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Need Analysis for Holistic Service Learning Assessment for Malaysia Higher Education: A Review

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Abstract

Service-Learning (SL) demands a thorough and planned implementation process. It also involves many parties, agencies or communities, particularly in the implementation planning and evaluation process. What are the processes involved in implementing effective SL? What are the indicators and elements that need to be attended to in measuring the success of an SL implementation? What information does the practitioners need to conduct and evaluate the impact of SL? While previous studies have explained the implementation of SL, there is a vacuum in knowledge related to the holistic evaluation of SL implementation. Therefore, this article explores and reviews on the need for development of training modules that can be used by SL practitioners and collaborators from Malaysia universities, agencies, and communities to facilitate the evaluation of the effectiveness of SL activities, in line with the desire for sustainable development goal (SDG-4) for quality of education. The finding can serve as a reference or guide for all parties involved with SL, particularly lecturers in designing SL activities efficiently, and ensure the production of graduates that meet the aspirations of the National Education Philosophy. The outcomes of the study can also be useful in improving the quality of services and the research results offered by universities to the community in a meaningful and sustainable manner.

Keywords: Holistic Assessment, Future Ready Graduate, Malaysia Higher Education, Service Learning

Introduction

According to Furco (2011) understanding the concept and models of Service Learning (SL) is the most basic aspect prior to implementation. Different learning models or not meeting the actual requirements will affect the design and implementation of the SL conducted (Furco

2011). Chong (2014) pointed out that the root cause of the ambiguity of the concept is related to the lack of knowledge and training in the theory and model of SL itself. Ebrahim and Hester (2017) found that most lecturers who have implemented SL or community-based learning themselves suggested the need for training modules and standard implementation guides that can guide them in implementing the SL model effectively. Taggart and Crisp (2011) also indicates that different study programs will have different course standards. Some SL activities implemented in faculty are compulsory courses, program compulsory courses, elective courses, elective courses, and credited additional courses. Some lecturers were even found to have differing views on the learning hours of SL implementation, depending on the notional hours of each course. Some allocate only eight hours to run SL (Mpofu, 2007), or set at least 20 hours (Zaki, 2019; Zakaria et al., 2020) and some others allocate SL implementation period in one semester or one year of study (Taggart & Crisp, 2011). Differences in course standards and appropriate time allocation will affect the planning of activity design, commitment, and student involvement to succeed. It also creates confusion among students about the actual number of course assignments and evaluation marks on SL they perform.

Studies related to the measurement of SL effectiveness have noted the difficulty in assessing its achievement when the lecturers do not adopt effective strategies and efficient planning from the beginning (Ebrahim and Hester, 2017). The situation becomes more complicated as SL assessments typically involve a large number of students (Gelmon et al., 2018). Some emphasis and guidelines should be attended to by implementers because the implementation involves many parties, such as students, community, academics, faculty administrators, and university management (Zaki, 2019). Some service-based learning activities involve government, stakeholders or agencies, residents' associations, communities, and nongovernmental organizations, among others. Matters that need to be considered in evaluating SL outcomes include the fulfilment of the course objectives, the effectiveness of the service activities, financial management, the human resources involved, the use of infrastructure facilities, space, and the sustainability of the activities.

Educational institutions that are committed to implementing SL should emphasize evaluating the effectiveness of the activities (Gelmon et al., 2018). SL assessments are complex and burdensome tasks for some parties. Yet, some SL implementers are inept at measuring the effectiveness of an SL program. An emphasis on the measurement of SL outcomes is necessary (i) to ensure the production of quality graduates and (ii) to ensure that the community receives a quality impact from the activities. Such an assessment will not only justify the effective use of the resources and allocation of university funds, but also provide feedback for improvement of the activities in the future hence assisting lecturers to make better plans.

In pandemic and post-pandemic crises, the risks to implementers and communities, as well as the smooth running of the SL activities, also need to be addressed. Given these challenges, this article analyzes the need for preparation module for the assessment of SL activities. The aim is to develop a comprehensive SL assessment training module to enhance the implementation of SL in higher education institutions in Malaysia optimally. Therefore, the aims of this article are: (a) to explore the practices of SL in teaching and learning and (b) to review on the need for development of SL training modules that can be used by SL

practitioners and collaborators to facilitate their holistic evaluation of the effectiveness of SL activities, in line with the desire for quality of education.

Service Learning in Malaysia

SL is one of the impactful learning practices for meeting the educational aspirations of Industrial Revolution 4.0. SL is also a catalyst for the development of prosperous human beings and future graduates. Until December 2020, a total of 445 SL activities were conducted in Malaysian Higher Education Institution (HEIs). Despite receiving attention in HEIs, SL implementation is still considered new and has been met with various challenges, such as lecturers' lack of understanding of the concept of SL as well as their ignorance of the process, implementation method, and appropriate measurement methods. Such states have become more challenging given the pandemic and post-pandemic crises, which have hampered face-to-face learning with the community.

Among the areas of study that have applied SL practices are science programs/courses (Marin, 2015; Osman, 2011), health sciences (Greenberg, 2002; Hood, 2009; Brugués et al., 2016), education (Rusu et al., 2015; May et al., 2017), information technology (Petkova, 2017), mathematics (Kyong-Hee Lee & Statham, 2010), and religious/Islamic studies (Amran & Ishak, 2017). The history of SL practices in Malaysia can be traced to community activities or projects involving graduates and the community in the late 1950s. Since 1958, students of the University of Malaya (UM) through the student association activities began to conduct fieldwork in community programs (Abdul Salam 2003). The Muslim Students Union, for example, conducted short-term community projects in Malay villages. In 1969, the University of Malaya Student Association together with other university students launched the "Students Pioneer Corp" program at the national level to gain experience and knowledge directly from volunteer service while helping the community with the knowledge they possessed (Sharom & Akhir, 1979).

In 1971, the Community Service Movement group was formed by the students of University of Science, Malaysia (USM) to mobilize community activities at the grassroots together with Students Pioneer Corp. However, the impact of the project was not encouraging due to ill planning and the project being ad-hoc and one-off. Thus, a more innovative learning proposal was introduced at USM, namely the *Rancangan Pembelajaran-Perkhidmatan Desa* (Rural Shared-Service Learning Plan)," to ensure that the community can benefit from the sustainable impact. In the context of higher learning in Malaysia, learning through SL was viewed as an efficient learning pedagogy in 1977, particularly through the pioneer project *Rancangan Pembelajaran-Perkhidmatan Desa* organized by University of Science, Malaysia (Sharom & Akhir, 1979).

Later in 1980, the Kubang Kerian Branch of USM in Kelantan state introduced another program of community involvement to second- and third-year students (Rogayah & Hashim, 1990; Abdussalam, 2009). Named "Community and Family Case Study" (CFCS), the program involved second-and third-year medical students who were placed in a rural area for two weeks (Salam, 2009). The Faculty of Health Sciences of National University of Malaysia (UKM) also implemented community service programs (Community Service Learning) through the Soft Skills Course (Singh et al., 2017). The course aimed to hone and equip students with

generic skills, such as communication skills, leadership style, teamwork culture, and problem-solving skill, among others.

Apart from that, the Faculty of Islamic Studies of UKM also introduced courses characterised by learning and services, notably *Latihan Amali Dakwah* (LAD) (Dakwah Practical Training Course), which brought students who major in dakwah and leadership to programs involving the community for a certain period (Amran et al., 2020; A'dawiyah et al., 2012) and industrial internship involving community agencies (Service-Learning Internship). The students needed to undergo industrial training at care and learning centers for people with disabilities (Amran & Hamdi, 2017). Began in the Da'wah and Islamic Leadership study program in 1980, the LAD program was a flagship program for the UKM's Faculty of Islamic Studies (Amran et al. 2020). Along the program, UKM collaborated with external agencies such as the Department of Islamic Development Malaysia (JAKIM), State Islamic Religious Councils, Department of Orang Asli Affairs Development and others to succeed the service process with the community in the rural areas and orang asli, among others (Ismail et al., 2012). Through LAD, every student of the Dakwah Studies and Islamic Leadership program gained SL experience before graduating.

According to Wee and Zakaria (2012), study programs in the learning ecosystem of universities-communities have also been implemented at Universiti Malaysia Kelantan (UMK) since 2007. Such a measure is in line with the mission of UMK's establishment, i.e. to put community as an effective learning space for enriching the students' learning experience, particularly by putting the theories they learned in lectures to practice in society. The implementation also fosters a sense of civic responsibility and goodwill by instilling the students with an attitude of appreciating others from various cultures through community programs. UMK also allows additional credit for students who are involved in volunteer activities, whether those organized by the students themselves or by the faculty. The university even collaborated with the Asia Research Center (Chair for International Management South East Asia), University of St. Gallen, and the ASEAN Learning Network to organize the Social Enterprise for Economic Development (SEED) program annually, particularly to select and develop a less developed area in terms of social and economic aspects (Kurniawan et al., 2020). Among the students' activities in the field were to submit proposals to rural entrepreneurs suggesting how the sales of the community's products and businesses can be increased. For example, the students were required to study and propose business plans for a business community in Tumpat, Kelantan. The program was implemented on a scheduled basis. The students began to apply the theories in their field of study until the villagers' businesses are successfully promoted to government agencies, secured funding, and were able to run independently (Wee & Zakaria, 2012; Amran et al., 2019; Kurniawan et al., 2020).

Among the faculties that can be the point of reference for SL best practices in Malaysia are the Faculty of Education and the Faculty of Built Environment, Universiti Teknologi Malaysia (UTM). SL began in 2009 at UTM through the faculty members' efforts in finding the best method to produce capable educators in vocational techniques and science, among others. Their efforts began by integrating learning methods with community, or community-based learning and experience-based learning, through practical training in which they learned from the Real Work Lecture (*Kuliah Kerja Nyata*) program of Universitas Gadjah

Mada, Indonesia. The idea of SL was taken from the objectives of a course related to social service.

On 13 April 2019 Service Learning Malaysia (SULAM) was officiated by the Minister of Education. The idea of University for Society was introduced to sustain the community's socio-economic progress, in collaboration with the university and agencies. Based on the development of SL practices in Malaysia, it is found that their implementations were triggered by students' and lecturers' initiatives (bottom-up) and the university's top-down initiative to channel knowledge, skills, and technology to improve and develop society's welfare in particular and the country's in general. SL activities in Malaysia were then expanded with the establishment of the SULAM secretariat in the Department of Higher Education and public universities. The activities were further intensified with grant initiatives, including the online e-SULAM.

What is Service Learning?

SL is impactful service-based learning that is based on direct involvement with the community. Providing service to the community is a method of experiential learning (Norasmah et al., 2003). SL also emphasizes measurement and students' reflexivity toward their learning experience in the real world, particularly by applying what they have learned theoretically when they are with the community. The goal of SL is to address the needs and solve the problems of the community (Furco & Billig, 2002; Amran & Ishak, 2017; Zakaria et al., 2020).

SL is defined as (a) service-based learning that (b) is based on a learning experience that occurs through a cycle of actions and reflections when students apply what they have learned at university or theoretically to address the needs of the real community (PPPM PT 2015). The manifestation of educational philosophy lists SL as a method and a high-impact teaching-and-learning practice (Osman 2011) (HIEP- High Impact Educational Practice) in the world's leading universities (Amran & Ishak, 2017). This method provides a valuable opportunity for students to learn based on real-world experiences. The aim of learning through experience is to allow active and direct individual involvement (Furco & Billig, 2002). Previous studies have explained SL as follows:

(a) SL is a method of teaching and learning (McPherson, 1996; Ellis, 2013; Benneworth & Charles, 2013; Osman, 2011; Amran & Ishak, 2017)

(b) SL is a pedagogy of student-centered teaching and learning that focuses on the role and experience of students carrying out service activities in the community field (Eyler & Giles, 1999; Nuangchalerm, 2014; Astin et al., 2000; Deeley, 2014)

(c) SL is the process of student learning and development (Burns, 1998; Essential Service-Learning Resources Guide, 2002)

(d) SL is an experience-based learning strategy of serving the community (Seifer & Connors, 2007; Celio et al., 2011; Nuangchalerm, 2014)

(e) SL is experiential learning in/or with the community in credit-carrying courses (Bringle & Hatcher, 1995)

(f) SL is a model of experiential learning by providing service to the community (Wenger, 1998; Ardani et al., 2016; Amran et al., 2016 and 2019)

(g) SL refers to an educational experience that is structured in a program of study or course (Steinke & Fitchy, 2007; Seifer & Connors, 2007)

(h) SL is a developing educational and learning process that is structured in a curriculum and co-curriculum (Essential Service-Learning Resources Guide, 2002).

All of the above definitions characterise the concept of SL as a method, pedagogy, strategy, and process of teaching and learning in an organized and credited, student-centered learning that is based on the experience of providing meaningful services to the community. An understanding of this concept would determine a lecturer's perspective on the purpose of implementing SL in a course. This is because the lecturer's knowledge and understanding of the concept would determine the direction and success of the activities to be carried out (Billig, 2000).

The Idea of University for Society

According to Osman (2011), SL is considered a pedagogy of community development because it can bring impact and change to the development of a community. Schwartzman (1999) noted that the experience of interacting with a diverse community and solving problems is a valuable skill. Such effectiveness is attributed to an effective and planned approach, which allows students to apply theoretical (cognitive) knowledge acquired in class or lecture to solve real-world problems. As an experience-based learning method, SL provides opportunities and space for students to use the experience of serving a community to strengthen their understanding of a course's content or a learning theory. SL was also found to lead students to direct engagement with society and foster civic awareness on an ongoing basis through collaborative efforts, democratic citizenship, and moral responsibility (Astin et al., 2000; Hébert and Hauf, 2015; Sanders et al., 2016; Miftachul Huda et al., 2018). SL also improved social skills, particularly communication, leadership, and problem-solving skills.

Another study found that collaborative engagement had a positive impact on students, universities, and the community. Such engagement became more effective when the faculty or academics were involved in helping and addressing the problems in the society (Seifer & Connors, 2007). SL became the field of lecturers' involvement and commitment to their teaching efforts as a whole. It also strengthened the relationship between faculty members with all levels of students and the community. In terms of contribution to social change, the impact of SL implementation extends to economic change and improvement, operations, and community socialization (Seifer & Connors, 2007).

Students are human beings who have a role. Friere emphasizes the function of students towards the social environment. To Freire, education can bring about change; active forms of learning can bring about change to students and society (Hanik, 2013; Yob, 2014). Universities are considered one of the agents of change. Boyer (1990) highlighted the stance

on "the scholarship of engagement," which emphasizes the function of universities, academia, and students to serve the community hence resolving their problems (Amran et al., 2019). It is based on the above positions and theories that the SL models are produced. The learning theory and the various forms of SL models should be given attention by lecturers because different models propose different implementations and evaluations. For young lecturers who lack training and exposure to the teaching and learning model, they need information related to the objectives of SL, guidance in calculating the time to carry out the activities, and examples of appropriate measurement methods (Amran et al., 2019). Past studies have indicated that the service performed by students in a community must meet the following characteristics for it to meet the concept and model of learning:

- (a) The services or activities planned and implemented must be aimed at meeting the needs of the local community (Bringle & Hatcher, 1995; Burns, 1998; Essential Service-Learning Resources Guide, 2002; Steinke & Fitchy, 2007; Osman, 2011; Amran & Ishak, 2017)
- (b) The services or activities performed must be meaningful to the community (Burns, 1998; Nuangchalerm, 2014; Amran et al., 2016)
- (c) The services provided must be beneficial to the community (Mpofu 2007)
- (d) The service activities must have an impact and bring positive changes to individuals, organizations, neighborhoods and community life systems in the short and long terms (Essential Service-Learning Resources Guide, 2002).

The National Education Philosophy is the foundation in laying down the aspiration to produce a balanced human capital in all aspects. The Malaysia Education Development Plan 2015–2025 (Higher Education) has detailed such an intention by explaining the characteristics of prosperous human beings who have the knowledge, morals, and admirable behavior, as well as a healthy and civilized mindset to be born. They are the ones considered to be global citizens with a bright Malaysian identity, and who are ready and willing to sacrifice for the harmony and well-being of their family, community, country, and the world. In line with current developments and global challenges, the Ministry of Higher Education (MOHE) emphasizes the fourth concept of the United Nations Sustainable Development Goal (SDG-4), which emphasizes the quality of education. Apart from that, the latest report of the World Economic Forum and the Horizon Report also emphasizes the aspects of graduates' twenty-first-century skills as well as technology.

One of the Ministry of Higher Education's efforts to improve the quality of education and achieve the desire to produce skilled graduates in the future is to emphasize high-impact delivery methods (High Impact Educational Practices). These methods, which have been implemented in public universities, include global learning, service learning, collaborative projects, service-based learning or SL, and e-Portfolio, among others (Zakaria et al., 2020). Past studies have emphasized the need for universities to bridge between students and society (Astin et al., 2000). MOHE's aspiration with the Launch of SULAM Malaysia (Service Learning Malaysia) in 2019 was to develop the "University for Society." To fulfill the above objectives, lecturers and students need to equip themselves with a solid basic knowledge of

the services to be provided (Osman, 2011). The question is, what model should be used to guide the lecturers in the planning phase of the SL activities? What are the efficient measures that can be adopted by the lecturers and students to ensure that the activities can achieve the objectives of the course/program?

Diversity of Service Learning Models

Some lecturers do not know clearly the difference between the concept of SL and learning methods in the community (community-based Learning), volunteerism, and practical training in community agencies (Furco et al., 2011; Taggart & Crisp, 2011; Cho See Chong, 2014). The same problem is addressed by Ebrahim and Hester (2017), who stated that among the lecturers themselves are those who have varying knowledge and understanding about the concept of SL. These differences cause the learning pattern with the community to be implemented authoritatively, depending on the lecturer's desires and interests. Ambiguous understanding of the most basic concepts would affect the design and implementation of an SL (Furco et al., 2011).

SL is a subset of experiential learning pioneered by four figures in philosophy and education, namely John Dewey, Paulo Friere, David A. Kolb and Ernest Boyer (Giles & Elyer, 1994; Yob, 2014; Amran et al., 2019). Experiential learning emphasizes the aspect of "learning by doing," which affects learning from cognitive and affective aspects (Yob 2014). Kolb (1984) in Yob (2014) highlights an interrelated experience-based learning cycle model that begins with learning experiences, followed by changes in individuals and preparation. According to Kolb, a complete learning cycle includes the process of experiencing or involvement. These are then followed by a reflection on the experience, thinking, and performing activities (Yob, 2014).

Heffernan (2001) lists six SL models, including (a) Service Learning Course (Pure Service Learning Course Model)—a course that uses the term *service learning* in the name itself. This course is directly related to the concept and process of conducting SL in certain areas. One example of such a course in Malaysia is Service-Learning in Microbiology (Universiti Putra Malaysia), which involves students in microbiology providing community services based on the course content and field of study (Zaki, 2019; Zakaria et al., 2020). Another learning model is (b) Discipline-based Service Learning Model. Through this model, students take courses in an area of specialization requiring them to be within the community and reflect on their field experiences throughout the semester by relating the field of study, course content, or curriculum when writing, analyzing, and understanding their experience (Heffernan, 2001). Field-based Service-Learning should clearly list the relationship between the course content and the students' experience in the community. This model is widely adopted and practiced in various fields of study (Amran & Hamdi, 2017) because it directly connects two elements: service to the community (service) and curriculum or academic learning (learning) (Giles & Elyer, 1994a; Amran & Ishak, 2017).

The third SL model is the Problem-based Service-Learning Model. This model proposes that students either individually or in groups act as consultants or community mentors. Students are to study problems that arise in the community and work with them to find solutions. They are also expected to have mastered some of the knowledge before going down to the field so that they can guide the community in finding solutions. Examples of

practices include students of the Faculty of Education and Faculty of Engineering UTM (Amran et al., 2019) and the participants of the UMK SEED program (Yohan, et al., 2020).

The fourth model of Service Learning is the “Capston” project-based learning. The Capstone Service Learning Project refers to specific courses or projects designed to provide opportunities for final-year students to apply the skills learned in university to solving community problems. The purpose of learning a capstone project or course is to help students explore new topics, gain a deeper understanding of their discipline (Heffernan, 2001), enhance self-directed learning, and gain exposure to design skills through solving complex problems. This model is also designed as a measure to prepare students for employment (Shafaat et al., 2016).

The Fifth SL model involves the current service of industrial internship (Service Learning Internship Model). The difference between a traditional internship and this model is based on the location and professional and impactful experience with the community (Heffernan, 2001). Service during internships at community agencies provides valuable experience as students are required to be on location for a longer period compared to the SL activities discussed earlier. One example is the Service Learning During Practical Training conducted by UKM Islamic Studies. In this training, students get training placements in agencies that are directly involved in solving community issues and problems, such as guidance and moral rehabilitation centers and special children (Amran & Ishak, 2017).

At the Malaysia higher education level, some examples of forms or models of SULAM that can be referred to are “direct SULAM,” “Indirect SULAM,” “Research-based SULAM,” and “Advocacy SULAM” (Zaki, 2019). The Undergraduate Community-based Action Research Model is the sixth SL model (Amran et al., 2019; Azlan et al., 2021). Lecturers who use this model assign student to identify problems in the community and review solution steps. Action research involves the collection and translation of data to make it easier for a person to understand and take action on a phenomenon or problem in the workplace. It is a study in the form of self-reflection inquiry that is usually done by educators systematically in daily social situations to improve the quality and performance, systems, and practices. Action research through SL is related to undergraduate students’ detailed and systematic study to find solutions to improve the community’s well-being, quality, and economy, among others. One example of this model is the SEED Program at UMK. This model is almost similar to the problem-based SL. Other new models are the Advocacy Service Learning model and online Service Learning (e-SULAM). These two models have been widely used particularly during the COVID-19 crisis and post-pandemic.

Diversity of SL Measurement Forms: What to achieve from SL activities?

The study by Amran et al (2019) found the various assessment methods used by lecturers in measuring students’ achievements in their courses. The effectiveness of the course was considered based on the students’ achievements after they completed the SL activities and the course. Yet, such a variety also creates confusion among the students about the actual number of course assignments involving SL they need to perform. The implementation and the amount of time allocated is related to the measurement of results. The measurement of SL involves continuous evaluation that begins with the initial phase of planning, and followed by the implementation in the field and the process of reflection on experience and theory.

Moreover, Amran et al (2019) indicate that lecturers in Malaysian public universities used formative and summative assessments in courses involving SL. Formative assessment is performed to measure cognitive and theoretical mastery, whereas summative assessment is used to evaluate students' work in cognitive, affective, and psychomotor-related fields. Another study by Norlaile (2017) explained that an SL assessment considers the development of student learning outcomes in terms of cognitive development, immersive and transformative experiences, and behavioral change. What are the aspects and elements emphasized in a course or program for measuring student abilities, the outcome of course objectives, and the impact of SL on the community? Such measures certainly involve measurement methods or evaluation processes.

Assessment is a process of making judgments and decisions about a student's performance (and program performance) based on the benchmark standards set by the performance criteria and performance targets for a learning outcome; the outcome is based on the evidence obtained from the assessment. The implementation of effective assessment is necessary to achieve the National Education Philosophy (Alias & Osman 2018). One of the challenges of evaluating the outcomes of courses with SL is to determine the best assessment method. Two types of assessments are used, namely summative and formative assessments. Summative testing is associated with assessment at the end of the semester or the end of the year with a formal examination or test (Haidzir & Norasmah, 2019). This assessment seeks information about a student's progress and measure his/her mastery of a particular topic or unit at the end of a course or program. It is an assessment of the learning approach. However, summative tests are not able to measure a student's overall achievement, particularly his/her generic skills (Alias & Osman, 2018). Formative assessment refers to the assessment during or throughout the learning process to gauge the students' progress. Teachers or lecturers should provide immediate feedback in improving achievements in the domains of knowledge, psychomotor, and affective according to learning outcomes. Such is an assessment for a learning approach (Alias & Osman, 2018).

SL becomes a learning space and opportunity for students to see the relationship between the theories of knowledge they learn in lectures and the actual reality through service experience (Seifer & Connors, 2007). Past studies have shown positive changes in students who undertook SL: changes were noted in their self-attitude while carrying out the community activities; changes were also noted in their attitudes and views while studying at the university, and increase was marked in their focus and motivation on learning styles. The students involved were also found to have acquired new insights in cognitive, emotional, and social dimensions (Pribbenow, 2005). SL was also found to lead them to direct engagement with society and foster ongoing civic awareness through collaborative efforts, democratic citizenship, and moral responsibility (Astin et al., 2000; Hébert & Hauf, 2015; Sanders et al., 2016; Huda et al., 2018). SL also improved their social skills, particularly communication, leadership, and problem-solving skills.

Studies on the effectiveness of SL implementation in the Faculty of Islamic Studies, National University of Malaysia, (Azlan, 2020, Azlan et al., 2021), and Universiti Malaysia Kelantan (Ghee & Farok, 2017; Yohan et al., 2020) found that the SL participant students were able to understand the course content in more depth. They were discovered to be able to apply what they had learned theoretically and continue to apply their knowledge in the field

to solve community problems and needs. They also improved their generic skills towards more sustainable self-development. Those skills are very much needed to face the challenges of the global community along with the Malaysian higher education's aspiration to produce future-proof graduates (Amran et al., 2018)

The most significant effect of SL implementation outcomes is in terms of improvement in academic achievement (White, 2001; Billig, 2009; Conway et al., 2009). Improvement was noted in certain subjects after the students involved implemented SL and underwent final course assessment (Markus et al., 1993; Giles & Eyster, 1994; Billig, 2009; Harwood & Radoff, 2009). The students involved also showed increased self-confidence, added value, a more positive attitude towards university and education, interest, commitment, and sensitivity to the needs of the community, and confidence in their ability to make changes in their living environment (Billig, 2009; Billig et al., 2005). Therefore, to measure the effectiveness of the implementation of SL on Malaysian university students, a comprehensive indicator of the level of achievement is required.

SL is beneficial to character formation and fostering positive values (Azlan, 2020; Azlan et al., 2021). As one of the transformative delivery methods, the implementation of SL has been emphasized in the Malaysia Education Blueprint 2015–2025 (Higher Education) to produce future-ready holistic graduates (Amran et al., 2018). As of December 2020, the Ministry of Higher Education reported 445 SL projects implemented by universities in Malaysia. The implementation of SL is in line with the purpose of higher education, which is to develop students' potential and ability (Zaki et al., 2019) and produce prosperous people in line with the National Education Philosophy (Zakaria et al., 2020). The implementation of SL is also related to the aspirations of the existence and role of the university, which is to serve the community.

Preparations for SL Implementation

What are the stages of success in measuring the implementation of SL in a course? What are the characteristics and elements of learning through SL that need to be attended to and emphasized? Learning is a planned and structured process. The process of implementing SL is considerably complex (Gelmon et al., 2018), demanding the lecturer's time and planning to make a systematic preparation (Cho See Chong 2014). The outcome of an SL is considered not encouraging if the planning is carried out in an unstructured manner (Cho See Chong 2014). Who are the parties involved in designing SL and what are the processes and steps involved in the implementation of SL?

Zaki (2019); Amran et al (2018) listed at least four parties involved, including students, lecturers, and faculty/university, community and government/non-government agencies. Although SL teaching-and-learning methods have gained place in HEIs in Malaysia and abroad, two challenges need to be addressed: first, challenges in implementing SL effectively and second, challenges in assessing the impact of SL on the parties involved efficiently. Among the factors that would hinder an effective implementation of SL stems from the knowledge and willingness of the parties involved (lecturers, students, and community) who do not know the difference between the concept of learning by SL and the learning methods in the community (community-based learning), volunteerism, and training practice in community agencies (Furco et al., 2011; Tarrangrt & Crisp, 2011; Chong, 2014).

Lecturers play a notable role in preparing their students to implement SL (Ebrahim and Hester 2017). In addition to lecturers' planning and preparation of outcomes, the outcome of SL depends on the students' readiness and involvement (Cho See Chong 2014). Students are the implementers of SL and those who will receive the impact of learning outcomes and services provided to the community. According to Norlaile (2017), SL activities or projects should be carefully planned so that the learning outcomes and student character formation can be achieved. Nadianatra et al (2017) suggested six steps in the implementation of SL in Malaysia's higher learning institutions involving three phases. While Amran et al (2019) proposed SL learning to be implemented in a cyclical process consisting of eight steps.

Studies related to SL in Malaysia have emphasized the aspect of concept (Osman 2011; Amran et.al 2019), implementation in courses (Norlaile 2017; Nadianatra 2017), and impact (Norain, 2020; Norain et al., 2021). Yet, studies concerning comprehensive guidelines in SL implementation as well as comprehensive assessment methods involving aspects of students, lecturers, universities and the community are still considered new. One of the latest guidelines covering the aspects of models, examples of activities, and students' reflections is the one prepared by the Ministry of Higher Education through the Malaysian Service Learning Committee (SULAM) (Zaki, 2019). Yet, the content of the guide opens up opportunities for researchers and SL implementers to make new explorations, particularly in relation to the implementation process, measurement, effectiveness evaluation, and impact studies. Therefore, a holistic measurement method of SL is needed to measure the impact and effectiveness of SL to all the parties involved (Amran et al., 2019).

As explained, the knowledge factor of students and lecturers on the concept of learning, model, purpose, and implementation measures of SL plays a role in determining the outcome of SL activities (Billig, 2000). Planning before and during the teaching session is important for lecturers to carry out an SL method in a course (Amran et al., 2020). Past studies have also explained that a service performed by students in a community must meet the following characteristics for it to meet the concept and model of learning. Nadianatra et al (2017) suggested six steps in the implementation of SL in institutions of higher learning in Malaysia involving three phases. Whereas, Amran et al (2019) proposed that SL be implemented in a cyclical process consisting of eight steps.

Summary

The review indicates the importance of lecturers and/or implementers of SL to understand its concept and definition to ensure the achievement of the purpose of SL as outlined. Emphasis on the characteristics of the community's needs must be considered. The discussion in this article also characterizes the diversity of SL models. Past studies have emphasized the involvement of various parties in evaluating the elements that need to be attended to in measuring the impact of SL on students and the community. SL involves structured planning and a holistic assessment. The needs analysis found six emphases pertaining to the importance of producing training modules to further improve the quality of education delivery in Malaysia, such as (i) the need to address challenges in implementation and measurement, (ii) the need for effective measurement measures in line with various SL models, (iii) the preparation of knowledge and practice for SL implementers consisting of lecturers, students, communities and agencies involved, (iv) the need to meet the goals of quality education outlined in the fourth concept of sustainable development (SDG4), and (v)

the need to detail appropriate indicators for effective measurement of SL. Therefore, to support the ministry of higher education's aspirations to produce prosperous graduates, in line with the synergy of academics in institutions of higher learning who are increasingly active in activities with the community, a training module and design for measuring the implementation and effectiveness of SL is essential.

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