Theme network in thematic learning in elementary school

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Abstract. This research aimed at developing a network of a theme in the textbook. The method used is evaluation and development method. The source of this research data is textbook of class IV with the theme of “Care for Living Creatures” and sub-theme “Let Love Our Environment”. The results show that there is a discrepancy between basic competence and sub-themes. Such disagreement is due to an inadequacy of basic competencies with sub-themes, and the choice of basic competencies of less appropriate to sub-themes. The results of this study can be used to developing theme network on other sub-themes as well as on other levels.

1. Introduction

Thematic learning is a learning that integrates some of the subjects related to the theme [1]. The theme is the center or development of several integrated lessons [1], as the focus of material development [2], as a major concern in learning [3], as a tool for understanding matter [4]. The theme is the subject matter of integrated, such as math, science, Indonesian, social, Citizenship, and art. Thematic learning supports learning in primary schools. Students can learn from the surrounding environment about various phenomena. Nature provides information about various disciplines holistically, not separately.

In Indonesia, thematic learning has been implemented through the 2013 curriculum. The government determines the themes students learn from grade 1 to grade 6 and determines textbooks and workbooks. The books are used as guidance by teachers to plan, teach, and evaluate thematic learning in elementary schools.

Based on the observation of the fourth-grade textbook, it was found that the book included a theme linkage with the basic competencies of each course integrated with the basic competence network. Some scholars argue that the theme network of thematic learning links themes with the matter, activity, or skill [1,2,5,6], rather than associating themes with basic competencies. This research is aimed at developing the relationship between basic competences with theme/subtheme on basic competence network in textbook.

For that, a literature study of the fourth grade textbook with the theme “Care for Living Creature”, the sub-theme "Let Love Our Environment". This study is intended to evaluate the suitability of the 2013 theme curriculum network with the thematic teaching principles, namely the theme as an integrated learning material hook. The non-relevance of the subject matter to the theme implies that learning as a separate learning.
2. Methods
This research is an evaluative and development research that evaluates the basic competence network contained in the fourth-grade book on the theme "Care for Living Creatures", the sub-theme “Lets Love Our Environment”, and develop the theme network so that it fits the sub-themes. Evaluation is based on the thematic teaching principle that the theme as a hook material for each subject is integrated.

The subject of the research is the fourth-grade thematic learning book on the theme “Care for Living Creatures”, the sub-theme “Lets Love Our Environment”. The analysis of the research data is done by evaluating the interrelation of the subject with sub-themes. The analysis is done only on the cognitive aspects that are directly related to the theme/sub-theme.

3. Results and Discussion
Based on an evaluation of the basic competence network on the sub-theme "Let's Love Our Environment" found that there is no link between the basic competencies of each subject with sub-themes. This can be seen in the misalignment between basic competence and sub-themes. In addition, the unrelated is due to the selection of basic competencies that are less suited to the sub-themes of the integrated lesson.

Such discrepancies can be seen in the network of basic competencies in the sub-themes “Let's Love Our Environment” below.

![Figure 1. The basic competence network on the sub-theme "Let's Love Our Environment" [7]](image)

The alignment between basic and sub-theme competencies can be seen from the competence performances of the sub-themes of each subject. The material contained in mathematics, sport, and art, is not related to the sub-theme "Let's Love Our Environment". Such disagreements can be explained as follows. Basic competence in math learning about how to calculate fractions. The concept of fractional
calculation is not directly related to the subtheme "Let's Love Our Environment”. Next, in Sports, discuss nutrition food to maintain body health. This material also does not directly indicate sub-themes. In Art, the material studied is a two or three-dimensional artwork. This material does not explain its relation to sub-themes. While other materials, such as science, social, Indonesian, and Citizenship are still too broad, so their relevance to the sub-themes should still be more clearly described to be related to the sub-theme.

The choice of basic competence of a particular course is sometimes incompatible with the sub-theme. Like the basic competence in the sports lesson that discusses the nutrition of food to maintain a healthy body more appropriate for themes/subtheme associated with personal health.

The results of the analysis of fourth-grade textbooks with the sub-theme "Let's Love Our Environment" indicate that the basic competencies of each integrated subject are not related to the sub-theme because this basic competence is still general and should be developed according to the characteristics of the students [8]. Adjustment of the basic competencies to the material, it is necessary to develop indicators and learning activities in accordance with the sub-theme.

The main characteristic of thematic learning is the theme as an integrated inter-learning hook. This is what distinguishes thematic learning with separate learning. The theme must be a bridge connecting inter-learning materials [1,2,6,9]. Themes are studied from different perspectives [10-13], so learning is more meaningful because students learn concepts in a holistic way, and according to real situations.

Based on this, the basic competencies should be formulated in the materials or activities in accordance with sub-themes called theme/sub-theme networks. Here is the model of theme/sub-theme network development “Let's Love Our Environment”.

**Figure 2.** Mapping the theme network on the sub-theme "Let Love Our Environment"

The mapping of the theme network in Figure 2 can be explained as follows. Science subjects learn about how to love living things that exist in the environment around students, such as animals and plants. Indonesian subjects invite students to make posters about loving the environment. Civics lesson discusses human duty in loving the surrounding environment. Social lessons invite students to analyze human behavior that does not love the environment so that there is damage or disaster. Math calculate the percentage of environmental damage/disasters caused by human behavior that does not love the environment, while art subjects sing national songs depicting the motherland's pain because of the many disasters caused by human behavior that does not love the environment. In Sports lessons, there is no basic competence or material that can be attributed to the sub-theme so that sports lessons are not
integrated into the sub-theme. Subjects whose basic competencies cannot be integrated into sub-themes should be taught separately [13,14].

The mapping of the theme/sub-theme network in Figure 2 shows that sub-theme linkage with integrated learning materials shows more relevance when compared to linking basic competencies.

4. Conclusion
The theme network shows the linkage between material and sub-theme. This can make it easier for teachers to implement thematic lessons. Teachers can use this model as an example to evaluate basic competence networks and develop theme networks on subthemes and other levels.

5. References
[1] Hsieh Y H 2005 The research of using multiple intelligences theory in the fourth-grade English class at the elementary school (Taiwan: Institute of Education, National Sun Yat-sen University)
[2] Jacobs H H 1989 Interdisciplinary curriculum: Design and implementation (Alexandria: Association for Supervision and Curriculum Development)
[3] Chen Y T 2012 The effect of thematic video-based instruction on learning and motivation in e-learning International Journal of Physical Sciences 7 6 957-965
[4] MacQuarrie S, Nugent C and Warden C 2015 Learning with nature and learning from others: nature as setting and resource for early childhood education Journal of Adventure Education & Outdoor Learning 15 1 1-23
[5] Asokhan V 2014 Thematic Approach for effective communication in ECCE Int J of Education and Psychological Research (JIEPR) 3 3 49-51
[6] Murdoch K and Hornsby D 1997 Planning curriculum connections: Whole-school planning for integrated curriculum (Australia: Eleanor Curtain Publishing)
[7] Kemdikbud 2014 Buku guru SD/MI Kelas IV: Peduli terhadap makhluk hidup (Jakarta: Kemdikbud)
[8] Pendidikan B S N 2007 Standar Proses untuk Satuan Pendidikan Dasar dan Menengah Badan Standar Nasional Pendidikan
[9] Kysilka M L 1998 Understanding integrated curriculum The Curriculum J 9 2 197-209
[10] Min K C, Rashid A M and Nazri M I 2012 Teachers’ understanding and practice towards thematic approach in teaching integrated living skills (ILS) in Malaysia International Journal of Humanities and Social Science 2 23 273-281
[11] Davies R and Brown R S 2011 A programmatic approach to teaming and thematic instruction Educational Technology 26
[12] Tessier L and Tessier J 2015 Theme-Based Courses Foster Student Learning and Promote Comfort with Learning New Material Journal for Learning through the Arts 11 1
[13] Kadir A and Asrohah H 2014 Pembelajaran tematik (Jakarta: PT Raja Grafindo Persada)
[14] Majid A 2014 Pembelajaran tematik terpadu (Bandung: PT Remaja Rosda Karya)

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