# Analysis of Structural Modeling on Digital English Learning Strategy Use

**Authors :** Gyoomi Kim, Jiyoung Bae

**Abstract :** The purpose of this study was to propose a framework that verifies the structural relationships among students' use of digital English learning strategy (DELS), affective domains, and their individual variables. The study developed a hypothetical model based on previous studies on language learning strategy use as well as digital language learning. The participants were 720 Korean high school students and 430 university students. The instrument was a self-response questionnaire that contained 70 question items based on Oxford's SILL (Strategy Inventory for Language Learning) as well as the previous studies on language learning strategies in digital learning environment in order to measure DELS and affective domains. The collected data were analyzed through structural equation modeling (SEM). This study used quantitative data analysis procedures: Explanatory factor analysis (EFA) and confirmatory factor analysis (CFA). Firstly, the EFA was conducted in order to verify the hypothetical model; the factor analysis was conducted preferentially to identify the underlying relationships between measured variables of DELS and the affective domain in the EFA process. The hypothetical model was established with six indicators of learning strategies (memory, cognitive, compensation, metacognitive, affective, and social strategies) under the latent variable of the use of DELS. In addition, the model included four indicators (self-confidence, interests, self-regulation, and attitude toward digital learning) under the latent variable of learners' affective domain. Secondly, the CFA was used to determine the suitability of data and research models, so all data from the present study was used to assess model fits. Lastly, the model also included individual learner factors as covariates and five constructs selected were learners' gender, the level of English proficiency, the duration of English learning, the period of using digital devices, and previous experience of digital English learning. The results verified from SEM analysis proposed a theoretical model that showed the structural relationships between Korean students' use of DELS and their affective domains. Therefore, the results of this study help ESL/EFL teachers understand how learners use and develop appropriate learning strategies in digital learning contexts. The pedagogical implication and suggestions for the further study will be also presented.

**Keywords :** Digital English Learning Strategy, DELS, individual variables, learners' affective domains, Structural Equation Modeling, SEM

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