

Study Material Development Courseleson of Rural and Urban Geography for College Students Malang in East Java

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Abstract: *This study aims to describe the influence the effectiveness of the Rural Urban Geography teaching materials have been developed. This study was designed with a quasi-experimental research. Location of the research in universities at Malang District, East Java. Learning outcomes is measured by pre-test and post-test. Data were analyzed using Analysis gain score and the percentage of student results. The results showed that the learning outcomes in the experimental class (class taught using instructional materials research product) indicates the value of gain score 12:46. While the control classes (classes that are taught with no use teaching materials research product) indicates the value of gain score 12:25. Thus, the value of gain scores between experimental class and control class shows at 0:21. In other words, teaching materials of Rural and Urban Geography course applied is superior compared to other teaching materials.*

Keywords: *teaching materials, materials of Rural and Urban Geography, learning outcomes*

I. Introduction

Background

Learning is a complex event, involving many contributing factors. One of the contributing factors that contributed sizeable is the availability of teaching materials. The availability of teaching materials could be expected to help facilitate learners. Teaching materials as one form of learning resources, he as a learning material that need attention. The existence of quality teaching materials and easy to understand, can make students more easily absorb the subject matter.

Development of textbooks as part of efforts to overcome one of the factors inhibiting the learning process. One of the subjects who lack teaching materials as a source of learning is subject Rural and Urban Geography or Geography of Villages and Towns. As we know that the existence of teaching materials is an important tool in learning activities. In the absence of adequate teaching materials, learning activities cannot take place optimally. Thus, student learning outcomes achieved will not be optimal. It required the development of teaching materials based on the research and development (Sugiyono. 2008; Trisaningsih. 2007).

One alternative to address the availability of reading materials Rural Urban Geography course is to make teaching materials Geography of Villages and Towns. The development of the course, in this study, using the model Borg and Gall (1983). The use of this model is based on the premise that the model uses a systems approach to the steps are complete, so that the process of development of teaching materials produced more easily and directed. In addition, the measures contained in the development model shows a clear connection and uninterrupted between step one with the other steps. In other words, the system contained in the model Borg and Gall very quick, but the content is solid and clear. Research and development of teaching materials aimed to find or explain the effect of the instructional materials for learning outcomes of students in a college. The teaching materials are the subject matter Rural and Urban Geography in college majoring in Geography.

Results Trinaningsih study (2007) showed that the development of teaching materials to enhance understanding of the material Demographic Engineering. RiefThe findings also revealed that the development and procurement of teaching materials indispensable. Moreover, if the supporting literature difficult to obtain by students. Thus, there is a significant correlation between the availability of teaching materials with the results of student learning in college.

Research conducted by Widyartomo (2010) with the title of Instructional Materials Development Course Indonesian with the Web Interactive. Which revealed that the product materials, which have a very adequate quality, can facilitate learners and improve learning outcomes. Similarly, results of previous studies that have been done by Yarmaidi (2003). He revealed that the provision of teaching materials and teaching aids which can effectively enhance student understanding and achievement of the subjects concerned. The course is the subject of research Yarmadi is subject Statistics. Similar results were also obtained in the course of implementation of learning for cosmography (Yarmadi, 2004).

In order to improve students' understanding of a subject matter, needs to be developed teaching materials compiled by the pattern "arrangement information". The information in line with the conditions of the context in which learners are. Learning that utilizes the surrounding environment as a learning resource that comes from the surrounding environment, commonly referred to as outdoor learning patterns study (Fatchan;

Amirudin; Utaya, 2012) Related to the above, to date the material Rural Urban Geography is still lacking. Rural Urban Geography material shows there are still scattered in various sources of textbooks. Although all of these sources are complementary, difficult if students must have or obtain all the material. Conditions such as these cause the student to be very dependent on the faculty, so that the learning process becomes passive in class. Although the learning process is also affected by the presence of teaching and curriculum design (Gagne and Briggs, 1979; Dambudzo, 2015)

In some universities in Malang, there's also that faculty be the only source of learning, so that students tend to just listen to the explanation of the lecturer. As a result, too much time is less useful in the learning process. Such cases also occur in the learning courses Rural Urban Geography. Such conditions, making the opportunity to guide students by lecturers be inadequate. Therefore, research is needed to develop teaching materials for Rural Urban Geography material for universities, at least for the Department of Geography in the area of Malang.

II. Research Methods

This study is a quasi experimental using pre-test and post-test group design. In the execution be divided into two, namely experiment class and grade control. Experimental class were treated learning by using teaching materials (which is the result of the development). While classroom learning control by not using teaching materials. The subject of this research is the students participating in the course Geography Villages and Towns in Geography Education Studies Program at the university in Malang. Selection of experimental class and a control class is done by studying the average value of the past semester that is not much different. Each group included 30 students participating in the course Geography Villages and Towns.

The data collection was done by using a test, the pre-test and post-test. Data were analyzed with a table percentage, gain scores and t-test. Test given in the form of essays and multiple choice. Improved learning outcomes were analyzed using N-gain calculation formula is determined based on the average gain scores were normalized (n-gain) (Hake, 1998) is expressed by the following equation:

$$g = \frac{S \text{ post} - S \text{ pre}}{S \text{ max} - S \text{ pre}}$$

Keterangan:

- S post : The average post-test score
- S pre : The average pre-testscore
- S max : The maximum score

Furthermore, the interpretation of the results of the count by using these formulas into Gain Score classification table below:

Table: Interpreted Gain Score

Nilai (g)	Classification
(N-gain) 0,7	High
0,7 > (N-gain) 0,3	Middle
(N-gain) < 0,3	Low

III. Research Result

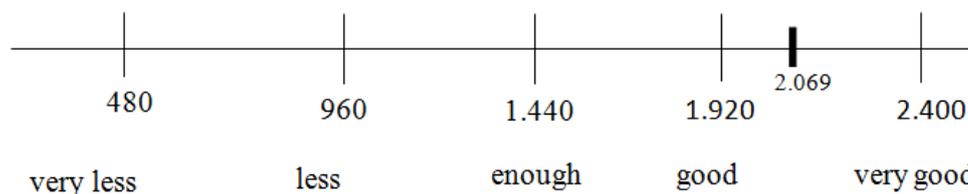
That purpose of this study that this experiment to clarify whether a product Geography teaching materials Villages and Towns have advantages compared with existing instructional materials. Subjects who became experimentation is the student followers of subjects Geography Villages and Towns. Where they are generally in the position of the fifth semester in Geography Education courses. The number of subjects consisted of 30 students of a number of experimental classes and control classes of 30 students. At first the experimental class and a control class performed a pre-test. Furthermore, the implementation of learning. In the end do the post-test. After the implementation of the post-test the students are given a questionnaire to respond about the quality of teaching materials by filling out a questionnaire that has been provided. The questionnaire contains about the picture quality, the attractiveness, understanding, and form of presentation of text books (teaching materials) Geography Villages and Towns.

The results of the study in the control class, student feedback about the quality of teaching materials show the following. In the control class, with the number of respondents 30 students. Thus the total score criterion (if each item gets the highest score) $5 \times 16 \times 30 = 2,400$. The highest score for each item = 5, the number of items = 16 and the number of respondents = 30. The total score criterion (if each item gets the lowest score) $1 \times 16 \times 30 = 480$. The lowest score for each item = 1, the number of items = 16 and the number of respondents = 30. Total score answers from a questionnaire given to students = 2,069. In percentage indicates the amount of $(2069 : 2,400) \times 100\% = 86\%$. Schematically shown that the response of students quality teaching

materials Geography Villages and Towns, the number of scores of 2,069 or by 86.21%. The figure refers to both categories until very good. Position score results of these calculations, schematically as follows.

Scheme 1:

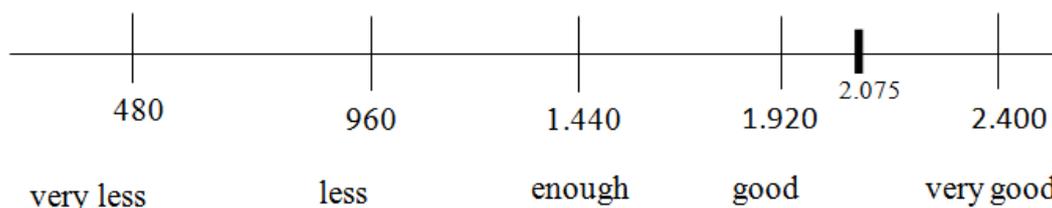
Position feedback questionnaire about the quality of teaching materials Geography Villages and Towns by research subjects experimental class



The results of the study in the experimental class, student feedback about the quality of teaching materials show the following. In the experimental group, the number of respondents 30 students. Thus the total score criterion (if each item gets the highest score) $5 \times 16 \times 30 = 2,400$. The highest score for each item = 5, the number of items = 16 and the number of respondents = 30. The total score criterion (if each item gets the lowest score) $1 \times 16 \times 30 = 480$. The lowest score for each item = 1, the number of items = 16 and the number of respondents = 30. Total score answers from a questionnaire given to students = 2,075. So based on these data, the assessment of students to use teaching materials are $(2075: 2,400) \times 100\% = 86.46\%$. The figure refers to both categories until very good. Position score results of these calculations, schematically as follows.

Scheme 2:

Position feedback questionnaire about the quality of teaching materials Geography Villages and Towns by research subjects experimental class



Based on the results of questionnaires about the quality of teaching materials given to the students indicate that the instructional materials in the category of good quality. In other words, the instructional materials used remedy teaching materials on the subjects of Geography Villages and Towns. The results of the study (quasi experimental) on student learning outcomes between experimental class using teaching materials (of the development) with conventional teaching materials show the following. Students who follow the pre-test and post-test of 60 students. The details of the control group of 30 students and 30 students of the experimental group. Based on the results of pre-test and post-test the control class and experimental class can be known criterion score on each of these classes. The criteria was the highest score, lowest score, the mean score difference and post-test and pre-test (n-gain score). Recap the scores of pre-test and post-test are presented in the following table.

Table: Recap the scores of pre-test and post-test

No	Score	Class			
		Control		Experiment	
		Pre-test	Post-test	Pre-test	Post-test
1	Middle score	48	60	53	70
2	High score	75	83	86	96
3	Average	59,19	69,45	69,87	83,74
4	Index of Gain	0,25		0,46	
5	Gain	High		Middle	

Furthermore, it can be shown that the difference in score pretest and post-test control group shown in gain score can be visualized on a diagram as follows.

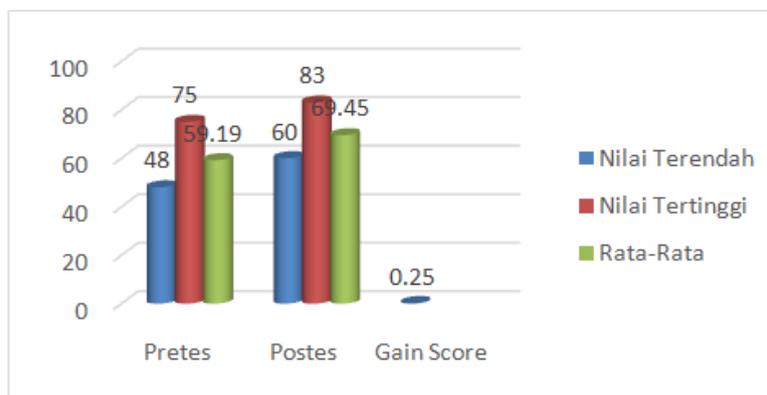


Diagram 1: Gain Value Score In Classroom Control

As for the class of experiments, the results showed that the difference between scores of pre-test and post-test class experiment showed the value gain score can be visualized on a diagram as follows.

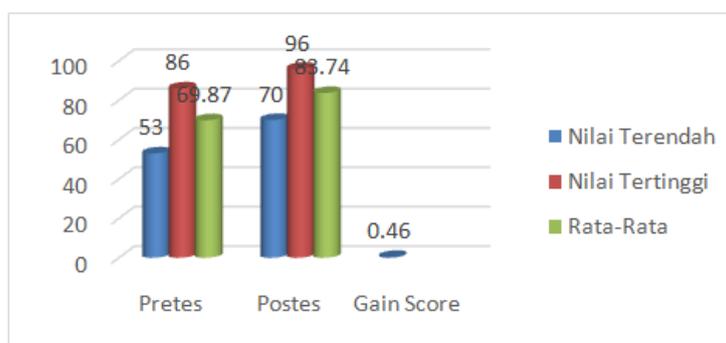


Diagram 2: Gain Score On the Class Experiment

Based on these two images/diagrams mentioned above can be seen that there is a difference gain score in each class. In the control group obtained gain score of 0.25. The score is based on the classification gain score is at a lower classification. While the experimental class obtained gain score of 0.46 with the classification being.

Mastery learning that could be used in universities in Malang area, which is the subject of this study, is a score of 70. In terms of completeness criteria of 70 students studying the subjects Geography Villages and Towns in the universities in Malang largely declared complete. However, it was shown that in the group control class at pre-test found as many as 25 students otherwise uncompleted. Meanwhile, when the post-test found as many as 12 students otherwise uncompleted. That is, there is an increasing mastery learning in class control group, although not at 100%. In detail can be seen in the diagram below.

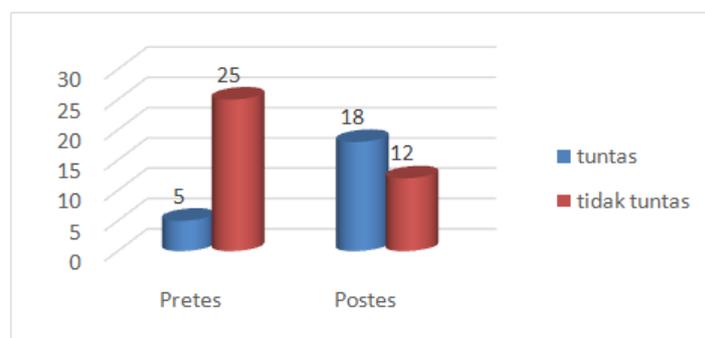


Diagram 3:The completeness of Student Learning Class of Control

While mastery learning group of students indicated that the experimental class at pre-test found as many as 23 students otherwise uncompleted. Meanwhile, when the post-test found no student who did not complete. That is, there is an increasing mastery learning significant in the experimental class groups, namely the post-test students completed 100%. In detail can be seen in the following diagram.

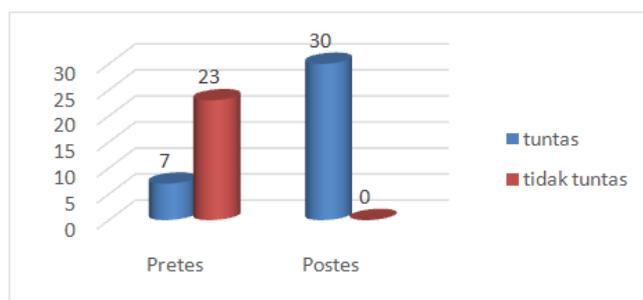


Diagram 4:The completeness of Student Learning Classroom Experiment

Based on the data obtained, it can be concluded that the teaching material (Geography of Villages and Towns) were used as experimental materials and the quality is proven to improve learning outcomes. In other words, the results of this research proves that the teaching materials developed effectively used to study the subjects of Geography Villages and Towns. Furthermore, proving also that organizing messages in the development of teaching materials arranged in a systematic making it easier for students to understand the material well.

IV. Discussion

Based on the analysis of data shows that the teaching materials Geography Villages and Towns are in excellent qualifications. Nevertheless, there are some suggestions from students who continued to receive attention as a material for the improvement of teaching materials. Suggestions and comments from students, among others, there should be a special section at the end of the chapter presented the points exercises and an image or map is not big enough.

Excellence of teaching materials Geography Rural and Urban into experimental material among other things that the teaching materials were written based on the latest data and facts and actual. In addition to facts and data, is also equipped with an image that shows the new data and facts. Thus, students can communicate easily with the contents of the instructional materials. Psychologically students will be more interested and become more active learning (Gagne and Berliner, 1985). Another plus, this teaching material was found to make students want to learn more contents of teaching materials. It was shown the enthusiasm of students in a task that is presented at the end of each chapter of these materials. The task is aimed at seeking information on data and facts on the ground, on the internet, or other reference material.

In this teaching material exposure and description of the material object and formal object are presented simultaneously and interesting. The teaching materials are also served by taking into account the context of the concept of the material. If the existing concepts concerning matters that are concrete to the presentation using images with little explanation. But if it is not related to the context the participants would not be interested, even reject (Fatchan; Soekamto; and Mustafa, 2015). Development of teaching materials is one form of learning activities to improve or enhance the quality of learning. The use of teaching materials in the lecture is one way to address the situation of passive lectures, which have often encountered at several universities.

Students will be helped in the learning process, if the teaching materials used interesting and complete. Good teaching materials will help reduce the time lecturer for the presentation of material and more time coaching for students. A professor or educator to act more as a facilitator and mediator (Fatchan; Amirudin; and Sugeng, 2012; Fatchan; Soekamto; and Mustafa, 2015). Thus, it will be able to assist the college in achieving targets in the subject matter, curriculum, learning objectives at the right time (Pannen and Purwanto, 1995).

Implementation of quality teaching materials and precise results in acceleration mastery of the subject matter, especially the material Geography Villages and Towns, for students. Thus, not only scores improved learning outcomes, but also accelerated graduation be increased. Such benefits not only by students but also by teachers and also by the college concerned.

Teaching materials is one of the reliable forms of media that can be used in the learning process. The research results prove it. Likewise, the findings of previous research that identified the benefits of the use of media include: (1) the delivery of lecture material can be made uniform, (2) instructional process becomes more attractive, (3) the learning process of students to be more interactive, (4) the amount of time learning and teaching can be reduced, (5) the quality of student learning can be improved, (6) the process of learning can happen anywhere and anytime, (7) the positive attitude of students to study materials as well as to the learning process itself can be improved, and (8) the role of the lecturer may change direction more positive.

Geography teaching materials village and town is actually designed for individual learning, but did not rule students can use them in group learning. The role of the lecturer as a facilitator of learning can give

explanations to help accelerate student in understanding the material contained within these materials. Then this product can be used as a tool lecturer in the learning process. The goal is to improve achievement or students learning outcomes.

The teaching materials developed as a medium of learning for lecturers in the learning process (Fatchan and Purwanto, 2008). Thus, it will be able to create a creative learning and innovative, so as to improve understanding of the students in learning the material, especially material Geography Villages and Towns. The biggest benefit for students is that these materials is one supplement material that can be used as reading material for the enrichment of the material being studied on campus.

V. Conclusion

Based on the description of this result will conclusion that instructional materials Geography Rural and Urban used as experimental materials and the quality is proven to improve learning outcomes. In other words, the results of this research proves that the teaching materials developed shows effectively used to study the subjects of Geography Villages and Towns. Furthermore, proving also that organizing messages in the development of teaching materials arranged in a systematic making it easier for students to understand the material well. These results indicate that the class using teaching materials Geography Villages and Towns better than the classes that do not use it. The existence of such teaching materials, makes the role more as a facilitator of learning lecturer. They tend to be a facilitator that helps speed up the students in understanding the material being studied. At the end product instructional materials Villages and Towns Geography can be used as a tool lecturer in the learning process, so as to improve achievement, learning outcomes, quality, and accelerated graduation.

References

- [1] Borg, Walter. R and Meredith. D. Gall, 1983, Educational Research: An Introduction, Logman Inc., New York.
- [2] Dambudzo, Ignatius Isaac. 2015. Issues Curriculum: Teaching and Learning for Sustainable Development in Developing Countries: Zimbabwe Case Study. Canadian.Journal of Education and Learning; Vol. 4, No. 1. 2015 Published by Canadian Center of Science and Education. pp11 - 24
- [3] Fatchan, Ach and EdyPurwanto, 2008, Contextual Learning for SMP in Disaster Prone Regions in East Java, Jakarta. Director General of Higher Education of The Republic of Indonesia.
- [4] Fatchan, Ach; Amirudin, Ach; Utaya, Sugeng. 2012. Effect of Learning Task Group Based on Field Survey (Outdoor Study) for Scientific Writing Ability and Student Results. Journal of Education No. 22 April 2012. Malang. ISSN 0854-8323 (pages 18-35). Research Institute of the State University of Malang.
- [5] Fatchan. Ach; HadiSoekanto; and Mustafa. 2015. defections "Kiai", "Ustadz 'and Farmers In The New Order and The Reform Order In The Islamic Tradition In Rural East Java. Journal of Culture, Society and Development.Vol.7, 2015.ISSN 2422-8400.International Institute for Science, Technology and Education.
- [6] Gagne, N. L and D. C. Berliner, 1985, Educational Psychology. New York, USA. Gulf Publishing.
- [7] Gagne, R.M. and Briggs, 1979. L.J. Principles and Instructional Design. New York. Holt, Rinehard and Wiston.
- [8] Hake, R.R. 1998. Interactive-engagement vs. traditional methods: A six-thousand-student survey of mechanics test the data for introductory physics course. The American Journal of Physics Research from 66.64 to 74.
- [9] Komba, Sotco Claudius and Mwandangi, Marcus. 2015. Reflections on the Implementation of Competence Based Curriculum in Tanzanian Secondary Schools. Canada. Journal of Education and Learning; Vol. 4, No. 2; 2015. Published by Canadian Center of Science and Education
- [10] Pannen, Paulina and Purwanto. 1995. Writing Teaching Material, Teaching in Higher Education In Part Four. Jakarta: Director General of Higher Education Department.
- [11] Sugiyono. 2008. Educational Research Methods, Qualitative Approach, and R & D. Alfabeta, Bandung.
- [12] Trinaningsih. 2007. Development of Teaching Materials To Improve Understanding Demographics Course Materials Engineering. Journal of Economics and Education, Vol.4 No.2, November 2007.
- [13] Widyartono, D. 2010. Development of Instructional Materials Indonesian Course with Interactive Web. Thesis. Malang: Graduate UM.
- [14] Yarmaidi. 2003. Textbook Provision and Teaching Effective Media And Reproduce Example Problem For Efforts to Improve Understanding of Student Learning and Achievement in IPS Statistics Course at the Department of PIPS FKIP Geography Lampung University. Lampung: Lampung University.
- [15] Yarmaidi. 2004. Use of Multi Media, Provision Textbook And Practical Guide For Efforts to Improve Comprehension and Student Achievement In cosmography Course On Geography, Lampung: Lampung University.