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Gender Difference in Internet Cognitive Fatigue and Gameplay Interest and Anxiety while They Played a Category Game with Attribute Classification

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Abstract: This study is based on the cognitive-affective theory of media learning and specifies how gender make a different relationship among internet cognitive fatigue (ICF), gameplay interest, and gameplay anxiety. Our research employs an APP, which is named OTouch. This APP is an educational game that is developed to enhance students' categorization ability. The rule of this game is that players need to categorize fifteen rolling items in three columns (five items in each column) on the screen. By identifying and matching items with the same attributes, players win the game. For instance, in the language theme, there might be fifteen verbs and its conjugations on the screen. The relationship of "take-took-taken" should be identified from others. Or, as another example, in the biology theme, there might be fifteen pictures of fruit on the screen. Among these pictures, there could be three fruits which have only one seed, such as the peach, the litchi, and the plum. Players should identify this attribute and touch them in any order to match them. After matching all items on the screen, the game end and the player earns points. Our survey focused on junior high school students. We had collected 119 data and used IBM SPSS 23.0 for data analysis. The result of this study reveals that male players have the higher relation between ICF and gameplay anxiety than female players. However, there is no gender difference in gameplay interest. Our results imply that a categorization thinking game that requires players pay much more attention to identify and classify attributed items seems more suitable for female students.

Keywords: Category ability, attribute classification, gameplay interest, gameplay anxiety, internet cognitive fatigue