

## **ABSTRAK**

**Burhan Fatwa Abdul Aziz, “Analisis Tingkat Kemampuan Mahasiswa dalam Menjawab Soal Persamaan Diferensial Berdasarkan Taksonomi SOLO dan Analisis Kesalahan Berdasarkan Kriteria Watson”**

Penelitian ini secara umum bertujuan untuk mendeskripsikan kemampuan mahasiswa dalam menjawab soal persamaan diferensial berdasarkan taksonomi SOLO, mendeskripsikan karakteristik kesalahan berdasarkan kriteria watson. Jenis penelitian yang digunakan adalah penelitian deskriptif dengan pendekatan kualitatif. Subjek penelitian ini adalah 40 mahasiswa semester VII program studi Pendidikan Matematika yang sedang mengambil kelas persamaan diferensial. Pengumpulan data dilakukan dengan 3 cara yaitu berupa soal tes, angket dan pedoman wawancara. Data-data tersebut setelah dikumpulkan kemudian dianalisis melalui langkah reduksi data, penyajian data, dan kesimpulan atau verifikasi. Berdasarkan analisis yang telah peneliti lakukan diketahui: (1) Kemampuan mahasiswa didominasi pada level unistruktural dan multistruktural. (2) Karakteristik kesalahan terbanyak yang dilakukan mahasiswa adalah masalah hirarki keterampilan dan prosedur tidak tepat. (3) Faktor pendukung dan penghambat mahasiswa rata-ratanya adalah faktor internal 66%, faktor eksternal 55%, faktor teknis 60%, faktor non teknis 62%. (4) Respon mahasiswa terhadap soal rata-ratanya adalah pengalaman soal 80%, kesulitan soal 65%, ketertarikan soal 63%, menguji kemampuan 69%.

**Kata Kunci:** **Taksonomi SOLO, Kesalahan Kriteria Watson, Faktor, Respon**



## **ABSTRACT**

**Burhan Fatwa Abdul Aziz, "Analysis of Students Ability Levels in Answering Differential Equation Questions Based on SOLO Taxonomy and Error Analysis Based on Watson Criteria on the Watson"**

This study generally aims to describe students' ability to answer differential equation questions based on the SOLO taxonomy, describe the error characteristics based criteria. This type of research is a descriptive study with a qualitative approach. The subjects of this study were 40 seventh semester students of the Mathematics Education study program who were taking differential equations classes. Data was collected in 3 ways, namely in the form of test questions, questionnaires and interview guidelines. After collecting the data, the data is analyzed through data reduction, data presentation, and conclusion or verification steps. Based on the analysis that the researchers have done, it is known that: (1) Students' abilities are dominated at the unistructural and multistructural levels. (2) The characteristics of most mistakes made by students are the problem of skill hierarchy and improper procedures. (3) Supporting and inhibiting factors for students on average are internal factors 66%, external factors 55%, technical factors 60%, non-technical factors 62%. (4) The students' responses to the average questions were 80% experience, 65% question difficulty, 63% question interest, testing 69% ability.

**Keywords:** SOLO Taxonomy, Watson Criteria Error, Factors, Response

