DEVELOPMENT OF SUBJECT SPESIFIC PEDAGOGY (SSP) ON LINE PHYSICS BASED ON INQIURY TO IMPROVE STUDENT LEARNED OUTCOMES FROM THE ASPECT OF EARLY ABILITY, COOPERATION, AND PERCEPTION OF STUDENTS ON GOOD CHARACTERS

by Suparwoto, Sukardiyono, Jumadi dan Rahayu Dwisiwi SR

ABSTRACT

This study aims to: (1) produce a physics-based SSP product based on an edmodo guided inquiry model to improve understanding of static fluid concepts in terms of initial abilities, collaboration and perceptions of good characters who meet appropriate criteria to improve understanding of fluid status concepts; (2) describe the differences in learning outcomes between the implementation of learning with SSP physics guided inquiry models assisted by edmodo with conventional learning by involving initial abilities, collaboration and perceptions of good character; (3) describe the relationship between initial ability, collaboration and perception of good character with the results of learning the concept of static fluid both individually and together; (4) describe the contribution of initial abilities, cooperation and perceptions of good character towards the results of learning the concept of static fluid both individually and together.

The research design used in this study is the Research and Development (R & D) 4-D model following the paths of Thiagarajan, Dorothy S. Semmel, and Melvyn I. Semmel, with the stages of define, design, develop and disseminate. Stage of disseminate just giving products to schools. The study was conducted at SMA Negeri 5 Yogyakarta in the academic year 2018/2019. Tests were taken randomly in 11st MIPA 5 grade and 11st MIPA 6 grade. The instruments used in this study were SSP validation sheets which included syllabus, lesson plans, student books, teacher books, and evaluations (assessment sheets). Data collection is done using validation sheets, questionnaires, and tests. The data analysis technique used is the analysis of the results of the SSP validation developed with the Aiken validity index, description of the PA value (Percentage Agreement), then continued in the field trial stage with analysis of covariance (ANAKOVA) with 3 covariates.

The results of the study show that (1) the edmodo assisted physics SSP model meets the eligible criteria with the Excellent category; The physics learning of static fluid material guided by edmodo assisted inquiry can improve understanding of concepts in terms of initial ability, collaboration, and perceptions of the good character of students. (2). This is evidenced by the difference in the average posttest score between the experimental class and the control class with a standard gain of 0.65 and 0.58 and strengthened by the effect size value of 0.73 with the interpretation of effects in the medium category. The results of the experimental test found that the understanding of the experimental fluid static concept was significantly higher than the control class. Based on the results of the calculation of covariance analysis (anakova) the value of Fcount = 6,509 and Ft5% = 4,00. So Fcount> Ft5%, so it can be concluded that there is an effect of increasing concept understanding of students treated with edmodo guided inquiry models in terms of initial ability, collaboration and perceptions of good character, (3) There is a significant relationship at 95% between abilities beginning, cooperation, and perceptions of the good character of students with learning outcomes are indicated by a regression coefficient of 0.79. (4). The effective contribution of covariates to learning outcomes together is 56.10%, while individually for initial ability, collaboration, and perceptions of good character are 1.48%, 7.22% and 47.40 %.

Kata Kunci: *Subject Specific Pedagogy, guided inquiry, edmodo, static fluid*