AN ANALYSIS OF STUDENTS' LEARNING PREFERENCE BASED ON FLEMING'S VAK MODEL, MATHEMATICAL PERFORMANCE AND TEACHERS' PEDAGOGICAL PRACTICES

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ABSTRACT

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This descriptive-correlational study examined the impact of students' learning preferences and teachers' performance-based pedagogical practices on mathematics achievement at Digos City Central Elementary School. Participants included 12 mathematics teachers and 222 students from Grades 4 to 6. Students' learning preferences were assessed using Fleming's VAK model (Visual, Auditory, and Kinesthetic), while teacher practices were evaluated across behavioral, cognitive, and affective domains using a modified adapted questionnaire. Data were collected through surveys and academic performance assessments and analyzed using both descriptive and inferential statistics. A descriptive-comparative research design was employed to determine the relationship between instructional strategies, learning preferences, and students' mathematics performance. Findings revealed that Grade 4 students predominantly preferred kinesthetic learning, while Grades 5 and 6 favored visual modalities. Auditory learning was least preferred across all levels.

Mathematics performance showed an upward trend from Grade 4 (approaching proficiency) to Grades 5 and 6 (proficient). Teachers' performance-based practices were rated moderately (M = 3.12) and exhibited a weak positive but statistically insignificant correlation with student achievement. In contrast, learning preferences demonstrated a moderate, statistically significant relationship with mathematics performance (p = 0.03). The study concludes that while learning preferences relate modestly to academic outcomes, performance-based teaching practices alone are not strong predictors of student success in mathematics.

Keywords: Mathematics performance, learning preferences, teaching practices, pedagogical strategies, elementary education

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