

## ABSTRAK

**MUHAMMAD ASHARI LUBIS. Analisis Kemampuan Pemahaman Konsep Dan Kemandirian Belajar Melalui Penerapan Model Guided Discovery Learning Berbantuan *Geogebra*.** Tesis Medan: Program Studi Pendidikan Matematika Pascasarjana Universitas Negeri Medan. 2022.

Penelitian ini bertujuan untuk: 1) Menganalisis Kemampuan Pemahaman Konsep Matematis dan Kemandirian Belajar siswa SMA Negeri 1 Aek Kuasan. 2) Menganalisis Kemampuan Pemahaman Konsep Matematis ditinjau dari Kemandirian Belajar siswa SMA Negeri 1 Aek Kuasan. 3) Mengetahui kesulitan Kemampuan Pemahaman Konsep Matematis siswa SMA Negeri 1 Aek Kuasan. Subjek dalam penelitian ini melibatkan siswa SMA Negeri 1 Aek Kuasan kelas X-1 sebanyak 18 siswa. Instrumen penelitian adalah tes kemampuan pemahaman konsep matematis dan angket kemandirian belajar siswa. Dari 18 siswa kelas X-1 SMA Negeri 1 Aek Kuasan yang mengikuti tes, hasil kemampuan pemahaman konsep matematis siswa SMA Negeri 1 Aek Kuasan setelah diajar dengan menggunakan model guided discovery learning berbantuan geogebra yaitu kategori rendah sebanyak 4 orang (22,22%). Siswa dengan kategori sedang sebanyak 5 orang (27,78%), dan siswa dengan kategori tinggi sebanyak 9 orang (50%). Sedangkan kemampuan kemandirian belajar siswa dengan model *Guided Discovery Learning* berbantuan geogebra. Siswa dengan kemandirian belajar tinggi ada sebanyak 9 orang (50%), siswa dengan kemandirian belajar sedang sebanyak 4 orang (22,22%), dan siswa dengan kemandirian belajar rendah ada sebanyak 5 orang (27,78%).

**Kata Kunci** : Guided Discovery Learning, Kemampuan Pemahaman Konsep Matematis, Kemandirian Belajar Siswa.



## ABSTRACT

**MUHAMMAD ASHARI LUBIS. Analysis of Concept Understanding Ability and Independent Learning Through Application of Geogebra Assisted Guided Discovery Learning Model.** Thesis. Medan: Mathematics Education Program Postgraduate School State University of Medan. 2022.

This study aims to: 1) Analyze the Ability to Understand Mathematical Concepts and Independent Learning of SMA Negeri 1 Aek Kuasan students. 2) Analyzing the Ability to Understand Mathematical Concepts in terms of Independent Learning of SMA Negeri 1 Aek Kuasan students. 3) Knowing the difficulty of Mathematical Concept Understanding Ability of SMA Negeri 1 Aek Kuasan students. The subjects in this study involved 18 students of SMA Negeri 1 Aek Kuasan class X-1. The research instrument is a test of the ability to understand mathematical concepts and a student learning independence questionnaire. Of the 18 students of class X-1 of SMA Negeri 1 Aek Kuasan who took the test, the results of the ability to understand mathematical concepts of students of SMA Negeri 1 Aek Kuasan after being taught using guided discovery learning models assisted by geogebra were in the low category as many as 4 people (22.22%). There were 5 students in the medium category (27.78%), and 9 students in the high category (50%). While the ability of students' learning independence with the Guided Discovery Learning model assisted by geogebra. There are 9 students with high learning independence (50%), 4 students with moderate learning independence (22.22%), and 5 students with low learning independence (27.78%).

**Keywords:** Guided Discovery Learning, Ability to Understand Mathematical Concepts, Independent Learning of Students

