



اَوْنِيُوْزِيسِيْتِي تِيكْنُوْلُوْجِي مَارَا  
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**DESIRED PATH ATTRIBUTES  
TOWARDS CAMPUS  
WALKABILITY ENVIRONMENT**

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## ABSTRACT

Achieving pedestrian needs has become the primary concern in providing the best campus planning to meet their users' satisfaction. Unfortunately, the lack of study concerning the pedestrian needs in the campus has led to the current pedestrian path not being fully utilised, and users tend to create a desire path to satisfy their preferences. To improve this problem cannot be solved simply by providing other pedestrian paths that will increase reconstruction costs. Thus, the assessment of pedestrian attributes is needed to have better campus planning that can meet the desired path of the users. This research aims to identify the desired path attributes to support campus walkability environment by assessing the desire path influence factor. The studies were conducted at the Polytechnic campus as Malaysia's most prominent TVET institution. This research adopted a quantitative approach where a questionnaire survey is used to determine factors that influence students to choose a pedestrian path on campus. Four hundred forty-four pedestrian users among polytechnic students are selected to answer the questionnaire survey regarding the desire path across campus. The strength of desire path attributes is determined based on the data obtained from survey questionnaires distributed randomly to the pedestrian user within these three campuses. The data was analysed using multiple linear regression with the help of SPSS to identify the desire path determinant attribute, and finally, the attribute is assessed to determine its strength. The research process has thus revealed a better pedestrian must fulfil these five criteria for a pedestrian desired path: comfort, safety, accessibility, interesting, and social characteristics. The study results also suggested several factors that need attention for planners and designers to design a campus that successfully supports a walkability environment. This research aimed to further add to the body of knowledge to provide alternative solutions to improve campus walkability. Furthermore, the ultimate objective of studies is to learn how to develop a solution to improve the campus walkability and reduce the alternative route among pedestrians across the campus compound.

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# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of Study

A university campus is a place that is designed to be used for the education purpose and residence of college students (Isiaka & Siong, 2008). Dober (1963) added that building, outdoor spaces, and support elements such as utilities and circulation systems are the three main elements in campus design. It shows that the campus is a small city that integrates society and the environment. Hence, planners need to address mobility and accessibility when designing the campus (Asadi-Shekari et al., 2014). As aligned with the government campaign towards sustainability, many higher institutional campuses have started to promote walking as one of the cost-free methods that may significantly contribute to the campus community.

During the Conference of Parties (COP15) in 2009, Malaysia has expressed their commitment to voluntarily reduce carbon intensity production up to 40% by 2020 compared to the 2005 production rate (Najib, 2009). In line with that, the National Policy on Climatic Change was created in 2010 to guide all parties, including the government, industry, community, and other stakeholders, to ensure that a sustainable country can be achieved. Malaysia's higher education consists of public universities, private universities, Technical Vocational and Training (TVET) colleges, public colleges, and private colleges that are not exempted from carrying out this responsibility.

In the TVET sector, UNESCO-UNEVOC has stressed the role of Technical Vocational and Training (TVET) for sustainable development through various programs, publishing, and declaration such as the United Nations Decades of Education for Sustainable Development. Professor Shyamal Majumdar, the director of UNESCO-UNEVOC, suggested the outline to reorient the TVET institution to become the green TVET institution. Majumdar (2011) further proposed five dimensions of greening TVET that considered a holistic framework towards a sustainable and low-carbon world in the TVET sector, as shown in Figure 1.1.