

ABSTRAK

Lucia Veronica Aprilia Gomes, 2025. Diagnosis Kesulitan Belajar Peserta Didik Pada Topik Permutasi Kombinasi dan Remediasi Menggunakan Model *Learning Together* Dengan Metode Eksperimen. Program Studi Pendidikan Matematika, Jurusan Pendidikan Matematika dan Ilmu Pengetahuan Alam, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Sanata Dharma.

Penelitian yang dilakukan dengan proses diagnosis dan remediasi ini bertujuan untuk mengetahui kesulitan belajar yang dialami peserta didik kelas XII-IPS asrama putra SMAS Santa Familia Wae Nakeng pada materi permutasi dan kombinasi serta mendeskripsikan pemahaman peserta didik setelah diterapkan pembelajaran remedial menggunakan model belajar *learning together* dengan metode eksperimen.

Jenis penelitian yang digunakan adalah penelitian deskriptif dengan pendekatan kualitatif dan kuantitatif. Subjek penelitian ini adalah 10 peserta didik kelas XII IPS asrama putra SMAS Santa Familia Wae Nakeng. Instrumen penelitian yang digunakan yaitu observasi, wawancara kepada pendidik, wawancara kepada peserta didik, serta pemberian *pretest* dan *posttest*. Teknik analisis data terdiri dari dua, yakni data kualitatif yang terdiri dari reduksi data, penyajian data, dan penarikan kesimpulan. Data kedua adalah kuantitatif berupa perhitungan persentase keaktifan belajar peserta didik.

Berdasarkan proses diagnosis diperoleh bahwa kesulitan belajar yang dialami peserta didik kelas XII-IPS asrama putra SMAS Santa Familia Wae Nakeng pada materi permutasi dan kombinasi berupa kesulitan mengklasifikasikan permasalahan yang diselesaikan dengan permutasi atau kombinasi, kesulitan mengidentifikasi unsur-unsur permutasi dan kombinasi yang berkaitan dengan masalah kontekstual, serta permasalahan keaktifan dalam pembelajaran. Selanjutnya, setelah dilakukan proses remediasi menggunakan model belajar *learning together* dengan metode eksperimen serta melalui hasil *posttest*, peserta didik telah mampu mengklasifikasikan permasalahan yang diselesaikan dengan permutasi atau kombinasi, mampu mengidentifikasi unsur-unsur permutasi dan kombinasi yang berkaitan dengan masalah kontekstual, dan keaktifan belajar peserta didik sebelum dilakukan remediasi kurang dari 50% yang memenuhi indikator, meningkat menjadi 100% saat dilakukan pembelajaran remedial. Akan tetapi, strategi yang digunakan pada pembelajaran remedial ini nyatanya belum dapat membantu peserta didik sampai pada tahap menerapkan permutasi dan kombinasi sesuai dengan konteks permasalahan.

Kata Kunci: diagnosis, remediasi, metode eksperimen, model *learning together*, permutasi dan kombinasi.

ABSTRACT

Lucia Veronica Aprilia Gomes, 2025. *Diagnosis of Students' Learning Difficulties on the Topic of Permutations Combinations and Remediation Using Learning Together Model with the Experimental Method. Mathematic Education Study Program, Department of Mathematics and Natural Sciences Education, Faculty of Teacher and Education, Sanata Dharma University.*

This research, which was conducted using a diagnosis and remediation process, aims to identify the learning difficulties experienced by male boarding school students of class XII-IPS at Santa Familia Wae Nakeng Senior High School on the material of permutations and combinations and to describe students' understanding after applying remediation learning with the experimental method and the learning together learning model.

The type of research used is descriptive research with qualitative and quantitative approaches. The subjects of this study were 10 students of male boarding school students of class XII-IPS at Santa Familia Wae Nakeng Senior High School. The research instruments used were observation, interviews with educators, interviews with students, and the administration of pretests and posttests. Data analysis techniques consist of two parts, namely qualitative data consisting of data reduction, data presentation, and drawing conclusions. The second data is quantitative in the form of calculating the percentage of student learning activity.

Based on the diagnosis process, it was found that the learning difficulties experienced by class XII-IPS at Santa Familia Wae Nakeng Senior High School on the material of permutations and combinations were difficulties in classifying problems solved by permutations or combinations, difficulties in identifying elements of permutations and combinations related to contextual problems, and problems with activeness in learning. Furthermore, after the remediation process was conducted using the experimental method and the learning together model and through the posttest results, students were able to classify problems solved by permutations or combinations, were able to identify elements of permutations and combinations related to contextual problems, and students' learning activeness before remediation was less than 50% which met the indicators, increased to 100% when remediation learning was carried out. However, the strategies used in remedial learning have not been able to help students reach the stage of applying permutations and combinations according to the context of the problem.

Keywords: *diagnosis, remediation, experimental methods, learning together models, permutations and combinations.*