UNIVERSITI PUTRA MALAYSIA

POCKET PARK MODEL FOR ENHANCEMENT OF SOCIAL-LEARNING EXPERIENCE IN PUBLIC UNIVERSITIES IN MALAYSIA

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By

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March 2021

Chair : Sumarni Ismail, PhD
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Recently, outdoor learning spaces have become a necessary tool to improve the academic experience by enhancing students' social and learning activities. Globally, most of the universities are utilising outdoor learning spaces for social interaction, formal and informal learning. Investigating the visions of the Malaysian universities shows that the universities focus mainly on formal indoor learning and lack absorption of informal and formal outdoor education that meets academic outcomes. There is hence a need to enhance the social and learning activities of different students on-campus ground in order to improve the social-learning experience in Malaysian public universities. This study aims to develop a pocket park model for enhancing outdoor social and learning activities in order to enhance the social-learning experience in Malaysian public universities, and this is in line with the eleventh Malaysian plan 2016-2020. The study employs, first, a systematic review and content analysis to collect the primary data for designing the questionnaire survey. The main method involves a verbal and visual quantitative survey conducted in three public universities, including Universiti Malaya (UM), Universiti Putra Malaysia (UPM), and Universiti Kebangsaan Malaysia (UKM), to assess students' attitudes toward the pocket park model that proposed to enhance students' on-campus activities. The quantitative data were collected from 401 respondents using a simplified formula of Yamane (1967). Finally, a focus group discussion with nine experts in the fields of architecture, planning, landscape, and academics conducts to validate the collected data of the survey.

The results reveal that successful pocket parks on-campus ground is significant for improving the on-campus activities and academic social-learning experience by implementing the highest characteristics and attributes of these pockets. Factors of the pocket park affecting students' overall social and learning activities on-campus ground included elements and activities, shade, sociability, proximity, facilities, participation, environmental factors, and noise level. The preferred attributes of the pocket parks to enhance overall social learning included mixed ground-covers, variety in softscape and

hardscape, a solid shading device, and various activities. Yet, the characteristics and attributes of pocket parks vary according to different types of social and learning activities and users' demographics. The results also indicate that the curriculum and responsible authorities should enhance the implementation of on-campus activities to encourage the students to use the nearby pocket parks. The findings contribute to the development of a pocket park model in Malaysian public universities for integrating nearby open spaces in social and learning activities to improve the academic social-learning experience. Hence, the findings of this study are essential for academic administration, policymakers, landscape, and urban planners, as well as researchers in this field, in creating livable, educational, and socially responsive campuses.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

MODEL TAMAN POKET UNTUK MENINGKATKAN HASIL PENGALAMAN PEMBELAJARAN SECARA SOSIAL BAGI PELAJAR DI UNIVERSITI AWAM MALAYSIA

Oleh

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Kebelakangan ini, ruang pembelajaran tidak formal telah menjadi alat yang diperlukan untuk meningkatkan hasil akademik dengan meningkatkan aktiviti pembelajaran secara sosial pelajar. Di peringkat global, kebanyakan universiti menggunakan ruang pembelajaran luar bagi tujuan interaksi sosial, pembelajaran formal dan tidak formal. Menyelidiki visi universiti-universiti di Malaysia menunjukkan bahawa universiti-universiti sediada hanya tertumpu kepada pembelajaran dalaman formal, dan kurang penyerapan pendidikan luar tidak formal yang memenuhi hasil akademik..Oleh itu, terdapat keperluan untuk meningkatkan aktiviti sosial dan pembelajaran pelajar yang berlainan di kampus untuk meningkatkan hasil pembelajaran sosial akademik di universiti awam Malaysia. Kajian ini bertujuan untuk membangunkan model taman poket untuk meningkatkan aktiviti sosial dan pembelajaran di luar untuk meningkatkan hasil pembelajaran sosial akademik di universiti awam Malaysia yang selaras dengan Rancangan Malaysia Kesebelas (RMK) 11 2016-2020. Kajian ini menggunakan, pertama, tinjauan sistematik dan analisis kandungan untuk mengumpulkan data utama untuk merancang tinjauan soal selidik. Kaedah utama melibatkan tinjauan kuantitatif verbal dan visual yang dilakukan di tiga universiti awam Universiti Malaya (UM), Universiti Putra Malaysia (UPM), and Universiti Kebangsaan Malaysia (UKM) untuk menilai sikap pelajar terhadap model taman poket untuk meningkatkan aktiviti pelajar di kampus. Data kuantitatif dikumpulkan dari 401 responden menggunakan formula ringkas Yamane (1967). Akhirnya, perbincangan kumpulan fokus dengan sembilan pakar dalam bidang seni bina, perancangan, landskap dan akademik yang dilakukan untuk mengesahkan data tinjauan yang dikumpulkan.

Hasil kajian menunjukkan bahawa taman poket yang berjaya adalah penting untuk meningkatkan aktiviti dan hasil pembelajaran social akademik di dalam kampus dengan menerapkan ciri dan atribut tertinggi dari poket ini. Faktor taman poket yang mempengaruhi keseluruhan aktiviti sosial dan pembelajaran pelajar di kawasan kampus merangkumi elemen dan aktiviti, keteduhan, ketenangan, kedekatan, kemudahan,

penyertaan, faktor persekitaran, dan tahap kebisingan. Atribut taman poket untuk meningkatkan keseluruhan aktiviti sosial dan pembelajaran termasuk penutup tanah bercampur, landskap lembut dan keras, alat teduhan, dan pelbagai aktiviti. Namun, ciri dan sifat taman berbeza-beza mengikut jenis aktiviti sosial dan pembelajaran dan demografi pengguna. Hasilnya juga mencadangkan bahawa kurikulum dan pihak berkuasa yang bertanggungjawab harus meningkatkan pelaksanaan aktiviti di kampus untuk mendorong para pelajar menggunakan taman poket yang berdekatan. Penemuan ini menyumbang kepada pengembangan model taman poket di universiti awam Malaysia untuk mengintegrasikan ruang terbuka berdekatan dalam aktiviti sosial dan pembelajaran untuk meningkatkan pengalaman pembelajaran social akademik. Oleh itu, penemuan kajian ini sangat penting untuk pentadbiran akademik, pembuat dasar, perancang landskap dan bandar, serta penyelidik dalam bidang ini, dalam mewujudkan kampus yang dapat didiami untuk pendidikan serta social responsive.

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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LIST OF ABBREVIATIONS

PP/PPs	Pocket Park/
PPs	Pocket Parks
OS	Open Space/Spaces
GOS	Green Open Space/Spaces
NOS	Nearby Open Spaces
SI	Social Interaction
MPU	Malaysian Public Universities
MCG	Malaysian Campus Ground
MUOS	Malaysian Universities' Open Spaces
IV	Independent Variable
DV	Dependent Variable
PV	Participant Variable
POD	Point of Departure
VPS	Visual Preference Survey
FGD	Focus Group Discussion
CVI	Content Validity Index
I-CVI	Content Validity Index for Items
SPSS	Statistical Package for the Social Sciences
UM	University of Malaya
UPM	University Putra Malaysia
UKM	University Kebangsaan Malaysia
UTM	Universiti Teknologi Malaysia

CHAPTER 1

INTRODUCTION

1.1 Introduction

The natural environment, especially the nearby open spaces and pocket parks, seems to play a significant role in enhancing the quality of life. Meanwhile, public open spaces and their social and physical aspects are controversial concerning human experience and culture. This research seeks to highlight the role of natural environments and pocket parks in enhancing the social-learning experience, especially in Malaysian public universities, by investigating and analysing social interaction and learning activities in the on-campus pocket parks. It also attempts to activate the role of natural habitats and pocket parks in promoting socialisation, formal and informal learning, and academic learning experience. This chapter discusses the idea of the social and learning experiences in outdoor pocket spaces on-campus ground from a global perspective. It then discusses the social learning in the on-campus pockets of Malaysian universities. It also highlights research problems, questions, objectives, hypotheses, framework, scope, and limitations. Overall, religions, especially Islam, have asserted the importance of learning, as seen in many verses of the Quran. Islam also emphasises the importance of planting and nature in stimulating meditation and thinking, thus enhancing the concept of outdoor learning.

﴿وَهُوَ الَّذِي مَدَّ الْأَرْضَ وَجَعَلَ فِيهَا رَوَاسِيَ وَأَنْهَارًا ۖ وَمِنْ كُلِّ الثَّمَرَاتِ جَعَلَ فِيهَا زَوْجَيْنِ اثْنَيْنِ ۖ يُغْشِي اللَّيْلَ النَّهَارَ ۚ إِنَّ فِي ذَٰلِكَ لَآيَاتٍ لِقَوْمٍ يَتَفَكَّرُونَ﴾(٣)

"it is He who spread out the earth, placed firm mountains and rivers on it, and made two of every kind of fruit; He draws the veil of night over the day. There truly are signs in this for people who reflect" (13. 2-3)

1.2 Global Issues of Public Spaces and Social-Learning

In general, learning may happen when individuals interact with each other in a social and environmental context (Eraut, 2000; Rea, 2009). Recently, schooling and higher education have become an urgent need in all societies, with competent authorities and researchers seeking to develop new learning approaches such as informal and non-informal learning (Rea, 2009). The university's core value is to improve society, contribute to the well-being of society, and influence students to become fully integrated members of their professional community, as well as to contribute to the well-being of society (Oblinger, 2005). Barnett (2011) confirms that university and higher education and teaching services should respond to the diverse cultural, social, and academic needs of students. To achieve the desired goals, various learning spaces must be adapted and integrated on-campus ground. Leaning areas may include physical

and virtual, formal and informal, blended, outdoor, academic, mobile, personal, and practice-based spaces (Oblinger, 2005; Keppell et al., 2011). These spaces should be physical learning environments equipped with technological tools and designed to support new ways of teaching (Keppell et al., 2011). Traditional learning alone does not fulfil modern social needs and learning experience.

Brightly, outdoor learning spaces designed with the proper conditions, components, and characteristics are essential to promote informal and formal participatory learning approaches. Outdoor space on-campus ground is a type of public space that may include plazas, pathways, green spaces, nearby pocket parks, and natural landscapes (Dugdale, 2009; Keppell et al., 2011). Outdoor learning space is also a sociable learning space that has a positive correlation with increased levels of student social interaction and engagement, which in turn has a positive effect on learning experience and academic achievement (Matthews et al., 2009; Rea, 2009; Keppell et al., 2011). These spaces allow the students to interact, discuss, participate, study, and cooperate with colleagues. In a global context, many universities have realised that new physical and virtual spaces are required to promote more active, student-centred teaching and learning activities than those traditionally available in most higher education institutions (Keppell et al., 2011). Existing studies mentioned that recently more learning and collaborative activities had taken place outdoors than ever before. Besides, on-going technological developments and mobile devices allow learning to take place anywhere on-campus ground (Lai et al., 2013; Jones et al., 2013). Campus pocket parks help to engage in a range of (formal or informal) learning activities, interact with landscape components, revisions, and, in turn, support the learning experience (Ibrahim and Fadzil, 2013). Outdoor learning spaces also enhance positive attitudes by promoting a sense of freedom to interact with colleagues and to search for materials in the natural environment (Ali et al., 2014).

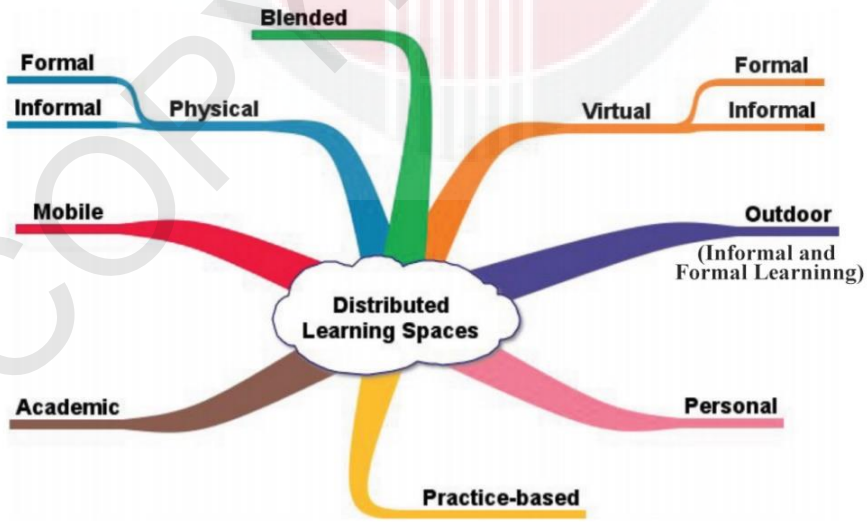

Figure 1.1: Types of learning spaces that students and academics are increasingly traversing in higher education
(Source: Keppell et al., 2011)

On the other hand, social interaction refers to the relationship or activity between two (dyad interaction), three (triads interaction), or more individuals (larger group) in a community, especially in the context of multicultural diversity, which enhances one's social experience. It is defined as one's sense of belonging and solidarity to one's community (Mahasin and Roux, 2010; Rasidi et al., 2013). Social interaction also refers to any social activity between individuals that includes physical and learning activities (Cunningham and Tabur, 2012). However, there is a global lack of studies on students' learning and social experience in the campus pocket open spaces and how the design of outdoor pocket spaces could affect students' learning experiences (Ellis and Goodyear, 2016); it is anticipated that the components, elements, and characteristics of outdoor learning spaces will allow or hinder the learning experience and teaching processes (Kim and Lee, 2015; Ellis and Goodyear, 2016). Public open spaces are considered places for community support, where they satisfy people's need for a place for social interactions or where they convince each other (Giddings et al., 2011). Furthermore, public open spaces could provide opportunities for relaxing, gathering, political events, religious celebrations, and learning activities.

Parks and community gardens are also a common type of public green space that provides various activities and facilities for different types of users (Kafafy, 2013). Parks are not mere amenities, they are necessities, and the necessities must be nearby and easy to get there. Parks must be available everywhere, in everyday life, on the way home or work, as well as during lunch and break hours (Currie, 2016). Briefly, public open spaces and parks urge different types of interactions among different groups of people from different socio-demographic backgrounds, leading to a wide range of socio-cultural, educational, and physical needs (Zhu et al., 2017). In this way, parks and open space components contribute to human psychological health, mental stability, improve behaviour, health conditions, and reduce the surrounding temperature, which is essential for various needs (Rahman and Zhang, 2018). However, providing high quality large green open spaces (large parks) has become a complicated challenge due to modern life, urbanisation, mobility, and the limited number of available green spaces and parks. Recently, underutilised parks with non-legible elements have become a common issue in numerous cities around the world (Moulay et al., 2017; Rahman and Zhang, 2018). This decrease in access to open green spaces has adversely affected people's social relations, physical health, psychological health, recreation, and physical activities (Mamaghani et al., 2015; Rahman and Zhang, 2018).

Pocket parks, therefore, appear to be the perfect solution as low-cost, small green spaces that are effective in promoting various activities and benefits. Pocket parks are often small-scale open spaces, less than 4000 m^2, serving the immediate population as an essential component of urban lung and therapeutic settings (Currie, 2016; Tabassum, 2018). Pocket parks are also considered safer and more nearby than larger parks (Armato, 2017; Tabassum, 2018). Accordingly, Shahhoseini et al. (2015) and Tabassum (2018) mentioned that the current global urban authorities are fixating their attention to create and maintain smaller parks rather than large parks. Furthermore, pocket parks appear to be a worthwhile investment in fostering social interaction (Tabassum, 2018). Some researchers have also indicated that social interactions and learning activities constituted by multilateral groups of learners are defined as required experience in nearby open spaces and pocket parks (Towers and Lynch, 2017).

In a more profound sense, people need a nearby public space to meet their aspirations and demands (Hedges, 2018; Peker and Ataov, 2019). Nevertheless, these spaces must be designed with suitable characteristics to obtain the desired benefits of the areas (Hafner et al., 2018; Peker and Ataov, 2019). As we note, there is no published study on the impact of pocket parks on learning experiences on-campus ground. Therefore, this research aims to integrate the pocket park into social and learning activities for Malaysian public universities (MPU) to improve students' social-learning experience. In the Malaysian context, public open spaces provide environments for multivariate ethnicities and cultures to fulfil their social-recreational activities (Abdul Malek et al., 2018; Rasli et al., 2019). In Malaysia, however, modern urbanisation and piecemeal planning have led to uncontrolled physical and social development, which has contributed to the emergence of illegible public spaces that adversely affect peoples' social interaction, outdoor learning, and other benefits (Rasli et al., 2019).

1.3 Historical Review on Outdoor Learning Settings

Learning is the acquisition of knowledge, skills, behaviours, values, and preferences; the learning process is an essential obligation for everyone in each community (Eraut, 2000). Outdoor learning has a deep history stretching back to the classical period, where teachers have long known the importance of outdoor learning experience. Many scholars have mentioned that students and children should learn by sensory stimulation, not just through describing words (Cook, 1999). However, historically, outdoor classrooms were not always inclusive and were sometimes connected to political and social ideologies, which contributed to restricted usage of outdoor spaces for academic and educational purposes (Herrington, 2001). Organised camping may be the oldest form of outdoor education in Europe, the UK, the US, Australia, and New Zealand in the twentieth century. In 1941, Kurt Hahn, a German educator, became a pioneer of outdoor education and the founder of the Outward Bound movement (Lynch, 2006), a worldwide network of outdoor learning schools founded in the UK (Jeffereys, 1984).

Meanwhile, the 1944 Education Act encouraged local authorities in the UK to increase the use of the outdoors for educational purposes. This act has contributed to extending outdoor education within the statutory education system by providing sufficient social leisure activities outdoor (Cook, 1999; Lynch, 2006). The second half of the 20th century saw rapid growth in outdoor education in different sectors, especially in the USA and Europe (Lynch, 2006). However, outdoor learning experiences in the 20th century focused on camping and non-formal learning outside, especially for children. The emphasis on studies regarding the relationship between learning environments and student learning experience arose from concern in the 21st century. These studies focused on different built environments (Blackmore et al., 2011). Some modern scholars, such as Fisher K., Oblinger D., and Keppell M., have developed and identified various formal and informal settings such as outdoor nearby learning spaces. Accordingly, Blackmore et al. (2011) mentioned that outdoor learning spaces play a critical role in the development of social learning, particularly formal learning spaces. However, outdoor learning settings are still undefined and are not used as effectively as formal settings, especially in Malaysia (Ibrahim et al., 2013). Further studies on outdoor learning settings in the Malaysian context are therefore required.

1.4 Historical review on Pocket "Mini" Parks

Public small spaces and parks close to home are also highly-valued green areas (Burgess et al., 1988). Public small spaces near workplaces, learning, and the houses of urban residents have become increasingly crucial as settings for social and restorations in recent years (Kaplan et al., 1998; Nordh et al., 2009). Mini parks first have appeared in Europe after the Second World War, and then the idea was brought to the USA in the early 1950s (Faraci, 1967; Prochnik, 2009). Jacob Riis was a Danish-American urban social reformer who invented the concept of pocket parks in 1897, but his idea was largely unrealised until the Second World War in London and Amsterdam (Prochnik, 2009). In Europe, the Second World War left major cities with severe status of negligence, lack of services, and social capital. After the Second World War, a few destroyed sites have converted to small, low-cost park spaces. In 1967, New York City started a program aimed to build ten pocket parks; the most famous among them to this day are Paley Park and Greenacre Park (Waldman, 2011). The urban unrest of the early 1960s in America led the responsible authorities to focus attention on the creation of small open spaces and green areas (Seymour, 1969; Waldman, 2011). The first vest-pocket park was Paley Park, designed by Robert Zion, which opened in 1967 in New York City (Seymour, 1969; Waldman, 2011). It was designed as a concept for a new form of privately owned public space, as described in a 1963 exhibition at the Architectural League of New York by Zion and Breen Associates. Faraci (1967), Prochnik (2009), and Peschardt (2014) highlighted that, later on, the idea of vest-pocket parks in the USA was favourably received due to their low cost, nearby accessible location, their role in improving recreation and social facilities.

On the other hand, small nodal spaces were observed in pre-renewal Chinese and Japanese cities from the pre-19th century to the 1950s (Miao, 2011). Miao (2011) asserted that in the ancient East Asian cities, many small open spaces such as courtyards of worship places and native sites often functioned as public open spaces, accommodating meetings, civil society gatherings, and festival performances. However, Miao (2011) confirmed that today's planners of East Asian cities have forgotten the old concept of these spaces. Patrick Geddes, a Scottish pioneering town planner, built West Port Garden as part of a small green spaces network in 1910 in Edinburgh, Scotland. To be one of the oldest mini-parks (pockets) in Europe, and to contribute as an oasis of tranquillity for residents, to be part of the natural environment (Wills, 2014). Edible Bus Stop pocket park on Landor Road in Stock well was one of the oldest pocket parks in the UK opened after the Second World War, offering an attractive meeting point for local people (Greater London Authority, 2015). Undoubtedly, these small parks have achieved unexpected great success, and the concept has been retained and applied more widely in various fields in recent years. Accordingly, various institutions and policymakers are now striving to increase the green area provisions in cities by enhancing the pocket parks. New York, London, Copenhagen, Northampton shire, Barcelona, and Enköping are all examples of cities that have developed a program to enhance their cityscape by using pocket parks (Peschardt, 2014; Greater London Authority, 2015).

By 2010, many pocket park projects were implemented around the City of Barcelona in Spain as an initiative for city sustainability developments (Peschardt, 2014). By March 2015, the responsible authorities in London handed over more than 100 pocket parks, making the City an even better place to live, work, and invest (Greater London Authority, 2015). Furthermore, Copenhagen city in Denmark has implemented 14 new pocket parks by 2015 as part of a broader vision (Abd El-Aziz, 2015). Salih and Ismail (2017b) stated that the oldest Islamic cities were involved in creating public open spaces and small parks. For instance, the former City of Baghdad was especially involved in creating and designing small green open spaces and courtyard spaces. Such spaces were used for people meetings, gatherings, and festivals, while the Mosque courtyard area was also used as a study gathering area for learners (Salih and Ismail, 2017b, 2017b). However, most of the Eastern Islamic cities have lost social capital and many public small open spaces and recreational facilities due to political, economic, and social issues. Like the rest of East Asia, Malaysia has become more interested in creating small open areas such as pocket parks.

In 2016, *Bangsar* saw the launch of the first pocket park in the federal capital, Kuala Lumpur, as a part of a cooperative project among APW, POW Ideas (an architectural design firm), and Think City (a community-based urban regeneration body) (Mah, 2017). APW pocket park is a small private sector park within the confines of the metropolitan and commercial area (Mah, 2017). Based on Gomes (2018), Kuala Lumpur authorities aspired to create pocket parks among the attractions of the federal capital by next year to lure visitors and tourists. Gomes (2018) stated that Lucky pocket garden in *Bangsar*, Kuala Lumpur, would be one of the pocket park models in the federal capital. This pocket is located on 185 m^2 of land, an effort of Kuala Lumpur City Hall to enhance *Bangsar's* environment and create more outdoor small public spaces to bring people together and foster the community. Gomes (2018) also mentioned that the *Bangsar* community was supposed to be involved in the park design and construction process. However, such projects are still in the implementation stages, and their outcomes have not yet been released to the public. Pocket parks on-campus grounds have been observed in rare cases, such as Innovation Plaza Pocket Park in Philadelphia, USA. This park was designed by various organisations and the Science Center of the University city of Philadelphia and opened to the public in 2016 (Aparicio, 2018). Aparicio (2018) stated that the identity of this project lies in elements of nature and hardscapes such as illumination, signage, concrete blocks, and metal fold seats. This park is located in the central area, close to some universities and academies in Philadelphia, and is open to the nearby communities.

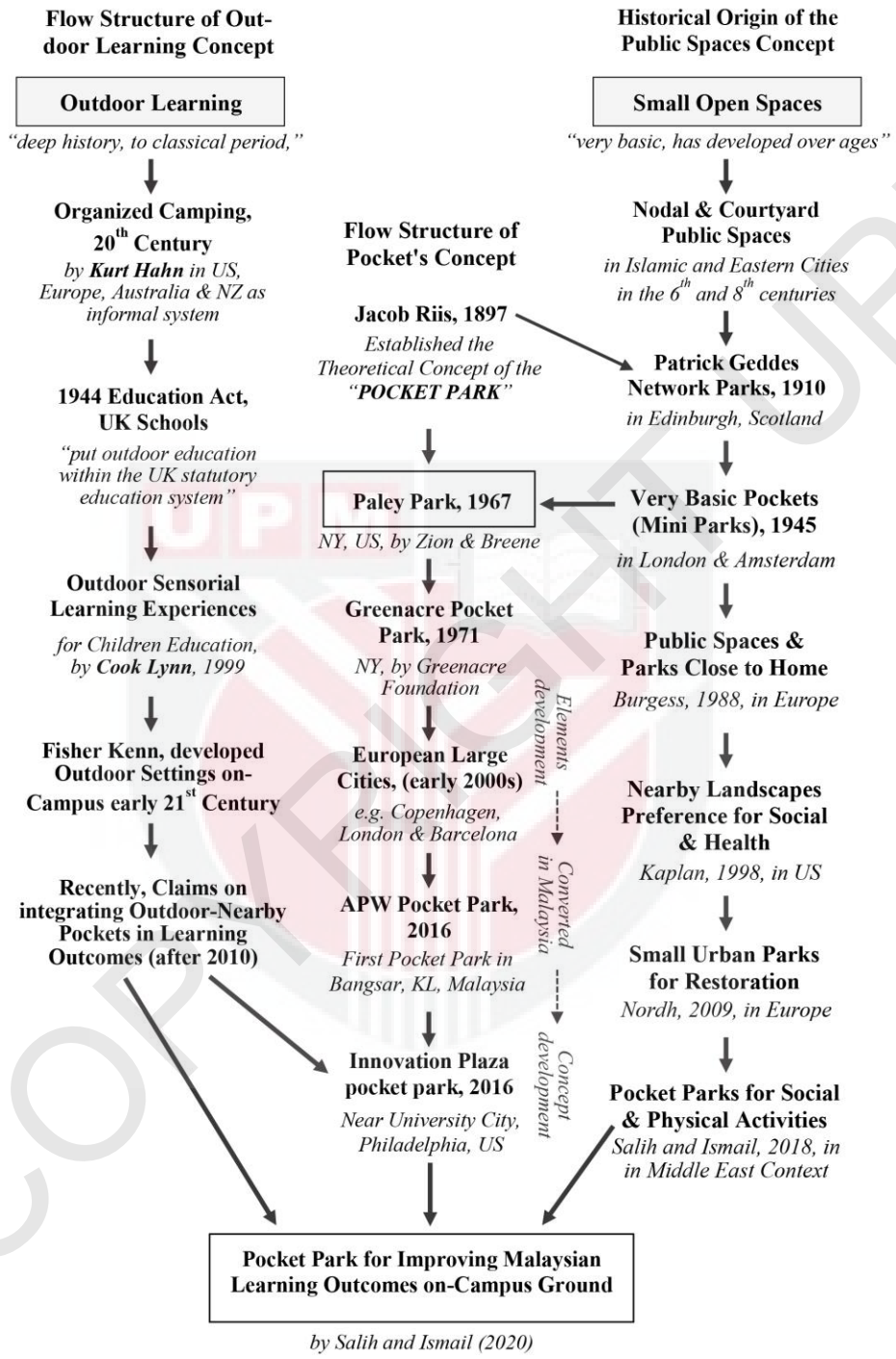

Figure 1.2: A Knowledge Structure Flowchart
(Source: Author, 2019)

1.5 Historical Review on Malaysia and Its Public Spaces

Malaysia, situated in Southeast Asia, is a federal-state with a monarchy system of governance established in 1963 and consists of 14 states. Its area of about 329,750 km^2 consists of two regions—Peninsular Malaysia and the island of Borneo (Sarawak and Sabah), between which the South China Sea flows (Abdul Aziz, 2012). Its population was estimated to be around 31.95 million in 2019, of which 50.4 % were Malay, 26.0% were Chinese, 7.7% were Indians, with substantial regional differences according to the World Population Review (2019). In Malaysia, Islam is an official religion, but other religions are openly practised. Bahasa Melayu is the national language; ethnic groups speak different accents such as Cantonese, Hokkien, Mandarin, and Hindi, while English is commonly spoken in Malaysia (Abdul Aziz, 2012). Generally, Malaysia's land use planning is protected by the Town and Country Planning Act of 1976, that amendment in 1995 and 2001 to protect the public open spaces in Malaysia. Land-use planning in Malaysia aims to develop public open spaces, such as public gardens, parks, sports, recreation, pleasure, and walk grounds (Abdul Aziz, 2012).

Malaysian early settlements can be traced back to the clustering of huts in natural landscapes such as fruit orchards, paddy fields, tin mining, and fisherman's houses along rivers (Ismail and Ariffin, 2015). These natural landscapes for early settlements were mainly covered by forest or coastal areas (Ismail and Ariffin, 2015). Malaysian traditional residential sites had significant outdoor spaces such as outdoor arrival, amusement and recreation space, dining space, storage space as well as planting and garden space (Zakaria et al., 2016). In other words, early Malaysian life was based on the relationship between man and nature, where Malays planted their surroundings with various types of plants (Hussain and Ahmad, 2012; Hussain et al., 2016). In the last decades, major Malaysian cities have witnessed dramatic land-use changes due to the conversion of most forests and green space to built-up areas. Modern life and density have also contributed to losing green areas, increasing pollution, and global challenges for the quality of life (Abdul Aziz, 2012; Ujang et al., 2015; Hussain et al., 2016).

The importance of nature and open spaces has been more comprehensively recognised by contributing to a wide range of benefits (Currie, 2016). Informal and formal learning approaches are, therefore, based on the integration of outdoor spaces into the learning process, as mentioned above (Ibrahim and Fadzil, 2013). In the Malaysian context, the benefits of these natural landscapes are increasingly recognised. Many studies have identified the role of these spaces in improving the quality of Malaysian life and various other benefits (Hussain et al., 2016). Malaysian responsible authorities seek to develop ways to maintain and develop a multifunctional green infrastructure (Economic Planning Unit, 2016). However, further efforts are needed to deal with the pressures on natural landscapes and public open spaces. Recently, natural landscapes and open spaces have been reduced and changed; in turn, human life and the ecosystem have been adversely affected. As a result of the Malaysian National Urbanization Policy, Malaysian cities do not provide the required amount of public open spaces and green facilities, especially in large cities, and this affects people's engagement in outdoor activities (Maryanti et al., 2017). These issues have also been addressed in the natural environment of educational institutions; for instance, many Malaysian universities lack outdoor learning space (Lai and Ismail, 2016; Maryanti et al., 2017).

1.6 Social-Learning on Malaysian Campus Ground

Malaysian higher education sector, under the jurisdiction of the Ministry of Higher Education, is responsible for the operation of higher education institutions. Malaysia's higher education institutions consist of 20 public universities, 96 private universities, 12 foreign branch campuses, 403 active private colleges, 34 polytechnics, and 94 community colleges. They have houses 1,253,501 students, of whom 153,328 were international students from more than 163 countries in 2018 (Wan et al., 2015; Yahaya, 2018). The first Malaysian university established in 1949 in Singapore, a separate campus, was set up in 1959 in Kuala Lumpur and is named after the University of Malaya (Wan et al., 2015; StudyMalaysia.com, 2018). Wan et al. (2015) mentioned that four other public universities were established in Malaysia by the early 1970s. In the 1980s, two more public universities were established. Twenty public universities have been classified as research, comprehensive, or focus (Wan et al., 2015; StudyMalaysia.com, 2018; Yahaya, 2018).

Malaysia is becoming a more popular destination for international students as one of Asia's developing regional and international study hubs. With 20 Malaysian universities ranked in the QS World University Rankings 2020, Malaysian universities already have a significant presence in global and regional rankings (StudyMalaysia.com, 2018). The highest-ranking Malaysian institution was Universiti Malaya (UM), followed by Universiti Putra Malaysia (UPM), Universiti Kebangsaan Malaysia (UKM), Universiti Sains Malaysia (USM), Universiti Teknologi Malaysia (UTM) as top-five universities in Malaysia. Yet, the Malaysian authorities are still seeking to develop Malaysian higher education to become one of the top advanced countries in education. Under the Eleventh Malaysia Plan 2016-2020, the Government seeks to improve the quality of higher education by enhancing the academic pathway includes knowledge, skills, training, and experience through access to good quality education and learning experience on campus ground (Economic Planning Unit, 2016).

Malaysian evidence and higher education sector also realise that education and higher education are the basis of other different fields (Economic Planning Unit, 2016; Naidua and Derania, 2016; Sani and Mustafa, 2019). Therefore, developing different approaches and spaces such as on-campus learning spaces and on-campus pocket parks could be an important approach to enhance the social learning experience in Malaysia. Improving different learning settings, including outdoor formal and informal settings in Malaysia, could be achieved by implementing outdoor pocket spaces to accommodate various group activities (Zanariah and Norsidah, 2014; Akhir et al., 2018; Sani and Mustafa, 2019). Initial studies in Malaysia also confirmed that campuses must provide a proper natural nearby environment to enhance health, recreation, social developments, learning activities, and teaching outcomes (Akhir et al., 2018; Sani and Mustafa, 2019).

1.7 Operational Definitions

The following statements explain definitions of the essential terms of this research:

a. A pocket park refers to a low-cost, nearby small open space that usually has two open sides. It contributes effectively to city life and people's life, unify the efforts of residents, authorities, and business companies in construction, management, and maintenance processes.

b. A successful pocket park refers to nearby small open spaces designed with successful characteristics to welcoming for all groups of people and providing diverse activities that promote users' experience.

c. The on-campus pockets in this research refer to any nearby pocket spaces or parks on the campus ground.

d. The success of an on-campus pocket park in this research is measured based on its ability to attract users and manage various learning and social experiences.

e. Social interaction refers to contact, relationship, or response among individuals (two or more), usually express verbal and dialogue activities.

f. Social activities are the social interaction from a broad sense that refers to any contact, physical, and verbal exchange among individuals lead to socialisation and social experience, which could include various types of exchange activities.

g. Social experience is the consequence of individuals' social occasions, interactions, and activities that provide opportunities for social exchange.

h. Formal learning refers to the traditional form of institutionalised education, which is strict and subject to a curriculum determined by the educational institution.

i. Informal learning refers to learning through practice and experience, does not necessarily include the objectives encompassed by the traditional curriculum; it depends on the interaction among the learners and with the environment.

j. Learning experience refers to the learners' experience acquired through various learning and social activities and practices on campus ground.

k. Inclusiveness of a pocket park concerns the equal right given to all people to practice various types of activities and get the desired benefits.

1.8 Problem Statement

From a holistic point of view, there is a growing global demand for designing and developing attractively equipped contemporary informal and formal pocket spaces for teaching outside classes (Rea, 2009; Jones et al., 2013; Ibrahim and Fadzil, 2013). Recent studies and research have confirmed that informal learning spaces and on-campus pocket parks should be enhanced as shared places for learning and social experiences (Kim and Lee, 2015). Social interaction in the campus's outdoor setting could critically contribute to enhance the formal and informal learning activities, in turn, leading to improve the learning experience (Zanariah and Norsidah, 2014). Yet, only a few studies have investigated the use of campus' nearby pockets in social learning. On the other hand, global authorities admit the role of public open spaces, especially pocket parks, in enhancing the social coherence and learning experience of people from different backgrounds. However, cities around the world are faced with a great quandary in providing quality broad public open spaces that have negatively affected people's lives and activities (Moulay et al., 2017). The world's efforts, thus, have shifted to providing nearby, low-cost, small, public spaces called "pocket" or "vest" parks to meet peoples' needs for public areas and ample parks. Accordingly, many recent studies have stressed the importance of increasing pocket parks (Krellenberg et al., 2014; Peschardt, 2014; Abd El-Aziz, 2017). Pocket parks also contribute to improving various activities and needs of people of different ages, genders, ethnicities, and education (Hunter et al., 2015; Hafner et al., 2018).

In the Malaysian context, underutilisation issues of public parks persist despite the appearance of some well-designed landscape (Ibrahim et al., 2013; Moulay et al., 2017). For their part, Malaysian Higher education institutions have made a recent move to transform the landscape of tertiary education, a beacon for harmony by bridging racial differences. Malaysian Higher education institutions are in a unique position to address social diversity and learning issues by creating an environment that allows for positive interactions among students from different ethnicities and backgrounds (Ibrahim et al., 2013). However, Malaysian Higher education institutions need to enhance the outdoor learning environment, especially in public universities, because outdoor learning spaces and extracurricular activities in the Malaysian campus ground remain neglected, ineffective, or unexplored (Zanariah and Norsidah, 2014).

Maheran et al. (2017) recommend that Malaysian universities and policymakers focus on designing outside-classes activities to improve students' learning ability and academic achievement. Previous studies also recommend further research to provide more information on the characteristics, components, and role of nearby small natural environments (pocket parks) in social, learning, and health benefits, especially on the Malaysian campus ground (Maheran et al., 2017). Whereas, Malaysian universities focus mainly on formal indoor learning and the lack of absorption of informal and formal outdoor learning, which disservice the academic aspirations of modern teaching institutions (Ibrahim et al., 2013). Therefore, there is a need to promote the social and learning activities of different students on-campus ground in order to improve the social-learning experience in Malaysian public universities. The aim of this study is, therefore, to develop a pocket park model for enhancing the social-learning experience in Malaysian public universities.

1.9 Point of Departure of the Research

The theory is a statement of a rule regarding a phenomenon obtained through a systematic and verifiable inquiry. A theoretical base and point of departure could refer to the initial building block in the scientific method for an event, which includes a suggested explanation for an observable phenomenon, which can be deducted from the theory (Farias et al., 2014). Theory's role in empirical research is to allow the construction of knowledge from the testing of methods that have served as the basis (Creswell, 2014; Ridder, 2017). In mixed-methods studies, research questions and hypotheses are often based on theories that the researcher seeks to test (Creswell, 2014). Creswell (2014) confirmed that the theory or theoretical base of mixed methods studies is used deductively and positioned at the beginning of a study plan as a systematic exposure of the relationship between a set of variables. When a researcher presents a theory, hypothesis, or point of departure, collects data to test it, it reflects on the confirmation or non-confirmation of this point of departure by results, which is a framework for the whole study.

The definition, constructs, or variables of the study can be found in the previous literature. As a result, researchers develop theories based on a set of research that has already been carried out involving similar phenomena. However, without an argument or point of departure, it becomes difficult to formulate the stage of a study (Silva et al., 2017). Constructs are rules or broad concepts for a study, have meaning in theoretical terms, and are variables without a physical being. Meanwhile, the variables could be created by developing the construct into a measurable form (Ridder, 2017; Silva et al., 2017). The point of departure (POD) and the theoretical base of this study was developed after rigorous literature and theories review using a systematic review and content analysis for 236 text materials (Figure 1.4).

Overall, according to Gibson's (1979) theory in ecological psychology, the attributes of a given environment are what it ‘invites’ an individual to do and practice and are uniquely dependent on the characteristics of the individual. Besides, Giddens (1984), in his structuration theory, discussed how individuals perceive the physical environment as invitations to behaviour and possibilities for action. Helf (1988) found that people's experience and behaviour in an outdoor environment would vary depending on the different features of the environment as well as their characteristics. Additionally, Kaplan and Kaplan’s (1989) attention restoration theory argued that the novel and diverse objects of the natural environments are elements of interest that replenish and nourish attention, depleted energy, and stimulate practising. Similarly, Furnass (1996) suggested that being outdoors would be good for health and well-being because when outdoors, people tend to interact more with others and gain more experience. Outdoors can also provide many other activities that involve social interactions (Ishii-Kuntz, 1990; Furnass, 1996).

The PODs of this study have also drawn from each text material (in Chapter II) a part of the text material strength to overcome its weakness in solving the problem. The next level of PODs was extracted by comparing, combining, and filtering the PODs of the previous stage in each construct of the literature review (level one in Figure 1.4). Two-

level comparison, combination, and filtering were also applied to the extracted PODs from the previous level to obtain the final POD (levels two and three in Figure 1.4). This approach led to the development of the main POD of the study, which is "Successful pocket park attributes and characteristics on Malaysian campus ground are critically essential to enhance the social-learning experience for different students in Malaysian public universities."

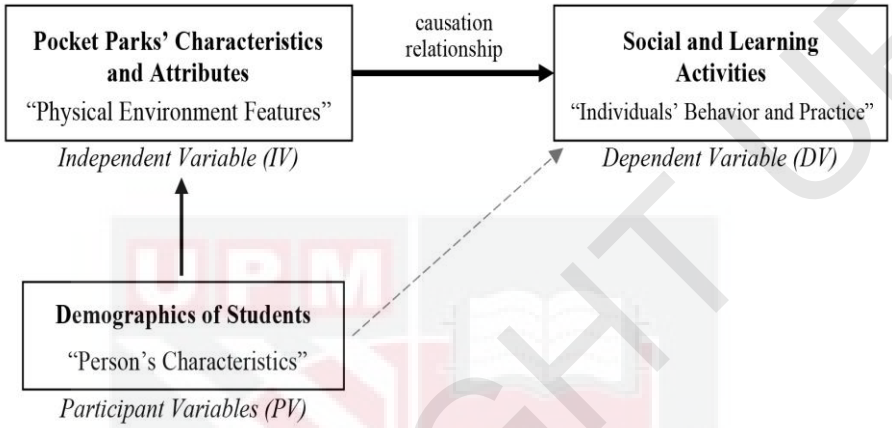

Figure 1.3: Theoretical Base of the Research
(Adapted from Giddens (1984) theory, and existing studies)

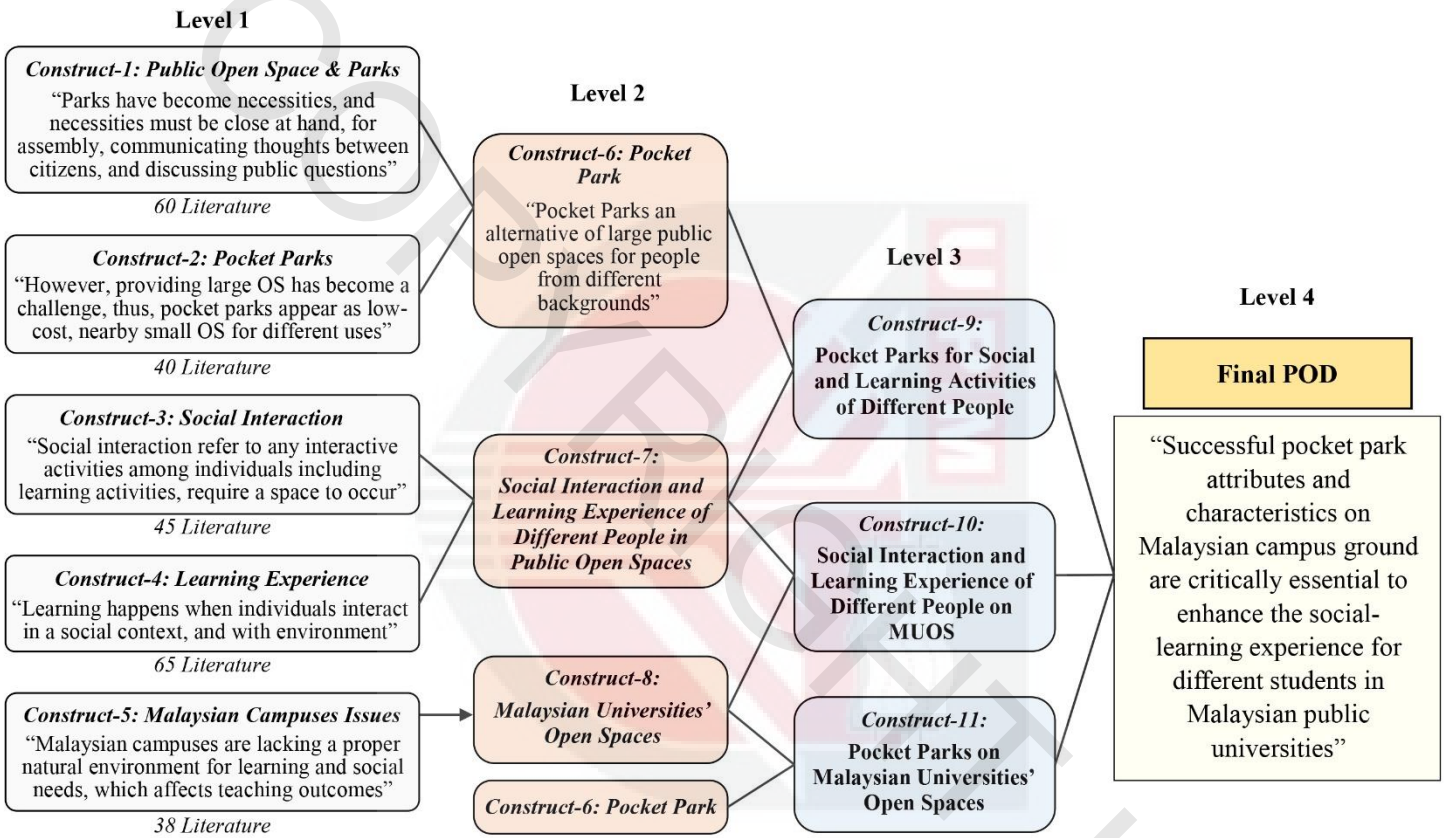

Figure 1.4: Theoretical Point of Departure of the Research
(Source: Author, 2019)

1.10 Research Questions

Concerning the research problem of this study, the main research question (main-RQ) is as follows:

> How to develop a pocket park model for enhancing the social-learning experience of students from different backgrounds in the Malaysian public universities?

There are some sub-research questions (sub-RQ1, sub-RQ2, and sub-RQ3) derived from the main research question and developed according to the previous literature studies, are as follows:

I. Which factors are affecting students' social and learning in on-campus pockets of the Malaysian public universities?

II. What are the preferred attributes of pocket parks for enhancing students' social and learning experiences in the Malaysian public universities?

III. What is the role of students' backgrounds on their preferences to pocket park characteristics and attributes proposed in the Malaysian public universities?

1.11 Research Objectives

This study embarks on the following research objective, and based on the RQs, problem statement, and theoretical construct:

> To develop a pocket park model for enhancing the social-learning experience of students from different backgrounds in the Malaysian public universities.

There are some sub-research objectives (sub-Obj1, sub-Ob2, and sub-Ob3) derived from the main objective, are as follows:

I. To investigate factors affecting students' activities in on-campus pockets of Malaysian public universities, which determine the characteristics of the pocket parks.

II. To identify the preferred attributes of pocket parks for enhancing students' social and learning experiences in the Malaysian public universities.

III. To determine the role of students' backgrounds on their preferences to pocket park characteristics and attributes proposed in the Malaysian public universities.

1.12 The Significance of the Research

Claims about the benefits and importance of including open spaces in the learning experience have recently increased (Keppell et al., 2011; Ellis and Goodyear, 2016). In general, prosperous nearby small public areas such as pocket parks perform a significant role in developing social interaction and social coherence, well-being, health, as well as improving the quality of life of nearby communities (Nordh and Ostby, 2013; Gibson and Canfield, 2016). Such spaces also could play the role of outdoor educational spaces in promoting students' learning activities (Perkins and Will, 2014; Hecke et al., 2018). Although an abundant number of scholars have studied the importance of public spaces and parks, the need for a study on the criteria and components of nearby small landscapes is necessary, especially with concern on the learning and academic settings (Bakhshi et al., 2015; Maheran et al., 2017), and this necessity advocates the objectives of the present study. Ibrahim and Fadzil (2013), as well as Akhir et al. (2018), mentioned that there was a need to conduct studies on how to improve learning settings in nearby outdoor spaces of academic institutions, especially in the Malaysian context. These claims directly underpin the necessity of conducting the present study to identify the attributes and characteristics of pocket parks for enhancing social activities and learning experience on the Malaysian campus ground. The results of this study would contribute to a pocket park model that integrates social learning on-campus grounds for improving academic outcomes. This study also helps scholars in integrating nearby landscapes in social and learning experiences on global campuses.

1.13 Research Scope and Limitation

In line with the objectives of the current research, the pocket park model in the Malaysian public campuses is for enhancing the social and learning experiences of students from different backgrounds are the main subjects. In this research, the main goal was to identify the characteristics and attributes of a successful and responsive pocket park on-campus ground for students from different demographics. Thus, this research was conducted in a mixed-methods approach in the field of architecture and landscape design concerning the quality of students' lives on the campus ground. Accordingly, the research was limited to pocket parks' characteristics, landscape elements, and activities according to the respondents' preferences and demographics. Besides, this study utilised a stratified judgment sampling procedure which reflects the opinions of 401 respondents from the architecture, landscape, and engineering schools of three public research universities in Malaysia (UM, UPM, and UKM) to represent the views of the Malaysian academic community; thus, the findings must be dealt with carefully. Taherdoost (2016) and Sheriff and Abdullah (2017) recommended that the targeted sample be relevant to the study's subject; thus, the sample respondents could be more familiar with the research's content. The proximity to Kuala Lumpur also helped the researcher to easily access and obtained the required data in time. However, the role of other public spaces on different campus grounds for students' learning experiences has been left for future relevant studies. The findings of this study depended on the integrity and honesty of respondents' answers and the descriptive and inferential statistics as the primary method of data analysis for each variable separately, according to the recommendations of Creswell (2014).

1.14 Research Structure

The data for the current study was collected and analysed using a mixed-methods approach that included both a quantitative survey and qualitative focus groups. Creswell (2014) recommended that the research framework be developed based on the nature of the research problem, research questions, research theory, and study audiences (Figure 1.4). This research encompasses six chapters representing the introduction, literature review, research methodology, data analyses and results, findings and discussions, and conclusion and recommendations. Chapter I describes the introduction that explains the research agenda, including research background, problem statement, hypothesis, research objectives, research questions, conceptual framework, and study limitation. Chapter II highlights the literature review that develops the research hypothesis and bridges the recent issues regarding research constructs. This chapter covers an accurate analytical report for the text material of the research constructs using both systematic review and content text analysis. The subjects of the literature review chapter include public open spaces and parks, pocket parks, social interaction and social experience, learning experience, and the Malaysian universities.

Chapter III covers the research methodology used that includes research design and strategy, study area and samples, data collection procedures, and data analysis procedures. This chapter also highlights how the first sources of evidence and theoretical constructs led to establishing the relationships between the variables of the study. Chapter IV covers the data analysis process and results of the research for both quantitative and qualitative collected data. In chapter IV, the descriptive and inferential statistics utilised to analyse the quantitative data by using SPSS 23, and content analysis used to analyse the qualitative data by using ATLAS.ti 8, are covered. Chapter V covers the research findings, including findings and findings' discussion based on the variables of the study and findings on the proposed pocket park model. Chapter VI covers the research conclusion, including summary, conclusion, contribution acknowledgement, and recommendations for future researches.

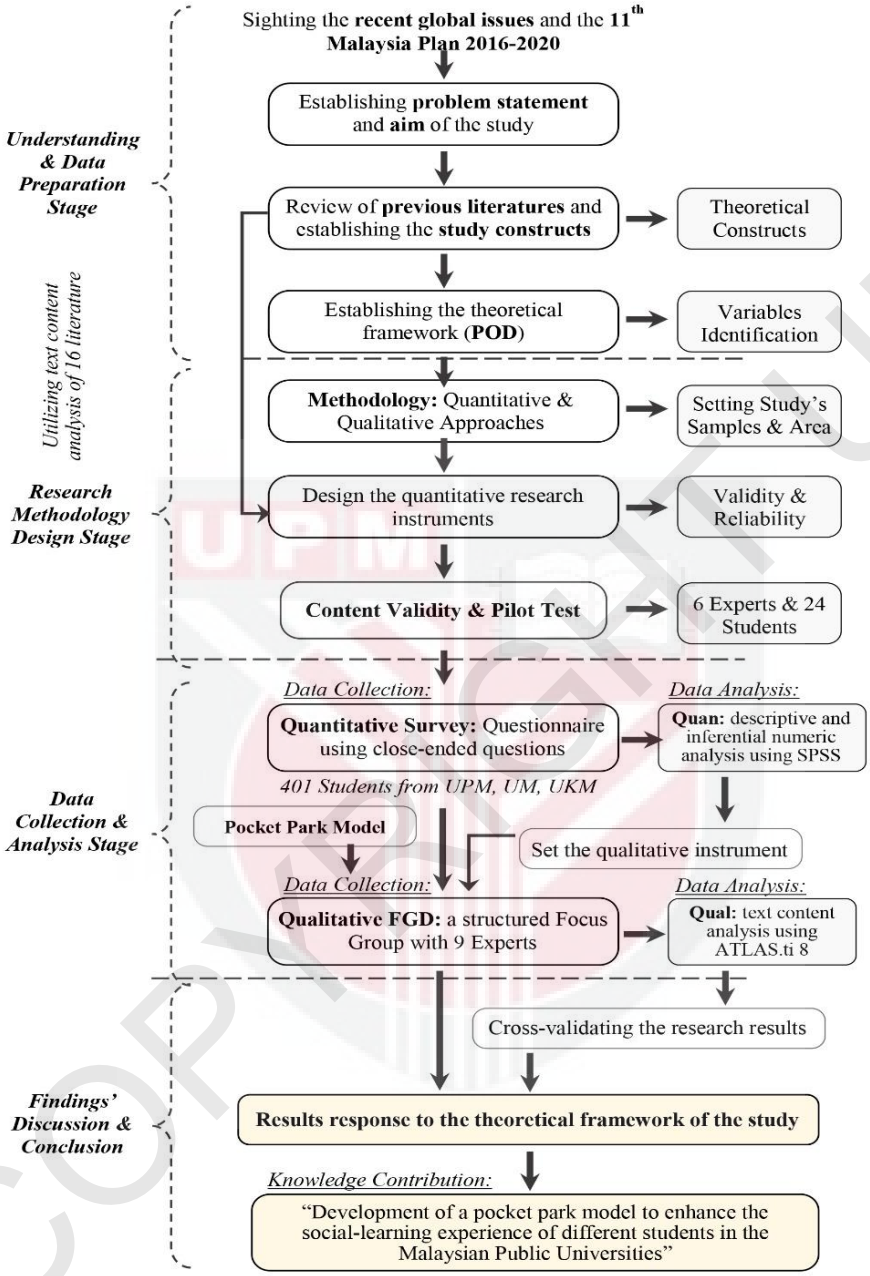

Figure 1.5: Development of the Research Structure
(Source: Author records, 2020)

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