## DEVELOPMENT OF COMIC SCIENCE ON THEME "GLOBAL WARMING" TO IMPROVE MOTIVATION AND LEARNING ACHIEVEMENT OF 1<sup>st</sup> GRADE JUNIOR HIGH SCHOOL OF 15 YOGYAKARTA

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## ABSTRAK

This research was aimed to: (1) know the validity of the comic science theme of "Global Warming" which developed, (2) know the student's response, (3) determine the improvement of student's learning motivation after using comic science, (4) determine the improvement of student's learning achievement after using comic science.

The method used in this study using Research and Development (R & D) by ADDIE (Analysis, Design, Develop, Implementation, Evaluation) and the researcher only uses develop. This research involves some reviewer, 2 expert lecturers, 1 science teacher, and the respondents were 27 students of VII I SMP Negeri 15 Yogyakarta. The instruments were the expert validation, student' response sheet, learning motivation questionnaire and test (pretest and posttest).

The final product of this research was comic science on theme "Global Warming". According to experts and science teacher it was "very good" product based on validity, presentation, and comic anatomy aspect. In the aspect of language and usefulness aspect was a "good" comic. Student response also includes the category of "very good" in terms of aspects of learning, presentation, use, comic anatomy. Comics are "good" on aspects of language.

It can increase the student's learning motivation with the enhancement average of 18,75% with gain score 0,8 include in "high" category. Comic science can improve motivation student's significantly by t test and their learning achievement with gain score 0,48 which include "moderate" category.

Kata kunci : comic, science, student's learning motivation, student's learning achievement, global warming