The Longitudinal Analysis of the Effect of Creativity Integrated Curriculum on Students' Creativity Growth

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In this study, some domestic distinguished teachers of Science and Technology are first invited to compile the teaching contents and trained for teaching approaches integrating "creativity training curriculum" into the subject of "Science and Technology." Within the one-year (two-semester) teaching process, four experimental courses are preceded and five surveys are practiced to understand students' development in the creativity training process. Meanwhile, the effects of positive emotion, creativity tendency, and science performance on creativity growth are also investigated. Then, in the experiment, total 9 teachers and 198 students have participated. With Hierarchical Linear Modeling, it discovers the benefit of creativity training curriculum to students' creativity. Also the students' scientific creativity get increased though it appeared downward at the first stage. Moreover, students' science performance, their motivation to adventure further, and their curiosity for creative learning present positive effects on the growth of students' scientific creativity. Apparently, the integrated curriculum developed in this study could be beneficial to students' creativity development.

Keywords: positive emotion, scientific creativity, creativity tendency, longitudinal analysis