PROBLEM SOLVING DALAM PEMBELAJARAN FISIKA UNTUK MENINGKATKAN KEMAMPUAN MAHASISWA BERPIKIR ANALITIS

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Abstract

This study is aimed at improving students’ analytical skills to solve problems in physics courses. The subjects of this study are students participating in the odd semester courses of the 2009/2010 academic year. The study is classroom action research. The data are quantitative and qualitative. The most important thing of this model of teaching is in explaining the types of problems graphically on each topics, before they are presented mathematically. The steps in this learning model of problem solving approach are: 1) explain the procedure of problem solving, 2) explain material graphically for each topics, 3) construct mathematic formula and calculate it, 4) give some examples applying the method, 5) exercise in group as well as individually. The results of the study show that this model of teaching can improve 58% of subjects for the middle level of questions for having a B grade. It is suggested to combine this model with the cooperative learning approach.

Keywords: analytical skills, problem solving, graphical types of problems