

THE EFFECT OF BRAIN GYM ON STUDENTS' SHORT TERM MEMORY AT ELEMENTARY SCHOOL NUMBER 34 OF PONTIANAK CITY IN 2014

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Abstract

Background: Short term memory holds a major role in most of the brain's cognitive process including its speed that influences child's academic performance. Brain gym is a movement series that stimulates brain and is proven to be able to enhance a range of brain functions. **Objective:** The objective of this research was to find out the effect of brain gym on students' short term memory at Elementary School number 34 of Pontianak City in 2014. **Methods:** This research was a quasi-experimental study with non-equivalent control group design. The subjects included 54 children with 27 children were in the experimental group and the other 27 acted as control group. Brain gym was performed approximately fifteen minutes every day for two weeks. Short term memory was measured by Digit Span test before and one day after the intervention. Analytical statistics used Wilcoxon test, paired t-test, and Mann Whitney test. **Results:** The mean score of short term memory before being given the intervention of brain gym was 8.96 ± 1.742 . The mean score of short term memory after a given intervention of brain gym was 10.70 ± 2.350 . There was a significant increase of digit span scores in the experimental group with $p < 0.001$. There was no significant increase of digit span scores in the control group with $p = 0.185$. There was a significant difference in alteration of digit span scores between the experimental and control groups with $p = 0.036$. **Conclusion:** Brain gym performed approximately fifteen minutes every day for two weeks can improve the students' short term memory scores at elementary school Number 34 of Pontianak City in 2014.

Key word: brain gym, short term memory

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PENGARUH SENAM OTAK TERHADAP MEMORI JANGKA PENDEK SISWA SEKOLAH DASAR DI SD NEGERI 34 PONTIANAK KOTA TAHUN 2014

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Intisari

Latar Belakang: Memori jangka pendek berperan besar pada sebagian besar proses kognitif dan kecepatannya yang berpengaruh pada performa akademis anak. Senam otak adalah serangkaian gerak untuk menstimulasi otak dan terbukti dapat meningkatkan berbagai fungsi otak. **Tujuan:** Penelitian ini dilakukan untuk mengetahui pengaruh senam otak terhadap memori jangka pendek siswa SD Negeri 34 Pontianak Kota pada tahun 2014. **Metode:** Penelitian ini merupakan penelitian kuasi eksperimental dengan rancangan non equivalent control group. Sampel penelitian berjumlah 54 anak, 27 anak masuk kelompok eksperimen dan 27 anak lainnya masuk kelompok kontrol. Senam otak dilakukan lebih kurang 15 menit setiap hari selama dua minggu. Memori jangka pendek diukur dengan Digit Span sebelum dan 1 hari sesudah perlakuan. Analisa statistik menggunakan uji Wilcoxon, uji T berpasangan, dan uji Mann Whitney. **Hasil:** Rerata skor memori jangka pendek sebelum diberikan perlakuan senam otak adalah $8,96 \pm 1,742$. Rerata skor memori jangka pendek setelah diberikan perlakuan senam otak adalah $10,70 \pm 2,350$. Terdapat peningkatan bermakna skor digit span pada kelompok eksperimen dengan $p < 0,001$. Tidak terdapat peningkatan bermakna skor digit span pada kelompok kontrol dengan $p = 0,185$. Terdapat perbedaan bermakna selisih skor digit span antara kelompok eksperimen dan kontrol dengan $p = 0,036$. **Kesimpulan:** Senam otak lebih kurang 15 menit setiap hari selama 2 minggu dapat meningkatkan skor memori jangka pendek siswa SD Negeri 34 Pontianak Kota pada tahun 2014.

Kata kunci: senam otak, memori jangka pendek

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