Multiple-group path analysis between the Overexcitability, Creative Style, and Cognitive Representation Efficiency through samples of university students

Abstract

The study aimed to find out the difference between the multiple-group path analysis models and to determine the best causal model for the causal relationships between the Overexcitability as an independent variable, Creative Style as an intermediate variable, and Cognitive Representation Efficiency as a dependent variable through samples of university students, three measures were applied, including Overexcitability, Creative Style, Cognitive Representation Efficiency. The psychometric properties of instruments were investigated in a sample of (400) students by Mplus. Using the path analysis method in Amos 23, the supposed structural model was a good fit with data from 500 students. The results revealed that there were positive direct effects of Creative Style and Intellectual Overexcitability, Emotional Overexcitability on Cognitive Representation Efficiency. Furthermore, there was also a direct positive effect of Intellectual, Emotional and Imaginational Overexcitability on Creating and Communicating, and the results also indicated a direct positive effect of Intellectual, Imaginational, Overexcitability, Psychomotor and Sensual Overexcitability on Challenging, there was a direct effect of Intellectual, Imaginational, Overexcitability, Psychomotor and Sensual Overexcitability on Executing and Changing. In addition, there was an indirect effects (via Challenging, Executing and Changing) of Intellectual, Psychomotor, Sensual and Imaginational Overexcitability on Cognitive Representation Efficiency. Furthermore, there was also an indirect effects (via Creating and Communicating) of Intellectual, Emotional and Imaginational Overexcitability on Cognitive Representation Efficiency. . Finally, there was no statistically significant differences the multiple-group path analysis models (the unconstrained model, the structural weights model, and the structural covariance's model) among a sample of superior and normal, and no statistically significant differences the multiple-group path analysis models (the unconstrained model, the structural weights model, the structural covariance's model and the structural residuals model) among a sample of students of scientific and literary majors.

Keywords: Multiple-group path analysis- the Overexcitability- Creative Style- Cognitive Representation Efficiency