

Bridging the Emotional Divide in Instructional Design: A Kansei Perspective

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Abstract- Emotion has long been regarded as an obstacle to cognitive processes in learning. Despite various studies that showed strong influences of emotional state in learning, instructional designers tend to overlook its role when designing and developing instructional materials. This is mainly due to the lack of proper method or framework in linking emotions and instructions. Thus, with recent renewed interest on affective issues in instructions, this paper offers a fresh perspective by integrating Kansei Engineering methodology in the instructional design process. Kansei Engineering is a proven methodology for translating human feelings into a design. This paper 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.

I. INTRODUCTION

For decades, emotion has been regarded as a threat to rational thinking. There has been a constant deep-rooted conviction that emotions are unreliable and untrustworthy and that for sanity to prevail, rationality and intellect must function unfettered by the vagaries of emotion [1]. This belief has formed a major influence in the domain of teaching and learning. Learning theories have largely treated emotion and cognition as occupying separate realms and cognitive processes have been given a primary place in the educational scheme of things at the expense of emotions [2]. Though there were attempts to challenge this view over twenty years ago, efforts by researchers such as Martin and Briggs [3] to combine both cognitive and affective domain in creating a more holistic framework for instructional design were seen as problematic and unpopular. Such division between emotion and cognition occurs due to several reasons. The primary reason is the multitude of definitions on the term “emotion” that more often than not conflict with each other [1]. Moreover, the difficulty of research methodologies such as direct observations of private emotional experience and the experiment setup, which often conceal the true nature of emotional experience, is another a major barrier to overcome [4].

Nevertheless, recent development in instructional design and learning sciences has seen a mounting awareness and revitalized efforts among educators and instructional designers on the need to reconsider the role of emotions in instructions. Though limited, several emerging approaches such as FEASP [4] and ECOLE-approach [5] have been introduced in order to facilitate instructional designers in designing emotionally sound instructional materials (especially computer-based ma-

terials) and instructions. A more prominent attempt is done by Astleitner in [3] who have introduced the framework for Emotional Design of Instruction (EDI), which combines the fields of emotional and instructional design. Despite these attempts, emotions have not featured significantly in instructional research and are often overlooked by instructional designers when developing instructional materials mainly due to the lack of proper method in linking emotions and instructions.

Thus, this paper aims to address this gap of emotional divide in instructional design by highlighting the role of emotions in learning and instruction, as well as the need to consider affective and emotional factors when designing instructional materials. In relation to that, this paper proposes the use of Kansei Engineering methodology as an additional tool to facilitate instructional designers in making judgment pertaining to the emotional effects of various design elements.

II. THE ROLE OF EMOTION IN LEARNING

Generally, emotions include one’s action tendencies, desires, feelings, and physiological responses. Kleinginna and Kleinginna [6], in a more comprehensive manner, defined emotion as a complex set of interactions among subjective and objective factors, which can give rise to affective experiences, generate cognitive processes, activate widespread physiological adjustments, and lead to behavior that is usually goal-directed, and adaptive. In learning, emotion may either disrupt or promote information processing. According to Pekrun in [7], emotions have an effect on learning and achievement as mediated by attention, self-regulation and motivation. They direct a person toward or away from learning matters in learning situations, which eventually leads to self-regulated learning.

In addition, several studies have provided empirical evidences that positive emotions have a crucial effect on diverse cognitive processes such as information processing and problem solving. For example, Isen and Reeve in [8] based on their empirical study mentioned that learners who are feeling happy or in positive state of emotions are more cognitively flexible and more able to see potential relations among stimuli than other learners in a neutral state. In another study, Fredrickson [9] identified four positive emotions (joy, interest, contentment, and love) that broaden one’s scope of attention, cognition and action. She further suggested that the broadening effect triggered by positive emotions builds a range of personal resources that would enhance one’s cognitive process. There-

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