PENGARUH MODEL PEMBELAJARAN *INVESTIGATION BASED MULTIPLE REPRESENTATION* TERHADAP KEMAMPUAN PEMECAHAN MASALAH IPAS SISWA KELAS IV SD GUGUS VI KECAMATAN SUKASADA

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ABSTRAK

Riset ini diinisiasi untuk mengatasi persoalan rendahnya kemampuan pemecahan masalah IPAS pada siswa kelas IV di SD Gugus VI Kecamatan Sukasada, yang ditunjukkan oleh tingkat ketuntasan belajar yang baru mencapai 44,12%. Fokus utama penelitian adalah mengevaluasi sejauh mana model pembelajaran *Investigation Based Multiple Representation* (IBMR) memengaruhi kemampuan pemecahan masalah tersebut. Menggunakan pendekatan kuantitatif dengan metode eksperimen semu (*quasi-experiment*), studi ini menerapkan rancangan *Non-equivalent Post-test Only Control Group Design*. Seluruh siswa kelas IV di gugus terkait bertindak sebagai populasi, sedangkan penentuan sampelnya mengandalkan teknik *cluster random sampling*. Melalui prosedur tersebut, terpilih dua kelompok sampel. kelas IV SD Negeri 4 Panji Anom dengan 26 siswa sebagai kelompok eksperimen, serta kelas IV SD Negeri 3 Panji Anom dengan 19 siswa sebagai kelompok kontrol. Data kemampuan pemecahan masalah dihimpun lewat instrumen tes uraian (esai) yang telah memenuhi standar keabsahan dan keajegan melalui uji validitas serta reliabilitas. Sebelum pengujian hipotesis, data diuji prasyarat terlebih dahulu menggunakan uji normalitas *Shapiro-Wilk* dan uji homogenitas *Levene's Test*, lalu dianalisis secara deskriptif serta inferensial dengan *Independent Sample T-Test*. Hasil olah data menunjukkan adanya perbedaan capaian yang kontras, di mana rata-rata kelompok eksperimen berada di angka 86,08 dan kelompok kontrol di angka 56,00. Pengujian inferensial menghasilkan nilai t_{hitung} sebesar 16,964, sementara t_{tabel} bernilai 2,016 pada taraf signifikasi 5% ($p= 0,0001 < 0,05$). Temuan empiris ini membuktikan secara meyakinkan bahwa penerapan model IBMR memberikan dampak signifikan terhadap kemampuan pemecahan masalah IPAS siswa. Oleh karena itu, model ini layak direkomendasikan sebagai salah satu rujukan strategi pembelajaran inovatif di tingkat sekolah dasar.

Kata Kunci : *Investigation Based Multiple Representation,* Kemampuan Pemecahan Masalah, IPAS.

THE EFFECT OF THE INVESTIGATION BASED MULTIPLE REPRESENTATION LEARNING MODEL ON THE IPAS PROBLEM SOLVING SKILLS OF FOURTH GRADE STUDENTS IN ELEMENTARY SCHOOL CLUSTER VI, SUKASADA DISTRICT

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ABSTRACT

This research was initiated to address the low level of IPAS problem-solving skills among fourth-grade students in SD Gugus VI Sukasada District, as indicated by a learning mastery rate of only 44.12%. The primary focus of this study was to evaluate the extent to which the Investigation-Based Multiple Representation (IBMR) learning model affects these IPAS problem-solving skills. Utilizing a quantitative approach with a quasi-experimental method, this study employed a Non-equivalent Post-test Only Control Group Design. All fourth-grade students within the cluster served as the population, while the sample selection relied on the cluster random sampling technique. Through this procedure, two sample groups were selected: 26 fourth-grade students from SD Negeri 4 Panji Anom as the experimental group, and 19 fourth-grade students from SD Negeri 3 Panji Anom as the control group. Data regarding IPAS problem-solving skills were gathered using an essay test instrument that had met the standards of validity and reliability. Prior to hypothesis testing, the data underwent prerequisite testing using the Shapiro-Wilk normality test and Levene's test for homogeneity, followed by descriptive and inferential analysis using the Independent Sample T-Test. The data analysis revealed a contrasting difference in achievement, where the average score of the experimental group reached 86.08 and the control group stood at 56.00. The inferential testing yielded a t_{value} of 16.964, whereas the t_{table} value was 2.016 at a 5% significance level ($p = 0.0001 < 0.05$). These empirical findings convincingly prove that the implementation of the IBMR model exerts a significant impact on students' IPAS problem-solving skills. Therefore, this model is highly recommended as an innovative instructional strategy reference at the elementary school level.

Keywords : *Investigation Based Multiple Representation, Problem-Solving Skills, IPAS..*