

DEVELOPING STUDENT WORKSHEET IN ENGLISH BASED ON CONSTRUCTIVISM
USING PROBLEM SOLVING APPROACH FOR MATHEMATICS LEARNING ON THE
TOPIC OF SOCIAL ARITHMETICS

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ABSTRACT

The purpose of this paper is to describe the development of student worksheet in English based on constructivism using problem solving approach for mathematics learning on the topics of social arithmetic, and its quality.

The development of the student worksheet follows ADDIE model, there are: analyze, design, development, implementation, and evaluation. The instruments of the research are validation questionnaire, student response questionnaire, learning observation sheet, teacher interview, and test.

The development process of student worksheet is: 1) analyze: need analyze, student analyze, and task analyze, 2) design: determining the component of the student worksheet based on analyze phase, 3) development: writing the student worksheet, doing expert validation, and revising student worksheet based on the validation, 4) implementation: implementing the learning process using student worksheet to examine its effectiveness and practicality, 5) evaluation: analyzing its effectiveness and practicality, and revising the student worksheet. The quality of student worksheet is: 1) the level of validity is 4,01, of 5 scales (valid), 2) the level of effectiveness is 80,56% (very effective based on student test), 3) the level of practicality are 81,6% (practice based on learning process observation), and 3,03 of 4 scales (practice based on student response).

Keywords: student worksheet, constructivism, problem solving, social arithmetic.