Article

Factors Affecting Social Learning in Nearby Pockets on Tropical Campus Grounds: Towards a Sustainable Campus

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Abstract: Nearby natural environments on campus grounds have become imperative in enhancing sustainable academic experiences by facilitating sustainable social learning. However, tropical region campuses prioritise traditional education while neglecting sustainable social learning. Therefore, the purpose of this study was to facilitate the use of nearby sustainable pocket settings on campus grounds to enhance social learning experiences. The present study aimed to identify factors affecting social learning experiences in nearby (sustainable) pocket spaces on tropical campuses. It utilised a verbal questionnaire survey conducted in three research universities in Malaysia to investigate the factors affecting 408 respondents in nearby (sustainable) pockets. The respondents were selected using stratified judgemental sampling. This study's findings revealed that many influencing factors predicted the social learning experience in tropical universities' nearby pockets, which were arranged into four domain factors: elements and activities, natural environment factors, perceived environment factors, and social factors. This provided a proven correlation between the lack of social learning in nearby pockets and the factors of these sustainable settings. The findings also showed that students' demographic factors, including education status and university affiliation, influenced their social learning experience. The present study significantly linked education to sustainability by integrating social learning into nearby sustainable pocket settings.

Keywords: social learning experience; influencing factors; sustainable campus; sustainable nearby pocket settings; sustainable social learning settings; tropical region university

1. Introduction

Public spaces and green settings play a crucial role in the human experience and daily living, as they fulfil individuals' requirements for social interactions and everyday activities while also contributing to sustainability and sustainable development [1,2]. In contemporary times, the proximity and accessibility of public spaces and natural environments have emerged as essential requisites, owing to their significant impact on individuals' overall well-being and life satisfaction [2,3]. Various socio-demographic groups are encouraged to engage in diverse activities, which in turn lead to a multitude of benefits, including health, environmental, aesthetic, socio-cultural, educational, and physical aspects [2,4]. Nevertheless, the rapid process of global urbanisation and the concurrent expansion of population have adverse impacts on the availability and accessibility of expansive green areas. The decline in natural environments and green spaces has a consequential impact on various areas, including the environment, climate, human health, and social and cultural factors [5,6].

Pocket settings refer to small urban green spaces or social public spaces, typically including more natural components, located in close proximity to daily activity. They

usually serve as public places for people to socialise, enjoy nature, relax, or engage in several activities in urban natural environments. Therefore, well-designed pocket spaces can be considered strong sustainable spaces [7–10]. There has been an increasing focus in the literature on the use of pocket spaces as a means to enrich the experiences of specific communities, including the student community [11–14]. However, to achieve the intended advantages of these pocket spaces, it is important to consider appropriate physical, social, and environmental characteristics and factors [15,16]. The existing body of knowledge shows a variety of factors affecting users' pocket spaces, such as softscape and hardscape elements [17–20], sensory elements [21], environment and weather [9,18,22–24], services and facilities [25–27], and management and maintenance [25–27]. The efficacy of such spaces is contingent upon a multitude of factors, such as layout, design, community preferences, and environmental and cultural context [22–25]. However, the existing body of literature shows divergent perspectives on the key factors influencing the users' of these spaces [19–22]. For example, some individuals may have different preferences and needs, which can be influenced by their personal factors such as age, background, and personal experiences [13,14,25].

On the other hand, the acquisition of knowledge can take place through interpersonal interactions within a social and environmental framework [28]. The need for education, encompassing both primary and tertiary levels, is witnessing a steady rise across all societal contexts. Professionals in the field and scholars are actively enhancing creative pedagogical methods such as informal and non-formal learning [28,29]. Destin et al. [29] underscored the imperative for universities and higher education institutions to demonstrate responsiveness to the multifaceted cultural, social, and intellectual requirements of their student body; in order to achieve these goals, it is essential to integrate diverse learning environments within the campus setting [28,29]. These environments encompass a range of characteristics, such as physical and virtual places, formal and informal settings, outdoor and mobile areas, as well as personal and practice-based contexts [30–32]. The physical learning settings should be furnished with technological resources to facilitate the implementation of innovative instructional approaches [31,32]. According to Ibrahim and Fadzil [27], the conventional approach to classroom learning is insufficient to meet contemporary societal demands and learning methodologies. Hence, the presence of informal spaces in close proximity to campus premises has been found to be associated with a constructive, sustainable learning environment that fosters enhanced social interaction and active involvement of students in formal and informal activities [32–34].

However, there is a lack of research conducted in the domain of informal and social learning. Insufficient research has been conducted on the phenomenon of social learning within informal or proximate public areas and settings situated on university campuses. To address a gap in the existing literature, the purpose of the present study was to facilitate the use of the nearby on-campus pocket settings as a sustainable campus setting for enhancing students' social learning experiences. Therefore, the primary objective of this study was to identify the factors affecting students' social learning experiences in nearby (sustainable) pocket spaces on the campus grounds of tropical universities. The present study contributes to the current literature by providing an innovation of a framework of the physical, social, environmental, and personal factors influencing students' social learning experience in nearby pocket settings on campus grounds. Many existing studies only discussed the nearby pocket parks in the neighbourhood context. Still, they did not investigate the nearby pocket settings as sustainable social learning spaces on campus grounds, which is the new contribution of the present study. Therefore, this study contributes significantly to linking academic education to sustainable development.

The rest of this study is organised as follows: the second section is the literature review, which discusses the past results regarding the concepts of nearby pockets, social learning, and their settings, focusing on campus ground pockets and users' social learning. This section also discusses the research gap and justification and ends with the theoretical basis and hypothesis. The third section is the Materials and Methods section, which

provides a discussion on the site and sample selection technology, survey questionnaire procedure, validity and reliability methods, and data analysis procedure. Results are discussed in the fourth section, including the descriptive, bivariate, and multivariate analyses for demographic characteristics, social learning variables, and pocket settings variables. The fifth section provides this study's discussion, which discusses the present study's findings, limitations and recommendations for future studies, and theoretical and empirical contributions. Finally, the Conclusion section concludes this study's findings.

2. Literature Review

2.1. Sustainable Pocket Settings and Their Factors

Pocket parks and pocket settings have emerged as cost-effective, small, nearby public spaces spanning an area of less than 5000 m^2 that successfully facilitate a range of social activities and offer numerous advantages for diverse user groups [7–9]. These nearby spaces play a critical role in sustainable development and its goals by providing nearby low-cost social green public spaces, which is important for enhancing well-being and sustainable communities; it also contributes to sustainability by promoting green settings that could reduce energy use [6,8,18]. Green settings can also have a better environmental effect by reducing carbon emissions and air pollutants, contributing to sustainability [34,35]. According to Salih et al. [6], pocket settings or pocket spaces encompass a diverse array of compact urban areas in close proximity that are purposefully built to support daily activities while also promoting environmental preservation through the conservation and sustainable utilisation of natural resources. The utilisation of pocket settings presents a valuable opportunity for promoting sustainable social engagement within urban populations. According to Tabassum [8] and Armato [10], pocket spaces are perceived to possess a higher level of safety and security compared to larger parks. According to Tabassum [8] and Shahhoseini et al. [11], it is suggested that contemporary urban authorities should prioritise the establishment and upkeep of smaller parks and public spaces instead of larger ones due to their role in sustainability and well-being. In recent years, there has been a growing interest in the utilisation of pocket spaces to enhance the experiences of particular communities, such as students [12] and adolescent learners [13,14].

Therefore, the key factor of pocket settings could vary based on the users' demographic variables, such as age, gender, and education [13,14,25], or based on the users' type of activities and preferences [22,25]. However, it is necessary to ensure that these pockets are constructed with appropriate characteristics and factors in order to achieve the intended advantages [15,16]. The success of pocket parks and small settings is heavily influenced by various factors, as highlighted in the studies conducted by Peschardt et al. [17] and Belčáková et al. [18].

Nevertheless, the literature exhibits conflicting viewpoints regarding the specific aspects that influence individuals' utilisation of pocket space. According to Nordh and Ostby [19] and Ding et al. [20], the predominant factors influencing the utilisation of pocket parks include natural elements such as plants and water, as well as hard elements like benches, along with various activities. In their study, Hussein et al. [21] examined the concept of sense elements, which pertain to various natural landscape and garden features that have the ability to excite the five senses of the human body. The literature highlights that many environmental conditions, including temperature, precipitation, and shading, have been identified as significant determinants of the effectiveness of urban pocket parks [9,18,22–24]. According to Abd El-Aziz [25], the presence of pocket parks offers a platform for collaboration among many stakeholders involved in the design, building, and upkeep of these spaces. In addition, the provision of refreshment facilities and power outlets on a campus's premises has a crucial role in fostering learner engagement, as highlighted by Ibrahim et al. [26] and Ibrahim and Fadzil [27]. Overall, the previous evidence showed that the pocket settings and nearby natural spaces and their design characteristics are correlated with the users' demographics and social activities; they could contribute significantly to nearby communities' well-being and sustainable development.

However, there is a lack of comprehensive research that studies the nearby pockets' various social, environmental, and physical factors. The evidence then recommended further investigation to understand better the multiple factors affecting sustainable pocket parks and pocket settings users [14,27].

2.2. Social Learning and Education

Education prepares and teaches people to live and work efficiently, productively, and effectively in and around their environment [28]. Several factors, including advancements in modern technology, the environment, and social tools, have recently led to necessary changes in educational approaches and methods. These technologies challenge the educational and university systems' traditional methods [28,31]. Thus, traditional formal learning may threaten the implementation of more student-centred and flexible learning approaches in higher education [26]. Several informal and non-formal learning approaches and settings have emerged from this sense, including social learning. Social learning refers to acquiring knowledge and experiences through interaction among learners with each other in a social-environmental context [28]. Social learning settings that are situated outside of traditional classroom environments, such as student socialisation areas, spaces for social cooperation, pocket spaces, and outdoor spaces on campus, have the potential to enhance the overall learning experience by facilitating various social learning activities [26,35]. Therefore, social learning and its settings contribute to sustainability by facilitating resilient learning experiences that promote students' inclusive quality education [26,28,35]. Pocket settings on campus grounds also provide a sustainable environment by promoting learners' socialisation in nearby natural spaces [26]. Ibrahim et al. [26] also confirmed that informal social learning environments had attained a level of significance comparable to that of official learning spaces within educational institutions. Engaging in social learning activities beyond traditional classroom settings has enhanced students' attentiveness, personal values, and social and academic talents. This is achieved by providing a flexible and informal social learning environment [32]. These activities encompass many forms of interactive, collaborative, and cooperative social, physical, and educational engagements among learners, which enhance their social and educational experiences [32]. In general, social learning and its settings are considered distinguished sustainable practices, as they can contribute to quality education, learners' well-being, sustainable development, and communities. Therefore, it is important for any effective and sustainable education system to integrate informal social learning (resilient social learning that occurs outside the classrooms) into the traditional formal learning structures (or conventional education). However, social learning remains unexplored as widely as formal traditional learning [6,12]. The key factors affecting the users of the social learning settings are still undefined. Therefore, more research is needed to investigate social learning and its sustainable settings, especially in nearby pockets on campus grounds [12].

2.3. Sustainable Social Learning Settings On-Campus Ground

Existing evidence examined various types of learning settings for different types of users on campuses, such as formal learning settings (traditional classroom, focus lab, resource space, and presentation space), informal learning settings (incidental activity space and family settings), and social learning settings (nearby pocket space or breakout space, outdoor space or courtyard, and collaboration space) [35,36] (see Figure 1). Social learning pocket spaces of varying dimensions, defined by the landscape, building edge, or lightweight cover, provide sustainable environments with essential characteristics for students' on-campus experience. Keppell et al. [31] and Fisher [35] also confirmed that these social breakout pocket spaces provide opportunities for socialisation, private and group study, and small group activities that can contribute to informal sustainable education. However, Keppell et al. [31] and Fisher [35] focused primarily on informal learning contexts. Rea [28] also demonstrated that learners of all ages are entitled to more natural learning opportunities and settings. Ibrahim et al. [26] discovered that on-campus ecolog-

ical resources and participation in informal activities play a significant role in fostering positive emotions and experiences in students. However, Ibrahim et al. [26] only examined informal learning settings.
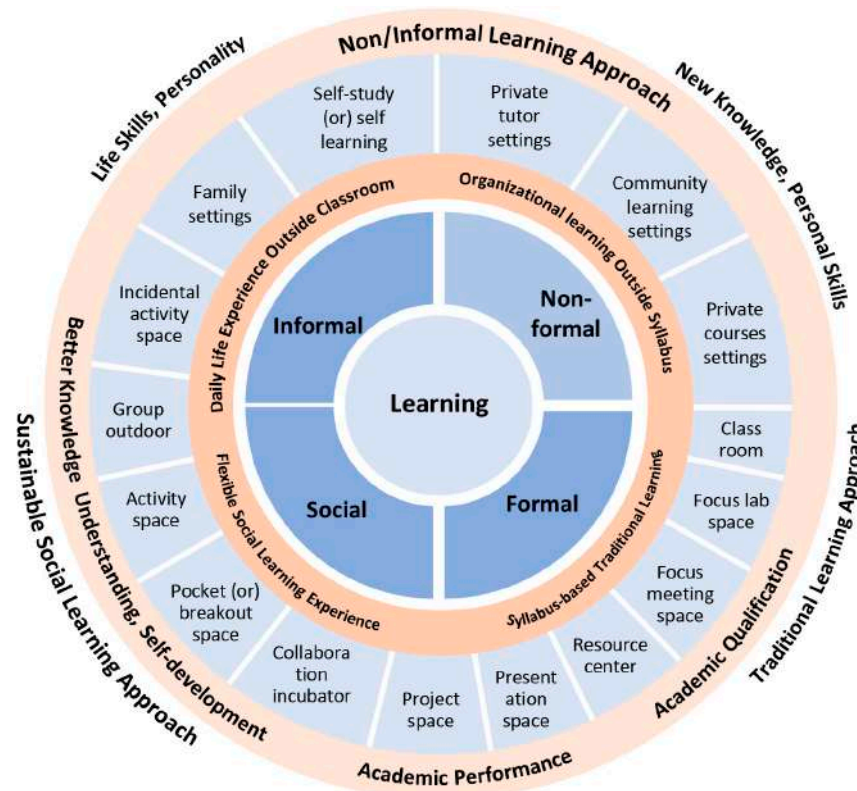

Figure 1. Matrix of learning settings for different learning modes (Source: Authors' records).

Hecke et al. [13] and Mertens et al. [14] highlighted the role of space design factors and parameters in users' experience of these spaces. According to Salih et al. [6] and Yang and Chau [37], informal learning spaces and their design tools in natural environments offer opportunities to enhance personal, social, and academic growth. Salih et al. [6] confirmed that appropriate characteristics of these spaces contributed to the development of awareness, social improvement, and environmental benefits. Valtonen et al. [32] also highlighted the need for well-designed, attractive, and well-equipped contemporary social learning spaces for sustainable learning in between the campus buildings. Overall, the nearby pocket spaces and their factors provide critical sustainable settings on campus grounds for enhancing learners' resilient social learning activities that contribute to sustainable campuses. However, the existing literature also asserted that there is a need for a precise and systematic reference for sustainable social learning settings and their design aspects for improving a rich learning experience in sustainable learning and eco-education [14,28,32].

2.4. Research Gap and Justification of This Study

There is increasing evidence of the benefits of informal and social learning on learners' performance and sustainable development in education [32]. Informal learning spaces on campus grounds play an essential role as social learning settings in enhancing the social coherence and learning activities of multilateral learners [31,32,38]. Most Western universities utilise nearby public spaces for social activity and formal and informal learning [6]. However, tropical climate universities, especially in Malaysia, mainly focus on formal indoor learning and lack absorption of informal learning, which is a disservice to the academic aspirations of modern teaching institutions [6,26,39]. Outdoor social learning spaces on Malaysian campus grounds remain neglected or unexplored [26,40]. Moreover, research on nearby public spaces and sustainable pocket settings on tropical campus grounds and their

design parameters is still limited [39,41]. Therefore, a knowledge gap exists in understanding the factors affecting users' social learning experiences in nearby public spaces (pocket spaces) on tropical campus grounds. The present study aimed to fill the knowledge gap by identifying the factors affecting students' social learning experiences in nearby (sustainable) pockets of tropical climate universities on campus grounds.

2.5. Theoretical Base and Hypothesis of the Study

The present study's theoretical basis was established based on an intensive review of previous studies and distinguished theories in the context of social learning and its environments (Figure 2). The existing body of knowledge provides evidence on the possible types of factors affecting users of nearby pocket settings, such as design factors [2,3], landscape factors [26,42], social and human factors [6], and natural and perceived environmental factors [14,43].
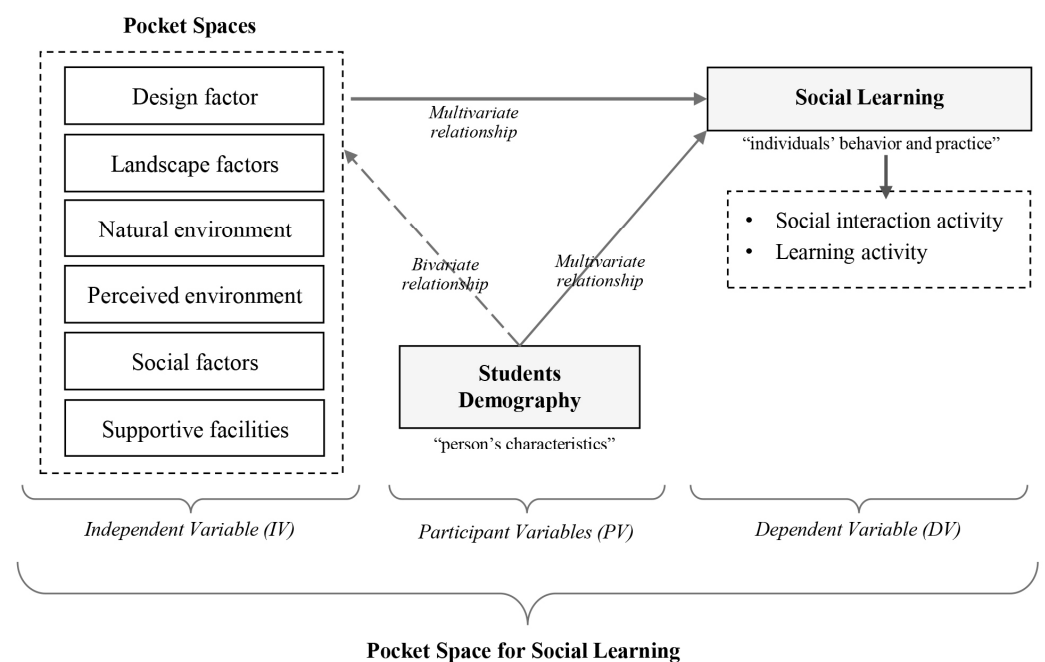

Figure 2. Theoretical basis of the study.

Furthermore, in his Social Learning Theory, Bandura [44] proposed that the dynamic interaction between environmental influences and cognitive factors shapes human learning and behaviour. He placed significant emphasis on observing, modelling, and imitating the behaviours, attitudes, and emotional responses of others in the process of learning and shaping one's behaviour. Bandura [44] confirmed, "Fortunately, most human behaviour is learned observationally through modelling: from observing others, one forms an idea of how new behaviours are performed, and on later occasions, this coded information serves as a guide for action". Furthermore, Kaplan and Kaplan's [45] Attention Restoration Theory, published in 1989, suggests that the diversity and novelty found in natural environments offer captivating, sustainable elements that help renew and replenish attention, revitalise depleted cognitive resources, and promote active engagement. They confirmed that spending time in natural environments can positively impact interactive learning and social interaction [45]. Natural and informal settings frequently facilitate more significant social interaction and experiential learning, contributing to these beneficial effects [45]. Therefore, these theories and the body of knowledge contributed to establishing the theoretical model of the study (Figure 2). The proposed Hypothesis 1 is as follows:

Hypothesis 1: *Various nearby pocket setting factors, including design factors, landscape elements, natural and perceived factors, social factors, and facilities, significantly affect students' social learning experiences on the campus grounds of tropical climate universities.*

3. Materials and Methods

3.1. Selected Site of the Study

The present study employed a quantitative survey methodology to examine the views of students towards the key factors that influence their social learning experiences in nearby pocket spaces within tropical (Malaysian) campus environments. Malaysia is home to a total of 20 state universities, 36 polytechnics, and 34 Private University Colleges [46]. These institutions collectively accommodate approximately 700,000 students, of whom about 160,000 are registered with public universities and engaged in various academic programmes [46]. According to Creswell [47], it is advisable to choose the study site based on certain criteria for site selection in order to ensure the collection of reliable data and minimise potential threats to external validity. Therefore, the selection of the study region was conducted by employing selection criteria and utilising a stratified judgmental sampling technique [47]. The selection criteria encompassed several factors: (a) the inclusion of a Malaysian institution to serve as a representative of tropical campuses; (b) the inclusion of research universities in Malaysia; (c) the consideration of site proximity to Kuala Lumpur within the Klang Valley; and (d) the inclusion of a sample from architecture and built environment schools. The Klang Valley region in Malaysia is home to three prominent research universities, including Universiti Kebangsaan Malaysia (UKM), Universiti Malaya (UM), and Universiti Putra Malaysia (UPM) (Figure 3). The sample was chosen from the adjacent pocket areas of the selected educational institutions. For further information, please refer to Salih et al. [6].

Universiti Kebangsaan Malaysia, or UKM, is the National University of Malaysia, a public research university located in Bandar Baru Bangi, Selangor, Klang Valley. The represented location, as seen in Figure 3, is situated around 30 km south of Kuala Lumpur city [6]. The main campus encompasses a lush valley that extends across an area of 1096 hectares. The Department of Built Environment is located in the southwestern area of the campus, which includes around 2.30 hectares of land. The department building is a quadruple-story courtyard building distinguished by its enclosure of a pocket courtyard with an estimated area of 75 m^2 [6].

The University of Malaya (UM) is a public research university situated in the southwestern region of Kuala Lumpur, Klang Valley (Figure 3). It is situated on a vast expanse of 365 hectares, encompassing natural parkland, hills, and valleys. The Faculty of Built Environment at UM is situated in the southwestern part of the main campus. The building in question is a single-block edifice consisting of five levels. It is situated in close proximity to a compact pocket space measuring around 160 m^2 [48].

Universiti Putra Malaysia, or UPM, is another Malaysian public research university located in Serdang, Klang Valley. Its primary campus is situated in close proximity to the capital, Kuala Lumpur, and adjacent to the administrative centre of Putrajaya. The campus of UPM spans more than 1000 hectares of land (Figure 3). The Faculty of Design and Architecture at UPM is situated in the southeastern vicinity of the main gate, in close proximity to the Faculty of Engineering, approximately three kilometres from the main library [49]. Its main building is a three-story courtyard, including a small pocket setting measuring less than 50 m^2 in size. This courtyard pocket serves as the primary communal space within the school. All three selected schools included nearby or courtyard pocket spaces encompassing an area of less than 100 m^2.
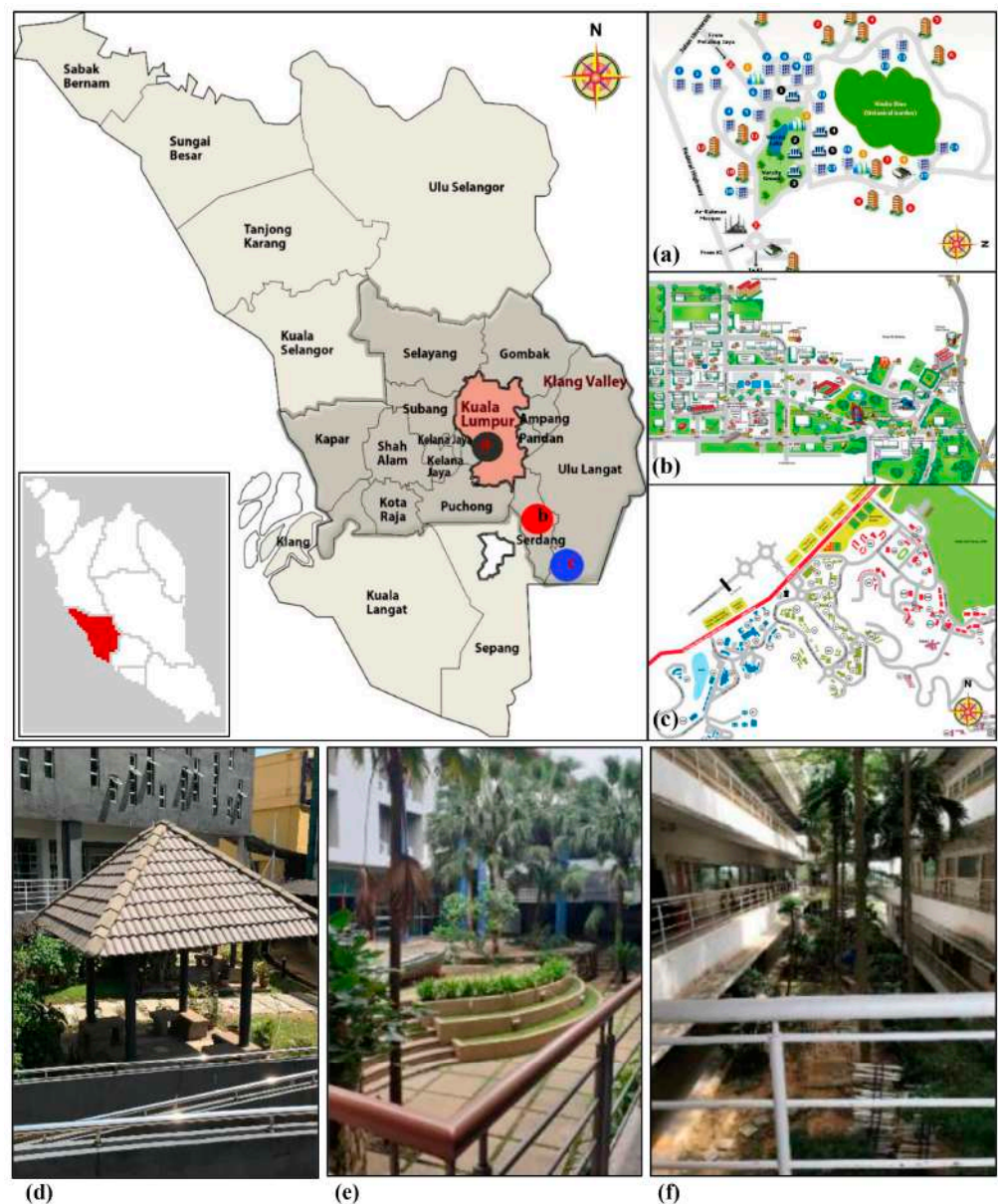
Figure 3. Location of the selected sites in Peninsular Malaysia. (**a**) UM. (**b**) UPM. (**c**) UKM. (**d**) Nearby pocket space, Faculty of Built Environment, UM. (**e**) Courtyard pocket space, Faculty of Design and Architecture, UPM. (**f**) Courtyard pocket space, Faculty of Engineering Built Environment, UKM. (Source: Authors' records).

3.2. Sample Selection

The study population consisted of students enrolled at Malaysian (tropical) universities. The current study employed a stratified judgmental sampling technique to choose participants from architecture and built environment schools at three research institutions located in the Klang Valley region of Malaysia (Figure 3). According to Taherdoost [50], it is crucial that the chosen sample be relevant to the research topic. Sheriff and Abdullah [51] have corroborated the assertion that students enrolled in research universities in Malaysia possess a commendable level of expertise in conducting research projects and surveys. Therefore, the selection of this sample helped the authors to collect accurate data where possible and reduced data collection errors. The combined student enrolment across the three universities exceeds 73,000, encompassing a diverse range of academic programmes. The researchers employed the simplified formula of Yamane to determine the appropriate sample size for the investigation. Based on the result from the simplified formula, a total of

450 questionnaire forms were distributed near the chosen universities, with 150 forms being sent to each university [52]. These forms were strategically distributed in the nearby pocket spaces (natural and green spaces) and informal learning areas of the selected schools.

3.3. Questionnaire Procedure

The questionnaire format comprised eleven items that were categorised into three sections. The first section aimed to gather information about the participants' demographic characteristics, which served as the participant variable (PV). The second section focused on the participants' social learning experience within the campus grounds, which was considered the dependent variable (DV). Lastly, the third section explored the factors that influenced the participants in nearby pocket settings located on campus ground, which were regarded as the independent variable (IV). The questionnaire's content was formulated following a thorough examination of primary research articles published in reputable indexed journals [2,13,14,26,27,41–43,53,54]. The demographic variables encompassed in this study were (a) gender (1 = male and 2 = female), (b) ethnicity (1 = Malay, 2 = Chinese, 3 = Indian, and 4 = others), (c) education level (1 = Bachelor's, 2 = Master's, 3 = PhD, and 4 = others), and (d) university affiliation (1 = UM, 2 = UPM, and 3 = UKM).

The outdoor social learning experience comprised a set of seven closed-ended questions, with four focusing on participants' social interaction and three pertaining to their learning experience in the surrounding areas on campuses. The social interaction statements assessed the level of participants' engagement in social activities within the campus environment. The items of that section included the following: please indicate how long you use nearby pockets, natural nearby spaces, courtyard pockets, or breakout spaces on campus grounds for (a) socialisation (chatting and conversation), (b) social, recreational activities, (c) social refreshment activities (eating and drinking), (d) any other social activities, (e) informal group learning, (f) informal individual learning, and (g) formal learning [14,26,41]. The measurement scale employed for this particular section was a three-point ratio scale: 1 = never use them; 2 = <60 min daily; and 3 = ≥60 min daily. According to several studies [13,14], it is recommended that individuals engage in physical activities in outdoor environments for an average duration of 30 min to 60 min each day. This time frame has been associated with a range of health and social advantages.

The third section included the (six) factors influencing students in nearby pocket spaces (nearby natural environments). The items of that section included the following: please evaluate the level of effect of the following factors on your social learning activities on nearby pockets and natural settings on campus grounds: (1) design and layout: (a) well-designed space, (b) easy access to the space; (2) landscape elements: (a) hardscape, (b) softscape, (c) sense elements, (d) activities; (3) natural environment factors: (a) temperature, (b) rain and humidity, (c) wind, (d) sunlight, and (e) shade; (4) perceived environment factors: (a) management and maintenance, (b) safety and security; (5) facilities: (a) connectivity, (b) refreshment, (c) resources; (6) social factors: (a) existence of others and (b) participation in socialisation (Table 1). This study employed a 5-point Likert scale to evaluate the variables influencing the utilisation of on-campus pockets by participants, ranging from 1 (no affect) to 5 (major affect) [45,47,53]. The connectivity factor refers to the availability of internet access services and power outlets for the use of laptops [26].

Table 1. FL and CA of the Questionnaire.

Items		Description	FL (>0.70)	CA (>0.70)	References
Demographics	Item-a	Gender	0.753	0.812	[13,14]
	Item-b	Ethnicity	0.731	0.819	
	Item-c	Education level	0.743	0.813	
	Item-d	University affiliation	0.789	0.816	
Design and layout	Item-a	Well-designed	0.732	0.702	[26]
	Item-b	Easy access	0.702		

Table 1. *Cont.*

Items		Description	FL (>0.70)	CA (>0.70)	References
Elements and activities	Item-a	Hardscape	0.780	0.708	
	Item-b	Softscape	0.775		[14,19,42]
	Item-c	Sense elements	0.762		
	Item-d	Activities	0.715		
Natural environment	Item-a	Temperature	0.723	0.735	
	Item-b	Rain and humidity	0.820		
	Item-c	Wind	0.707		[13,26,27,42]
	Item-d	Sunlight	0.662 *		
	Item-e	Shade	0.832		
Perceived environment	Item-a	Management and maintenance	0.739	0.713	[43,54]
	Item-b	Safety and security	0.721		
Facilities	Item-a	Connectivity	0.782	0.780	
	Item-b	Refreshment	0.752		[2,27]
	Item-c	Resources	0.732		
Social factor	Item-a	Existence of other	0.704	0.715	[41,43]
	Item-b	Participation in socialisation	0.747		
Social learning experience	Item-a	Socialisation (chatting and conversation)	0.764	0.816	
	Item-b	Social, recreational	0.742		
	Item-c	Social refreshment	0.711		
	Item-d	Other social activities	0.632 *		[14,26,41,43]
	Item-e	Informal group learning	0.701		
	Item-f	Informal individual learning	0.706		
	Item-g	Formal learning	0.703		

* Note: The deleted items were natural environment (item-d) and social learning experience (item-d).

The self-administered questionnaire survey was conducted on weekdays from April to July 2019 in the morning hours (10:00 a.m. to 11:00 a.m.) and afternoon hours (12:00 p.m. to 3:00 p.m.). A total of 408 questionnaire forms were included in the present study, with 42 questionnaire forms being incomplete and hence excluded from the analysis. On average, the participants completed a total of 15 surveys per day, with each questionnaire requiring approximately 10 min to be filled out.

3.4. Validity and Reliability of the Survey

A committee of six experts evaluated the questionnaire's content validity, taking into account elements like readability, clarity, and comprehensiveness. Additionally, the same committee evaluated and approved the study protocol. The panel of experts consisted of three associate professors and three PhD lecturers specialising in architecture, landscaping, and urban design. They were affiliated with the Faculty of Design and Architecture at UPM. The content validity of the questionnaire items was assessed by employing the Content Validity Index for Items (I-CVI). The results of the Content Validity Index (CVI) indicated that all three sections of the questionnaires had scores exceeding 0.80. This study's findings suggested a consensus among the six experts about the relevance and validity of the questionnaire items employed in the survey [55]. Then, a pilot study was undertaken with a sample size of 24 participants in order to assess the questionnaire's time efficiency, clarity, language appropriateness, and reliability prior to commencing the data collection phase. The preliminary investigation revealed that participants required an average of approximately 10 min to complete the questionnaire, and no feedback was received regarding the comprehensibility or linguistic aspects of the survey.

The questionnaire items were also tested for factor loading (FL) and internal consistency reliability by using Cronbach's alpha (CA) (Table 1). The FL and CA were measured by using SPSS 25 [55]. One item from each natural environment factor and social learning experience was removed due to low FL (<0.70) (Table 1). Therefore, the final values of FL

and CA were higher than 0.70 for each item in the questionnaire tool. The FL test was also used to obtain a fixed factor from all the items, explaining 20.580% of the variance. Therefore, the results of the validity, pilot test, FL, and reliability showed that the questionnaire was indeed precise and reliable. All participants had provided informed consent before applying for the survey or any related procedure.

3.5. Data Analysis Procedure

The present study utilised frequency and descriptive statistics to examine the demographic variable of the participants (PV) as well as their social learning activities on campus (DV). This study employed descriptive statistics to examine the factors influencing users' activities in surrounding pocket settings located on selected campus grounds (IV). In addition, a bivariate analysis employing Pearson's correlation was employed to examine the correlation between the variables of the study. Furthermore, this study employed multiple regression analyses to examine the multivariate associations among the overall social learning experience (DV), demographic features (PV), and influencing factors in surrounding pockets (IV). The DV in Pearson's correlation and multiple regression analysis was the final social learning experience, which encompassed the cumulative value of six social learning activities: socialisation, social recreational activities, social refreshments, informal group study, informal individual study, and formal learning activities.

Regarding the IV, the design and layout variables encompassed two items: a well-designed space and a layout that facilitates easy accessibility. The element and activity factors consisted of the sum of four items, including softscape, hardscape, sensory elements, and user activities. The final natural environment factors encompassed the sum of four items, including temperature, precipitation and humidity, wind patterns, and the presence of natural shade. The perceived environmental aspects encompassed two items pertaining to management and maintenance, as well as safety and security. The facilities encompassed the sum of three items: connectivity, refreshment, and resources. The social factor encompassed the sum of two items: sociability and noise level. A significance level of less than 0.05 was used to determine statistical significance. The data obtained from the study were subjected to analysis by using SPSS version 23, a widely used and sophisticated statistical software application for analysing social science data.

4. Empirical Results

4.1. Demographic Characteristic Variable

A total of 408 participants had completed the questionnaire survey. The average age of the participants was 23.80 ± 10.80 years, ranging from 18 to 40 years. About half of the sample (50.2%) were female (n = 205), and 49.8% were male (n = 203). The majority of the participants (46.8%, n = 191) identified as Malay, while 29.7% (n = 121) identified as Chinese. Other ethnicities accounted for 14.2% (n = 58) of the participants, with the Indian group being the lowest at 9.3% (n = 38). In terms of educational attainment, the majority of the participants (46.8%, n = 191) were enrolled as bachelor students. This was followed by 39.0% (n = 159) of participants who were pursuing a Master's degree and 14.2% (n = 58) who were enrolled in a PhD programme (Table 2).

Table 2. Frequency statistics for demographics and social learning activities.

Variable		Frequency	%	Ranges	Total	Missing
Gender	Male	203	49.7	1–2	408	-
	Female	205	50.2			
Ethnicity	Malay	191	46.8	1–4	408	-
	Chinese	121	29.7			
	Indian	38	9.3			
	Others	58	14.2			

Table 2. *Cont.*

Variable		Frequency	%	Ranges	Total	Missing
Education status	Bachelor	191	46.8	1–3	408	
	Masters	159	39.0			-
	PhD	58	14.2			
University	UM	100	24.1	1–3	408	
	UPM	150	36.1			-
	UKM	158	38.1			
Social learning experience	Never use nearby pock	183	44.8	1–3	408	
	<60 min daily	190	46.6			-
	≥60 min daily	35	8.2			

Furthermore, a significant majority of the participants in this survey were affiliated with UKM, accounting for 38.1% (n = 158) of the total sample. This was closely followed by UPM, with 36.1% (n = 150) of the participants, and UM, with 24.1% (n = 100) of the participants. Table 2 displays the demographic characteristics of the participants.

4.2. Social Learning and Pocket Settings Factors

The results of the frequency and descriptive analysis indicated that a significant proportion of participants (44.8%) did not utilise the nearby pockets on campus grounds for their social learning activities. According to data in Tables 2 and 3, the majority of participants (46.6%) used the nearby pockets for social learning activities for less than 60 min per day. Nevertheless, a small fraction of the participants, specifically fewer than 10%, utilised the on-campus pockets for social learning activities for one hour or more on a regular basis (Tables 2 and 3). This study's findings suggested that the majority of students in tropical climate universities in Malaysia either do not utilise the adjacent pocket settings or utilise them for less than 60 min per day for social learning activities.

The descriptive statistics pertaining to the factors influencing students in the surrounding pockets on campus grounds revealed that the natural environment factors exhibited the highest mean score (3.94 ± 0.727), followed by elements and activities (3.74 ± 0.722), facilities (3.66 ± 0.776), perceived environment factors (3.58 ± 0.951), and social factors (3.69 ± 0.678) (Table 3). Nevertheless, the factor that obtained the lowest mean score was design and layout, with a value of 3.55 ± 1.060. The findings of this study revealed that the primary determinants of on-campus pocket settings were the natural environment, elements and activities, amenities, perceived environment, and social aspects, in that order. The impact of design and layout factors on students' social learning in on-campus pocket settings is also considered significant but limited as compared to other factors.

4.3. Bivariate Analysis of the Study Variables

The bivariate relationship among the study variables was assessed by using Pearson's correlation, as presented in Table 3. The results of Pearson's correlation analysis indicated a statistically significant relationship between on-campus social learning and many influencing factors, including element and activity, natural environment, perceived environment, social, and facility factors ($p < 0.05$; Table 3). Pearson's correlation analysis also revealed a statistically significant relationship between on-campus social learning and participants' demographic characteristics, such as ethnicity, education level, and university affiliation ($p < 0.05$; Table 3). This study's findings suggested that various factors have the potential to influence the social learning experiences of students in nearby pockets of the campus, such as site design, environmental factors, and demographic characteristics. The multiple regression analysis only incorporated data that were deemed significant in Pearson's correlation analysis.

Table 3. Descriptive and bivariate statistics for the variable of the study.

	Variables	Mean ± SD	Values	1	2	3	4	5	6	7	8	9	10	11
1	Social Learning	1.55 ± 0.434	*(1–3)* ***	-										
2	Gender	-	-	−0.080	-									
3	Ethnicity	-	-	−0.269 **	−0.109 *	-								
4	Education Status	-	-	−0.406 **	−0.110 *	0.505 **	-							
5	University	-	-	0.242 **	0.003	−0.088	−0.111 *	-						
6	Design and Layout	3.55 ± 1.060		−0.011	−0.149 **	0.100	−0.082	0.110 *	-					
7	Elements and Activities	3.74 ± 0.722	*(1–5)* ****	−0.270 **	−0.191 **	0.085	−0.049	0.055	0.515 **	-				
8	Natural environment Factors	3.94 ± 0.727	*(1–5)* ****	−0.304 **	−0.284 **	−0.151 **	−0.259 **	0.022	0.465 **	0.526 **	-			
9	Perceived environment factor	3.58 ± 0.951	*(1–5)* ****	−0.098 *	−0.220 **	0.044	−0.120 *	0.082	0.550 **	0.407 **	0.462 **	-		
10	Social factor	3.69 ± 0.678	*(1–5)* ****	−0.234 **	−0.237 **	0.038	−0.158 **	0.023	0.315 **	0.438 **	0.441 **	0.287 **	-	
11	Facilities factor	3.66 ± 0.776	*(1–5)* ****	−0.114 *	−0.106 *	−0.168 **	−0.135 **	0.100 *	0.222 **	0.182 **	0.207 **	0.175 **	0.206 **	-

* Note: The table reports Pearson's correlations. * $p < 0.05$ (2-tailed). ** $p < 0.01$ (2-tailed). Values: *** (1 = never use NOS; 2 = <60 min daily; 3 = ≥60 h daily). Values: **** (1 = no affect; 2 = minor affect; 3 = neutral; 4 = moderate affect; 5 = major affect).

Additionally, Pearson's correlation analysis revealed a statistically significant relationship between the gender of the participants and all six factors examined in the study. There was a significant association between ethnicity and factors related to the natural environment and facilities. The participant's level of education was found to be significantly associated with factors related to the natural environment, perceived environment, social aspects, and facilities. Furthermore, the university attended by the participants was found to be significantly associated with the factor related to the design and layout of the environment ($p < 0.05$). The findings of this study suggested that students from diverse demographic backgrounds may experience various influences from numerous components present on the university grounds in tropical environments (Table 3).

4.4. Multivariate Analysis of the Study Variables

The current study used a two-step multiple regression analysis to determine the extent to which the two variables, factors of nearby pockets on campus grounds (IV) and students' demography (PV), could predict the student's social learning experience (overall DV). Only the significant items identified during the bivariate stage were involved in the regression analyses, which encompassed the following: (a) ethnicity, (b) education level, (c) university affiliation, (d) elements and activities factor, (e) natural environment factors, (f) perceived environment factor, (g) social factor, and (h) facilities factor. The initial step involved performing a multiple regression analysis to examine the relationship between demographic factors and the social learning experience. This step is presented in Model 1 of Table 4. The first model (Model 1) yielded a statistically significant outcome that accounted for 40.2% of the variability observed in the social learning experience ($R^2 = 0.402$, $F = 29.166$, $p < 0.001$). This step also revealed a statistically significant relationship between education level ($\beta = -0.356$, $p < 0.001$), university affiliation ($\beta = 0.194$, $p < 0.001$), and the influence of social learning experiences (Table 4).

Table 4. Frequency statistics for the demographics and social learning activities.

Variables: Influencing Factors	Model 1		Model 2	
	β	Sig.	β	Sig.
(Constant)		0.000 ***		0.000 ***
Ethnicity	−0.085	0.098	−0.874	0.382
Education status	−0.356	0.000 ***	−5.835	0.000 ***
University	0.194	0.000 ***	3.757	0.000 ***
Elements and activities			−0.136	0.012 **
Natural environment factors			−3.648	0.000 ***
Perceived environment factor			−3.370	0.001 **
Social factor			−0.138	0.017 *
Facilities factor			−1.065	0.288

Dependent variable: outdoor social learning experience. Model 1: R = 0.619; R2 = 0.402; F = 29.166. Model 2: R = 0.689; R2 = 0.473; F = 21.573. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

Furthermore, the multiple regression analysis used the cumulative significant values of the parameters influencing students' engagement in nearby pocket environments to forecast their social learning experience, as depicted in Model 2 (Table 4). The inclusion of components related to pocket settings in Model 2 significantly improved the model's fit. This improvement was evidenced by an increase in the variance explained in students' social learning experience in pocket settings, accounting for 47.3% of the observed variation ($R^2 = 0.473$, $F = 21.573$, $p < 0.001$). The results of Model 2 indicated a significant negative relationship between elements and activities ($\beta = -0.136$, $p < 0.05$), natural environment factors ($\beta = -3.648$, $p < 0.001$), perceived environment factor ($\beta = -3.370$, $p < 0.01$), social factor ($\beta = -0.138$, $p < 0.05$), and social learning experience in nearby pocket settings (Table 4). The findings of this study suggested that the social learning experience of students on tropical campus grounds is influenced by various factors, including elements and activities, natural environmental factors, perceived environmental factors, and social

factors. However, the analysis revealed no statistically significant relationship between the facility aspect and the social learning experience ($\beta = -1.065$, $p > 0.05$).

These results indicated that various factors, including elements and activities (softscape, hardscape, sense elements, and activities), natural environment factors (temperature, rain and humidity, sunlight, and shade), perceived environment factors (management and maintenance and safety and security), and social factors (existence of others and participation in socialisation), were found to predict the social learning experience on tropical campus grounds. Figure 4 demonstrates a negative correlation between the social learning experience and these factors. This result indicated a correlation between the lack of social learning experience of students in nearby pockets on tropical campus grounds and elements and activities, the natural environment, perceived environmental factors, and social factors. In other words, the negative physical, environmental, and social factors on tropical campus grounds led to a lack of use of the nearby pocket for social learning.
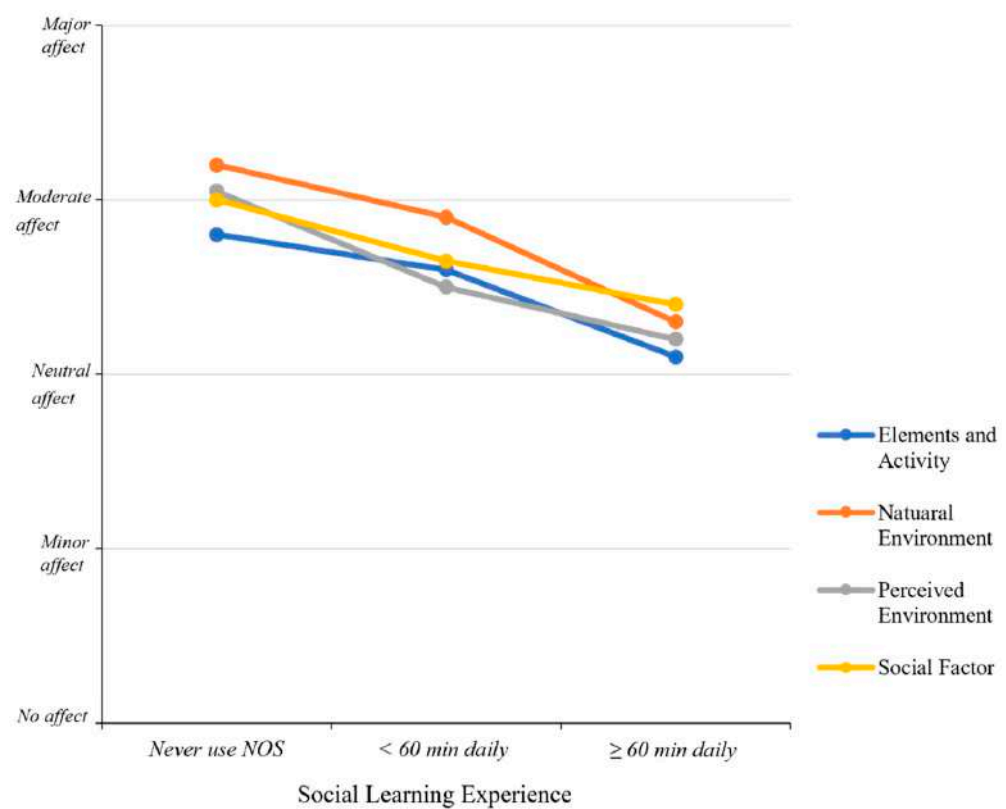

Figure 4. Mean comparison of the relationship between on-campus pockets' factors and students' social learning experience. (Source: Authors' records.)

Model 2 also shows a significant correlation between students' education level, university affiliation, and social learning experience ($p < 0.001$). This result indicated that students from various demographic backgrounds (including educational standing and university) have varying degrees of social learning experience in nearby pocket settings. In conclusion, elements and activities, natural environment factors, perceived environment factors, social factors, users' educational status, and university affiliation were significant predictors of social learning experiences in nearby pockets on tropical campus grounds.

5. Discussion

The primary objective of the present study was to identify factors that influence students' social learning experiences in nearby (sustainable) pockets on tropical campus grounds, using Malaysian public universities as a study area. The findings of the multiple regression analysis indicated that four domain factors served as significant predictors of

the social learning experience in nearby pockets on tropical campus grounds. These factors are (1) physical factors: landscape elements and activities, including hardscape, softscape, sense elements, and activities; (2) environmental factors: (a) natural environment factors, including temperature, rain and humidity, sunlight, and shade, as well as (b) perceived environment factors, including management and maintenance and safety and security; and (3) social factors, including the existence of others, and participation in socialisation (Figure 5). The aforementioned findings contributed to the previously reported findings by Ibrahim and Fadzil [27]; they highlighted that informal spaces located within or in close proximity to educational institutions ought to offer a diverse range of elements and activities to promote student utilisation. The findings indicated that the integration of these physical, social, and environmental factors in nearby pocket settings is critical to enhancing social learning and contributing to sustainable campus grounds.
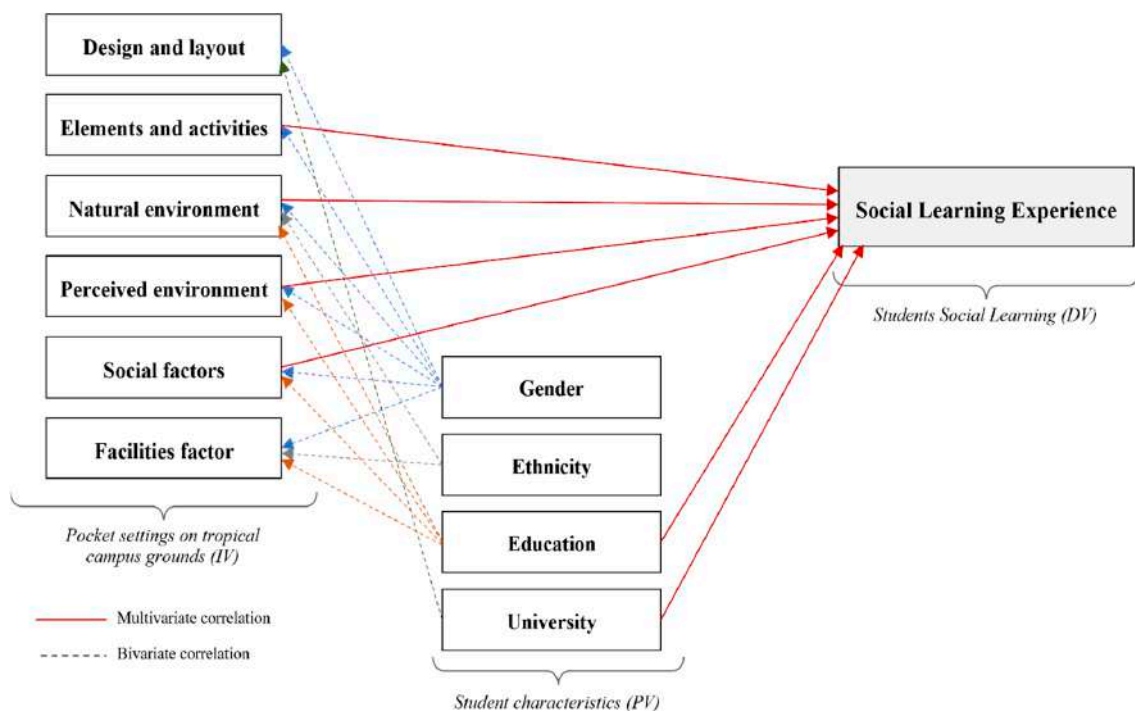

Figure 5. Factors influencing the social learning experience in pocket settings in tropical universities.

Most importantly, the results of the multiple regression analysis revealed a statistically significant negative relationship between the aforementioned variables and the extent of social learning amongst students in nearby pockets on campus grounds. This finding indicated that students who have limited opportunities for daily social learning in pocket settings on campus grounds are adversely impacted by different factors of these pockets, including elements and activities (softscape, hardscape, sense elements, and activities), natural environment factors (temperature, rain and humidity, sunlight, and shade), perceived environment factors (management and maintenance, safety, and security), and social factors (existence of others and participation in socialisation). Thus, these factors were found to be significant predictors of the social learning experience on tropical campus grounds. These findings contributed to the results provided by the existing body of literature [56–59], who indicated that the presence of close learning spaces on campus, constructed with appropriate components and aspects, can facilitate the creation of shared environments for social learning. The existing literature also substantiated the significance of environmental elements, such as temperature, precipitation, and shading, in influencing the utilisation of adjacent areas, particularly in regions characterised by hot and tropical climates [22,25,60].

Similarly, existing studies also mentioned that successful pocket spaces should be designed with a variety of softscapes [42], hardscapes, and activities [4], with a sound

design [4,56,57]. Perceived environment, such as maintenance and safety factors, and social factors, such as socialisation, were also highlighted as key factors affecting users of nearby public settings [25,43]. Although there is much evidence on the factors affecting nearby public space users, there is a lack of empirical studies that integrate a wide range of physical, social, and environmental factors, especially in the social learning context. Therefore, the present study aimed to enhance the understanding of the comprehensive framework for the factors affecting users of on-campus spaces.

Moreover, the descriptive statistics obtained from the present study indicated that a significant proportion of students exhibited a deficiency in engaging in diverse social learning activities in the nearby pockets located on campus grounds. The mean comparison showed that the elements and activities, natural environment, perceived environmental factors, and social factors on tropical campus grounds led to a lack of use of the nearby pocket for social learning (Figure 5). The findings of the descriptive analysis indicated that a majority of the students exhibited a limited utilisation of the current adjacent pockets, either by not utilising them at all or by utilising them for less than 60 min per day for on-campus activities.

The findings of this study aligned with the evidence from tropical institutions in Malaysia, indicating that universities in this region primarily prioritise formal indoor learning activities while neglecting outdoor and unstructured learning opportunities [39]. The potential cause of this phenomenon can be attributed to the current state of informal spaces in tropical institutions, as discussed by Ibrahim and Fadzil [27]. These spaces are found to be lacking in appropriate design attributes, particularly in terms of environmental and hardscape aspects, as highlighted by Zanariah, along with Norsidah and Maheran et al. [39,40]. Therefore, it is imperative for students to actively participate in casual activities inside the adjacent pocket spaces to obtain the various social, physical, and health advantages that have been identified in previous studies [13,27]. Enhancing the existing state of nearby pocket spaces within tropical university grounds, encompassing elements and activities, the natural environment, the perceived environment, and social factors, can effectively contribute to the advancement of students' sustainable social learning experiences. These findings may also suggest the necessity of implementing responsive pockets within the campus environment to facilitate and improve students' social learning experiences. To create sustainable responsive pockets on campus grounds, research from Malaysia found that a robust, sustainable shading device with good plant coverage would help lower the effects of climate change on the environment on campus grounds and boost sustainable activities [27]. Similarly, Valtonen et al. [32] suggested the physical design elements and characteristics of the campus and perceived environment are important perspectives for developing appropriate sustainable learning environments for higher education.

The multiple regression analysis results also showed that users' demographic characteristics, such as their educational background and university affiliation, have an impact on social learning on campus (Figure 5). The results suggested that there are variations in the social learning experiences of students across different educational backgrounds and universities in relation to surrounding pocket spaces. This finding is consistent with the systematic study conducted by Kerishnan and Maruthaveeran [9], whereby the amount of engagement in pocket parks may be influenced by various aspects pertaining to the participants, such as their level of education. However, Salih et al. [43] conducted a survey study that revealed a consistent pattern of social activity amongst the participants, regardless of their demographic characteristics. One plausible explanation for the observed differences in outcomes could be related to the participants' cultural backgrounds, with participants coming from a range of social and cultural backgrounds and being of different ethnicities. In addition, the bivariate analysis showed that many social, environmental, and physical factors in the areas around the tropical college grounds (Figure 5) had an effect on the demographic properties of the students. For instance, the impact of natural and perceived settings, social variables, and amenities on pupils varied depending on their educational backgrounds. Nevertheless, irrespective of the demographic characteristics

of students, the pocket settings and their design and environmental elements within the campus environment significantly influenced the facilitation or hindrance of the social learning experience.

Therefore, nearby pocket settings that consider physical, social, environmental, and personal factors are critical in enhancing students' social learning experiences on Malaysian and tropical campus grounds. Enhancing these factors, including landscape elements and activities, natural environment factors, perceived environment factors, and social factors, in nearby pockets on campus grounds can contribute to sound, sustainable social learning settings and experiences. Therefore, the results proved the validity of the theoretical construction proposed earlier in this paper, in which sustainable pocket settings and their factors were critical for enhancing social learning experiences towards sustainable campus grounds. Thus, concerned authorities must think seriously about improving the social learning spaces on campus grounds in order to develop more sustainable, responsive campuses, especially in tropical region universities.

5.1. Limitations and Future Directions

First, one limitation of the present study pertains to the sampling methodology employed, as a stratified judgmental sample was utilised, consisting of 408 participants from the architecture and built environment schools of three public research universities in Malaysia. The sample selection could limit generalisability; therefore, caution must be exercised when interpreting the findings. However, the study respondents were selected to represent the broader academic community in tropical regions. Consequently, caution must be exercised when interpreting the findings. Secondly, this research examined three social activities and three learning activities to assess the social learning experience inside the campus environment. In general, those who utilise pocket spaces can experience a diverse array of activities and advantages [13,14,43]. Therefore, more social and learning aspects could be investigated in future research. Thirdly, the present investigation encompassed four demographic variables, namely gender, ethnicity, educational attainment, and university affiliation. The available research has substantiated that several user characteristics, including age and income level, influence individuals' engagement with and utilisation of nearby public spaces [9,23,54,57,58]. Fourthly, this study investigated only the social, environmental, physical, and personal factors affecting users in nearby pockets; thus, the findings must be dealt with carefully. However, due to limitations in the present study, it was unfeasible to incorporate a greater number of items, as the inclusion of extra items could potentially impose a greater load on the participants. Hence, the present study proposed a subsequent investigation to explore the intricate correlation between sustainable pocket spaces and the patterns of usage, activities, and demographic characteristics of users. This is particularly crucial due to the significant role that nearby pocket spaces play in the academic lives of students. Finally, self-reported answers may be prone to bias. However, the present study applied a multistage process of validity and reliability before and after the survey, including content validity, pilot study, factor loading, and internal consistency reliability, to reduce the bias and error in the provided survey data.

5.2. Theoretical Contribution of the Study

Notwithstanding the aforementioned limitation, the present study has made a valuable contribution to the theoretical underpinnings of developing responsive, sustainable pocket settings on university campuses. These settings aim to foster sustainability and enrich the informal experiences of the academic community, particularly in Malaysia and other tropical countries. The present study elucidated the key factors, including landscape elements and activities, natural environment factors, perceived environment factors, and social factors, that exert influence on the social learning experience within the confines of nearby spaces on campuses. This study made a valuable contribution to the existing body of literature by deepening our comprehension and offering insights into the phenomenon of social learning and its sustainable settings by considering factors of these settings in the so-

cial learning model. Specifically, the study incorporated contextual physical aspects into the social learning model, enriching our understanding of this complex process. Although the pocket setting factors have been investigated in the urban neighbourhood context [14,19,25], they are still unexplored in the academic social learning context, especially in tropical climate universities. With the rising anecdotal evidence on the critical importance of social learning and its settings on campus grounds [32], the present study suggested that elements and activities, natural environment, perceived environment, and social factors were critical variables for enhancing the social learning experience. The current study also contributed to the existing framework of social learning settings in the sustainable environment context by explaining the types of physical, environmental, and social factors in the social learning settings model. Moreover, it expanded the understanding of the theoretical basis for the concept of sustainable social learning and its settings.

5.3. Practical Contribution of the Study

The present study highlighted the critical physical (landscape elements and activities), social (social factors), environmental (natural and perceived environment factors), and personal factors (students' demographics) affecting students' social learning in nearby pocket settings on campus grounds. The implication and enhancement of the recommended factors will facilitate the operation of the campus's nearby natural space for students' resilient, sustainable learning. These findings contribute to the practical implications for a sustainable urban campus and its settings by enhancing the understanding of the common factors affecting learners' campus activities. These findings could also help establish performance factors for upgrading the existing nearby pockets or developing new sustainable pockets on campus grounds. Therefore, the university development committee and responsible authorities are encouraged to include the mentioned factors to improve the on-campus informal and social spaces. The outcome of the present study was a framework for the responsible authorities that helped them predict the key factors influencing the students' social learning experience in nearby pocket settings on campus grounds, as shown in Figure 5. Therefore, university developers and responsible authorities must also provide an interactive natural environment, such as nearby pocket spaces, to enhance students' social interaction and engage with nature for a healthy, sustainable academic life. The present study also highlights the concept of social learning and its settings, which can help university academicians apply more resilient, sustainable approaches to teaching. Understanding and implementing the mentioned physical, social, environmental, and personal factors in any on-campus spaces is critically essential for a sound social learning experience, contributing to sustainable development goals through promoting quality education, learners' well-being, and sustainable education settings and communities. Therefore, university authorities worldwide should develop and upgrade nearby natural settings on campus grounds to enhance the learners' academic experience towards sustainable campuses.

6. Conclusions

Nearby pocket settings refer to urban natural settings that offer cost-effective, small-scale places in close proximity to communities, hence contributing several social, health, environmental, and well-being advantages to the local communities. Hence, the implementation of meticulously planned pocket settings can make a substantial contribution towards the advancement of sustainable development. In recent times, there has been a growing recognition of the significance of informal and natural social learning environments, such as adjacent open spaces and pocket settings. These settings have gained equal importance alongside formal learning spaces in enhancing the social learning experience and facilitating the creation of physical spaces for education that promote sustainable development (ESD). The present study posited that the optimisation of pocket settings on tropical campuses is crucial for enhancing students' social learning experiences. This optimisation entails considering various key aspects, such as elements and activities, natural environment factors, perceived environment factors, social factors, and demographic factors. The level of social

learning involvement amongst students in local pocket contexts may differ depending on their demographic characteristics, such as their educational background and the university they attend. On-campus pocket settings that are successful are those that effectively align with the natural context of the campus and cater to the social interaction and learning requirements of the academic community. By doing so, these settings make a substantial contribution to education for sustainable development (ESD) by providing many advantages. Hence, the present study succinctly elucidated the salient characteristics within on-campus pocket environments and their contribution to the development of sustainable academic communities in close proximity to urban areas.

References

1. Giddings, B.; Charlton, J.; Horne, M. Public squares in European City Centers. *Urban Des. Int.* **2011**, *16*, 202–212. [CrossRef]
2. Currie, M.A. A design framework for small parks in ultra-urban, metropolitan, suburban and small town settings. *Urban Des.* **2016**, *22*, 76–95. [CrossRef]
3. Douglas, O.; Lennon, M.; Scott, M. Green space benefits for health and well-being: A life-course approach for urban planning, design and management. *Cities* **2017**, *66*, 53–62. [CrossRef]
4. Salih, S.A.; Ismail, S. Determining the Factors Affecting Social Interaction in the Parks of Baghdad City, Iraq. *Archnet-IJAR* **2018**, *12*, 40–52. [CrossRef]
5. Moulay, A.; Ujang, N.; Said, I. Legibility of neighborhood parks as a predicator for enhanced social interaction towards social sustainability. *Cities* **2017**, *61*, 58–64. [CrossRef]
6. Salih, S.A.; Ismail, S.; Ujang, N.; Mustafa, F.A.; Ismail, N.A. Pocket settings for enhancing social learning experience on campus ground: A verbal-visual preference survey. *Ain Shams Eng. J.* **2023**, *14*, 102134. [CrossRef]
7. Baur, J.W.; Tynon, J.F. Small-Scale Urban Nature Parks: Why Should We Care? *Leis. Sci.* **2010**, *32*, 195–200. [CrossRef]
8. Tabassum, S. Environmental Response of Small Urban Parks in Context of Dhaka City. *J. Phys.* **2018**, *953*, 1–19. [CrossRef]
9. Kerishnan, P.B.; Maruthaveeran, S. Factors contributing to the usage of pocket parks—A review of the evidence. *Urban For. Urban Green.* **2021**, *58*, 126985. [CrossRef]
10. Armato, F. Pocket Park: Product Urban design. *Des. J.* **2017**, *20* (Suppl. S1), S1869–S1878. [CrossRef]
11. Shahhoseini, H.; Kamal, B.K.; Maulan, S. Visual preferences of small urban parks based on spatial configuration of place. *Int. J. Archit. Eng. Urban Plan.* **2015**, *25*, 84–93.
12. Towers, D.; Lynch, J. What kind of outdoor educator do you want to become? Trying something different in outdoor studies in higher education. *J. Hosp. Leis. Sport Tour. Educ.* **2017**, *21*, 117–121. [CrossRef]
13. Hecke, L.V.; Ghekiere, A.; Cauwenberg, J.; Veitch, J.; Bourdeaudhuij, I.; Dyck, D.; Clarys, P.; Weghe, N.; Deforche, B. Park characteristics preferred for adolescent park visitation and physical activity: A choice-based conjoint analysis using manipulated photographs. *Landsc. Urban Plan.* **2018**, *178*, 144–155. [CrossRef]
14. Mertens, L.; Van Cauwenberg, J.; Veitch, J.; Deforche, B.; Van Dyck, D. Differences in park characteristic preferences for visitation and physical activity among adolescents: A latent class analysis. *PLoS ONE* **2019**, *14*, e0212920. [CrossRef]

15. Hafner, K.; Zasada, I.; Zanten, B.T.; Ungaro, F.; Koetse, M.; Piorr, A. Assessing landscape preferences: A visual choice experiment in the agricultural region of Märkische Schweiz, Germany. *Landsc. Res.* **2018**, *43*, 846–861. [CrossRef]
16. Peker, E.; Ataöv, A. Exploring the ways in which campus open space design influences students' learning experiences. *Landsc. Res.* **2019**, *45*, 310–326. [CrossRef]
17. Peschardt, K.K.; Schipperijn, J.; Stigsdotter, U.K. Use of Small Public Urban Green Spaces (SPUGS). *Urban For. Urban Green.* **2012**, *11*, 235–244. [CrossRef]
18. Belčáková, I.; Slámová, M.; Demovičová, Z. Importance of Urban Green Areas in the Context of Current and Future Global Changes: Lessons Learned from a Case Study in Bratislava (Slovakia). *Sustainability* **2022**, *14*, 14740. [CrossRef]
19. Nordh, H.; Ostby, K. Pocket parks for people: A study of park design and use. *Urban For. Urban Green.* **2013**, *12*, 12–17. [CrossRef]
20. Ding, Y.; Li, D.; Sang, H. Park Characteristics and Changes in Park Visitation before, during, and after COVID-19 Shelter-in-Place Order. *Sustainability* **2022**, *14*, 3579. [CrossRef]
21. Hussein, H.; Omar, Z.; Ishak, S.A. Sensory Garden for an Inclusive Society. *Asian J. Behav. Stud.* **2016**, *1*, 33–43. [CrossRef]
22. Lau, S.S.; Lin, P.; Qin, H. A preliminary study on environmental performances of pocket parks in high-rise and high-density urban context in Hong Kong. *Int. J. Low-Carbon Technol.* **2012**, *7*, 215–225. [CrossRef]
23. Peschardt, K.K.; Stigsdotter, U.K. Evidence for Designing Health Promoting Pocket Parks. *Archnet—IJAR* **2014**, *8*, 149–164. [CrossRef]
24. Leng, H.; Han, B. Effect of Environmental Planning on Elderly Individual Quality of Life in Severe Cold Regions: A Case Study in Northeastern China. *Sustainability* **2022**, *14*, 3522. [CrossRef]
25. Abd El-Aziz, N.A. Potentials of creating pocket parks in high-density residential neighborhoods: The case of Rod El Farag, Cairo city. *Int. J. Dev. Sustain.* **2015**, *4*, 805–824.
26. Ibrahim, N.; Fadzil, N.H.; Saruwono, M. Learning Outside Classrooms on Campus Ground: A case study in Malaysia. *Asian J. Behav. Stud.* **2018**, *3*, 131–139. [CrossRef]
27. Ibrahim, N.; Fadzil, N.H. Informal Setting for Learning on Campus: Usage and Preference. *Procedia-Soc. Behav. Sci.* **2013**, *105*, 344–351. [CrossRef]
28. Rea, T. Informal learning outdoors. In *Perspectives on Participation and Inclusion: Engaging Education*, 1st ed.; Gibson, S., Haynes, J., Eds.; Continuum Publishers: New York, NY, USA, 2009; pp. 122–131.
29. Destin, M.; Rosario, R.J.; Vossoughi, S. Elevating the Objectives of Higher Education to Effectively Serve Students from Diverse Socioeconomic Backgrounds. *Policy Insights Behav. Brain Sci.* **2021**, *8*, 59–66. [CrossRef]
30. Oblinger, D. Leading the Transition from Classrooms to Learning Spaces. *Educ. Q. J.* **2005**, *1*, 14–18.
31. Keppell, M.; Souter, K.; Riddle, M. *Physical and Virtual Learning Spaces in Higher Education: Concepts for the Modern Learning Environment*; IGI Global: Hershey, PA, USA, 2011.
32. Valtonen, T.; Leppänen, U.; Hyypiä, M.; Kokko, A.; Manninen, J.; Vartiainen, H.; Sointu, E.; Hirsto, L. Learning environments preferred by university students: A shift toward informal and flexible learning environments. *Learn. Environ. Res.* **2020**, *24*, 371–388. [CrossRef]
33. Matthews, K.E.; Andrews, V.; Adams, P. Social learning spaces and student engagement. *High. Educ. Res. Dev.* **2011**, *30*, 105–120. [CrossRef]
34. Neely, A.D.; Marone, V. Learning in parking lots: Affinity spaces as a framework for understanding knowledge construction in informal settings. *Learn. Cult. Soc. Interact.* **2016**, *11*, 58–65. [CrossRef]
35. Fisher, K. *Building Better Outcomes: The Impact of School Infrastructure on Student Outcomes and Behaviour*; Training and Youth Affairs: Department of Education: Canberra, Australia, 2000.
36. Fisher, K. Research into Identifying Effective Learning Environments. Evaluating Quality in Educational Facilities 2005. Available online: http://www.oecd.org/edu/innovation-education/37905387.pdf (accessed on 13 July 2023).
37. Yang, M.; Chau, A. Social involvement and development as a response to the campus student culture. *Asia Pac. Educ. Rev.* **2011**, *12*, 393–402. [CrossRef]
38. Hedges, H. The "fullness of life": Learner interests and educational experiences. *Learn. Cult. Soc. Interact.* **2018**, *23*, 100258. [CrossRef]
39. Maheran, Y.; Fadzidah, A.; Fadhilah, R.; Farha, S. A Review of Criteria for Outdoor Classroom in Selected Tertiary Educational Institutions in Kuala Lumpur. *Mater. Sci. Eng.* **2017**, *291*, 012014. [CrossRef]
40. Zanariah, K.; Norsidah, U. Perception towards Sustainability Polytechnic Campus in Malaysia. *Alam Cipta J.* **2014**, *7*, 15–26.
41. Shamsudin, S.; Ismail, S.; Nordin, S.; Al-Mamun, A. Examining the Effect of Extracurricular Activities on Academic Achievements among the Public University Students in Malaysia. *Asian Soc. Sci. J.* **2014**, *10*, 171–177. [CrossRef]
42. Nordh, H.; Alalouch, C.; Hartig, T. Assessing restorative components of small urban parks using conjoint methodology. *Urban For. Urban Green.* **2022**, *10*, 95–103. [CrossRef]
43. Salih, S.A.; Ismail, S.; Mseer, A. Pocket parks for promoting social interaction among residents of Baghdad City. *Archnet-IJAR* **2020**, *14*, 393–408. [CrossRef]
44. Bandura, A. *Social Learning Theory*; Prentice-Hall: Englewood Cliffs, NJ, USA, 1977.
45. Kaplan, R.; Kaplan, S. *The Experience of Nature: A Psychological Perspective*; Cambridge University Press: Cambridge, UK, 1989.
46. Ministry of Higher Education (MoHE). Available online: https://www.mohe.gov.my/ (accessed on 16 November 2023).

47. Creswell, J. *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*; SAGE Publications: Thousand Oaks, CA, USA, 2014.
48. Universiti Malaya. About University Malaya. Available online: https://www.um.edu.my/ (accessed on 5 January 2023).
49. Universiti Putra Malaysia. *Universiti Putra Malaysia: Prospectus 2018–2019*; CoSComm, UPM: Selangor, Malaysia, 2019.
50. Taherdoost, H. Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *Int. J. Acad. Res. Manag.* **2016**, *5*, 18–27. [CrossRef]
51. Sheriff, N.M.; Abdullah, N. Research Universities in Malaysia: What Beholds? *Asian J. Univ. Educ.* **2017**, *13*, 35–50.
52. Yamane, T. *Statistics: An Introductory Analysis*; Harper and Rao: New York, NY, USA, 1973.
53. De Vaus, D. *Surveys in Social Research*; Routledge: Abingdon, UK, 2013.
54. Peschardt, K.K.; Stigsdotter, U.K.; Schipperrijn, J. Identifying Features of Pocket Parks that May Be Related to Health Promoting Use. *Landsc. Res. J.* **2014**, *41*, 79–94. [CrossRef]
55. Shrotryia, V.K.; Dhanda, U. Content Validity of Assessment Instrument for Employee Engagement. *SAGE Open* **2019**, *9*, 1–7. [CrossRef]
56. Cohen, D.A.; Marsh, T.; Williamson, S.; Han, B.; Derose, K.P.; Golinelli, D.; McKenzie, T.L. The Potential for Pocket Parks to Increase Physical Activity. *Am. J. Health Promot.* **2014**, *28*, 19–26. [CrossRef] [PubMed]
57. Yang, C.; Shi, S.; Runeson, G. Associations between Community Parks and Social Interactions in Master-Planned Estates in Sydney, Australia. *Sustainability* **2022**, *14*, 3496. [CrossRef]
58. Gibson, S.C. "Let's go to the park" an investigation of older adults in Australia and their motivations for park visitation. *Landsc. Urban Plan.* **2018**, *180*, 234–246. [CrossRef]
59. Kim, Y.L.; Lee, S.M. Effect of Satisfaction in Major at University on Academic Achievement among Physical Therapy Students. *J. Phys. Ther. Sci.* **2015**, *27*, 405–409. [CrossRef]
60. Gao, D.; Tan, L.; Mo, X.; Xiong, R. Blue Sky Defense for Carbon Emission Trading Policies: A Perspective on the Spatial Spillover Effects of Total Factor Carbon Efficiency. *Systems* **2023**, *11*, 382. [CrossRef]