

Nunuk Mulandari dan Supra Wimbari

## INTISARI

Penelitian yang dilakukan bertujuan untuk mengetahui peran asam lemak omega-3 terhadap peningkatan kemampuan verbal dan kemampuan numerik anak masa sekolah.

Subjek dalam penelitian ini adalah siswa kelas 2 dan 5 dari beberapa sekolah dasar yang ada di Yogyakarta. Desain yang digunakan adalah eksperimen kasus terbatas dengan menggunakan model A-B. Pelaksanaan eksperimen berlangsung selama 6 minggu. Dua minggu pertama sebagai fase *baseline*, sedangkan 4 minggu berikutnya sebagai fase perlakuan.

Instrumen yang digunakan untuk mengumpulkan data adalah Tes Kemampuan Verbal A dan Tes Kemampuan Verbal B, yang keduanya saling paralel, serta Tes Kemampuan Numerik A dan Tes Kemampuan Numerik B, yang keduanya juga saling paralel.

Data dianalisis dengan menggunakan Analisis *Repeated-Measures* dengan bantuan Program Statistik. Hasil menunjukkan bahwa komparasi rerata kemampuan verbal fase *baseline* dan fase perlakuan memberikan koefisien perbedaan (nilai *F*) sebesar 14,780 dengan  $p < 0,05$ . Rerata kemampuan verbal fase *baseline* sebesar 37,55; sedangkan rerata kemampuan verbal fase perlakuan sebesar 100,18. Sementara itu, komparasi rerata kemampuan numerik fase *baseline* dan fase perlakuan memberikan koefisien perbedaan (nilai *F*) sebesar 12,812 dengan  $p < 0,05$ . Rerata kemampuan numerik fase *baseline* sebesar 20,05; sedangkan rerata kemampuan numerik fase perlakuan sebesar 49,55. Hasil tersebut menunjukkan bahwa kemampuan verbal dan kemampuan numerik anak masa sekolah mengalami peningkatan setelah diberikan asam lemak omega-3.

**Kata kunci:** asam lemak omega-3, kemampuan verbal, dan kemampuan numerik.

**THE EARLY STUDY ABOUT ROLE FATTY ACID OMEGA-3  
TO INCREASE VERBAL ABILITY AND NUMERICAL ABILITY AMONG  
ELEMENTARY SCHOOL CHILDREN**

Nunuk Mulandari and Supra Wibarti

**ABSTRACT**

The objective of the research is to explore the influence of fatty acid omega-3 on verbal and numerical abilities of among elementary school children. The subjects of the research were second and fifth grade students of some elementary school in Yogyakarta. Single-case experimental design was used in this research. This experimental was running for 6 weeks. During the first and second weeks, children were assessed to measure the baseline condition on their verbal and numerical ability. The assessment was repeated on the 3<sup>rd</sup> and 6<sup>th</sup> week of experiment.

The Tests of Verbal Ability A, Verbal Ability B, Numerical Ability A and Numerical Ability B were used as parameters to data collected in this research. Tests of Verbal Ability A and Verbal Ability B are parallel tests, as well as Tests of Numerical Ability A and Numerical Ability B.

Data were analyzed using Repeated-Measures Analysis, utilizing statistical program. The result showed that there was significant comparison between mean of verbal ability of baseline phase and mean of verbal ability of treatment phase. Mean of verbal ability of baseline phase was 37,55; while mean of verbal ability of treatment phase was 100,18. The result also showed that there was significant comparison between mean of numerical ability of baseline phase and mean of numerical ability of treatment phase. Mean of numerical ability of baseline phase was 20,05 and mean of numerical ability of treatment phase was 49,55. In conclusion, fatty acid omega-3 was effective to increase verbal and numerical ability among elementary school children.

**Key words:** Fatty acid omega-3, verbal ability, and numerical ability.