

Kansei Engineering Concept in Instructional Design: A Novel Perspective in Guiding the Design of Instructional Materials

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Abstract – *Kansei Engineering is a proven methodology for translating human feelings into a product design. It is capable of enhancing users' satisfaction on a product by analyzing the relationships between their feelings and design parameters. Though it has been widely implemented on consumer and industrial products, its use on instructional materials remains a potential domain to be explored and examined. Furthermore, in recent years, instructional designers have paid increasing attention to affective issues in improving learners' learning experience. Thus, this paper offers a fresh perspective by integrating Kansei Engineering methodology in the instructional design process. In particular, it describes how Kansei Engineering methods can be used to elicit important design elements of instructional materials that would in turn induce positive emotions on the learners and optimize effective learning.*

Keywords: Kansei Engineering, instructional design, emotional design

1 Introduction

The field of instructional design covers the analysis of learning problems, and the design, development and evaluation of instructional processes intended to improve learning and performance particularly in educational settings. According to Reiser [1], instructional designers often use systematic instructional design procedures and employ a variety of instructional media or technology to accomplish their goals. It is thus a process of deciding what methods of instructions are best for bringing about desired learning outcomes. Apart from saving time and cost, a well-designed instruction based on sound practices can ultimately make learning more effective, engaging and efficient [2]. In the constant pursuit to design and develop effective instructional materials, instructional designers or professionals often try to incorporate skills and resources available in their repertoire as well as knowledge from various relevant fields such as learning sciences, educational psychology and more recently emotional design principles [1]. Realising the increasing importance of emotions in facilitating learning, instructional designers are began to show greater interest in designing materials (especially computer-based) that can arouse positive emotions.

Undeniably, most studies conducted by educational researchers have shown that identification and understanding of emotions are essential in creating positive learning environments [3]. However, emotions have not featured significantly in instructional research and are often overlooked by instructional designers when developing instructional materials. Moreover, past studies related to instructional materials were mainly focused on usability issues as well as aesthetic value in general (for example attractiveness of user interface), with little attention on the effect of instructional materials in triggering positive emotions that will eventually improve learning experience. Thus, this paper aims to address this gap by highlighting the role of emotions in cognitive process and the need to consider affective and emotional factors when designing instructional materials. In relation to that, this paper also proposes the use of Kansei Engineering methodology as an additional tool to facilitate instructional designers in making judgement pertaining to the emotional effects of various design elements.