

STUDI META-ANALISIS *PRE-POST CONTRAST*
PENGARUH PENGGUNAAN MEDIA PEMBELAJARAN TERHADAP
HASIL BELAJAR MATEMATIKA ANAK BERKEBUTUHAN KHUSUS
TUNARUNGU

TESIS

diajukan untuk memenuhi sebagian syarat untuk memperoleh gelar
Magister Pendidikan Program Studi Pendidikan Matematika



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BELAJAR MATEMATIKA ANAK BERKEBUTUHAN KHUSUS TUNARUNGU**

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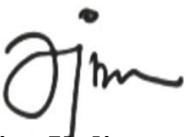
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ABSTRAK

Wenda Alifulloh (2024), Studi Meta-Analisis *Pre-Post Contrast*: Pengaruh Penggunaan Media Pembelajaran terhadap Hasil Belajar Matematika Anak Berkebutuhan Khusus Tunarungu

Penelitian ini bertujuan untuk menganalisis pengaruh penggunaan media pembelajaran terhadap hasil belajar matematika anak berkebutuhan khusus (ABK) tunarungu di Indonesia melalui studi meta-analisis *pre-post contrast*. Dari 349 karya ilmiah yang diseleksi, instrumen lembar coding digunakan untuk mengekstraksi data dari 15 studi primer yang memenuhi syarat untuk dianalisis, dengan memperhatikan karakteristik jenjang pendidikan, lokasi penelitian, dan jenis media pembelajaran yang digunakan. Perhitungan ukuran efek dan analisis karakteristik studi dilakukan dengan menggunakan aplikasi CMA versi 4.0 berdasarkan persamaan Hedges's g dengan taraf kepercayaan 95%. Model estimasi yang digunakan adalah *random effect model*, berdasarkan asumsi penelitian pendidikan yang didukung oleh uji heterogenitas ukuran efek dari studi-studi primer. Hasil analisis menunjukkan ukuran efek keseluruhan yang sangat tinggi dengan nilai *effect size* sebesar 1,325 dan *standar error* 0,245. Hal ini mengindikasikan bahwa penggunaan media pembelajaran memiliki pengaruh positif yang sangat tinggi terhadap hasil belajar matematika ABK tunarungu. Analisis karakteristik penelitian menemukan perbedaan yang signifikan dalam hal jenjang pendidikan dan jenis media yang digunakan. Penelitian ini menunjukkan bahwa media pembelajaran yang digunakan lebih efektif dalam kondisi tertentu. Pertama, penggunaan media pembelajaran bagi ABK tunarungu lebih efektif pada jenjang SMP. Kedua, pemilihan media pembelajaran jenis visual memberikan efektivitas yang lebih tinggi dibandingkan jenis lainnya dalam meningkatkan hasil belajar matematika ABK tunarungu. Uji heterogenitas terhadap lokasi penelitian mengungkapkan bahwa perbedaan lokasi tidak menyebabkan perbedaan signifikan dalam ukuran efek. Fakta-fakta ini menunjukkan bahwa ukuran efek dipengaruhi oleh karakteristik studi berupa jenjang pendidikan dan jenis media pembelajaran namun tidak dipengaruhi oleh lokasi penelitian.

Kata kunci: media pembelajaran, hasil belajar matematika, tunarungu, meta-analisis

ABSTRACT

Wenda Alifulloh (2024), *Meta-Analysis Pre-Post Contrast: The Influence of Instructional Media on Mathematics Learning Outcomes of Deaf Students*

This study aims to analyze the impact of using instructional media on the mathematics learning outcomes of deaf students in Indonesia through a pre-post contrast meta-analysis. Out of 349 selected scholarly works, a coding sheet instrument was used to extract data from 15 primary studies that met the criteria for analysis, considering educational level, research location, and type of instructional media used. Effect size calculations and study characteristic analyses were conducted using CMA version 4.0, based on Hedges's g formula with a 95% confidence interval. The estimation model used was a random effect model, based on the assumption of educational research supported by heterogeneity tests of effect sizes from the primary studies. The analysis results showed a very high overall effect size of 1.325 with a standard error of 0.245. This indicates that the use of instructional media has a very high positive impact on the mathematics learning outcomes of deaf students. The analysis of study characteristics found significant differences in terms of educational level and type of media used. This research indicates that the instructional media used is more effective under certain conditions. Firstly, the use of instructional media for deaf students is more effective at the junior high school level. Secondly, the selection of visual instructional media provides higher effectiveness compared to other types in improving the mathematics learning outcomes of deaf students. Heterogeneity tests regarding research location revealed no significant differences in effect size based on location. These findings suggest that while effect size is influenced by study characteristics such as educational level and the type of instructional media, it is not affected by the research location.

Keywords: *instructional media, mathematics learning outcomes, deaf student, meta-analysis*

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