

**THE EFFECT OF IMAGE-BASED STUDENT WORKSHEET ON LEARNING  
OUTCOME IN HUMAN DIGESTIVE SYSTEM CLASS XI  
SCIENCE STUDENT OF SMA N 1 SIDIKALANG  
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**ABSTRACTS**

The objective of this study was to develop image-based student worksheet in order to solve the difficulties in understanding human digestive system and to know the effect of the worksheet on learning outcome of students in human digestive system that use worksheet as instructional material. This study was consisted of two stages. First stage, developmental stage, it was aimed to produce product which has assessed during validation process. Second stage, the implementation stage, it was aimed to see the effect of worksheet to learning outcome of students. Population was class students grade XI Science SMA N 1 Sidikalang that consists of 3 classes. Sample was consists of 2 classes which taken purposively, class XI Science 2 as experimental class (image-based student worksheet class) and XI Science 1 as control class (handbook class). Each class was contain 29 students. Instrument that used to collect data was multiple choice tests (20 items). From calculation,  $t_{\text{calculation}} (2,127) > t_{\text{table}} (1,673)$  (with  $\alpha = 0,05$  and  $dk = 29+29-2=56$ ) its mean  $H_0$  was rejected and  $H_a$  was accepted. Results indicate that learning outcome of image-based is higher than handbook students. It can be concluded that image-based student worksheet is more effective than handbook as instructional media.

**Keywords:** Image-Based Student Worksheet, Learning Outcome, Human Digestive System