THE EXPERIMENTAL STUDY OF THEMATIC LIFE-BASED LEARNING EFFECTS ON STUDENTS' LEARNING OUTCOMES

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ABSTRACT

Learning that emphasizes life-based thematic learning strategies can contribute to the achievement of learning objectives. This learning strategy is holistic in nature to produce meaningful learning under the characteristics of students, in direct contact with real contexts and learning in real life. This study aims to examine the effects of thematic life-based learning on student learning outcomes. The method used is an experimental study using a sample of 256 students from SDN Gayungan II, SDN Dukuh Menaggal I, SDN Ketintang I and SDN Menanggal 601. One of the considerations for selecting several of these elementary schools was that these elementary schools had an A accreditation score. The study results show that thematic life-based learning has a positive and significant effect on student learning outcomes. The learning outcomes of students based on thematic life-based learning are better than the learning outcomes of students based on thematic learning. Thematic life-based learning strategies can increase student motivation in learning because this strategy is associated with the daily life skills of students. The study results also provide empirical implications for further research and practical implications for teachers.

Keywords: *learning strategies, thematic life-based learning, thematic learning, student learning outcomes*

1. INTRODUCTION

Implementing the learning process in Elementary Schools (SD) should be done functionally by aligning the dynamics of people's lives that are continuously developing. Such a process is not enough to involve physical but also intellectual and emotional. The quality of learning that is optimally developed will facilitate the achievement of learning objectives effectively and efficiently. Quality learning can be implemented using appropriate and effective learning strategies (Sanjaya, 2011). An effective learning strategy should pay attention to the main characteristics possessed by elementary school students, namely: (1) in general, they still see something as a whole, (2) their mental, social, physical and emotional development cannot be separated, and (3) development is integrated with life, experience, and environment (Kovalik & Olsen, 1994). The development of SD students is holistic so that one aspect of development is related to and influences other aspects of development. This aspect of development includes physical, mental, intellectual and social development and emotional development. This development will be integrated with experience, life and the living environment (Murdoch & Wilson, 2004).

The ultimate goals of theme-based learning are (1) learning according to the wishes of students, (2) prioritizing lessons related to aspects, and (3) learning in real life (Reigeluth & Carr-Chellman, 2010). In addition to needing to be integrated, the learning strategies implemented are often separated from real life and irrelevant to students' wishes, so the teaching and learning process is less beneficial for students. In addition to experiencing complete development, elementary school students will find it easier to achieve learning goals if the learning activities are carried out in their daily lives.

Thematic life-based learning emphasizes multidimensional experiences, and individuals have knowledge, skills, and attributes that significantly contribute to achieving learning objectives. This life-based learning strategy is adaptive,

self-facilitated, and strength-based and uses whatever strategy is appropriate to the task (Staron, 2011). Thematic life-based learning strategy is centred on students, where students are involved in their roles resulting from direct experience (Sitti et al., 2013). Students are interconnected with the environment in which they live. In the connectivity theory of the ecological metaphor, learning is dynamic with ever-changing and interdependent relationships that inform learning and doing; adaptiveness which is a crucial survival skill in ecology, diversity which is a core requirement in knowledge work and a taxonomy of connectivity that a gradual view of how learners discover and explore learning in communities that lean towards ecology or a network way (Sitti et al., 2013; Staron, 2011). Connectivism in learning occurs when knowledge is driven by students who are connected and participate in the learning community (Herlo, 2017).

The aim of education in elementary schools is to develop the potential of students to become human beings who have faith and are devoted to God Almighty, intelligent, capable, healthy, skilled, and independent so that they become democratic and responsible citizens. In order to achieve these goals, it is necessary to think creatively, which requires persistence, personal discipline and attention, involving mental activities such as asking questions, applying imagination in every situation that can generate new and different ideas, and paying attention to intuition. The formulation of the problem from the current research is whether thematic life-based learning affects student grades. Thus, the current research objective is to obtain empirical evidence regarding the effects of thematic life-based learning on student learning outcomes. The research results are expected to provide a theoretical contribution to knowledge related to thematic life-based learning strategies.

2. LITERATURE REVIEW

2.1 Thematic Life based learning

Contemporary learning for third-grade elementary school students in developing their capabilities (ability and will) to participate fully in real life is the goal of life-based learning. The concept of contemporary learning in life-based learning is socially constructed, situational, conditional learning, direct participation in society, lifelong learning and life-based learning (Sudira, 2015). Life-based learning is the key to change and the development of a new learning ecology in elementary schools, which makes learning thematic feedback where learning activities are more contextual, integrative and holistic—learning new patterns by adjusting integrated learning ecological patterns and interconnections between students, schools, families and the environment (Staron, 2011).

Thematic life-based learning strategy is a learning strategy that combines learning theory (Murdoch & Wilson, 2004; Reigeluth & Carr-Chellman, 2010; Wilson & Jan, 2003) with life-based learning (Billett & Pavlova, 2005; Staron, 2011). This strategy is a new learning strategy. Ki Hajar Dewantara's learning concepts as local Indonesian wisdom are (1) *tetep, antep, mantep*, (2) *ngandel, kandel, kendel, bandel*, and (3) *neng, ning, nung*, and *nang*. If these learning concepts are collected from various regions, it can build a modern learning theory contextual to the needs of the 21st Century (Sudira, 2015).

2.2 Effects of Thematic Life-based learning strategies on Learning Outcomes

Thematic life-based learning strategy is a learning strategy under the developmental characteristics of elementary school students, especially grade III SD which highly upholds Indonesian values as taught by Ki Hajar Dewantara. The learning strategy must pay attention to (a) the frame of mind of students as a whole, (b) understanding of a concept through the real world, and (c) suitability with the lives of students (Reigeluth & Carr-Chellman, 2010). Life-based learning includes maintaining a balance between creativity and standardization, innovation and uniformity, and between open systems and individuals. Life-based learning emphasizes students on aspects of one's life at any time and the learning source itself (Staron, 2011). Life-based learning focuses on developing a person's capabilities in meeting all of his life's needs (Billett & Pavlova, 2005).

Life-based learning recognises that individuals know skills not always seen or recognised by organisations, even though they contribute significantly to the organisation's life. Life-based learning also believes that what we learn outside the work environment is very important. Life-based learning centres on expert learning and work-based learning. Conditions like this provide the potential to develop a framework for building students' abilities. Some research results using thematic life-based learning and thematic learning strategies as research variables show significant differences in learning outcomes. Thematic life-based learning strategies will better influence learning outcomes than thematic learning strategies. Based on the characteristics or characteristics and procedures for

implementing life-based learning strategies, it will be able to activate the learning process. Thus, applying life-based learning thematic learning strategies will affect learning outcomes differently.

2.3 Conceptual Framework

The conceptual framework in this study describes holistic learning strategies, creates meaningful learning according to the characteristics of students, interacts socially and in authentic contexts, and learning in natural living conditions of students (Figure 1).

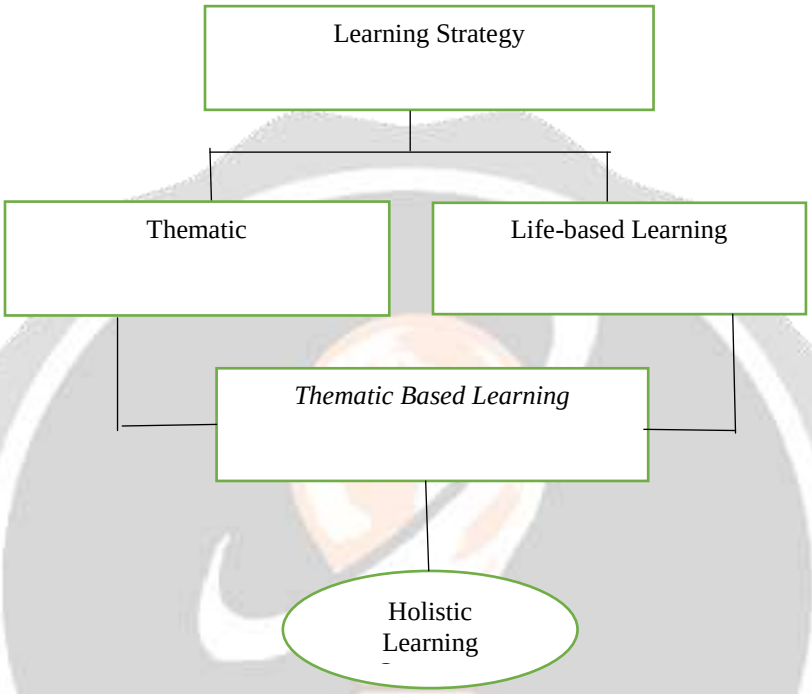

Figure 1. Conceptual Framework

3. METHODOLOGY

The study population was students at SDN Gayungan II, SDN Dukuh Menanggal I, SDN Ketintang I and SDN Menanggal 601. This selection was based on the following considerations: (1) elementary schools that have the same accreditation, namely A, and (2) there has never been a similar study that researched the place. The sampling technique used simple random sampling and obtained a total sample of 256 students. This study used the Posttest Quivalent Control Group Design Experiment (Tuckman, 1999). The research design is an experimental design that manipulates a stimulus and treatment of experimental conditions, and then the effect is observed (Riyanto, 2007). The dimensions of the learning strategy variables include thematic life-based learning and thematic learning strategies.

3.1 Variables

In this study, the dependent variable is learning outcomes, and the independent variables are thematic life-based learning strategies and thematic learning strategies. Thematic-based learning strategy is learning that starts from a theme as a problem that must be solved by associating various facts or concepts from various subjects into a unifying theme and collaborating with the characteristics of life-based learning. Thematic learning strategies are learning using themes in connecting several subjects to provide meaningful experiences for students.

The learning outcomes variable is in the form of problem-solving skills, namely the level of mastery of students regarding learning material links in the form of facts or concepts from various subjects on the theme of my obligations and rights as citizens, namely Citizenship Education, Indonesian Language and Mathematics and

Cultural Arts and Crafts. On the theme of my obligations and rights which include Citizenship Education, Mathematics and Indonesian Language as well as Cultural Arts and Crafts are used as essay test instruments which will be validated to measure student learning outcomes. Variables that need to be controlled and kept constant are (1) learning facilities and infrastructure (other than those prepared by researchers), (2) learning implementation and (3) learning time.

3.2 Research Instrument

This study used an observation sheet instrument (Table 1). The observation sheet is used to measure whether thematic life-based learning and thematic learning strategies are implemented properly. This instrument has been arranged in the form of an observation grid, which is then tested. This trial is intended to find out whether the instrument compiled is truly valid and reliable. The trial was carried out in a class that was not used as a research sample. Besides that, the content validity test is related to the preparation of learning implementation plans and construct validity is related to learning achievement tests.

Table 1. Research Instrument

Variables	Data Source	Data Collecting Method	Instrument
Thematic Life Based Learning Strategy	Teacher Activity	Observation	Observation Guidelines
Learning Outcome	Learners	Test	Multiple Choice Test Questions

4. RESULTS AND DISCUSSION

The number of research respondents was 256 students who were located at SDN Gayungan II, SDN Dukuh Menaggal, SDN Ketintang 1, and SDN Menaggal 601. Students were divided into eight classes consisting of four experimental classes and four control classes.

4.1 Validaty Test

In the early stages, learning tools were made in the form of Learning Implementation Plans (RPP) and learning achievement test instruments. To ensure validity, experts, namely Prof. Lutfiah Nurlaela and Dr Dawn Arianto. The results of the validity test indicated that the Learning Implementation Plan (RPP) was good and could be used in the experimental class (Table 2). Each item has a $t_{statistic} > t_{table}$ value so that it is said to be all valid. The results of the reliability test also showed that the 20 questions were in the medium or moderate category with a Cronbach's alpha value of 0.618 (Table 3).

Table 2. Validity Test

Question Number	$r_{statistic}$	r_{table}	Information
1	0.287	0.1703	Valid
2	0.299	0.1703	Valid
3	0.444	0.1703	Valid
4	0.520	0.1703	Valid
5	0.279	0.1703	Valid
6	0.371	0.1703	Valid
7	0.443	0.1703	Valid
8	0.481	0.1703	Valid
9	0.455	0.1703	Valid
10	0.410	0.1703	Valid
11	0.341	0.1703	Valid
12	0.422	0.1703	Valid
13	0.393	0.1703	Valid

14	0.466	0.1703	Valid
15	0.193	0.1703	Valid
16	0.375	0.1703	Valid
17	0.406	0.1703	Valid
18	0.386	0.1703	Valid
19	0.284	0.1703	Valid
20	0.224	0.1703	Valid

Table 3. Reliability Test

Cronbach's Alpha	N of Items
.618	20

4.2 Uji Homogenity and Normality

A homogeneity test in this study was carried out before and after treatment. The homogeneity test before treatment aims to determine the similarity of the research subjects between the experimental class and the control class. The test results show that the variance of the data is homogeneous, where the significance value with Levene's test for Equality of Variance is 0.349 (> 0.05) (Table 4). The results of the second homogeneity test also show that the variance of the data is homogeneous, with a significance value of 0.331 (> 0.05) (Table 5). Based on the normality test, the results show that the data distribution is normally distributed.

Table 4. Homogenity Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Pretest	Equal variances assumed	,881	,349	-1,130	254	,259	-1,533	1,356	-4,204	1,138
	Equal variances not assumed			-1,129	251,848	,260	-1,533	1,358	-4,207	1,141

Table 5. Levene's Test

F	df1	df2	Sig.
1,152	7	244	,331

4.3 Hypothesis Test

Based on the Test of Between-Subjects Effects, it shows that the significance value of the thematic life based learning strategy is 0.00 (<0.005) (Table 6). The results of this test prove empirically the positive effects of thematic life based learning strategies on student learning outcomes.

Table 5. Test of Between-Subjects Effects

Source	Type I Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	12465,659[a]	3	4155,220	35,811	,000
Intercept	1293583,433	1	1293583,433	11148,517	,000
Strategi	11671,528	1	11671,528	100,589	**,000**

4.4 The Effect of Thematic Life-Based Learning on Learning Outcomes

The study results show that thematic-based learning strategies affect student learning outcomes. The learning outcomes of thematic life-based learning are better than students with thematic learning. Thematic life-based learning is a learning strategy that links themes with the real life of students. In this learning process, students use prior knowledge to activate it in setting goals to be learned, and discussing what they have learned (Loughran, 1996). In this strategy, teachers and students identify basic ideas in a subject (White, 1995). Teachers become facilitators in the learning process and take on more roles in terms of motivating, encouraging, and assisting student learning (White, 1995). Thematic learning can develop eight elements that are compatible with the brain, namely: (1) the absence of threats; (2) meaningful content; (3) choice; (4) sufficient time; (5) enriched environment; (6) collaboration; (7) immediate feedback; and (8) skill mastery (Kovalik & Olsen, 1994). Wurdinger & Rudolph (2009) explained that schools that teach life skills help learners succeed in college and life. In constructivist learning, children should be encouraged to explore their world, discover knowledge, reflect, and think critically with monitoring and meaningful guidance from the teacher (Bonney & Sternberg, 2011; Lawson, 2010).

Learning by bringing students closer to real life can increase students' motivation in learning (Erselcan, 2015). Patton et al. (1997) explained that learning that focuses on daily living skills can be easily integrated into classes with learning disabilities. Cronin & Patton (1993) revealed that Life Skills competencies are indispensable in various fields, including work, study, home and family, vacations, health, community involvement, interpersonal relationships, and personal development (Patton et al., 1997). Moseley (2018) describes the results of Shaffer & Resnick (1999) analysis of four types of highly authentic educational experiences (from Ryle's previous classification). The four types of experience include: (a) activities that are in line with the outside world, (b) assessments that are in line with instructions, (c) topics that are in line with what students want to know, (d) and methods that are in line with scientific disciplines. Maslow (1970) revealed that learning by involving students in selecting material that is adapted to real life is expected to meet the social needs of students and promote students' self-esteem and prestige (Whitelegg & Parry, 1999).

Thematic teaching strategies are based on ideas that are usually related to the life experiences of the learners and thus easily increase the interest and involvement of the learners in the content (Chen, 2012). Learning with thematic strategies will involve students actively and make strong connections between abstract ideas and understanding. Thematic-based learning emphasizes multidimensional experiences and individuals have knowledge, skills, and attributes that significantly contribute to the achievement of learning objectives. Life-based learning strategies are adaptive, independent, and strength-based and use strategies appropriate to the task (Staron, 2011). Thematic-based learning strategies are centred on students, where students are involved in questions they get from direct experience (Sitti et al., 2013). Students are interconnected with the environment in which students live. In Siemens' (2005, 2006) theory of ecological metaphor, it is stated that learning is dynamic with ever-changing relationships and interdependence. Such learning can yield information about learning and doing, as well as adaptive abilities which are the ability to survive in diverse ecologies as a core requirement in knowledge work and the taxonomy of connectivism. There is a gradual view of how students discover and explore learning in a community that leans towards ecology or networks (Sitti et al., 2013; Staron, 2011).

5. CONCLUSIONS

The results of the study found that there was a significant effect of thematic life-based learning on student learning outcomes. Student learning outcomes with thematic life-based learning strategies are better than thematic learning. The results of the study also revealed that thematic learning strategies were suitable for use in student learning on the theme of obligations and rights as citizens with subjects such as Citizenship Education, Mathematics, Indonesian Language, and Cultural Arts and Crafts because they were able to improve student learning outcomes. The results of this study provide practical contributions for teachers and empirical contributions for future researchers. Teachers according to their disciplines can practice thematic life-based learning strategies because they can improve student

learning outcomes. Future research can continue this study by using different research samples such as students at the junior high and high school levels and students at tertiary institutions.

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