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## DEVELOPMENT OF STUDENT WORKSHEET WITH E- MEDIA COMIC ON ECONOMIC

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**Abstract.** The purpose of this study is to produce the Development of Student Worksheets with E-Comic Media in Economics X Social Studies in Bae Kudus Senior High School 1 in 2018. This research is a design development study of Student Worksheet with E-comic Media. Research design includes formulating general learning objectives, analyzing learning, identifying initial behavior and characteristics of students, writing Basic Competencies, developing assessment of learning, developing learning strategies, developing and selecting learning materials, designing and conducting formative evaluations, revising learning program materials. Assessment of learning outcomes includes knowledge, attitudes, and skills. The research material is an economic problem and how to overcome. Proven at each stage of the trial; whether doing individually in small groups or in real situations. There is an increase in the average student learning value from the pre-test to the post-test. Student Worksheets with E-Comic media can effectively improve student learning outcomes. The findings of this study are expected to be able to increase interest, motivation and student learning outcomes. Students who have a low interest in reading and learning can be improved by using e-comic media that displays concepts or material through certain storylines and images that are more attractive to students.

### INTRODUCTION

Economics is a subject that is included in the specialization group for the social studies department in the 2013 curriculum. Economics is the science that learns about human behavior and actions to meet their diverse and unlimited needs, and develops with available resources through choices of production activities, consumption and distribution. The object of economic subjects is very broad because what is learned is human beings and their behavior.

Such characteristics tend to lead to misconceptions that economic learning is more memorized. Understanding like this results in learning that emphasizes verbalism or emphasis on teacher activities rather than student activities so that there is accumulation of information or concepts of subject matter in students. Most economic teachers in delivering

conventional subject matter or using lecture methods. This results in boredom and boredom in students in receiving economic lessons.

Learning can be said to be successful if the learning is able to help students achieve the expected competencies. Smith and Ragan (in Pribadi, 2010: 18) suggested several indicators that can be used to determine the success of the learning process are effective, efficient and interesting. For this reason the teacher needs to make a systematic and systematic effort. Systemic refers to efforts to take action in a directed and step-by-step manner to achieve the stated goals, while systematic is a perspective that considers a system as a whole which is integrated with its components.

Comics as learning media is one of the media that is considered effective to develop creativity in the field of visual communication design. Comics are a form of visual communication media that has the power to convey information popularly and easily to understand. This is possible because comics combine the power of images and writing that are strung together in an image storyline that makes information more easily absorbed. The text makes it more understandable, and the plot makes it easier to follow and remember.

Comics are very potential learning media. Visual aspects that optimize the eye to examine the flow of images and text that are included. Most people are visual learners who associate information into images (Ascott 2006). So that comics can be used by students to recognize concepts, learn to count, get to know the environment, humans and nature.

Based on observations at the school and through the MGMP Economic forum in Kudus Regency, the following were found 1) Economic learning still relies on lecture or teacher oriented methods. 2) Limited facilities so that economic learning is less attractive and motivating for students. 3) Low student interest in reading so students are lazy to read economic lesson material that describes the concept at length. 4) The power of student analysis is still low to understand the concept with a broad language. 5) Teaching materials in Student Worksheets that still rely on textbooks. The worksheets created by MGMP also tend to be the same from year to year and are still general, not yet describing the local characteristics and potential of each school. 6) The comic has never been used as a learning medium for both economic subjects and other subjects in the writer's school and at the Kudus Regency level.

Based on the data above, students are relatively having difficulties in learning. This can be seen from the classical completeness expected in the 2017/2018 school year of 75% only reached 60%. By looking at this reality, it is necessary to develop a learning media specifically designed (by design) for certain subjects. Assuming this is offered a Development of Student Worksheets with E-Comic as a learning medium that is expected to attract

students' reading interest and students' motivation in learning economics so that their learning achievement will increase.

From the description above, it encourages the writer to conduct research to improve the economic learning outcomes of class X IPS in Bae Kudus 1 Senior High School in 2018 with the title "Development of E-Comic Based Student Worksheets on Economic Learning".

## **THEORETICAL FRAMEWORK**

Literally, the word media comes from the Latin "medium" which means intermediary "or" introduction ". According to the Guruan Technology and Communication Association (Association for Education and Communication technology / AECT) defines media as objects that can be manipulated, seen, heard, read or discussed along with instruments that are used properly in teaching and learning activities, can affect the effectiveness of instructional programs (Asnawir and Usman, 2002: 11).

Gagne stated that the media are various types of components in the student environment that can stimulate them to learn, while Briggs argues that media are all physical devices that can present messages and stimulate students to learn (Arif S. Sadiman, 2003: 6). From the various definitions above it can be concluded that the media are all objects that can transmit messages or content so that they can stimulate students to learn.

The use of learning media can help improve students' understanding and absorption of the subject matter learned. Following are the functions of the use of instructional media according to Asnawir and Usman (2002: 24): 1) Helps facilitate learning for students and helps teaching facilities for teachers. 2) Provide a more real experience (the abstract can be more concrete). 3) Attract more students' attention (learning activities can run more fun and not boring). 4) All student senses can be activated. 5) More interesting attention and interest of students in learning.

## **STUDENT WORKSHEETS**

Student Worksheets are sheets that contain tasks that must be done by students.

Worksheets is usually in the form of instructions to complete a task, an assignment that is ordered in the activity sheet must be clearly defined as the basic competencies to be achieved (Depdiknas, 2004: 18). Whereas according to Prastowo (2011: 24) Student Worksheet is a printed teaching material in the form of sheets of paper containing material, summaries and instructions for implementing learning tasks that must be carried out by students which refers to the basic competencies that must be achieved.

According to the above definition, the worksheets is in the form of a sheet containing the tasks of the teacher to students that are adjusted to the basic competencies and learning objectives to be achieved. Or it can be said that worksheets is a work guide for students to facilitate students in the implementation of learning activities.

The purpose of compiling Student Worksheets is as follows: 1) activate students in the process of learning activities., 2) Helping students develop concepts 3) Train students to find and develop process skills 4) As a guide for teachers and students in carrying out learning activities, 5) Helping students in obtaining information about the concepts they learn through a systematic learning process 6) Assist students in obtaining notes learned through learning activities.

The procedure in preparing Student Worksheets is as follows: 1) Determine the basic competencies, indicators and learning objectives to be modified into learning forms with Student Worksheets 2) Determine process skills for basic competencies and learning objectives 3) Determine activities that must be carried out by students in accordance with basic competencies, indicators and learning objectives, 4) Determine tools, materials and learning resources, 5) Find results obtained according to learning objectives.

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learn to count, know the environment and nature.

Sudjana and Rivai (2008) stated that comic media in the teaching and learning process creates the interest of students, making the teaching and learning process effective, can increase learning interest and appreciation.

### ADVANTAGES AND WEAKNESSES OF COMICS

As a medium used in learning activities, comics have the following advantages and disadvantages:

Advantages	Disadvantages
Comics add to the vocabulary of the readers Make it easier for students to capture abstract things or formulations Can develop children's reading interest and one of the other fields of study d. The whole way the comic story goes to one thing so it is not confusing	With the habit of reading comics, people refuse or are lazy to read books that are not pictorial In terms of comic language often use dirty words or sentences that are less accountable Many actions (pictures in comics) that highlight violent behavior or love stories.

Before developing visual media (comics), first the design must be made which is usually realized by "lay out" which is a layout (arrangement of images, lines or writing). According to Kemp (in Anita: 2010: 71) are as follows 1) Simplicity, The form of media must be concise, simple, and limited to important matters. The concept must be clearly and easily understood. The writing is quite clear, simple and easy to read. 2) Unity, The principle of unity is the relationship that exists between visual elements (comics) in its overall function. 3) Emphasis is shown through the use of certain measures, images and perspectives or with certain colors on the most important elements that become the center of attention of students. 4) Balance, There are two types of balance, namely formal and informal balance. Formal balance can be shown by the symmetrical division. While the

informal balance is not symmetrical and more dynamic and attracts attention. 5) Visual tools, Visual tools that can help the success of the principles of making (developing) visual media (comics) above according to Kemp (in Anita, 2010: 74) are lines, shapes, colors, textures and spaces as follows: a) Line, a line in visual media can connect together elements and will guide the reader to learn about the media in a certain order. b) Form, An unusual form will give rise to special attention to something that is visualized. c) Room, Open spaces around visual elements and words will prevent the impression of crowding in a visual media. If the space is used carefully, then the elements designed to be effective. d) Texture, Texture is a visual element that is used as a substitute for certain taste touches and can also be used as a color substitute, giving emphasis, separation or increasing emphasis. e) Color, The choice of colors used is a harmonious unity because too many different colors will disrupt the view and can lead to differences in perceptions of the message conveyed.

### **LEARNING OUTCOMES**

Sudjana (2010: 22) found that learning outcomes are abilities that students have after they receive the learning experience. The national education system formulates educational goals, both curricular goals and instructional goals, using the classification of learning outcomes from Benjamin Bloom which outlines it into three domains, namely: cognitive, affective, and psychomotor domains.

The cognitive domain relates to intellectual learning outcomes which consist of six aspects, namely knowledge or memory, understanding, application, analysis, synthesis and evaluation. The first two aspects are called low level cognitive and the next four aspects include high level cognitive. Assessment of learning outcomes can be operationalized in the form of indicators in the form of report cards, study achievement indexes, graduation rates, and successes. The definition above does not contradict meaning, even understanding one another complement each other so that it can be said that learning outcomes are actual abilities that can be measured and manifest

in the mastery of science achieved by students as a result of the learning process in school.

This development defines learning outcomes as a result of limited achievement tests that cover the cognitive domain so that the value can be measured as low by giving a test, observation during the learning process to students who are relevant to the desired target. Learning outcomes obtained by students in a subject are expressed in the form of values called learning outcomes.

### **ECONOMIC LEARNING**

The material provided during this research is the economic problem and the way to solve it. The following are things related to the method. The core of the economic problem is scarcity. According to Lionel Robbin (Jan Peil, 2009), scarcity is a human characteristic. Scarcity occurs when human needs are not limited to the means of satisfying limited needs, scarcity is a fact of life throughout the world. There is no country that has enough resources to meet its needs.

An unlimited human desire that is faced with the limited availability of needs satisfying tools makes people have to choose wisely which desires or needs they must fulfill among the various desires or needs that exist.

The main economic problems can be seen in the context of micro and macro economics. Microeconomics is a branch of economics that studies the behavior of individuals and corporate households in making decisions about the limited allocation of resources. Macroeconomics is part of economics that studies the mechanism of the economy as a whole. This includes the structure, performance, behavior and overall economic decision making in the national, regional and global economy.

Economic system is a combination of rules or ways that are one unit and used to achieve goals in the economy. The rules of the economic system must be able to answer the problem of what items must be produced, how to produce and for whom the goods are produced.

## **METHOD**

Development of Student Worksheets with E-Comic media uses the Research and Development (R & D) approach. This study intends to develop Economic Education Comics as a learning resource for high school / high school students in class ten part 1 and to know the effectiveness of the use of Economic Education Comics for learning.

Development of Student Worksheets with Comic Media was carried out in Class X IPS in Bae Kudus 1 Senior High School in 2018. The population in this development study were students of X IPS class Bae Kudus 1 high school consisting of 4 parallel classes. The sampling technique used is Cluster.

Purposive Sampling. This technique was chosen with considerations quite difficult and difficult to register all members of the population (Sugiyono, 2010: 280). This Purposive Cluster Sampling technique can be done with the following stages: 1) Record the class X IPS in Bae Kudus 1 Senior High School. Every year SMA 1 Bae Kudus receives 11 study groups with 7 classes for MIPA majors and 4 classes for social studies. 2) After the population is grouped into several sets according to the parallel class, the researcher purposively (aims) chooses the class that is the research sample. 3) Determine individual samples. The number of samples in the individual review can be 3 people, a small group review can be done on 12 people consisting of students who have high, medium and low abilities. The number of samples in the field trial was 25 people.

## **DATA COLLECTION TECHNIQUES**

Observation, Observation is the activity of loading attention to an object by using all senses (Arikunto, 2006: 156). Observations made in this study are observations made during learning activities to collect the data needed in the Product Trial stage.

Test in this study the test is used to measure student learning outcomes before and after learning activities using E-Comic media.

Questionnaire, This questionnaire is used to find out data about the validity of Student Worksheets with E-comic media that will be tested by media experts, material experts and students. The questionnaire used was a

closed questionnaire with a Likert scale and an open questionnaire in the form of input and suggestions.

Documentation, The document used in this study is the syllabus used in Senior High School 1 Bae Kudus to analyze needs.

The feasibility test includes the feasibility test of media experts, material experts and the feasibility test of economic subject teachers. This feasibility test is used to find out the assessments and suggestions from experts for further use as an ingredient for revision of development products.

Test individuals and groups. This test is carried out covering small groups and the field to find out the quality of developing Student Worksheets with E-comic media for further use as a material for revising products.

## **RESULT AND DISSCUSSION**

The Use of Student Worksheet is very effective in improving student learning outcomes in the mastery of economic material of the odd semester "Economics problems and its problem solvings". It is proved at every stage of the trials; whether doing individually-in small groups or in real situation. There is an increasing in the average value of learning from pre-test to post-test. While in the individual tests increase 26 points from grades 52, whereas points 67 rise to 78.67 points. Furthermore in a small group trial increase up to 32.49 points from 45.67 value rises to 78.16 while in real field trials the points become up to 28.40 points of the value 52.84 increase to 81.84. By the minimum classical completeness criteria of 75; the classical completeness of individual assessment is 100%, the small group trials is 91.67% and on the real field is 100%.

Test effectiveness of the Student Worksheet with media E- Comic's applyt test. T-test results showed that on the real field trials, there are differences in the mean post-test results (81.84)>pre test (52.84) with a significant level of 0.000 <0.05 t (13.75)> t table (1.714). Thus proven that the Student Worksheet with a media E- Comic effectively can improve the student learning outcomes. The findings of this research hopefully are able to increase and improve the interest, the motivation and the student learning

outcomes. The students who are having low Interest in reading and learning can be increased by applying e-comic media featuring concept or material delivered by storylines and certain images which are more interesting for students.

### CONCLUSION

From the results of the feasibility test the expert team which included media experts and material experts obtained 81 results, 25% from media experts and 82, 43% from material experts, but needed revision. After being revised based on responses from the expert team, then individual trials were conducted, namely 81.52%, small group trials of 84.58% and field trials of 85.44%. The overall results of the evaluation, placing the Student Worksheet with E-Comic in a very proper/good category.

The use of Student Worksheets is very effective in improving student learning outcomes in mastering economic material in odd semester on material on Economic problems and how to overcome them. This is a proof at each stage of the trial, both in individual, small group and field trials. There was an average increase in the value of learning outcomes from the pre-test to the post-test in the individual trials rose 26 points from a score of 52.67 rose to 78.67 and a small group trial rose 32.49 points from a value of 45.67 rose to 78, 16 while field trials increased by 28, 40 points from a score of 52, 84 rose to 81, 84. With criteria of classical completeness of at least 75, classical completeness in individual trials 100%, small group trials 91.67% and on the field is 100%.

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