

The Relationship of Positive Personal Traits in Blended Learning: Meaning-Making, Self-regulation, and Knowledge Management

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Abstract. This study aims to explore whether two positive personal traits, namely, sense-making and self-regulation, would affect knowledge management in blended learning. The participants included 33 university students. A web 2.0 website and an online knowledge management questionnaire system (KMQS) written by PHP and JavaScript were employed to collect data. The findings in this study suggest that meaning-making and self-regulation have significant effects on knowledge management in blended learning. The findings in this study not only provide an innovative approach in studies of blended learning, but also an insightful perspective for understanding the learning in technology-advanced learning environments.

Keywords: blended learning, knowledge management, meaning-making, self-regulation.

1 Introduction

Designing a blended learning environment in which classroom teaching and online learning are integrated is not only concerned with technological issues, but also with learners' personal factors [1]. This study is concerned about two positive personal traits that are seldom discussed in blended learning, namely, meaning-making and self-regulation. Meaning making refers to an active process through which people reappraise an event or series of events [2]. Self-regulated learners are active participants in their learning process in terms of behaviors, motivation, and metacognition [3]. On the other hand, Knowledge management (KM) which refers to knowledge acquisition, knowledge sharing, knowledge application, and knowledge creation, has been regarded as a critical ability to success in this epoch. Meaning-making and self-regulation may be related to KM during knowledge generation [3]. This study therefore aims to explore whether sense-making and self-regulation would influence KM in blended learning.

2 Methods

The participants were 31 university students. All the participants enrolled in a course which emphasized blended learning and KM. The instruments employed in this study

included the NCCU E-learning Website (<http://elearn.nccu.edu.tw/>) developed by Web 2.0 and an online knowledge management questionnaire system (KMQS) written by PHP and JavaScript (see Fig. 1). The KMQS included three inventories that measured the three concerned variables in this study, namely, the Inventory of Knowledge Management in E-learning (IKME), the Inventory of Meaning Making in E-learning (IMME), and the Inventory of Self-regulation in E-learning (ISRE) [4]. The aim of KMQS was to ensure that the user information was correct and the data could be efficiently collected and analyzed.

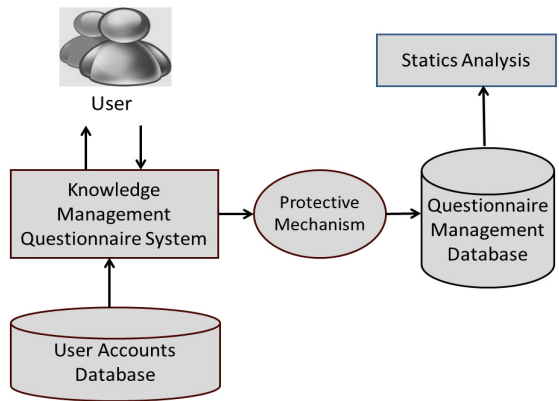


Fig. 1. The framework of the KMQS

3 Results

Using the total score of meaning-making and self-regulation as independent variables and the total score of KM as a dependent variable, the one-way ANOVA analyses revealed that meaning-making and self-regulation had significant effects on KM, $F(1, 30) = 7.767, p = 0.012$, and $F(1, 30) = 22.445, p = 0.000$, respectively. Comparing the means revealed that those with a higher level of meaning-making and self-regulation ability were more competent in KM in a blended learning environment (see Fig 2.).

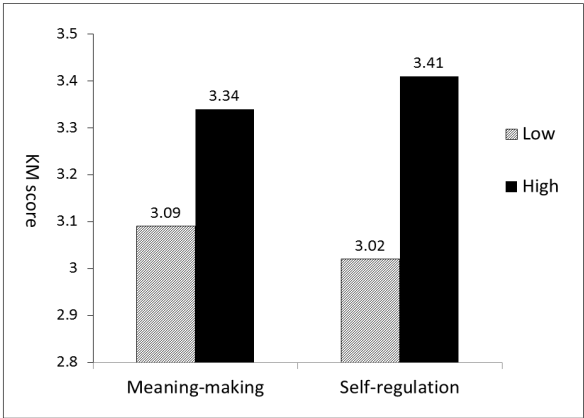


Fig. 2. The Mean scores of KM in different groups

4 Discussion and Conclusion

This study hypothesized that meaning making and self-regulation would affect KM in blended learning. The findings in this study support the proposed hypothesis and suggest that KM in e-learning is influenced by individuals' values and attitudes. The findings in this study not only provide an innovative approach in studies of blended learning, but also provide an insightful perspective for understanding the learning in technology-advanced learning environments.

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