

Comparison of Academic Engagement and Cognitive Flexibility Students with and Without Learning Disorder

Abstract

Background: Learning disabilities are one of the most common disorders among students that reduce their self-esteem and severely affect their academic achievement and stress families.

Aim: This study was conducted to determine and compare the level of academic engagement and cognitive flexibility in students with and without learning disabilities.

Methods and Material: The statistical population of this study included all children with learning disabilities referred to the specialized psychiatric clinic of Fatemi Hospital in Ardabil in 2020-2021 . Among them, 60 people were randomly selected as a statistical sample. Also, 60 normal children were selected as normal group after relative matching in terms of gender, age and level of education with the experimental group. In the present study, 3 questionnaires were used: Learning Disorder (Colorado), Academic Conflict, and Dennis and Vendoral Flexibility.

Results: In this study, 60 people with learning disabilities and 60 normal people were included in the study which two groups were not significantly different in terms of age, sex and level of education and were matched. In general, learning disability in the impaired group was significantly higher than the healthy group and academic engagement and cognitive flexibility were significantly higher in the healthy group than the impaired group ($P < 0.05$) in terms of microcriteria in the Learning Disorder Questionnaire. Sub-criteria including difficulty in reading, difficulty in social cognition, social anxiety, spatial problems and math problems in the impaired group were significantly higher than the healthy group. Also, all the criteria of the academic engagement questionnaire including agency, behavioral, emotional and cognitive in the healthy group were significantly higher

than the disrupted group, which showed that the academic engagement was significantly higher in the healthy group. In the Cognitive Flexibility Questionnaire, all the micro-criteria of this questionnaire, including perception of controllability, perception of behavior justification and perception of different costs in the healthy group were significantly higher than the disrupted group, which shows that cognitive flexibility was significantly higher in healthy group.

Conclusion: According to the results, students with learning disabilities should be given more attention. The results of the present study showed that these students are more exposed to educational problems in terms of academic engagement and cognitive problems than the healthy group. Therefore, children's screening for learning disabilities should be done faster and with a greater geographical extent, and after appropriate screening, the necessary training and motivational courses for these students should be planned and performed by health and education policy makers. It is also essential for this group of children and students with dyslexia who clearly and according to the results of the present study suffer from impaired academic engagement and cognitive flexibility; Rehabilitation and motivation courses that were mentioned in detail in the discussion and similar studies should be planned and implemented to confirm it.

Keywords: Academic Engagement, Cognitive Flexibility, Learning Disorder