The Effect of Thematic Learning Based on Rural and Urban Environment on the Elementary School Students' Knowledge about Their Living Place

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***Abstract*—The purpose of this study was to determine the effect of thematic learning based on rural and urban environments on the elementary school students' knowledge in Bengkulu about my Living Place. The research design used in this study was the only matching pretest - posttest control group design. The population of this study were all fourth grade elementary school students Bengkulu in the academic year 2017/2018. The research sample was fourth grade students of two of the public elementary school in Bengkulu, Indonesia. The instrument used in this study was a test sheet to measure students' knowledge about My Living Place. The research data were analyzed inferentially by independent sample t-test. The results obtained a significance value (2-tailed) which is 0.000 <0.025. The conclusion of this study has shown that there is a significant influence on thematic learning based on rural and urban environments on the elementary school students' knowledge in Bengkulu about My Living Place.**

Keywords—thematic; environmental; rural; urban; student knowledge

I. INTRODUCTION

Bengkulu province consists of rural and urban environments. Rural and urban environments have some differences. It can be seen in the society activities, environment and livelihood livelihoods [1]. Rural societies have the following characteristics such as: (1) fewer population, (2) most of them work as farmers and breeders, (3) It is rarely to see motorcycle pass by in the rural area, and (4) the residents' houses are not too close together. While the urban societies have the following characteristics: (1) the number of dense population, (2) it has a variety of jobs such as traders, entrepreneurs, employees, lawyers, teachers, drivers and police. This knowledge is very important especially for elementary school students. Therefore, the students in elementary schools should be given the knowledge about the influence of geographical conditions for the society in Bengkulu Province. It will be very useful for students in order to prepare themselves for life in society. The students will feel happy to learn because the material learned is related to the area around the students. But in fact, elementary school in Bengkulu Province has not applied well the learning of that knowledge. The subject matter given to students is limited which is just based on the student's textbook / book. The teacher has not developed the material optimally so that the students' knowledge of the surrounding area is not understood yet. This is in line with Ludthe et al. that learning environments have an impact on student learning outcomes [2]. Therefore, it is necessary to conduct research on the integration of the surrounding area material into the Elementary School curriculum.

Based on the results of Dadi's research, there were some problems in thematic learning in Elementary School Bengkulu [2], such as: (1) the teachers have not created the learning experience needed by students in their daily life, (2) the media has not been used optimally, (3) one only learning resources used by teachers are student textbooks / books, (4) the teachers have not developed teaching materials optimally, and (5) the average of students learning outcomes are 65 with 68% learning completeness. This is related to the readiness of teachers to practice thematic learning in elementary schools. The application of thematic learning is a challenge for teachers even though most teachers are enthusiastic about the new curriculum [3-6]. However, the application of thematic learning has a positive impact on student interest and learning outcomes [7] and learning becomes more meaningful [8]. Min et al. revealed that the application of thematic learning also had a positive impact on integrated life skills for students [9].

Integration of surrounding area material in thematic learning according to the characteristics of elementary school students. Because the characteristics of elementary school tend to learn concretely, integratively and hierarchically. This learning activity is integrated into the 2013 curriculum that appears on one of the themes in class IV, which is the theme of 'My Living Place' With students learning directly into the surrounding environment, both urban and rural are expected to be able to influence students' knowledge about the area around their residence. The environmental approach is expected to be able to make students at the elementary to secondary level sensitive to the environment, so that they play an active role in solving problems and protecting the environment from damage [10]. The environment as a basis for learning is a conditional factor that influences individual behavior and an important

learning factor. Hendarwati has conducted research on the effect of environmental use as a learning resource on student learning outcomes [11]. Hendarwati used the inquiry method that was applied to students of SDN 1 Sribit Delanggu on social studies subjects [11]. The results of his research show that the activities of students in social studies learning by utilizing the environment as a learning resource through inquiry methods can stimulate students to be able to think critically, analytically, and argumentatively. Learning by applying a rural and urban area-based environmental approach is also expected to have a positive effect on student learning outcomes. In addition, Reeve revealed that the learning environment can support students' self-motivation [12].

II. METHOD

The research design used in this research is the matching only pretest-posttest control group design. It can be seen in the following figure below:

O_1	X_1	O_2
O_3	X_2	O_4

Fig. 1. Picture of research design chart.

Description:

X_1 : Thematic learning based on the environment (Rural and Urban environment)

X_2 : Thematic learning by using picture as media

O_1 : *Pretest* for experiment class

O_2 : *Posttest* for experiment class

O_3 : *Pretest* for control class

O_4 : *Posttest* for control class

The population in this research were all fourth/VI grade students of elementary school/SDN 09 Bengkulu in 2017/2018 Academic Year. The research sample was fourth/IV grade students of elementary school/SDN 09 Bengkulu and also elementary school/SDN 81 Bengkulu. In determining the experimental and control classes, the cluster random sampling was conducted by the researcher. In which, sub-population is a group that has heterogeneous properties. While in stratification, the sample of each sub-population is homogeneous.

The instrument used in this research was a test sheet to measure students' knowledge about 'My Living Place'. The test sheet used in this research was in the written form tests in the form of essays. Test sheets have been tested on students outside the sample, but in groups that have studied the material is used to be the research.

The all data obtained in this research were analyzed by using SPSS. The data processing and the analysis carried out includes prerequisite tests and hypothesis testing.

III. RESULTS AND DISCUSSION

A. Results

Basic competence and indicator in the two classes are the same, namely: (1) social studies subject/IPS, with basic competence "understanding human beings in relation to the surrounding geographical conditions" with the indicator "explaining the geographical conditions of rural and urban environment"; (2) civic education subject/PPKn, with basic competence "understanding the benefits of the diversity characteristics of each individual at home, school and society" with the indicator "explaining the benefits of cooperation or team work"; and (3) math subject, with the basic competence "understanding the meanings of average, median and modus of data sets".

Learning resources used for the experimental class are rural and urban communities. While the learning source for the control class is picture as media.

The differences in the learning resources and the student activities between the experimental and control classes cause on the differences in the learning outcomes of knowledge about 'My Living Place' which measured through the posttest. But both of classes were given the pretest first before having the treatment. The results of the pretest and posttest of students in the experimental class through conducting thematic learning based on rural and urban environments are presented in Table 1 below.

TABLE I. THE RESULTS OF THE PRETEST AND POSTTEST IN THE EXPERIMENTAL CLASS

Description	Social Subject/IPS		Civic Education Subject/PPKn		Math Subject	
	Pre test	***Post test***	***Pre test***	***Post test***	***Pre test***	***Post test***
The lowest score	30,00	60,00	30,00	60,00	30, 00	60,00
The highest score	70,00	100,00	75,00	100,00	70, 00	100, 00
The average score	53,06	90,00	53,79	87,93	53,10	87,06

Based on the data above, the increasing average score from the pretest to the posttest were: (1) the social subject/IPS pretest score was 53.06 while the posttest was 90.00, so it increased by 36.94, (2) the civic education subject/PPKn pretest average score was 53.79, while the posttest was 87.93, so the increasing score was 34.14; and 3) the math subject pretest average score of 53.10, while the posttest was 87.06, so the increasing was 33.84. The results of the students' pretest and posttest in the control class by using picture as media are presented in the table 2 below.

TABLE II. THE RESULTS OF THE PRETEST AND POSTTEST IN THE CONTROL CLASS

Description	Social Subject/IPS		Civic Education Subject/PPKn		Math Subject	
	Pre test	*Post test*	*Pre test*	*Post test*	*Pre test*	*Post test*
The lowest score	30,00	50,00	30,00	55,00	40,00	50,00
The highest score	80,00	85,00	80,00	85,00	80,00	80,00
The average score	53,69	71,73	55,43	73,69	53,47	71,30

Based on the data above, the increasing score in the average score from the pretest to the posttest were: (1) the social subject/IPS pretest score was 53.69, while the posttest was 71.73, so the increasing was 18.04, (2) the civic education subject/PPKn average pretest score was 55.43, while the posttest was 73.69 so there was an increase of 18.26, and (3) the math subject pretest average score of 53.47 while the posttest is 71.30, so it increased 17.83.

The results showed that the implementation of thematic learning based on rural and urban environments can improve the learning outcomes of students' knowledge. In the experimental class between the pretest and posttest, there was an increase of 36.94 for social subject/IPS, 34.14 for civic education subject/PPKn, and 33.84 for math subject. Whereas in the control class between the pretest and posttest, there was an increase of 18.04 for social subject/IPS, 18.26 for civic education subject/PPKn, and 17.83 for math subject.

The pretest data both the experimental class and control class were analyzed by using independent sample t-test. Before being analyzed by independent test the t-test sample, there was a test for normality and homogeneity. For the social subject/IPS, the significance score of the experimental class normality was 0.019 (not normally distributed), while the control class was 0.071 (normally distributed). Then the significance score of the homogeneity of the two sample classes was 0.887 (homogeneous). After that, there was a hypothesis testing by using the Mann Whitney U test. Then, the result was obtained a significance score (2-tailed) of 0.947> 0.025, it showed that there was no initial ability difference between the experimental and the control classes.

In the civic education subject/PPKn, the normality significance score of the experimental class was 0.067 (normal distribution), while the control class was 0.499 (normal distribution). Then, the significance score of the homogeneity of the two sample classes was 0.951 (homogeneous). The hypothesis testing was done by using independent samples t-test which obtained a significance score (2-tailed) of 0.649> 0.025. It means that there was no initial ability difference between the experimental and control classes.

In the math subject, the normality significance score of the experimental class was 0.026 (not normally distributed), while the control class was 0.030 (not normally distributed). Then, the significance score of the two sample homogeneity classes was 0.582 (homogeneous). After that, there was hypothesis testing by using the Mann Whitney U test which obtained a significance score (2-tailed) of 0.963> 0.025. It means that there was no difference in initial ability between the experimental and control classes.

The posttest data for both of classes which are the experiment and control classes were analyzed by using independent sample t-test. Before being analyzed by independent test the t-test sample, they were tested for normality and homogeneity. For the social subject/IPS, the normality significance score was 0,000 (not normally distributed), while the control class was 0.019 (not normally distributed). Then, the significance score of the homogeneity of the two sample classes was 0.702 (homogeneous).

After that, there was a hypothesis testing by using the Mann Whitney U test which obtained a significance score (2-tailed) of 0.000 <0.025. It means that there was a difference in the results of the students' knowledge learning between the experimental and control classes. The significant score (2-tailed) score of 0.000 <0.025, this indicates that Hα was accepted, which means that there was an effect of thematic learning based on rural and urban environment on the knowledge of elementary school students in Bengkulu.

In the civic education subject/PPKn, the normality significance score of the experimental class was 0,000 (not normally distributed), while the control class was 0,052 (normal distribution). Then, the significance score of the two sample homogeneity classes was 0.191 (homogeneous). After that, the hypothesis testing was done by using the Mann Whitney U test which obtained a significance score (2-tailed) of 0.000 <0.025. It means that there was the difference in the results of student knowledge learning between the experimental and control classes. The significant (2-tailed) score of 0.000 <0.025, this indicates that Hα was accepted, meaning that there was an effect of thematic learning based on rural and urban environment on the knowledge of elementary school students in Bengkulu.

In Math subject, the normality significance score of the experimental class was 0,000 (not normally dwastributed), while the control class was 0.014 (not normally dwastributed). Then, the significance score of the homogeneity of the two sample classes was 0.096 (homogeneous). After that, the hypothes was testing was done using the Mann Whitney U test which obtained a significance score (2-tailed) of 0.000 <0.025, which means there was the differences in learning outcomes of students' knowledge between experimental and control classes. The significant (2-tailed) score of 0.000 <0.025, it indicates that Hα was accepted, meaning that there was an effect of thematic learning based on rural and urban environment on the knowledge of elementary school students in Bengkulu.

Based on the description above, it can be concluded that the implementation of thematic learning based on rural and urban environments in the three subjects, namely social subject/IPS, civic education subject/PPKn and Math subject has an effect on the knowledge of elementary school students in Bengkulu.

B. Discussion

Based on the results of the research and hypothesis was testing that has been done, we can see that thematic learning

based on rural and urban environments has an influence on the knowledge of elementary school students in Bengkulu. It can be seen from the results of learning the knowledge of students in the experimental class better than in the control class. In social subject/IPS average posttest score of the experimental class was 90.00, while in the control class was 71.73. The difference between the score of the two classes was 18.27. In the civic education subject/PPKn average posttest score of the experimental class was 87.93, while in the control class was 73.69. The difference score in two classes was 14.24. In the math subject average posttest score of experimental class was 87.06, while control class was 71.30. The difference between the two classes was 15.76.

The results of the posttest above were analyzed by using independent samples t-test, which obtained a significance score (2-tailed) smaller than 0.025. This can be seen in the social subject/IPS, the civic education subject/PPKn, the math subject that obtained significance (2-tailed) of 0.000 <0.025, this indicates that Hα was accepted. It means that there was an effect of thematic learning based on rural and urban environments on the learning outcomes of elementary school students' knowledge in Bengkulu.

There was a significant influence on student learning outcomes because by applying thematic learning based on rural and urban environment, the students are more active in learning because the students directly look for the data in the place/location. In addition, learning activities also attract students' attention because they learned about whatever they can find in their environment. The students are also able to solve the problems that occur in the environment based on skills, creativity and critical thinking. This was reinforced by the opinion of Mudiono et al. that integrative thematic learning needs to be developed because it can make students think critically and creatively [13]. Futhermore, Winarni which stated that the environment provides stimuli (stimulus) to individuals and vice versa to provide a response to the environment [14]. In the interaction process, there was some changes occurring in the individual, such as the changes in behavior towards the environment.

In the experimental class, the students seemed enthusiastic and curiosity about the subject matter by asking the resource person and observing the environment around the students seriously. This was similar with the opinion of Diryati and Mudjiono that the principles of learning are related to the learning process that can attract students' attention [15]. So, it causes learning motivation, direct involvement of students in the learning process so that learning material becomes clearer and more understood by students and makes students mastering the learning objectives better. The students are not bored and they become active. Furthermore, according to Asmawi [16] students can be said to be active when the students can build concepts through asking, working, engaging and participating, finding and solving problems, expressing ideas and questioning ideas.

Agreeing with this, Khanifah based on his research concluded that learning by utilizing the school environment as a learning resource can improve learning outcomes in each cycle [17]. In addition, Sugianti in her research concluded that the environmental approach also influences the improvement of science learning outcomes of students of SDN 01 Rasau Jaya [18].

The implementation of thematic learning by bringing students to the environment, whether observing objects or asking sources directly can improve the way of the students' thinking. Environment was a real source of student learning in people's lives. Through the environmental empowerment, learning activities will attract students' attention because what was learned comes from the environment so that what was learned relates to life and beneficial to the environment. This was reinforced by the opinion of Piaget that the development of interaction with objects in the students' environment has a stronger influence on the way students think than knowledge gained by telling and communicating verbally [14].

IV. CONCLUSION

Based on the results of this research that has been stated, it can be concluded that "there was the influence of thematic learning based on rural and urban environments on the results of learning the knowledge of Elementary School Students in Bengkulu about ‘My Living Place’. This is shown in thematic learning obtained significance score (2-tailed) of 0.000 <0.025.

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REFERENCES

[1] M.J.A. Irene, Bupena Authentic Apprawasal Book Various Work Themes. Jakarta: Erlangga, 2015.

[2] O. Ludtke, A. Robitzch, U. Trautwein, and M. Kunter, “ Assesing The Impact of Learning Environments: Classroom or School Characteristics,” Multilevel Modeling, Contemporary Educational Psychology, Vol. 34, No. 2, pp. 120-131, 2009.

[3] S. Dadi, “Pemanfaatan Model Kelas sebagai Aplikasi Pendekatan Pembelajaran Tematik pada siswa kelas empat di sekolah dasar / SDN 24 Bengkulu”, Due-like research report. Universitas Bengkulu, 2007

[4] H.K. Altinyelken, “Curriculum Change In Uganda: Teacher Perspectives On The New Thematic Curriculum,” International Journal of Educational Development, Vol. 30, Issue 2, pp. 151-161, 2010.

[5] M.N. Wangid, A. Mustadi, and V.Y. Erviana. "Kesiapan guru SD dalam pelaksanaan pembelajaran tematik-integratif pada kurikulum 2013 di DIY" Jurnal Prima Edukasia, Vol. 2, No. 2, pp. 175-182, 2014.

[6] N.I.N. Sukerti, A.A.I.N. Marhaeni, and N.K. Suarni. "Pengaruh Pembelajaran Tematik Terpadu melalui Pendekatan Saintifik terhadap Minat Belajar dan Hasil Belajar Siswa Kelas IV SD Negeri 2 Tibubeneng Kuta Utara" PENDASI: Jurnal Pendidikan Dasar Indonesia, Vol. 4, No. 1, pp. 1-9, 2014.

[7] P.A. Jennings, J.L. Franks, K.E.S. Nowberg, M.A. Coccia and M.T. Greenberg. “Improving Classroom Learing Environments by Cultivating Awareness and Resilience in Education (CARE): Results of a

Randomized Controoled Trial" School Psychology Quarterly, Vol 28, No 4, p. 374-390, 2013.

[8] P. Broadhead, "Curriculum Change in Norway: Thematic approaches, active learning and pupil cooperation - from curriculum design to classroom implementation", Scandinavian Journal of Educational Research, Vol 45, No 1, pp. 19–36. 2001.

[9] K.C. Min, A.M. R, M.I. N. "Teachers Understanding and Practice Towards Thematic Approach in Teaching Integrated Living Skills (ILS) in Malaysia", Ineternational Journal of Humanities and Social Science, Vol 2, No. 23, pp. 273-281, 2012.

[10] C.R. Pirantoro, "The perspective of curriculum in Indonesia on environmental education" International Journal of Research Studies in Education, Vol 4 No 1, pp. 77-83, 2015.

[11] E. Hendarwati. "Pengaruh Pemanfaatan Lingkungan Sebagai Sumber Belajar Melalui Metode Inkuiri Terhadap Hasil Belajar Siswa SDN I Sribit Delanggu Pada Pelajaran IPS" PEDAGOGIA: Jurnal Pendidikan, Vol 2, No 1, pp. 59-70. 2013.

[12] J. Reeve, " How Students Create Motivationally Supportive Leraning Environments for Themeselves: The Concept of agentic engangement", Journal of Educational Psychology, Vol 105, No. 3, p. 579-595, 2013.

[13] A. Mudiono, M. Gipayana, and S. Madyono, "Developing of Integrated Thematic Learning Modelthrough Scientific Approaching with Discovery Learnin Technique in Elementary School", International Academic Journal of Social Sciences, Vol.3, No. 10, pp. 19-27, 2016.

[14] E.W. Winarni, "Inovasi Pembelajaran dalam Mata Pelajaran Ilmu Pengetahuan / IPA". Bengkulu : FKIP UNIB, 2012.

[15] Dimyati and Mudjiono. "Teaching and Learning". Jakarta. Rineka Cipta. 2009

[16] J.M. Asmawi, "7 Tips for Grip Application". Yogyakarta: Diva Press, 2011.

[17] Khanifah, Sri, K.K. Pukan, and S. Sukaesih. "Pemanfaatan lingkungan sekolah sebagai sumber belajar untuk meningkatkan hasil belajar siswa" Journal of Biology Education, Vol. 1, No. 1, 2012.

[18] I. Sugianti, "Pengaruh Penerapan Pendekatan Lingkungan Terhadap Hasil Belajar Ipa Siswa Kelas V SD" Jurnal Pendidikan dan Pembelajaran, Vol. 6, No. 5, 2017.