

## **ABSTRACT**

### **DEVELOPING STUDENTS WORKSHEET FOR PHYSICS IN GRADE X SENIOR HIGH SCHOOL IN BANDAR LAMPUNG**

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The purposes of this research are (1) analyzing the school's potential and condition for developing worksheet as a guidance for students in doing experiment for rectilinear motion subject matter, (2) developing worksheet as a guidance for students in doing experiment for rectilinear motion subject matter, (3) analyzing the effectiveness of using worksheet as a guidance for students in doing experiment for rectilinear motion subject matter, (4) analyzing the efficiency of using worksheet as a guidance for students in doing experiment for rectilinear motion subject matter, and (5) analyzing the attractiveness of using worksheet as a guidance for students in doing experiment for rectilinear motion subject matter.

This research used research and development approach. It was conducted in SMA Yadika Bandar Lampung, SMA Negeri 5 Bandar Lampung, and SMA Negeri 15 Bandar Lampung. Data collecting technique used are test and questionnaire. The research data was analyzed descriptively and by using T-Test.

The conclusions of this research are: (1) Senior high schools in Bandar Lampung are potential for developing students worksheet. It was identified that there had not been worksheet as a guidance for students in doing experiment for rectilinear motion subject matter before, the learning result which tended to be low in the subject matter, and the presentation of the guidance used before did not support for achieving the goal of physics. (2) The worksheet development processes are (a) analysing the curriculum i.e. analysing Standar of Competence, Basic Competene, and materials which needed the worksheet, (b) formulating the learning indicators and goals, (c) mapping the worksheet needs to identify the number of worksheet needed, (d) determining the worksheet elements, (e) collecting the materials, and (f) composing the worksheet. (3) The worksheet is effective in use as a guidance for students in doing experiment for rectilinear motion subject matter as it can be seen from the increase of students' learning result and the average gain was 0.82. (4) The worksheet is efficient in use as a guidance for students in doing experiment for rectilinear motion subject matter as it can be seen from the time spent in the learning process was less than the time needed, with the efficiency presentage was 1.62. (5) The worksheet is attractive in use as a guidance for students in doing experiment for rectilinear motion subject matter as it can be seen from the result of the worksheet attractiveness testing with the average percentage was 78%, and from the increase of students' learning time because they were interested in using the worksheet during the learning process.

**Keywords:** instructional design, students worksheet, physics