

**3<sup>rd</sup> BRICSCESS 2024-New Delhi  
Invited Speaker**



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**Prof. Dr. Giyasettin Demirhan** is working at Hacettepe University Faculty of Sport Sciences. He is Head of Physical Education and Sport Teacher Education Department. He is a member of some international scientific association like AIESEP, FIEP, ECSS. Currently his research interests are critical thinking, information communication technologies, relationship between physical activity and academic performance and cognitive functions, risk perception in outdoor-adventure sports. He published 32 articles in international refereed journals and 51 articles in national referred journals. Also, he has 2 books and 18 book chapters in physical education and sport sciences. He presented more than 120 papers in international and national scientific congresses and completed 20 international and national scientific research projects in his own research field. He was as keynote and invited speaker at many national and international scientific meetings. Also, he organized many international and national scientific meetings.

**The Effect of Physical Activity-Based Brain Breaks on Gain Score**

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The purpose of the current study is to examine whether physical activity-based brain breaks used in academic classes in middle school have an effect on gain score. In this study, a single group pre-test-post-test model was applied. The sample of the current study is comprised of 129 middle school students; 65 girls and 64 boys, from the 5th, 6th, 7th and 8th grades. In the study, a Demographic Information Form (DIF) consisting of demographic information of students and the Objective Comprehension Tests prepared by the Ministry of National Education to measure academic score were used. Frequency, Percentage, T-Test in independent groups, One-Way Analysis of Variance (ANOVA) and Post-Hoc Tests

(Tamhane's T2) were used in the analysis of the data. According to the findings obtained from the analysis, physical activity-based brain breaks were found to be effective on the gain score from Mathematics and Religious Culture and Moral Knowledge courses. No significant effect was found in Turkish, Science and English courses. As a result, it can be said that the physical activity breaks used in the current study do not decrease academic success in Turkish, Science and English courses, but increase academic success in Mathematics and Religious Culture and Moral Knowledge courses.