

## Students Perception on Landscape in UTHM Main Campus

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**Abstract:** Landscape mainly function as an activity that add value in the aesthetic quality of the natural and built environment also for the social well being of a community. Although campus landscape plays an important role in student's lifestyle, landscape provision within Universiti Tun Hussein Onn Malaysia (UTHM) main campus is not comprehensive and left much to be desired. Considering the significant of landscaping in enhancing students wellbeing, a study is conducted to identify importance of landscape to students, and evaluate the condition of the existing landscape within the campus and to study the student's needs for landscape. Data and information were obtained through interviews, questionnaires and observation. For the questionnaire, a total of 224 students participated in this study and the interview was conducted with the *Pembangunan dan Pengurusan Hartabina* (PPH). The researcher carried out observation the study areas such as roadsides, parking, recreation areas and buildings as evidence by taking photos around to support the findings. The results indicate that landscape provision is important to enhance students' quality of life in campus. However, the existing condition of landscape in UTHM main campus is still unsatisfactory and there is a need for some improvement. Improvements could refer to student's recommendation that was identified. Overall, there are much improvements to be made for the hardscape and softscapes that are still lacking. Findings and recommendations of this study is expected to guide all parties involved as well as encourage physical development in the main campus especially in landscape provision.

**Keywords:** Landscape, Wellbeing, Campus

### 1. Introduction

Generally, landscape covers all flora and fauna on earth that exists naturally or designed by man. Landscape planning is defined as planning and designing the natural resources to ensure any changes on land could support the natural environment and existing species either in its new or original form (Hackett,1971). Landscape design on the other hand according to Hubbard & Kimball (2015) is an art to create and protect a beautiful environment amongst human habitat. Therefore, generally landscaping could be regarded as a development activity that is both beneficial for the physical and socio economic enhancements and covers all aspect of human civilization. Landscape includes the topography, social activities and human culture (Shariff, 1998). It is a significant achievement in human evolution that mainly function to increase the aesthetic of an area. However, apart from the aesthetic element landscape is able to enhance the environmental quality and the socio economic of an area. Landscaping has evolved and is an important element in any development where it is compulsory to be provided together with other planning approval application. Development may include housing, industrial, commercial or other types of development. Recent emphasis on quality of life and awareness on sustainable development, provision of landscape has become an important element.

In recent years Malaysia has experienced quite a rapid socio economic growth which results to demand for more high skilled human resource. This has prompted establishments of more higher learning institutions all over the country. Among the new universities are those established in various state, each with their own special niche area. Along with the development of these new campuses is the need to create a conducive living environment for the campus community. We can regard these higher learning institution campus as a small township that should be liveable and conducive for its community.

### 1.1 Research Background

Universiti Tun Hussein Onn Malaysia (UTHM) is one of the newly established public universities in Malaysia. It was formerly known as Institut Teknologi Tun Hussein Onn (ITTHO) and was later promoted to Kolej Universiti Teknologi Tun Hussein Onn (KUiTTHO). It was promoted to full university status since year 2007. Together with this promotion, the campus surrounding including its infrastructure and landscaping was upgraded. This has prompted a more planned landscaping to serve its growing population. The need for a more conducive and liveable area is one of the important aspect that need to be addressed.

### 1.2 Problem Statements

The importance of a properly planned and designed campus landscape is significant in creating a good campus ambiance for living and studying. This issue has been discussed since the 1970's. According to Castaldi (1977) most higher learning institution placed their students in campus. Therefore, a planned learning environment is very important to be considered. The planning of each of groups of building need to consider various site planning aspects and architectural issues; relationship between building and open space, scale, landscape elements, access, settlement needs and other while compromising with the significance/importance with environmental aspect, technology, social, economy , and socio politics. (Shamsuddin *et al.*, 2007).

A “social-ecological setting” could affects students mood and attitude, their behavior and achievement along with the establishment of sense of independence and general sense of well-being (Moos,1979). This justify the issue on campus landscape planning in creating a social environment that is conducive for learning. This correlate with the aim to produce students that have the potential to achieve nations aim to develop high skilled human resource that are the pre requisite for knowledge based economic development.

As a new campus, it is quite apparent that there are various issues in landscape provision around UTHM main campus. Some comments from students are that the landscape provision within UTHM

main campus is unsatisfactory. According to Shah (2003) in Shamsuddin *et al.* (2007), the management and maintenance quality are often the focus in universities, where it doesn't comply with the university and student need. Therefore, as students are the main community who live and study in campus, it is important to understand the importance of landscape provision in doing their daily routine all around campus and to identify the current state of landscape provision in UTHM main campus.

### 1.3 Research Questions

The research questions of this study are:

1. What are the importance of landscape in the campus environment to students?
2. What is the current landscape provision in UTHM main campus?
3. How does the students perceive the need for landscape in the campus environment

### 1.4 Research Objectives

The research objectives of this study are:

1. To identify the importance of landscape in the campus environment to students
2. To evaluate the current landscape provision in UTHM main campus
3. To study students' perception on the need for landscape in the campus environment

### 1.5 Significance of the Study

This study is significant to highlight the importance of landscape provision to students and to analyse the current scenario of the existing landscape in UTHM main campus. Identification of current scenario of the landscape provision as perceived by students will give an understanding of the issues and problems of the landscape provision in UTHM main campus. Thereafter, students' perception on their needs will assist the university's management to better understand students' preference and need for landscape provision.

### 1.6 Scope of the Study

This study is taking UTHM main campus as the case study area. Selection of UTHM is based on the promotion of the university as one of the newly established public university in Malaysia. The growing population in UTHM main campus also is one of the main criteria for the selection of UTHM. The study will focus on literature on the importance of landscaping to students and how it can enhance their overall wellbeing. This will be done by looking at the existing condition provision and will focus on students in UTHM main campus, either those living in hostel. The study will look at the issues, from the students' point of view.

## 2. Literature Review

### 2.1 Landscape Planning and Design

According to Nation Landscape Guideline (2008), landscape is categorized into 2 types hardscape and softscape.

#### (a) *Soft Landscape*

Soft landscape or softscape involves natural elements like plants (flora) and water elements. It's main function is to create a beautiful view or aesthetically pleasing surrounding. Plant species should be chosen based on its physical and biological characteristics. These should compliment the design principle and the designers concept for the area.

*(b) Hard Landscape*

Hard landscape or hardscape refers to constructed elements like gazebo, waqaf, bench, streetlight, bollard ETC. It also includes hard surfaces like concrete, tiles. Hardscape function as elements that offers comfort and conveniences to users. These structures or elements are designed so as to be harmonious with the natural environment while giving ease to the users. Usually these are constructed using various materials eg wood, steel, concrete and plastic.

*(c) Landscape Design Principles*

Landscape are designed based on certain principles. Design should be simple, in order, easy to comprehend, and able to create unity and arrangement. Apart from that, landscaping should be able to create balance and a good continuity. Selection of elements should be compatible with the suitability of space and its surrounding.

## 2.2 Campus Landscape

*(a) Concept*

Provisions of landscape in campus usually connects open spaces within the campus area. It serve to emphasise the differences of the physical background for social interaction based on size, shape, colour, texture , scale and other architectural characters. These prove to be uniting the overall physical structure of the campus. According to Carney (2000) spaces that could encourage individuals to spend time for interaction between them either spontaneously or planned is significant in supporting the social quality of a campus life. Apart from that, it could reduce stress from daily student's activities. Therefore, provision of sufficient spaces with landscape area around the campus helps to enhance informal interaction amongst its students.

Campus landscape is essential to be developed to achieve these objectives: campus image, space definition, quality of life, educational purposes and nature resource preservation (Neuman, 2003). Most students are easily attracted to campus beauty resulting from the campus particular elements /characteristics like the buildings and academic quality (Neuman, 2003). Campus landscape shared a few characteristics or characters such as scale, overlapping, climate response and preservation.

*(b) Function of Landscape to Campus Students*

Landscape around campus such as softscape has its own roles in creating a harmonious surrounding around the campus. These function as protection from microclimate, environmental protection, a barrier and for aesthetic (Dober, 1992). A research by Bosch (2003) identified physical factors that affects educational outcomes – they are categorized as – functionality; sociability; comfort, health and safety; aesthetics and appearance; resources. Another study on informal learning spaces identified essential aspects of the physical environment that need to be present to effectively enable informal learning on the campus ground (Ibrahim & Fadzil, 2013). Brown and Long (2006) in Ibrahim & Fadzil (2013) suggested that the whole campus could be a learning space. Quality learning environment should go beyond functional needs so as to fulfill current generation's appetite for individuality and sense of identity which can be achieved through creative and innovative space conditions. The physical environment should be well designed so students will feel valued and attached (Oblinger, 2006) in Ibrahim & Fadzil (2013) These positive emotions wil eventually improve students' learning ability. The importance of ensuring good integration between building and outdoors spaces on campus has been highlighted by Shamsuddin *et al.* (2007). The authors agreed to the idea that integration could encourage good social interaction and intellectual culture on campus ground.

## 2.3 Landscape and the Community

A community is a social unit (a group of living things) that shares a common aspect such as norms, religion, values, customs or identity. A community may also share a sense of place situated in a given geographical area (either in country, village, town, or neighbourhood.) Referring to university students, we can conclude that they are regarded as a community. These students share a physical space (the campus) with a sense of place of the area in terms of their daily norms, activity and identity. Being a community, university students live and spend their time within the campus area. The nature of students' daily activity such as learning commonly exposed them to high level of stress. These stress are usually due to interpersonal conflicts, self-esteem problems, financial constraints, time constraints frustration and emotional problems (Andersson *et al.*, 2009). These could lead to stress related issues amongst students. According to Hamaideh (2011) in Siu Yu Lau *et al.* (2014) stressful university life could threatens students' academic performance.

As students are prone to be facing stressful routine in their daily life, as a community they need to live in a conducive and liveable space. Siu Yu Lau *et al.* (2014) mentioned that lawn, trees, colourful plants and dense planting are planned to provide a sensory interest to relieve pressure. This is significant in relieving pressure amongst university students. These are all what categorized as soft scape and are commonly provided all over campus. In terms of the spatial design, courtyard, circulation, privacy were mentioned as fundamentals in creating a space that could relieve stress (Siu Yu Lau *et al.*, 2014). Meanwhile, view of greeneries is able to reduce stress resulting from pressure students faced from examinations or the learning activities (Ulrich, 1986). Accommodation outside the campus is said to create "a social psychological environment" that is qualitatively different from students living in campus. It is determined that living out of campus could maximized their opportunity to experience socio cultural and extracurricular where all these experience will give a positive impact in students' self development. Therefore, students living in campus should be provided with a conducive environment to compensate the benefits that they could have gotten by living out of campus.

### **3. Research Methodology**

The study adopted a mix method approach of qualitative and quantitative method. A survey and observation will be carried out to get data on landscape provision within the study area. The study setting is within the main campus of UTHM, Parit Raja Batu Pahat, Johor. The scope of study focused on the existing scenario of the landscape provision from the students' point of view. This is to emphasize on the importance of having a landscape environment to students and how they perceived the landscape in the main campus.

#### **3.1 Research Design**

This research is carried out using qualitative and quantitative method to achieve the said objectives. A survey was carried out to UTHM students according to sample size based on Chua (2006). The sample size involved 224 respondents of UTHM students from the main campus in Parit Raja. In qualitative study, literature on landscape planning and design – how it affects the student campus life will be researched through previous literatures like journals, reports. An observation method is used through photo taking and observation of the landscape provided around UTHM campus. A site visit at study area gives an opportunity to the researcher to do a direct observation (Yin, 2003).

#### **3.2 Data Collection**

The survey was carried out through a distribution of the questionnaire to the students in the main campus according to the faculties and to various hostel accommodation in UTHM main campus. Distribution in these places will give a more comprehensive coverage on students who uses and

experience the landscape provided in UTHM main campus. An interview with officer in development division was also conducted to get an insight on the scenario of landscape provision and management.

### 3.3 Data Analysis

This study used SPSS software to analyse data collected from the survey. A descriptive analysis for quantitative approach was applied. Meanwhile, observation method through photos evidence were carried out to show and explain the existing condition of areas around UTHM main campus.

## 4. Data Analysis and Results

Survey was carried out amongst UTHM students in the main campus. Statistically, students who were surveyed comprises of those living in and out of campus. This gives a more comprehensive result in showing the students perception.

### 4.1 Importance of Landscape in Campus Environment

Interview with the relevant officer showed that UTHM already have a good organizational chart to manage and maintain landscape provided around the campus. Landscape basically is under centre of *Pembangunan dan Pengurusan Hartabina* (PPH) and it has 2 sections, development and facility management. Overall, in terms of new development of landscape and for its management and maintenance the existing organisational structure should be sufficient.

As discussed in literature segment, it is apparent that provision of landscape is significant for the wellbeing of students in campus. Table 1 indicates findings on benefits or the importance of landscaping for the students.

**Table 1: Respondents satisfaction on provision of landscape in campus**

Findings/Opinion	Scholar
Good integration between building and outdoors spaces on campus	Shamsuddin <i>et al.</i> (2007)
Physical factors that affects educational outcomes:	Bosch (2003)
<ul style="list-style-type: none"> <li>● functionality,</li> <li>● sociability,</li> <li>● comfort,</li> <li>● health and safety,</li> <li>● aesthetics and appearance</li> <li>● resources.</li> </ul>	
Whole campus could be a learning space.	Brown and Long (2006)
Physical environment should be well designed so students will feel valued and attached	Ibrahim <i>et al.</i> (2013)
courtyard, circulation, privacy are fundamentals in creating a space that could relieve stress	Siu Yu Lau <i>et al.</i> (2014)
Lawn, trees, colourful plants and dense planting are planned to provide a sensory interest to relieve pressure.	Siu Yu Lau <i>et al.</i> (2014)
View of greeneries is able to reduce stress resulting from pressure students faced from examinations or the learning activities	Ulrich (1986)

### 4.2 Evaluation of Current Landscape provision in UTHM Main Campus

In order to evaluate the current landscape, a Likert scale on students satisfaction on the provision, condition, function and maintenance of existing landscape provision in UTHM was included in the questionnaire.

**Table 2: Respondents satisfaction on provision of landscape in campus**

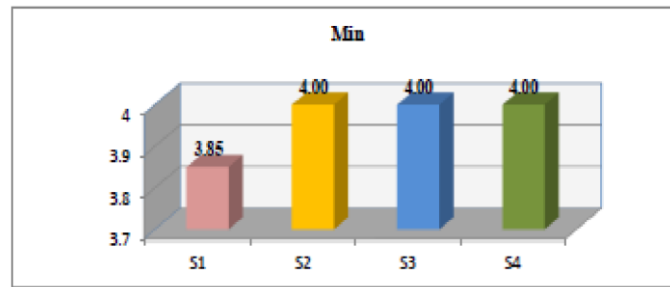
No	Landscape Provision	Total (N)	Totally disagree	Disagree	Unsure	Agree	Totally agree	Average Index (min)
S1	Sufficient provision of hardscape and softscape around campus	224	12 5%	49 22%	91 41%	65 29%	7 3%	3.03
S2	Selection of softscape eg plants is suitable with the environment	224	2 1%	20 9%	40 18%	120 53%	42 19%	3.80
S3.	Hardscape eg bench, street light, gazebo is comfortable/easy to use	224	3 1%	27 12%	46 20%	122 55%	26 12%	3.63
S4.	Overall landscape provision is in good condition with pleasant view and environmentally friendly	224	3 1%	26 12%	46 21%	120 53%	29 13%	3.65
Total min value								3.53

Findings indicated that in terms of provision of landscape around UTHM main campus, there are a few aspects that showed quite a low satisfaction levels. The average index for provision of softscape and hardscape showed a min of 3.03 which is the lowest. This generally indicates students are less satisfied with the level of landscape provision around campus.

**Table 3: Respondents satisfaction on existing landscape condition**

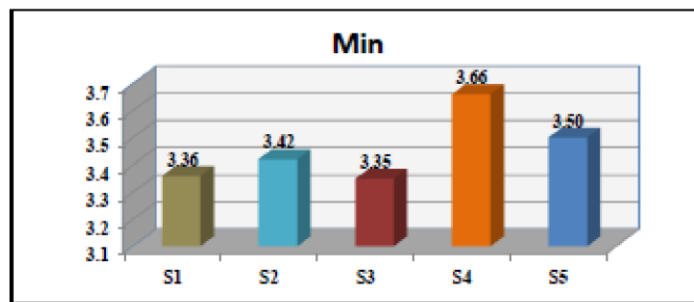
No	Existing Landscape Condition	Total (N)	Totally disagree	Disagree	Unsure	Agree	Totally agree	Average Index (min)
S1	Plantings around campus are in a good condition and gives a pleasant scenery	224	10 5%	23 10%	70 31%	101 45%	20 9%	3.44
S2	Hardscape as gazebo, street light, pedestrian walkway and signboard is in good condition and safe to use	224	4 2%	33 14%	76 34%	89 40%	22 10%	3.41
S3.	Landscape design along streets, at recreation area and buildings is attractive and user friendly	224	12	29	68	100	15	3.34
S4.	Existing landscape provision is suitable with campus environment	224	5 2%	37 16%	64 29%	103 46%	15 7%	3.38
Total min value								3.40

In the aspect of landscape condition, the average index showed that students are not satisfied with the condition of the existing landscape (total min value of 3.40). This is further emphasized through the interview conducted where the respondent agreed that the provision and condition of landscape around UTHM main campus is quite unsatisfactory and can be enhanced. He further gives an example on the failure to plant certain tree species because of the soil condition (peat) Therefore, the planting progress is affected and soil has to be treated from time to time.



Label	Landscape Function
S1	Plantings around campus gives protection and shade to user
S2	Interesting plants gives aesthetic appeal which contributes towards beautiful view around the campus
S3	The layout and landscape design gives a unique image and appeal to the campus
S4	Provision of hardscape offers convenience and comfort to the user

**Figure 1: Satisfaction on Landscape Function**



Labels	Landscape Maintenance
S1	Softscape and hardscape are managed and maintained efficiently
S2	Use of quality construction material in hardscape provision such as bench, gazebo and pedestrian pathways
S3	Hardscape eg street lighting is always fully functioning
S4	Plants and signboard provided is not obstructing traffic and road users view
S5	Hardscape and softscape provided never gives any inconveniences to the users

**Figure 2: Satisfaction on Landscape Maintenance**

On the aspect of function, the overall average index is rather high – indicating a high level of satisfaction amongst the students. This could be because students observe the provision of these landscape elements as giving them comfort and convenience. Although the condition and the provision is not fully comprehensive and rather unsatisfactory, it does serve its purpose for example in giving shade, giving an image and identity to the campus and contributes towards to aesthetically pleasing ambience. However, maintenance is perceived as quite unsatisfactory especially the trees and streetlighting.

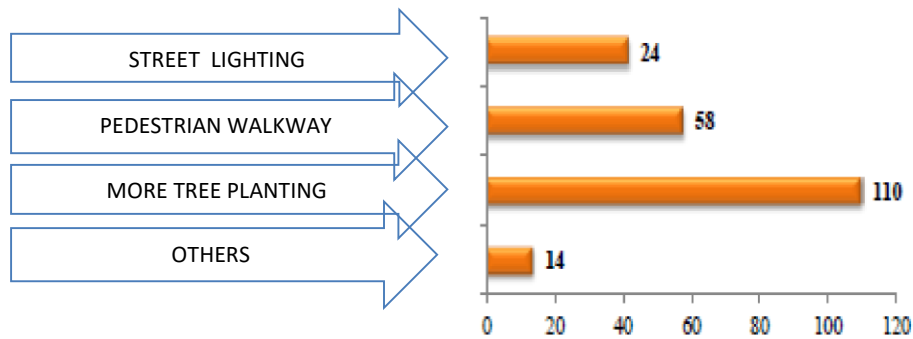


### 4.3 The Need for Landscape in Campus

A survey was conducted to get the students opinion on landscape improvement that they requires. Main area around the campus were observed to study the need for a more conducive environment. These were some of the recommendations.



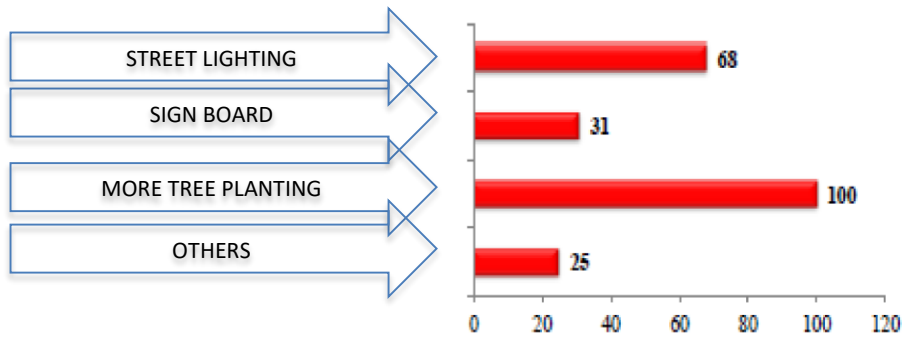
**Figure 3: Photo of existing condition – roadsides**



**Figure 4: Landscape need around roadsides areas**



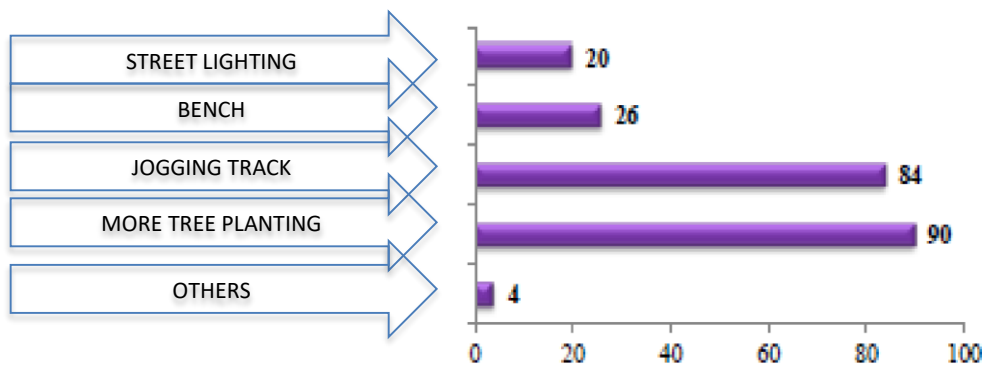
**Figure 5: Photo of existing condition – building area (Author, 2014)**



**Figure 6: Landscape need around building areas**



**Figure 7: Photo of existing condition – recreation area**



**Figure 8: Landscape need around recreation areas**

Overall, most students agreed that there should be more tree planting around the campus area. This is followed by the provision of street lighting. This could be associated with provision of safe area for the students especially during night time. The third is pedestrian pathways. Pedestrian pathways should be provided together with tree planning and sufficient street lighting.

## 5. Discussion and Conclusion

Overall, this study managed to answer all the objectives stated. It has been established that landscape plays an important role in creating a better living environment to students. Generally,

previous findings from various scholars indicated that having a good landscaped campus would increase student's academic performance and could relieve their stress. This would eventually increase the overall well being of student life in campus. Findings on the existing condition of landscape provision in UTHM main campus indicated that there are some improvements that need to be done. This is looking at students perception from 4 scopes that are landscape provision, the existing condition, the landscape function and the maintenance. Generally, students agreed that provision are still lacking especially in hardscape and softscape,. This tally with their recommendations, where tree planting showed the highest frequency. Apart from that, interview with officer in charge indicates that is a problem in planting and maintaining certain tree species. Therefore, some measures should be taken to address this issue.

In the aspect of the landscape condition, generally the students are less satisfied mainly because of the lack of softscape and hardscape around main campus areas most notably along the main roadsides, around buildings and recreational areas. However, students are satisfied that landscape provided is well functioning to give them convenience and comfort. Finally, improvements in the aspects of more tree planting, more landscape pedestrian walkway , benches and gazebo all around the main critical areas in the main campus would create a more liveable and conducive campus for the students. In addition, it would give a good image and identity to UTHM main campus.

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