

## ABSTRAK

**IDENTIFIKASI PROSES KOGNITIF SISWA DALAM  
MENYELESAIKAN SOAL FISIKA  
TENTANG PERUBAHAN WUJUD  
(SEBUAH STUDI KASUS)**

**Timotius Vivid Nugroho. 2016. *Identifikasi Proses Kognitif Siswa dalam Menyelesaikan Soal Fisika tentang Perubahan Wujud (Sebuah Studi Kasus)*. Skripsi. Program Studi Pendidikan Fisika. Jurusan Pendidikan Matematika dan Ilmu Pengetahuan. Fakultas Keguruan dan Ilmu Pendidikan. Universitas Sanata, Yogyakarta.**

Penelitian ini bertujuan untuk mengidentifikasi proses kognitif siswa dalam menyelesaikan soal fisika tentang perubahan wujud dan melihat tahapan *problem solving*-nya. Proses kognitif siswa ditinjau berdasarkan Taksonomi Bloom hasil revisi. Tahapan *problem solving* siswa ditinjau berdasarkan tahapan *problem solving* model Minnesota.

Penelitian ini bersifat kualitatif. Penelitian dilakukan pada bulan Mei-Juli 2016. Responden penelitian berjumlah empat orang siswa SMA di Yogyakarta. Metode pengambilan data berupa tes esai, *think aloud*, dan wawancara. Tes esai yang digunakan berjumlah satu nomor. Data yang diperoleh berupa lembar pengerjaan responden dan transkrip *think aloud* dan wawancara. Transkrip *think aloud* dan wawancara disajikan dalam satu naskah.

Hasil penelitian menunjukkan bahwa (1) tahapan *problem solving* keempat responden berbeda-beda dan tidak urut sesuai susunan model Minnesota, (2) responden A dan B berhasil menjawab soal dengan benar, sedangkan responden C dan D tidak berhasil menjawab soal dengan benar, dan (3) proses kognitif responden A dan B yang teridentifikasi meliputi proses kognitif pada kategori mengingat, memahami, mengaplikasikan, menganalisis, dan mengevaluasi, sedangkan responden C dan D meliputi proses kognitif pada kategori mengingat, memahami, dan mengaplikasikan.

**Kata kunci:** *Problem solving*, proses kognitif, Taksonomi Bloom hasil revisi, Model Minnesota

**ABSTRACT****IDENTIFICATION OF STUDENT'S COGNITIVE PROCESS IN  
SOLVING THE PROBLEM OF PHYSICS  
ABOUT CHANGE OF PHASE  
(A CASE STUDY)**

**Timotius Vivid Nugroho. 2016. *Identification of Student's Cognitive Process in Solving the Problem of Physics about Change of Phase (A Case Study)*. Thesis. Physics Education Study Program. Department of Mathematics and Science Education. Faculty of Teachers Training and Education. Sanata Dharma University of Yogyakarta.**

This research aims to identify the cognitive processes of students in solving physics problem about change of phase and its problem solving. The student's cognitive processes were reviewed based on The Revision of Bloom's Taxonomy. The stages of student's problem solving were reviewed based on Minnesota Models

This research was a qualitative research. The research was held on May to July 2016. Respondents were four students of senior high school in Yogyakarta. The data collection methods used an essay test, think aloud, and interviews. The number of items used in the essay test is one item. The data were obtained in the form of students' answer sheets and transcripts of think aloud and interviews. Think aloud transcripts and interviews transcripts were presented in a single manuscript.

The results showed that (1) the problem solving stages of the four respondents were varied and there was no sequence according to the layout model of Minnesota, (2) respondent A and B successfully answered the problem correctly, while respondents C and D not successfully answered the problem correctly, and (3) the cognitive processes of respondents A and B were identified belong to cognitive processes in remembering, understanding, applying, analyzing, and evaluating categories, while respondents C and D were belong to cognitive processes in remembering, understanding, and applying categories.

**Keywords:** *Problem solving*, cognitive process, The revision of Bloom's Taxonomy, Minnesota Model