

**INTERACTION DESIGN IN E-LEARNING USING
KANSEI ENGINEERING**

BY

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ABSTRACT

E-learning exploits interactive technologies and communication systems to improve the learning experience. It has the potential of transforming the way students learn. It can raise standards, and widen participation in lifelong learning. It has been discovered that emotion can affect the learning experience. However, understanding the emotional reaction of student in a complicated learning environment is challengeable task. The effect of interactivity on students learning still yields different result. There are still some who claimed there are the advantages of interactivity, while others claimed mixed results of interactivity. Therefore, it can be argued that there is still room for more research in this area. Especially in order to recognize which element of interactivity helps student learning, and which is not. Thus, this research aims to propose an interaction design for E-learning to make it more interactive and attractive to all students. Kansei Engineering method is used in this research, to achieve the solution to the problem. The method is used to analyze the relationships of students' emotional responses and interaction design elements in E-learning. The data analyze from Kansei Engineering method is use to propose a guide on interaction design of Kansei E-learning applications. The recommendation of interaction design for E-learning applications will contribute to the body of knowledge of E-learning specifically to the emotional design. Students' attention also can be capture by instigating emotional connectivity to the E-learning applications. A propose guide can help the designers to develop interactive and attractive courses.

Keywords: Interaction Design, E-learning, Kansei Engineering, User Experience, Design Element.

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CHAPTER 1

INTRODUCTION

This chapter provides the overview of background and rationale for the research project. It also discusses about the research background, problem statement, research objective, research scope and research significant of proposed interaction design for E-learning to make it more interactive and attractive to all students.

1.1 Research Background

Nowadays, necessity for studying continuously has been increased and also learning has become a must in the present even. This tended to develop the distance learning systems that the learner can freely study without being caught in the restriction of time. The most popular sector of this distance learning is E-learning. E-learning commonly refers to teachings efforts propagated through the use of computer in an effort to impart knowledge in online environment. It has been discovered that emotion can affect the E-learning experience. In general, emotion has to do with how one feels. This feeling, if positive is believed to have a productive effect on individual. However, feelings of a negative nature seem too negatively on the individuals' learning experience. In the recent years, some researchers have investigated the impact of emotions in learning. At the same the research findings show the relatively between context and the learning process. Besides, the rapid development of information technology leads to extremely dynamic changes in various tools and technologies applied to the E-learning process. However, building computer devices or systems with the ability of responding to learner emotions is a challengeable task. Kansei Engineering, as a novel concept in the modern era of E-learning addresses the psychological feelings such as emotions, moods and impressions of the learner. The concept of Kansei is a branch of artificial intelligence that has a close relationship with designing of systems and devices which can recognize, interpret, and process human emotions. Previously, there were many research performed to support students and extend their potential in E-learning environment, but still a few have considered the emotional aspect in design of the