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IMPLEMENTATION OF THE SCIENTIFIC APPROACH ON THE THEMATIC LEARNING CASE STUDY OF AL-ZAHRA PAMULANG ISLAMIC ELEMENTARY SCHOOL

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ABSTRACT

Scientific approach is important to increase student problem solving, however students are limited in exploring knowledge through student experience. This research has a goal, namely to find alternative solutions for teachers in implementing a scientific approach to thematic learning at Al-Zahra Elementary School (ES) Indonesia, Pamulang. This study used descriptive qualitative method. Data collection and processing techniques use observation, interviews and document analysis. The procedure for collecting and processing data passes through 3 stages, namely the preparation stage, the implementation stage, and the final stage. Data analysis techniques are data reduction, data display/data presentation, and drawing conclusions. Integrated thematic learning using a scientific approach in grade 2 Al-Zahra ES Indonesia is in the fairly good category. As for the process of making the lesson plans can be said to be good. However, there are some student activities during learning that the teacher has not been able to deal with. For future improvements, the solution that can be given or submitted by researchers to schools / homerooms in improving the quality of the scientific approach in thematic learning is to hold training in making lesson plans in order to maximize the quality of lesson plans made by teachers. Schools should also regularly hold advanced training on the implementation of thematic learning so that teachers have deeper insight and knowledge to apply in the classroom.

Keywords: scientific approach; solutions; thematic learning

INTRODUCTION

The current focus of the Indonesian government is on the development and improvement of educational resources so that they are of higher quality. This is due to the progress in the current era of globalization, especially in the education sector.[1,2] The development of the education sector is a benchmark that can be seen from how the country carries out formal learning activities at each level of the education unit, and cannot be separated from the applicable curriculum.[3]

[1] Evy Ratna Kartika Wati, et.al., "The Quality of Teacher-Made Summative Tests for Islamic Education Subject Teachers in Palembang, Indonesia," *Cakrawala Pendidikan: Jurnal Ilmiah Pendidikan* 43, no. 1 (2024). https://doi.org/10.21831/cp.v43i1.53558.

[2] Anggia Utami Dewi, "Curriculum Reform in the Decentralization of Education in Indonesia: Effect on Students' Achievements," *Cakrawala Pendidikan: Jurnal Ilmiah Pendidikan* 40, no. 1 (2021). http://dx.doi.org/10.21831/cp.v40i1.33821.

[3] Mahat Hanifah, et.al., "Competencies for Form Six Geography Teachers in Reaching the Malaysian Education Quality Standards," *Cakrawala Pendidikan: Jurnal Ilmiah Pendidikan* 38, no. 2 (2019). http://dx.doi.org/10.21831/cp.v38i2.23228.

In the development and development of education is largely determined by the quality of educational resources, one of which is the teacher. Being a teacher is a noble profession and cannot be done by just anyone because it requires some special requirements and competencies. A teacher is considered capable of educating and teaching, it can be seen from how high the level of education is, the higher the education, the wider the knowledge and competence in teaching. In this case, someone who wants to become a professional teacher must have a background in teaching and education.[4,5] Therefore, the progress of a country cannot be separated from the importance of the quality of educators (teachers) and the education factor itself.[6]

Learning is a process of interaction between students, between students and educators, and between participants and other learning resources in a learning environment that takes place educatively, so that students can build attitudes, knowledge, and skills to achieve the goals that have been set.[7] The learning process is a process that contains a series of activities ranging from planning, implementation to assessment.[8,9]

Learning can run well and meaningfully if in the process the correct and appropriate learning methods are used.[10,11,12] In the world of learning, there are several terms that have similarities in meaning, namely approaches, strategies and learning

[4] Mustofa, M., et.al., "Do Education and Religiosity Affect Redistribution Preferences?" *Cakrawala Pendidikan: Jurnal Ilmiah Pendidikan* 42, no. 1 (2023). http://dx.doi.org/10.21831/cp.v42i1.53109.

[5] Albrecht Fritzsche, "The Pragmatic Roots of Scientific Insight: A Culturalist Approach to Management Theory in the View of Grand Challenges" *Scandinavian Journal of Management* 38, no. 4 (December 2022). https://doi.org/10.1016/j.scaman.2022.101230.

[6] Kieu Phuong Thuy, et.al., "Designing Learning Activities to Develop Self-Directed Learning Competency in Teaching Informatics" *International Journal of Evaluation and Research in Education (IJERE)* 13, no. 1 (2023). http://doi.org/10.11591/ijere.v13i1.26434.

[7] Suratno, et.al., "What is the Effect of Learning Models and Interests on Study Results?" *Cakrawala Pendidikan: Jurnal Ilmiah Pendidikan* 42, no. 3 (2023). http://dx.doi.org/10.21831/cp.v42i3.52342.

[8] Sufairoh, "Pendekatan Saintifik dan Model Pembelajaran," *Bahastra* 5, no. 3 (2016): 125.

[9] Dingding Haerudin, et.al., "Inventorying Authentic Teaching Materials on Youtube for Listening Learning Plan of Pupuh in Elementary School," *Cakrawala Pendidikan: Jurnal Ilmiah Pendidikan* 42, no. 2 (2023). http://dx.doi.org/10.21831/cp.v42i2.46233.

[10] Gusvozal Yozia Sutmala and Harni Harni, "Penerapan Pendekatan Saintifik Dalam Pembelajaran Tematik Terpadu Di Kelas II Sekolah Dasar (Studi Literatur)," *Journal of Basic Education Studies* 3, no. 1 (2020): 114–28.

[11] Farzana Sharmin Pamela Islam, "The Use of Multimedia and Its Impact on Bangladeshi EFL Learners at Tertiary Level," *International Journal of Language Education* 4, no. 1 (2020). https://doi.org/10.26858/ijole.v4i2.12150.

[12] Maaike Koopman, et.al., "Nuances and Details in Student Approaches to Learning in Innovative Secondary Education Using Profiles," *International Journal of Educational Research Open* 6, (2024). https://doi.org/10.1016/j.ijedro.2023.100316.

methods, but each term has a different and not the same meaning.[13,14] In short, the learning approach is a point of view on the learning process that has a broad and global meaning, learning strategies and methods are sourced from certain approaches.[15,16] Strategy is a set, steps or art in the implementation of learning that aims to achieve learning objectives, strategies are one level more organized or composed of approaches.[17,18] Then the learning method is a way to carry out learning activities, especially in presenting material to students. By doing the learning method can make it easier for teachers and students in the implementation of learning.[19,20]

According to Permendikbud No. 22 of 2016 concerning process standards, states that the learning process in educational units is held interactively, inspiring, fun, challenging, motivating students to participate actively, and can provide sufficient space for initiative, creativity, and independence according to their talents, interests. and physical and psychological development of students.[21] Thus, students receive facilities from teachers so that students actively learn and also have the opportunity to develop the potential of students.

If a teacher has not been able to provide good and memorable learning to his students, then the learning carried out will not be more useful for students and will gradually damage the quality of national education. So the learning that must be used by

[13] Khairuddin, K., et.al. "An Analysis of the Learning Implementation of Physical Education in Junior High Schools," *Cakrawala Pendidikan: Jurnal Ilmiah Pendidikan* 42, no. 3 (2023). http://dx.doi.org/10.21831/cp.v42i1.54605.

[14] Anna Hawrot, et.al. "The Home Environment During the COVID-19 Pandemic and Changes in Learning Enjoyment and Learning Effort: A Study of German Lower Secondary School Students," *Children and Youth Services Review* 158, (2024). https://doi.org/10.1016/j.childyouth.2024.107481.

[15] Anuraga Jayanegara, et.al. "Innovative Learning Methods of Islamic Education Subject in Indonesia: A Meta-Analysis," *International Journal of Evaluation and Research in Education (IJERE)* 13, no. 2 (2024). http://doi.org/10.11591/ijere.v13i2.26364.

[16] Duratul Ain Tholibon, et.al. "The Factor of Students' Involvement on Student-Centered Learning Method," *International Journal of Evaluation and Research in Education (IJERE)* 11, no. 4 (2022). http://doi.org/10.11591/ijere.v11i4.22314.

[17] Yongmei Hu, et.al., "Learning and Teaching Strategies as Related to Language Arts in China: A Heterogeneity Study," *Studies in Educational Evaluation* 81, no. 2 (2024). https://doi.org/10.1016/j.stueduc.2024.101334.

[18] I Wayan Redhana, et.al., "Which is More Effective, A Mind Map or A Concept Map Learning Strategy?," *Cakrawala Pendidikan: Jurnal Ilmiah Pendidikan* 40, no. 2 (2021). http://dx.doi.org/10.21831/cp.v40i2.33031.

[19] Hai-Ninh Do, et.al., "3How Do Constructivism Learning Environments Generate better Motivation and Learning Strategies? The Design Science Approach," *Heliyon* 9, no. 12 (2023). https://doi.org/10.1016/j.heliyon.2023.e22862.

[20] Suwarna Dwijonagoro, et.al., "Pranatacara Learning: Modeling, Mind Mapping, E-Learning, or Hybrid Learning?," *Cakrawala Pendidikan: Jurnal Ilmiah Pendidikan* 38, no. 1 (2019). http://dx.doi.org/10.21831/cp.v38i1.23034.

[21] Permendikbud, "Tentang Standar Proses Pendidikan Dasar Dan Menengah," 2016.

a professional teacher is learning that is easy to remember, memorable, and meaningful for students.[22] Referring to the 2013 Curriculum which applies to thematic learning, it is certainly not foreign to hear because this learning is applied to the current 2013 Curriculum.[23,24] Thematic learning is an integrated learning that uses themes, linking student experiences with themes so that the learning process is expected to run with a strong and meaningful impression for students, it can even become long-term memory.

According to Piaget, students in the early grades of elementary school are in an early age range and at that time the ability of children to associate with abstract things is generally only formed at the age when they are in the last grade of elementary school and develops further at the age of junior high school. Therefore, a learning experience that shows the relationship between conceptual elements, both intra and between fields of study will increase the opportunities for more effective learning to occur.[25]

With thematic learning, it is hoped that all the difficulties and problems that often occur in elementary school students, especially for low grade students, will have a good impact. In thematic learning, students are directed to be directly involved during the learning process, this will create an active, creative, effective, fun learning atmosphere (*PAKEM*) and students will get their own experience in finding concepts from various sciences.

In implementing the 2013 Curriculum, one of them emphasizes the use of a scientific approach in the learning process. Teachers are required to use the steps of a scientific approach, so that it can be said that the teacher has implemented the 2013 Curriculum. This opinion is intended for the many considerations and the many linkages seen from various learning materials that will be accepted by students with the study of

[22] Anita Trisiana, et.al., "Analysis of Developing Anti-Corruption Education in Indonesia Through Media-Based Citizenship Education Learning Smart Mobile Civic" *Cakrawala Pendidikan: Jurnal Ilmiah Pendidikan* 43, no. 1 (2024). http://dx.doi.org/10.21831/cp.v43i1.60261.

[23] Anggia Utami Dewi, "Curriculum Reform in the Decentralization of Education in Indonesia: Effect on Students' Achievement" *Cakrawala Pendidikan: Jurnal Ilmiah Pendidikan* 40, no. 1 (2021). http://dx.doi.org/10.21831/cp.v40i1.33821.

[24] Parmin, P., et.al., "Internalization of Indigenous Knowledge in the Education Curriculum for Next Generation Science Standards (NGSS)" *Cakrawala Pendidikan: Jurnal Ilmiah Pendidikan* 43, no. 1 (2024). http://dx.doi.org/10.21831/cp.v43i1.65751.

[25] Muhammad Shaleh Assingkily, et.al., "Pembelajaran Tematik Bagi Anak Usia Dasar (Metodologi dalam Islam)," *Nizhamiyah* 9, no. 2 (2019). http://dx.doi.org/10.30821/niz.v9i2.548.

child learning psychology.[26,27] Thus, the scientific approach can be said to be very suitable to be applied to classroom learning, especially in elementary schools.[28,29]

According to the term, the scientific approach is a learning approach that has been designed in such a way as to become active learning for students, constructing concepts, laws or principles by carrying out the stages thoroughly in order to convey the objectives of the learning carried out.[30,31] In line with thematic learning, the scientific approach is a suitable approach to be applied in the implementation of thematic learning in the 2013 Curriculum. The scientific approach helps students solve a problem they face with good and careful planning.[32] In this stage, students are asked to observe, reason, try, ask questions, and present/communicate the various problems they face. From these activities, students are expected to get independent, confident, and responsible attitudes that also support other positive characters.[33]

The application of the scientific approach is considered very good to be applied to classroom learning. This can be seen from several advantages that the scientific approach has, some of which are making it easier for students to understand learning material, guiding students to be more active, fostering the nature of independence

[26] Rudi Susilana dan Heli Ihsan, "Pendekatan Saintifik Dalam Implementasi Kurikulum 2013 Berdasarkan Kajian Teori Psikologi Belajar," *Edutech* 1, no. 2 (2014): 183–95.

[27] Andreas Rio Adriyanto, et.al., "Design and Multimedia Learning Principles on Mooc Indonesiax," *Cakrawala Pendidikan: Jurnal Ilmiah Pendidikan* 40, no. 1 (2021). http://dx.doi.org/10.21831/cp.v40i1.34699.

[28] Muhammad Shaleh Assingkily, "Implementasi Pendekatan Saintifik dalam Kurikulum 2013 pada Mata Pelajaran Alquran Hadis di MAN 3 Medan," *Skripsi*, UIN Sumatera Utara Medan, (2018). http://repository.uinsu.ac.id/3828/1/SKRIPSI%20MUHAMMAD%20SHALEH%20ASSINGKILY.PDF.pdf.

[29] Berit Misund Dahl, et.al., "Students' Approaches to Scientific Essay Writing as an Educational Method in Higher Education: A Mixed Methods Study," *Social Sciences & Humanities Open* 7, no. 1 (2023). https://doi.org/10.1016/j.ssaho.2022.100389.

[30] Shuoqi Xiang, et.al., "The Interplay between Scientific Motivation, Creative Process Engagement, and Scientific Creativity: A Network Analysis Study," *Learning and Individual Differences* 109, (2024). https://doi.org/10.1016/j.lindif.2023.102385.

[31] Vishar Kumar, et.al., "Environmental Socio-Scientific Issues as Contexts in Developing Scientific Literacy in Science Education: A Systematic Literature Review," *Social Sciences & Humanities Open* 9, (2024). https://doi.org/10.1016/j.ssaho.2023.100765.

[32] Edelyn Alicar Cadorna, et.al., "Readiness of Teachers on Flexible Learning: Basis for A Capability-Building Program," *International Journal of Evaluation and Research in Education (IJERE)* 11, no. 4 (2022). http://doi.org/10.11591/ijere.v11i4.22862.

[33] Masturin, et.al., "Tawhid-Based Green Learning in Islamic Higher Education: An Insan Kamil Character Building," *QIJIS: Qudus International Journal of Islamic Studies* 10, no. 1 (2022). http://dx.doi.org/10.21043/qijis.v10i1.14124.

because during the learning process students try to solve problems on their own without the help of the teacher.[34]

Many elementary schools have implemented a scientific approach in their learning activities. But in fact, teachers are not yet fully qualified to take steps in scientific approach activities to students. Al-Zahra ES Indonesia is one of them that has implemented a scientific approach to thematic learning in the learning process.

The scientific approach is a general view of learning.[35] Therefore, in its application it must always be accompanied by using the right method. According to the Ministry of Education and Culture (2016), the learning process that implements a scientific approach includes five steps, namely: observing, asking questions, collecting data, associating, and communicating.[36] Then, the scientific approach also refers to three domains, namely attitudes, knowledge and skills. Therefore, the implementation of an integrated scientific (scientific) approach becomes very important in achieving learning objectives. This approach is an inquiry approach, where students are required to play an active role both individually and in groups in order to get the concepts and principles of the learning material being taught, while the teacher is only a facilitator who guides or assists students during the learning process.[37]

When the researcher carried out the pra research activity with a group of friends, the researcher was assigned to carry out pra research activities in class II, for approximately 2 months, from September 16 to November 11 2019, we carried out these activities. Simultaneously with the pra research activities, the researcher observed and observed the learning carried out by the class II teachers A, B, and C. From the results of observations and observations made by researchers, it was seen that teachers tended to only convey material in the form of facts to students. The teacher has not maximized the 5-step scientific approach at the learning stage, for example: students are limited in exploring knowledge through student experience. Some students seem to pay less attention to the material being explained by the teacher (active in their own game), the author sees that the teacher has difficulty in raising the enthusiasm of students in the

[34] Finnur Dellsen, "Scientific Progress: By-Whom or For-Whom?," *Studies in History and Philosophy of Science* 97, (2023). https://doi.org/10.1016/j.shpsa.2022.11.006.

[35] Nurul Ain dan Choirul Huda, "Pendekatan Saintifik di Sekolah Dasar," *Momentum: Physics Education Journal* 2, no. 1 (2018): 1.

[36] sufairoh, "Pendekatan Saintifik Dan Model Pembelajaran."

[37] Effy Mulyasari and Yahya Sudarya, "Jurnal 2 Presentasi Individu Pert.3" II, no. Ii (2017).

questioning step, so the teacher tends to carry out the learning process by transferring material/knowledge. Therefore, the teacher looks like a source of all knowledge (teacher centered) not focused on student abilities (student centered).

In addition, at the stage of concluding the learning material, the teacher tends to ignore this step, the teacher rarely raises the enthusiasm of the students so that the students give their own conclusions on the learning that has been done. By carrying out activities to conclude learning outcomes, students will be trained to make their own conclusions and can add insight, students become more active and increase their self-confidence.

According to Ridwan Abdul Sani, the scientific approach in the 2013 Curriculum for the first time is contained in the Ministry of Education and Culture Regulation No. 65 of 2013 concerning the standard of primary and secondary education processes. In order to strengthen the characteristics of a scientific approach (scientific), integrated thematic (thematic between subjects), and thematic within a subject, research/disclosure-based learning, discovery/inquiry learning emerged. However, the scientific approach is emphasized or strengthened when carrying out core learning activities in the knowledge aspect.[38]

The scientific approach is a basic concept that accommodates, inspires, strengthens, and underlies thinking about how learning methods are applied based on certain theories. The Ministry of Education and Culture (2013) provides its own conception that the scientific approach in learning includes the following components: observing, asking questions, trying/digging information/experimenting, reasoning/associating/processing information, presenting/communicating.[39] From these components, teachers can assess students from 3 major competencies, namely attitude competence, knowledge competence, and skill competence.

Attitude competence is obtained from the activity of "accepting, carrying out, appreciating, living, and practicing". Knowledge competence from “remembering, understanding, applying, analyzing, evaluating, and creating” activities. While the skill

[38] Wedra Aprison & Junaidi, “Pendekatan Saintifik: Melihat Arah Pembangunan Karakter Dan Peradaban Bangsa Indonesia,” *Epistemé: Jurnal Pengembangan Ilmu Keislaman* 12, no. 2 (2017): 507–32, https://doi.org/10.21274/epis.2017.12.2.507-532.

[39] Moh Masnun, “Penerapan Pendekatan Saintifik Dalam Pembelajaran Tematik Terpadu,” *Al Ibtida: Jurnal Pendidikan Guru MI* 3, no. 1 (2016): 93–115, https://doi.org/10.24235/al.ibtida.snj.v3i1.590.

competencies of the activities of "observing, asking, trying, reasoning, presenting, and creating".[40]

Figure 1
Field of Scientific Learning
Source : [41]

From the picture above, it can be seen that the scientific approach consists of 3 competencies, namely attitude competence, knowledge competence, and skill competence in order to get active, creative, effective and fun learning. The competencies above cover the affective (attitude), cognitive (knowledge), and psychomotic (skills) domains.

The scientific approach is learning that increases students' enthusiasm to be active, creative, innovative, and develop students' public speaking skills. This learning also puts forward the values of students' attitudes, knowledge, and skills.[42] The learning process refers to a scientific approach according to the Ministry of Education and Culture (2016) includes five steps, namely: observing, asking, collecting data, associating, and communicating, further explained as follows:

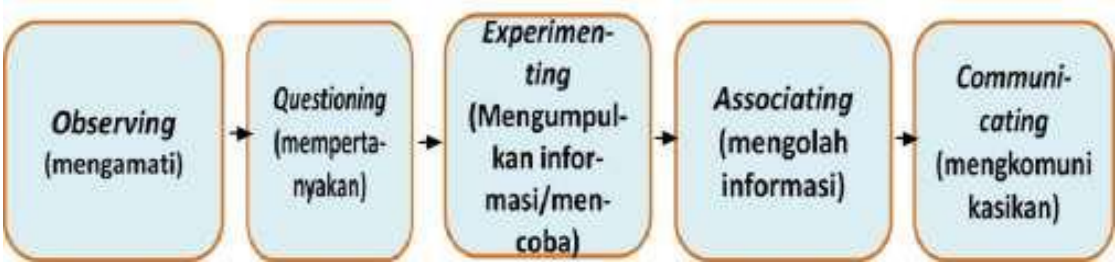

Figure 2
Scientific Approach to Learning
Source : [43]

[40] Fauzan, *Kurikulum Dan Pembelajaran* (Tangerang: Gaung Persada (GP) Press, 2017).

[41] Setya Yuwana, Titik Indarti, and Faizin, *Metode Penelitian Dan Pengembangan (Research & Development) Dalam Pendidikan Dan Pembelajaran* (UMMPress, 2023).

[42] Fauzan and Maulana Arafat Lubis, *Perencanaan Pembelajaran Di SD/MI* (Jakarta: Kencana, 2020).

[43] Yuwana, Indarti, and Faizin, *Metode Penelitian dan Pengembangan (Research & Development) Dalam Pendidikan Dan Pembelajaran*.

There are several objectives of scientific learning on the advantages of this approach, namely:[44] Improving intellectual abilities, especially higher order thinking skills, to shape students' ability to solve a problem systematically, to obtain high learning outcomes, and to develop students' character.

Thematic learning is learning that is applied to the 2013 Curriculum, where learning is carried out by linking students' experiences with themes which are then tied and packaged into learning materials.[45] The thematic learning process is focused on the role of students in the classroom with the aim of creating active learning, so that students can find understanding in the form of a new concept and knowledge from linking their own experiences with the material being taught.[46] Students' personal experiences can help students find other concepts from the learning concepts they have learned.[47]

There are several characteristics of thematic learning that must be considered by teachers, including: [48] student-centered, providing direct experience to students, separation of subject content not too clear, presents concepts from various subject content, is flexible, learning outcomes can develop according to the interests and needs of students, uses the principle of learning while playing and having fun, and pays more attention to the process than the result alone.

Thematic learning focuses on observing and assessing a symptom or event from several subjects at once, not separating it on a particular object. So that it is possible for students to understand a learning phenomenon from all sides.[49]

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[44] A. Machin, "Implementasi Pendekatan Saintifik, Penanaman Karakter Dan Konservasi Pada Pembelajaran Materi Pertumbuhan," *Jurnal Pendidikan IPA Indonesia* 3, no. 1 (2014): 28–35, https://doi.org/10.15294/jpii.v3i1.2898.

[45] Teguh Prasetyo, "Pengembangan Perangkat Penilaian Hasil Belajar Dalam Pembelajaran Tematik Integratif Kelas V SD," *Jurnal Prima Edukasia* 5, no. 1 (2017): 102, https://doi.org/10.21831/jpe.v5i1.7528.

[46] Shankar LalShankar Lal GuptaGupta, et.al. "Demand-Driven Approach of Vocational Education and Training (VET) and Experiental Learning: A Thematic Analysis Through Systematic Literature Review," *Asian Education and Development Studies* 13, no. 11 (2023): 45-63. https://doi.org/10.1108/AEDS-07-2023-0083.

[47] J. W Antrock, *Educational Psychology, Diana Angelica. Psikologi Pendidikan* (Jakarta: Salemba Humanika, 2011).

[48] Andi Prastowo, *Pengembangan Bahan Ajar Tematik: Tinjauan Teoritis Dan Praktis* (Jakarta: Kencana, 2014).

[49] Doni Warman, "Implementasi Pembelajaran Tematik Oleh Guru Kelas Pada Sekolah Dasar Di-Kecamatan Lembah Segar Kota Sawahlunto," *Al-Fikrah: Jurnal Manajemen Pendidikan* 6, no. 2 (2019): 185, https://doi.org/10.31958/jaf.v6i2.1394.

In line with the points above, according to the Ministry of National Education (1996) the characteristics of thematic learning include holistic, meaningful, authentic, and active, as follows:[50] holistic, meaningful, authentic, and active. Thematic learning has several procedures that the teacher must carry out when implementing this learning, namely:

There are several things that the teacher must do at this stage, namely: mapping of basic competencies, developing a theme network, developing a syllabus and preparing a lesson plan. In addition to combining competency standards, Basic Competencies (BC) and indicators are also adjusted to the skills that will be given in learning. Fogarty (1991: 28) gives an example that thematic learning can be adapted to thinking skills, social skills and organizing skills.[51]

At this stage, the thematic learning model is generally divided into three stages, namely introduction/exploration, core/elaboration, and closing/confirmation. The main principles in its implementation are: teachers do not dominate during the learning process, learning that requires students to study individually or in groups in which there is an attitude of responsibility and cooperation, teachers need to be accommodating to ideas. which is sometimes completely unthinkable in the planning process.

This stage is a benchmark for teachers to see the results of progress and developments that have been achieved by students during the learning process. Teachers get various assessment information on a regular, continuous and comprehensive basis from a process. The evaluation phase includes: process evaluation, outcome evaluation, and psychomotor evaluation.[52]

Thematic learning has several objectives in order to achieve the objectives of learning, including:[53] Improve the understanding of the concepts they learn more meaningfully. Develop skills to find, process, and utilize information. Cultivating positive attitudes, good habits, and noble values needed in life. Develop social skills such as cooperation, tolerance, communication, and respect for the opinions of others. Increase passion in learning and Choose activities according to their interests and needs.

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[50] Depdiknas, "Model Pembelajaran Tematik Kelas Awal Sekolah Dasar" (Jakarta, 2006).

[51] Amram Rede, "Peningkatan Kecakapan Sosial Siswa Sekolah Dasar Melalui Pembelajaran Tematik," *Jurnal Ilmu Pendidikan* 18 (2012): 2.

[52] Trianto, *Model Pembelajaran Terpadu Konsep, Strategi Dan Implementasinya Dalam Kurikulum Tingkat Satuan Pendidikan (KTSP)* (Jakarta: Bumi Aksara, 2010).

[53] Trianto.

Thematic learning provides various benefits to teachers and students, including: Learning is able to increase students' conceptual understanding of reality according to their level of intellectual development. Thematic learning allows students to be able to explore knowledge through a series of processes of learning activities. Thematic learning is able to increase the closeness of the relationship between students. Thematic learning helps teachers improve their professionalism.[54] Fun because it starts from the interests and needs of students. Learning outcomes will last longer because they are memorable and meaningful. Develop children's thinking skills according to the problems faced, and Develop social skills in work, tolerance, communication, and responsiveness to other people's ideas.[55]

Journal of Tarmili entitled "Application of Scientific Approach in Integrated Thematic Learning in Class IV Elementary School Singkawang City". Researchers used classroom action research (CAR), as well as instruments consisting of participant observation, in-depth interviews, and documentation studies. The results of the study said that the lesson plans used were good and used an integrated thematic that applied a scientific approach. In the learning process and student learning activities have been in accordance with the steps contained in the scientific approach.

The difference between Tarmili's research and this research is that the research aims to find out the obstacles and supporting factors in the application of thematic learning using a scientific approach, and the researchers triangulated methods and extended observations. The next difference is in the variable x, namely in class IV thematic learning while researchers use class II. This study uses descriptive qualitative and uses source/data triangulation and aims to find alternative solutions for teachers in implementing a scientific approach to thematic learning at Al-Zahra Elementary School Indonesia, Pamulang.

Journal of Rudi Susilana and Heli Ihsan entitled "Scientific Approach in Implementation of Curriculum 2013 Based on Study of Learning Psychology Theory". The results of this research are the application of learning with a scientific approach to students can create various kinds of learning experiences that involve all the five senses, physical, and psychological students. This is very helpful in developing the potential of

[54] Trianto.

[55] Dinas Pendidikan Kota, “Pembelajaran Tematis Di Kelas I, II, III SD Dan MI” (Surabaya, 2006).

students. By applying a scientific approach, it also helps teachers in varying learning activities and optimizing the development of students' potential in order to obtain good learning outcomes.

The difference between Rudi Susilana and Heli Ihsan's research with this research is that this research describes the results of the study of learning psychology theory about activities developed in a scientific approach and provides reinforcement to implementers of the 2013 Curriculum in various educational units. While this research does not focus on the psychological theory of student learning and to find alternative solutions for teachers in implementing a scientific approach to thematic learning at Al-Zahra Elementary School Indonesia, Pamulang.

Journal of Gustia Rifnil Aufa and Taufina Taufik entitled "Application of Scientific Approaches in Integrated Thematic Learning in Grade II Elementary School (Literature Studies)". The results of the literature study research are that the scientific approach is effectively applied in integrated thematic learning which requires students to be active, creative, and able to socialize well with their friends. Teachers should be able to maximize the application of the scientific approach in the learning process and be able to increase their competence in increasing the creativity of learning in the classroom.

The difference between Gustia Rifnil Aufa and Taufina Taufik's research with this research is that this research uses a literature study with data collection techniques using secondary or non-test data (search for accredited journals through Google Scholar. While this study uses descriptive qualitative and uses source/data triangulation and aims to find alternative solutions for teachers in implementing a scientific approach to thematic learning at Al-Zahra ES Indonesia, Pamulang.

Based on the background of the problem above, the authors identify the problem, namely, the teacher has not maximized the 5 steps of the scientific approach at the learning stage, including: Regarding the application of M1 (observing), students are limited in exploring knowledge through student experience, students do not observe or pay attention to the material presented by the teacher. Regarding the application of M2 (asking), the teacher has difficulty in raising the enthusiasm of students in asking questions. Regarding the application of M3 (reasoning), from the data or information that has been conveyed by the teacher, students are not accustomed to giving their

thoughts (logically) to the problems or information presented. Regarding the application of M4 (trying), from the media/worksheets and experiments that have been carried out, teachers tend to rarely ask students to conclude the data or information so that students do not get additional information until students really understand it. Regarding the application of M5 (communicating), some students lack the courage to convey the results of the data or information that has been collected both orally and in writing.

In order for this research to be focused, the problem to be studied is limited to describing the planning and implementation of a scientific approach to thematic learning in grade 2 Al-Zahra ES Indonesia, Pamulang. scientific study on thematic learning in grade 2 Al-Zahra ES Indonesia?"

RESEARCH METHODS

The focus of researchers in writing this research is to find alternative solutions to existing problems for teachers to implement a scientific approach to thematic learning in grade 2 Al-Zahra ES Indonesia. The method used is a field study with a descriptive qualitative research type. Qualitative research method is a research that uses descriptive data in the form of words, both oral and written from the observed sources. Qualitative research uses empirical reality in accordance with the facts in the field by utilizing the researcher's self as the key instrument.[56] Qualitative descriptive research describes a phenomenon captured by the researcher and then strengthened by showing the evidence. The meaning of this phenomenon depends a lot on the ability and sharpness of the researcher in analyzing it. In conducting the analysis, the researcher asked various basic questions so that with the meaning of a symptom only, the description he made was broad, and sharp.[57]

In conducting the research, the researcher used the following data collection and processing techniques: Observation. Document Analysis. Interview. The data analysis process goes through several stages, namely:[58] Data reduction. So the researchers chose the data that had been collected in the form of observations, questionnaires/ questionnaires, and documentation that had been obtained at Al-Zahra Indonesia

[56] Nana Sudjana, *Metode Statistik* (Bandung: Tarsito, 1989).

[57] Mahmud, *Metode Penelitian Pendidikan* (Bandung: CV Pustaka Setia, 2011).

[58] Sugiono, *Metode Penelitian Pendidikan Pendekatan Kualitatif Dan Kuantitatif Dan R&D* (Jakarta: Alfabeta, 2010).

Elementary School, Pamulang to be adapted to the needs of researchers. Data that is not needed for the purpose of the researcher is not used or is not included in the research data. Data display/ data presentation. From the results of the reduction obtained, the researcher displays the data so that it is arranged to find out the shortcomings that exist in the study. Seeing the teacher's teaching method, the implementation of the scientific approach, learning methods, and learning media are already known when displayed, it will show the implementation of the scientific approach in the 2013 Curriculum in the learning activities. Drawing conclusions from the data that has been presented. From several stages of data collection carried out with descriptive data analysis techniques. To find out the final result, it is done by the formula:

$$\text{Ideal Score Assessment} = \frac{\text{Number of correct answers}}{\text{Score}} \times 100$$

Description :
VG : Very Good
G : Good
E : Enough
NE : Not enough

Tabel 1
Meaning of Acquired Mastery

Score	Description
90-100	Very Good
80-89	Good
70-79	Enough
< 70	Not Enough

Source : Personal Documents

If you achieve an assessment result > 80 then you can continue the next learning activity. However, if the result of the assessment is <80 then it is required to repeat the learning activities carried out, especially in the parts that have not been mastered by students.[59]

RESULT AND DISCUSSION

Based on the lesson plans analysis that has been carried out, below is a recapitulation of the assessment of the lesson plans conducted 10 times, namely:

Tabel 2
Lesson Plans Assessment Recapitulation

[59] Uyu Wahyudin dkk, *Evaluasi Pembelajaran* (Bandung: UPI PRESS, 2006).

No	Lesson Plans part-	Score		Results	Criteria
		Yes	No		
1	1	15	5	75	Enough
2	2	16	4	80	Good
3	3	15	5	75	Good
4	4	16	4	80	Good
5	5	15	5	75	Enough
6	6	16	4	80	Good
7	7	16	4	80	Good
8	8	17	3	85	Good
9	9	18	2	90	Very Good
10	10	17	3	85	Good
Total				805	

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Lesson Plans Part-	10	1	10	5.50	3.028
Yes	10	15	18	16.10	.994
No	10	2	5	3.90	.994
Results	10	75	90	80.50	4.972
Valid N (listwise)	10				

Source : Personal Documents

From the data above, it can be taken from the mean, which is 805:10 = 80.5. So the conclusion is that the data is included in the good criteria.

The results of the analysis in the 1st lesson plans stated that, overall the presentation of the lesson plans was good, but there were several components that were not optimal in their presentation. Among them are, indicators of achievement of BC are not complete/perfect because the indicators do not reach the desired aspects of BC. In the learning objectives, the lack of completeness of the scope of the formulation. The systematics of teaching materials are not sequential in their delivery, the allocation of time used for learning is not sufficient in conveying all learning materials, so that teachers in some materials lack delivery. Completeness of instrument questions, answer keys/ scoring guidelines are not yet complete in accordance with the indicators and objectives to be achieved.

The results of the analysis on the 2nd lesson plans stated that, overall the presentation of the lesson plans was good but there were several components that were not optimal in their presentation. Among them are, indicators of achievement of BC are not complete/perfect because the indicators do not reach the desired aspects of BC. The allocation of time used for learning is not sufficient in conveying all learning materials, so that teachers in some materials have deficiencies in their delivery. Completeness of instrument questions, answer keys/ scoring guidelines are not yet complete in accordance with the indicators and objectives to be achieved.

The results of the analysis on the 3rd lesson plans stated that, overall the presentation of the lesson plans was good but there were several components that were not optimal in their presentation. Among them are, indicators of achievement of BC are not complete/ perfect because the indicators do not reach the desired aspects of BC. In the learning objectives, the lack of completeness of the scope of the formulation. The systematics of teaching materials are not sequential in their delivery, the allocation of time used for learning is not sufficient in conveying all learning materials, so that teachers in some materials lack delivery. Completeness of instrument questions, answer keys/ scoring guidelines are not yet complete in accordance with the indicators and objectives to be achieved.

The results of the analysis on the 4th lesson plans stated that, overall the presentation of the lesson plans was good, but there were several components that were not optimal in their presentation. Among them are, indicators of achievement of BC are not complete/perfect because the indicators do not reach the desired aspects of BC. In the learning objectives, the lack of completeness of the scope of the formulation. The allocation of time used for learning is not sufficient in conveying all learning materials, so that teachers in some materials have deficiencies in their delivery. Completeness of instrument questions, answer keys/ scoring guidelines are not yet complete in accordance with the indicators and objectives to be achieved.

The results of the analysis on the 5th lesson plans stated that, overall the presentation of the lesson plans was good but there were several components that were not optimal in their presentation. Among them are, indicators of achievement of BC are not complete/ perfect because the indicators do not reach the desired aspects of BC. In the learning objectives, the lack of completeness of the scope of the formulation. The

systematics of teaching materials are not sequential in their delivery, the allocation of time used for learning is not sufficient in conveying all learning materials, so that teachers in some materials lack delivery. Completeness of instrument questions, answer keys/ scoring guidelines are not yet complete in accordance with the indicators and objectives to be achieved.

The results of the analysis on the 6th lesson plans stated that, overall the presentation of the lesson plans was good, but there were several components that were not optimal in their presentation. Among them are, indicators of achievement of BC are not complete/ perfect because the indicators do not reach the desired aspects of BC. In the learning objectives, the lack of completeness of the scope of the formulation. The systematics of teaching materials are not sequential in their delivery. Completeness of instrument questions, answer keys/ scoring guidelines are not yet complete in accordance with the indicators and objectives to be achieved.

The results of the analysis on the 7th lesson plans stated that, overall the presentation of the lesson plans was good but there were several components that were not optimal in their presentation. Among them are, indicators of achievement of BC are not complete/perfect because the indicators do not reach the desired aspects of BC. In the learning objectives, the lack of completeness of the scope of the formulation. The systematics of teaching materials are not sequential in their delivery. Completeness of instrument questions, answer keys/ scoring guidelines are not yet complete in accordance with the indicators and objectives to be achieved.

The results of the analysis on the 8th lesson plans stated that, overall the presentation of the lesson plans was good, but there were several components that were not optimal in their presentation. Among them are, the systematics of teaching materials are not sequential in their delivery, the allocation of time used for learning is not sufficient in conveying all learning materials, so that teachers in some materials lack delivery. Completeness of instrument questions, answer keys/ scoring guidelines are not yet complete in accordance with the indicators and objectives to be achieved.

The results of the analysis on the 9th lesson plans stated that, overall the presentation of the lesson plans was good but there were several components that were not optimal in their presentation. Among them are, indicators of achievement of BC are not complete/ perfect because the indicators do not reach the desired aspects of BC.

Systematics of teaching materials are not sequential in the delivery of teachers during learning.

The results of the analysis on the 10th lesson plans stated that, overall the presentation of the lesson plans was good but there were several components that were not optimal in their presentation. Among them are, indicators of achievement of BC are not complete/ perfect because the indicators do not reach the desired aspects of BC. The allocation of time used for learning is not sufficient in conveying all learning materials, so that teachers in some materials lack delivery. Completeness of instrument questions, answer keys/ scoring guidelines are not yet complete in accordance with the indicators and objectives to be achieved.

Based on the observations that have been made, below is a recapitulation of the assessment of learning observations carried out 10 times, namely:

Tabel 3
Observation Assessment Recapitulation

No.	**Observation Part-**	**Activity Assessment Criteria**					**Ideal Score Assessment Results**
		VG	**G**	**E**	**NE**	**VL**	
1	1	-	5	9	2	1	60
2	2	1	4	10	2	-	64
3	3	1	4	10	2	-	64
4	4	1	6	8	2	-	67
5	5	1	6	8	2	-	67
6	6	1	8	7	1	-	70
7	7	1	9	7	-	-	73
8	8	1	11	5	-	-	75
9	9	2	12	3	-	-	79
10	10	3	14	-	-	-	83
Total							702

Formula:
Ideal Score Assessment = $\frac{702}{10}$ x 100 =70.20

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Observation Part-	10	1	10	5.50	3.028
Very good	10	0	3	1.20	.789
Good	10	4	14	7.90	3.510

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Enough	10	0	10	6.70	3.199
Poor	10	0	2	1.10	.994
Very poor	10	0	1	.10	.316
Ideal Score Evaluation Result	10	60	83	70.20	7.254
Valid N (listwise)	10				

Source : Personal Documents

From the data above, it can be concluded that the results of 70.20 enter the final value of 70, so that value is included in the sufficient criteria. In the table provided above, it can be seen that from the first lesson to the fifth learning, the ideal score listed explains the learning process that is still under criteria (<70), but in subsequent learning it shows a gradual and consistent increase in numbers/values. This proves that teachers are trying to maximize the learning process to be better than before. Increase in numbers/ values to achieve the best final result (>70) based on teacher evaluations every day for deficiencies that occur during the learning process on that day.

Based on 10 studies conducted by researchers through the observation method, the final results were 70 which were included in the sufficient criteria. This proves that the scientific approach in thematic learning carried out at Al-Zahra ES Indonesia, Pamulang is quite good. However, several things still hinder the learning process, causing a lack of student interest and creativity of the teacher in conveying the material during the learning process.

Teachers get several obstacles in applying the scientific approach in thematic learning, these obstacles are during the learning process is carried out. The teacher had difficulties with several groups of students who could not calm down and made the class atmosphere not conducive. In the planning, the teacher is quite mature and good but in practice the teacher does not seem to create a lively classroom atmosphere, in delivering the material the teacher does not involve students so that some of the material looks very monotonous and less attractive to students. The lack of a learning model that is applied by the teacher to the delivery of material is one of the problems in this case. Another obstacle is the many aspects of the assessment that the teacher must take for each lesson, reducing the time needed for learning. The teacher's efforts in this case are

the teachers assessing these aspects at the end of the lesson/ closing, both individual assessments and group assignments.

CONCLUSION

The conclusions that can be drawn from the results of research and discussion are as follows: Integrated thematic learning using a scientific approach in grade 2 Al-Zahra ES Indonesia is in a fairly good category obtained from 10 observations made by researchers with a value of 70.20 entering the final score of 70. Meanwhile, in the process of making lesson plans, it can be said that it is good, it is obtained from 10 times the data analysis of teacher lesson plans, with an average of 80.50. Based on the two variable indicators that have been obtained from the research results, the implementation of the scientific approach in thematic learning in grade 2 Al-Zahra ES Indonesia is in a fairly good category, with an average value of 75.25. However, there are some student activities during learning that the teacher has not been able to deal with. Sometimes students are reluctant to obey the teacher's orders in doing assignments and make noise so that it interferes with the concentration of other students, this is slightly reasonable by the teacher considering the age of the students who are still in the low class so that it requires more patience, patience and professionalism of the homeroom teacher.

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