

ABSTRACT

To make food , plants need light as a source of power or energy . The light energy absorbed by the leaf chlorophyll. The energy used by the chlorophyll to convert water and carbon dioxide into carbohydrates and oxygen . Food manufacturing process at the plant with the help of light is called photosynthesis . The result of photosynthesis are carbohydrates and oxygen . Problems arise that students tend to get bored while studying the respiratory system materials because the materials presented only text-only. Based on these problems, the author wants to create a multimedia-based learning application to help learning and teaching of biology, especially photosynthesis. Application development method used is ADDIE (Analyze, Design, Development, Implementation and Evaluation). While the tools used for application development is Adobe Flash CS6 as a processor, animation, Adobe Photoshop CS6 as image processing and Format Factory as voice processing. The test results are made with blackbox testing method to test the application functionality and user acceptance test to examine the satisfaction of the applications are built. Results from making this application is used as a learning tool for students to get a better understanding of photosynthesis.

Keywords : Photosynthesis , ADDIE , Multimedia