

**Universiti Teknologi MARA**

**INTERFACE DESIGN IN ONLINE  
LEARNING USING  
KANSEI ENGINEERING**

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## **ABSTRACT**

Nowadays, with the effect of the new technology, people who have interested in learning are able to find the material resources easily on the Internet. Although of the new technology that provides attractive, effective, efficient and interesting learning opportunities, there still have problem when designing the website. The major problem is the most of the websites of learning courses are poorly design and it is hard to user to find what they really want from the website. These poorly designed products mostly suffer from a lack of awareness and focus on users. This research focuses on three objectives, there are to identify interface design elements in online learning, to evaluate students' emotions toward interface design in online learning and to identify relationship of students' emotional responses and interface design elements in online learning. This research discusses the findings of the study of emotional in website by employing the Kansei Engineering technique. The primary focus of this research was to identify interface design elements in online learning. Through this study, there are three phases of experiment. The most critical phase is Experiment 2 where 40 Kansei words as description of emotional value organized in a 5 point Semantic Differential scale, rated by 30 participants. Partial Least Square (PLS) Analysis was used to link the Kansei responses with website design elements. In addition, to identify the influence of design elements and Kansei, PLS Range for every Kansei was calculated. The results from this calculation showed the design influence for bad design and good design. The results and findings from this research will give benefits to students who take a distance learning courses and for those who are have interested in designing online learning courses especially for the academia and developer of website for education purposes.

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

This research presents an overview of a research regarding interface design with the adoption of the Kansei Engineering technique. Today, more and more people turn to adapt the traditional styles of learning over the online learning environment or e-learning. The hypothesis of this research is that users might elicit emotions while interacting with the interface's design, color, images, text and other design elements. This type of research is targeted to capture students' emotion and to provide a positive experience to the learning process.

#### **1.2 Research Background**

In today's information age, the necessity for continuous studying has increased. With the rapid development of technology, online learning or commonly known as e-learning has gained a lot of attention over the years. According to Wagner (2008), as cited by Turban et. al. (2011), e-learning systems makes the knowledge accessible to those who need it, when to use it, anytime, anywhere and its appearance in a variety of forms, from virtual classroom to mobile learning. An E-learning system serves as a supplementary learning tool for traditional classes or in standalone distanced education courses.