

ABSTRAK

Putri Sierra Leany, 1222050123, 2026. “Analisis Miskonsepsi Peserta Didik Melalui Tes Diagnostik *Three-Tier Test* dengan Penerapan Metode *Diagnostic Teaching*”

Penelitian ini bertujuan untuk menganalisis bentuk dan tingkat miskonsepsi peserta didik pada materi trigonometri berdasarkan *Three-Tier Test* serta mengetahui efektivitas penerapan metode *Diagnostic Teaching* dalam mengatasi miskonsepsi. Penelitian ini menggunakan metode kualitatif yang didukung data kuantitatif. Subjek penelitian adalah peserta didik kelas XI TE di SMKN 6 Bandung. Data dikumpulkan melalui *Three-Tier Test*, wawancara, observasi, dan dokumentasi. Miskonsepsi dianalisis berdasarkan tiga indikator, yaitu konsep dasar trigonometri, sudut berelasi dan sudut istimewa, serta trigonometri dalam permasalahan kontekstual. Hasil tes awal menunjukkan persentase miskonsepsi masing-masing sebesar 49%, 46%, dan 43%, yang termasuk kategori cukup. Miskonsepsi yang ditemukan meliputi kesalahan menentukan sisi berdasarkan sudut acuan, menentukan tanda nilai trigonometri pada sudut berelasi, serta memilih perbandingan trigonometri dalam permasalahan kontekstual. Setelah penerapan *Diagnostic Teaching*, terjadi penurunan miskonsepsi dan peningkatan pemahaman konsep. Pada tes akhir, 83% peserta didik berada pada kategori paham konsep, 16% mengalami miskonsepsi, dan 1% tidak paham konsep. Dengan demikian, *Diagnostic Teaching* dapat membantu mengatasi miskonsepsi peserta didik pada materi trigonometri.

Kata Kunci: Miskonsepsi, *Three-Tier Test*, *Diagnostic Teaching*, Trigonometri.

ABSTRACT

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This study aimed to analyze the forms and levels of students' misconceptions in trigonometry based on the *Three-Tier Test* and to determine the effectiveness of the *Diagnostic Teaching* method in overcoming misconceptions. This study employed a qualitative method supported by quantitative data. The participants were students of grade XI TE at SMKN 6 Bandung. Data were collected through a *Three-Tier Test*, interviews, observations, and documentation. Misconceptions were analyzed based on three indicators: basic trigonometric concepts, related and special angles, and trigonometry in contextual problems. The initial test results showed misconception percentages of 49%, 46%, and 43%, respectively, which were categorized as moderate. The misconceptions included errors in identifying sides based on the reference angle, determining the signs of trigonometric values for related angles, and selecting appropriate trigonometric ratios in contextual problems. After the implementation of *Diagnostic Teaching*, misconceptions decreased and conceptual understanding improved. In the final test, 83% of students were categorized as having conceptual understanding, 16% as having misconceptions, and 1% as lacking conceptual understanding. Therefore, *Diagnostic Teaching* can help overcome students' misconceptions in trigonometry.

Keywords: Misconceptions, *Three-Tier Test*, *Diagnostic Teaching*, Trigonometry.

