

Xu, C., Li, H., & McDougle, L. (2019). Experiential philanthropy.

Yusof, N., Ariffin, T. F. T., Hashim, R. A., Nordin, H., & Kaur, A. (2020). Challenges of service-learning practices: Student and faculty perspectives from Malaysia. Malaysian Journal of Learning and Instruction, 17(2), 279-309.