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# The Effect Size of Inquiry Based Learning Containing Ethno-Physics on Students 21 Century Thinking Abilities

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**Abstrak**

Tujuan penelitian ini untuk mengetahui efek size inquiry based learning berbasis etno-fisika terhadap kemampuan berpikir abad-21 siswa. Jenis penelitian merupakan penelitian kuantitatif dengan metode meta-analisis. Data berasal dari analisis 14 jurnal nasional dan internasional terbitan 5 tahun terakhir 2019-2024. Kata kunci pencarian data adalah model inquiry based learning; Inquiry based learning berbasis etno-fisika dan kemampuan berpikir abad-21 siswa. Pencarian sumber data melalui google scholar; ERIC dan Mendeley. Analisis data dalam penelitian ini adalah analisis kuantitatif dengan menghitung nilai effect size dari setiap penelitian dengan bantaun aplikasi Microsof excel 2020. Hasil penelitian ini menyimpulkan bahwa model inquiry based learning berbasis etno-fisika berpengaruh signifikan terhadap kemampuan berpikir abad-21 siswa dengan nilai rata-rata effect size ES = 0.9163 ( high effect size). Temuan ini memberikan informasi penting implementasi inquiry based learning berbasis etno-fisika memberikan dampak positif terhadap kemampuan berpikir abad-21 siswa.

**Kata Kunci:** Inquiry Based Learning; Efek Size; Etno-Fisika; Berpikia abad-21

**Abstract**

The purpose of this study was to determine the effect size of inquiry based learning based on ethno-physics on students' 21st century thinking skills. The type of research is quantitative research with meta-analysis method. Data comes from the analysis of 14 national and international journals published in the last 5 years 2019-2024. Data search keywords are inquiry based learning model; Inquiry based learning based on ethno-physics and students' 21st century thinking skills. Data sources were searched through google scholar; ERIC and Mendeley. Data analysis in this study is quantitative analysis by calculating the effect size value of each study with the help of the Microsof excel 2020 application. The results of this study concluded that the ethno-physics-based inquiry-based learning model had a significant effect on students' 21st century thinking skills with an average effect size value of ES = 0.9163 (high effect size). This finding provides important information that the implementation of inquiry based learning based on ethno-physics has a positive impact on students' 21st century thinking skills.

**Keywords:** Inquiry Based Learning; Size Effect; Ethno-Physics; 21st Century Thinking