



**CULTURAL ECOSYSTEM SERVICES CONTRIBUTION
TO CAMPUS COURTYARD FOR STUDENTS'
LEARNING ENVIRONMENT**

BY

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ABSTRACT

Universities today have been planned and developed with the presence of open spaces which help to attain the university goal of being a conducive learning environment. This study focuses on the physical development plan of campus courtyards as an effective outdoor feature in shaping student life. It is seen as a step to promote a sustainable living and a better learning environment. With the motto of ‘Garden of Knowledge and Virtue’, with courtyards as one of the compulsory components of the campus design, this research project selected International Islamic University in Malaysia (IIUM) as a case study. Being one of the major open space components, the research contends that courtyards on campuses also provide students with a healthy ecosystem, cultural services and a variety of benefits from nature. Nonetheless, there are weaknesses and limitations to the landscape design and planning of courtyards. A preliminary survey shows that less attention was paid to preparing courtyards as outdoor learning areas, resulting to less community engagement whilst remain as an unused space on campus. Therefore, this study aims to explore the contribution of cultural ecosystem services towards the physical characteristics of a campus courtyard as a students learning environment. Three objectives have been formulated in order to achieve the aim; to study the contribution of cultural ecosystem services provided by campus courtyards, to investigate the physical characteristics of the campus courtyard as a student learning environment and to recommend design guidelines for campus courtyards to support learning activities. The study employed a mixed-method approach which consisted of a survey questionnaire, a site inventory and observation. A survey questionnaire was distributed to 400 students from the six faculties in IIUM. The site inventory implies a checklist on three aspects which are design of courtyard, activities and students behaviour and natural elements. For the observation, documents on student activities and behaviour in the courtyard are captured using photography. The findings indicate three weaknesses of design and planning namely unattractive layout, lack of natural elements and inadequate hardscape element for study purposes. Further findings reveal four major important aspects to increase the level of utilisation of courtyards: seating choices, shaded trees, water elements and courtyard landscape design. Despite its weaknesses, the study illustrates three salient benefits of courtyards as a learning environment. First, the courtyard is perceived to be the platform that elevates the quality of student learning. Secondly, the findings also reveal frequent utilisation of the courtyard by students enables them to enhance the quality of social interaction with their friends and lecturers and finally fulfilling their physical and psychological wellbeing. In conclusion, the study provides a foundation to help determine a more open space provision in campus development that will promote cultural ecosystem services.

ملخص

لقد تم التخطيط للجامعات اليوم وتطويرها مع وجود مساحات مفتوحة تساعد على تحقيق هدف الجامعة المتمثل في كونها بيئة تعليمية مواتية. وتركز هذه الدراسة على خطة التنمية المادية من ساحات الحرم الجامعي باعتبارها ميزة من الخصائص الخارجية الفعالة في تشكيل حياة الطلاب. وينظر إليها على أنها خطوة لتعزيز عيش مستدام وبيئة تعليمية أفضل. مع شعار "حديقة المعرفة والفضيلة"، ومع ساحة باعتبارها واحدة من المكونات الإلزامية لتصميم الحرم الجامعي، فلقد تم اختيار هذا المشروع البحثي للجامعة الإسلامية العالمية ماليزيا بوصفها دراسة حالة. ومع كونها واحدة من المكونات المفتوحة الرئيسية، يذهب البحث إلى أن وجود ساحة في الجامعات أيضا تزود الطلاب نظاما بيئيا صحيا، وخدمات ثقافية ومجموعة متنوعة من الفوائد من الطبيعة. ومع ذلك، هناك نقاط ضعف وقيود على تصميم المناظر الطبيعية وتخطيط الساحات. يظهر من المسح الأولي أنه تم إيلاء اهتمام أقل لإعداد ساحة كمناطق التعلم في بيئة مفتوحة، مما أدى إلى مشاركة المجتمع أقل في حين تبقى ساحة غير مستخدمة في الحرم الجامعي. لذلك، تهدف هذه الدراسة إلى استكشاف مساهمة خدمات النظم الإيكولوجية الثقافية نحو الخصائص الفيزيائية لساحات الحرم الجامعي كبيئة التعلم لدى الطلاب. وقد وضعت ثلاثة أهداف لتحقيق هذا الهدف؛ دراسة مساهمة خدمات النظم الإيكولوجية الثقافية التي تقدمها ساحات الحرم الجامعي، والتحقيق في الخصائص الفيزيائية لساحات الحرم الجامعي كبيئة التعلم لدى الطلاب وتوصية إرشادات التصميم لأبنية الحرم الجامعي لدعم أنشطة التعلم. ووظفت الدراسة منهجا بحثي مختلط يتألف من استبانة استقصائية، وجرد للموقع والمراقبة. وتم توزيع استبانة على ٤٠٠ طالب من الكليات الست في المعهد الدولي للطب النفسي. يتضمن جرد الموقع قائمة مرجعية على ثلاثة جوانب وهي تصميم الساحة والأنشطة وسلوك الطلاب والعناصر الطبيعية. أما للمراقبة، فقد تم النقاط وثائق عن الأنشطة الطلابية والسلوك في الساحة باستخدام التصوير الفوتوغرافي. وتشير النتائج إلى ثلاث نقاط الضعف في التصميم والتخطيط وهي تخطيط غير جذاب، ونقص العناصر الطبيعية، وعدم كفاية عنصر هاردسكابي لأغراض الدراسة. وتكشف نتائج أخرى عن أربعة جوانب هامة لزيادة مستوى استخدام الساحة من خيارات الجلوس والأشجار المظللة وعناصر المياه وتصميم المناظر الطبيعية للفناء. على الرغم من نقاط ضعفه، توضح الدراسة ثلاثة فوائد بارزة من الساحات كبيئة تعليمية. أولا، ينظر إلى الساحات على أنها منصة ترفع من جودة تعلم الطلاب. ثانيا، كشفت النتائج أيضا عن الاستخدام المتكرر للساحات من قبل الطلاب تمكنهم من تعزيز نوعية التفاعل الاجتماعي مع أصدقائهم والمحاضرين، وأخيرا الوفاء بسلامتهم البدنية والنفسية. في الختام، توفر الدراسة أساسا للمساعدة في تحديد توفير مساحة أكثر انفتاحا في تطوير الحرم الجامعي من شأنها أن تعزز خدمات النظم الإيكولوجية الثقافية.

APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Master of Science (Built Environment).

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DECLARATION

I hereby declare that this thesis is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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This thesis is dedicated to my parents:

My mother

*A strong and gentle soul who taught me to trust in
Allah SWT, believe in any possibilities*

My father

*A kindest and patient person who always support and encourage
me to believe in myself*

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CHAPTER ONE

INTRODUCTION

1.0 INTRODUCTION

This chapter discusses a study on cultural ecosystem services contribution to campus courtyard for students' learning environment. It is divided into ten sections which are background of study, problem statements, research questions, aim, objectives, significant of research, research scope and limitation, research gap, research methodology, organization of the research and summary.

1.1 BACKGROUND OF THE STUDY

Open spaces nowadays are an effective outdoor feature in shaping the quality of lives of the communities. It meets the current needs of the new generations by providing a balanced ecosystem and environment and enhancing the social and economic values. They are widely designed in Malaysia to develop a ground for the communities to conduct social and recreational activities (Abd-Razak, et.al, 2011). People can benefit from the open spaces in terms of physical health, social functioning, youth development, positive environmental and economic impacts (National Recreation and Park Association, 2010).

Nowadays, people rather choose to live in a high-density dwelling within the urban footprints for various reasons especially because of the surrounding environment. The designs and planning of urban areas provide exposures to green areas and public spaces that enable them to facilitate daily needs and enable them to