

Device Development and Implementation of Thematic Learning Process to Improve Quality and Results of Learning in Primary School

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ABSTRACT

The purpose of this research is to produce learning tools that can maximize thematic learning in the classroom and to analyze the involvement of the teacher's role in terms of their competence and the role of students. This study uses a mixed methods model, a combination of qualitative and quantitative research. The developmental research uses the models of Borg & Gall, Dick & Carey, Carey, and ASSURE to produce quantitative data, whereas the qualitative research follows Miles & Huberman. The results of this study indicate that the development and implementation of thematic learning can improve learning process and outcomes in elementary school; this is confirmed through various tests ensuring the validity of the data. Further development and study can be done on schools with comparable characteristics.

Keywords: thematic learning, character, teaching materials, competence

1. INTRODUCTION

The purpose of education is to provide a series of structured learning experience [1] Education cannot be separated from a curriculum. Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 57 Year 2014 on Curriculum 2013 Elementary School / MI mentions that the curriculum in 2013 aimed to prepare the Indonesian people to have the ability to live as individuals and citizens who are people of faith, productive, creative, innovative, effective and able to contribute to society, nation, state, and world civilization.

Thematic learning in primary school started in the 2013/2014 school year. This year is the third year of the implementation of thematic learning. Field conditions are certainly very different from the government expectations in implementing the new policy. Based on field observations and interviews conducted at several elementary schools, including Paguyangan 2 Brebes Elementary School, Brawijaya Smart School of Malang, Kauman I Malang Elementary School, and 07 Salotungo Soppeng Elementary School, a discrepancy was found between the expected goals and the actual situation at the school. Based on observations some problems were identified, both from the teacher aspect and from the student aspect.

Problems found from the teacher aspect include: the use of textbooks emphasizing student learning outcomes in the cognitive domain, so that the learning process is not utilized, neither as a system for measuring students' performance, nor as a component assisting students in achieving the learning objectives. Learning in the classroom emphasizes developing student mastery of text book material, but minimizes the development of students' skills and attitudes. Teachers pay little consideration to the characteristics of the students in the classroom. Instead, conventional teaching methods prevail, which do not cater to individual students' abilities, and are fixated on the use of school textbooks. This certainly has an impact on students. Among the problems identified, we found that students were not given much opportunity to use other learning sources, creativity was not fostered through enjoyable and interactive learning media, textbooks are still used that do not fit the context of student life, and the teaching of moral values and character has not yet been integrated into the learning program.

In interviews with the principals of Paguyangan 2 Brebes Elementary School, it was found that the thematic learning in primary schools Paguyangan 2 Brebes vary in each class depending on the capabilities or competencies possessed by each classroom teacher. From the

observation of teaching in class IV and class V, the implementation of thematic learning in Paguyangan 2 Brebes Elementary School is still not following the provisions contained in the curriculum of 2013. This was shown by a variety of thematic learning activities that were not implemented properly, and the success of thematic learning depends on the ability possessed by the teacher.

Based on interviews and general discussions with the class IV and V teachers, teacher competence is closely related to the implementation of thematic learning in the classroom in elementary school Paguyangan 2 Brebes. This was confirmed by the difficulties of implementing the thematic learning expressed by the classroom teachers in a preliminary study interview. It became an interest of Sister Khofiatun to investigate the role of teacher competence in thematic learning in classes IV and V of Paguyangan 2 Brebes Elementary School with the thesis title "The Role of Teacher Competency in Learning Thematic in the 2013 Curriculum (Case Study on Teachers in Paguyangan 2 Brebes Elementary School)".

Based on observations in class IIIC of Brawijaya Smart School of Malang, it was found that the application of thematic learning must not be separated from the components of learning. These components include: (1) the role of teachers and students in thematic learning, (2) classroom management in thematic learning, (3) thematic learning strategies, and (4) steps of thematic learning. It became an interest to examine the phenomenon of thematic learning in class III of Brawijaya Smart School of Malang with the thesis title "Implementation of Thematic Learning in Class III of Brawijaya Smart School of Malang".

The achievement of learning program optimizing both effectiveness and efficiency must be supported by the use of technology-based learning media as a source of learning that is exciting, innovative, and interactive for students. However, such a program is yet minimally realized by teachers. The lack of teachers incorporating media considerations into thematic learning is an obstacle to implementing media to make thematic learning more attractive, innovative, and interactive. The considerations obtained from interviews with teachers of classroom IIA in Brawijaya Smart School include: (1) teachers tend to use a textbooks as both a medium and the source of practical exercises, as well as in evaluating students; (2) The amount of time required by the teacher to prepare technology-based learning; (3) the effort required for thematic learning is seen as excessive, so it was not possible to conduct technology-based learning particularly in thematic learning; (4) teachers are not used to using computer or projector facilities in thematic learning, technological facilities are only used for extracurricular activities, and (5) the teacher has never utilized and developed their learning-based technology because of the extreme demands of teaching and class administration that must be met.

This issue inspired Sister Unga Utami with the title "Development of Multimedia Presentations and LKS Electronics in Thematic Learning for Students in Grades IIA of Brawijaya Smart School (BSS) of Malang". Thematic learning is not only based on the student's environment, the attractiveness of the learning process and the use of interactive learning media. It also needs the support of a learning system that fosters the attitude and character of students by the purpose of education.

In 2013, the Ministry of Education and Culture explained about implementing the 2013 curriculum that the integrated thematic learning model (PTP) or integrated thematic instruction (ITI) was first developed in the early 1970s. Integrated thematic learning is believed to be a highly effective teaching model. It is based on the view that an integrated thematic learning can accommodate and touch upon the integrated emotional, physical, and academic dimensions of students.

Thematic learning is defined as learning that is designed based on a particular theme. The theme is meant an emerging theme of identification or a review of the various subjects [2], [3]. Connections or relations are made between subjects or disciplines, and then incorporated in a binding theme. Integrated learning is a learning approach involving several subjects to provide meaningful learning experiences for children [4]. Integrated learning is believed to be able to provide a learning experience that fits the needs of children or students. Thus, students are expected to be able to build their thoughts as wide as possible in exploring a concept or linking together previously learned concepts.

Based on the previous description, it can be concluded that the emergence of integrated thematic learning is based on the need for a meaningful and direct experience of students in learning. Thus, the integrated thematic learning should be a learning model that presents the themes closest to student life, is capable of being an alternative in the improvement of learning in particular, and the improvement of the curriculum in general.

2. LITERATURE REVIEW

a. Role of Teacher and Student Competency in Thematic Learning

Competence is defined as skill or aptitude. The Indonesian equivalent, competence, is defined as the authority (power) to determine (decide) something. If competence means aptitude or skill, then this means that is closely related to the possession of knowledge or skills as a teacher. Competence is a set of acts of intelligence that one is responsible to command as a condition to be considered capable of performing tasks in certain occupations [5]. Competence as a picture of the qualitative nature of teacher behavior which is considered most significant [6].

Based on the above, it can be concluded that competence is a person's ability to perform a task utilizing knowledge, education, skill, and experience,

while the definition of teacher competence is a coherent whole that illustrates the potential, knowledge, skills, and attitudes assessed, related to the said profession about the parts that can be actualized and realized in the form of action or the performance of their profession.

b. Multimedia Presentations and Electronic Worksheets in Thematic Learning

Multimedia presentations as being used to describe the materials used in the theoretical nature of classical learning, both for small and large groups [7]. This media is quite effective because it utilizes LCD projectors which have a large range of projection. Multimedia presentation software is designed to help a person in presenting the material for an activity. The use of multimedia presentations in today's digital era is important, not just as a tool for delivering the material, but also to enable the audience to understand the material presented.

The use of multimedia presentations is in line with the thematic learning theory of Neural Scientists) which suggests that: (1) the brain has an attention bias for high contrast and novelty; (2) 90% of the brain is the sensory input from the visual resources; and (3) the brain has a direct and primitive response to symbols, icons, and other simple images [8]. Visual information is an important key to recall content. Electronic worksheets in particular constitute a part of the electronic-device-based e-learning that utilizes technology and information. The elements of e-LKS consist of a computer, LCD projector, images, text, animation, video and all the electronic elements that can support learning. So, it can be concluded that the LKS Electronics is a sheet of non-print student activity that utilizes technology in its implementation.

c. Textbook Based on Local Culture

A textbook is one type of printed teaching materials for practical student use. In addition to its practicality, the textbook also makes it very easy for students to obtain information from the material presented therein. The textbook is a book that contains knowledge derived from the basic competence stated in the curriculum and used by students [2].

Etymologically, "wisdom" is understood as a person's ability to use his mind in a sense act or behave as a result of an assessment of things, objects, or events. "Local" specifically refers to the limited space of interaction with the system of limited value. As an interaction space that has been designed in such a way that it involves a relationship patterns between men or humans with their physical environment.

Local culture, often called "local wisdom," can be understood as one's ability to use one's intellect to act and behave towards objects, or events that occur in a given space [9]. Local culture is the system of local knowledge used by local people to survive in an environment that integrates with the system of beliefs and norms, and is expressed in the traditions and myths embraced in the long term. Text books as teaching materials can be

divided into two, namely major textbooks and supplementary textbooks [2].

d. Character Learning Integration Model in Thematic Learning

Thematic Learning is an object or a concept that is used to represent something. The term learning model that is encompasses a particular learning approach, including purpose, syntax, environment and management systems.

A learning model is said to be good if it meets the following criteria: (1) valid. It is said to satisfy the aspect of validity if the model was developed based on a strong theoretical rationale and contained internal consistency; (2) practical. The practicality aspect is that the model fits what experts and practitioners believe can be applied, and this is confirmed by reality; (3) effective. This aspect is based on the experience of experts and practitioners stating that the model is effective, and operationally the model provides results as expected.

The "group investigation" learning model is one type cooperative learning model. Cooperative learning is a broader concept covering all types of group work including more formats led by a teacher or directed by the teacher. Cooperative learning refers to a wide variety of teaching methods in which students work in small groups to help each other in learning the lesson material [10]. Learning in small groups with the principle of cooperative interaction takes place in a trusting, open and relaxed setting among group members providing students the opportunity to obtain feedback among students to develop the attitudes, values, morals and skills to be developed in learning. Based on the opinion of experts, it can be concluded that the model of cooperative learning type called group investigation is a cooperative learning model that involves students maximally in learning activities ranging from planning topics to be studied, how to carry out its investigations, to conducting group presentations and evaluations.

The values of character education draws its source from religion, the Pancasila, culture, and national education goals, namely: (1) religiosity; (2) honesty, (3) tolerance, (4) discipline, (5) hard work, (6) creativity, (7) independence, (8) democracy, (9) curiosity, (10) the national spirit, (11) love of the homeland, (12) achievement, (13) friendship / communicatively, (14) love of peace, (15) love of reading, (16) care for the environment, (17) social care, and (18) responsibility.

3. METHOD

This Research uses a qualitative approach and case study design. Qualitative education research, as with research in other social sciences, tends to be subjective or too much based on personal. The phenomenological design is science requires real experience. In this study, researchers describe a phenomenon or a thematic learning event in Class III of Brawijaya Smart School of Malang, Indonesia. Thematic Learning Tool Development using

research design development Borg and Gall. According to Borg and Gall which modifies and simplifies the Research and Development (R & D) approach in education consists of ten steps, namely: (1) research and information collecting, (2) planning (which includes the identification of skills, goal setting, determination of the order, and planning field trials beginning), (3) develop preliminary form or product, (4) preliminary field testing, (5) play product revision (revision of the results of field trials beginning), (6) main field testing, (7) operational product revision, (8) operational field testing, (9) the final product revision (by testing a wide scale), and (10) dissemination and implementation [11].

The steps of planning and development combine with the measures which includes the identification of the general purpose of learning, learning analysis, identification of behavioral feedback and student characteristics, formulating the goals of performance, developing learning strategies, developing specific tests, as well as selecting learning materials.

This research is qualitative and developmental. Qualitative research on the role of teacher competence in thematic learning in the curriculum in primary schools in 2013 was conducted at Paguyangan 2 Brebes Elementary School. Phenomenological study on the implementation of thematic learning was conducted in class III of Brawijaya Smart School of Malang. Device thematic learning by developing teaching materials was done in the form of textbooks based on local wisdom of Bugis-Makassar theme for students of class III Salotungo Kabupaten Soppeng Elementary School 07.

Research development of instructional media in the form of Power Point Interactive with research subjects was developed for students of grade II of Brawijaya Smart School. Learning model development of character education was developed for the first grade at Kauman I Elementary School. Qualitative research data collection used observation, interviews and documents. In development research data were collected through observation, validation, and questionnaires.

4. RESULTS AND DISCUSSION

Results of Character Education Model Development Based on Group Investigation in Thematic Learning in Class I of Kauman I Elementary School. Research and development on character education model development based on group investigation resulted in the conclusion that through thematic learning students can achieve learning goals effectively. Aside from that: (1) Based on the results of identification in the learning process by using model developed values of good character who appear in them; (2) Students attitude towards the implementation of thematic learning is described more thoroughly in the learning device book; (3) The use of thematic teaching materials made students become more active and more enthusiastic participating in learning activities; (4) The application of thematic

learning in first grade at Kauman I Elementary School fostered self-confidence in students; (5) Students can learn according to need with a sense of comfort and fun through thematic learning; (6) Implementation of thematic learning can be oriented around certain themes and used to bridge a variety of subjects to foster students' creativity; (7) The test result of the development of the character-based learning textbook with the theme "My School Environment" shows that this model has proven to be very effective and practical in achieving learning goals; (8) Learning model developed in this research produced findings that students at Kauman I Elementary School play an active role in constructing knowledge, they look to learn without stress through a series of games including group discussions, classical discussions, presentations and skipping rope; (9) Through thematic learning one can develop communicative character, friendship, love of reading, tolerance, democracy, respect for achievement, social care, responsibility, honesty, discipline, hard work, creativity, independence, curiosity, care for the environment, and religiosity; and (10) The analysis of the stages of learning models indicate that the stages of the scientific approach are realized through systematic thematic learning.

Research and development of the Thematic Textbook Based on Local Bugis-Makassar Wisdom for Third Grade Elementary School Students for everyday purposes produced the following findings: (1) The students actively participated either individually or in groups to construct knowledge. This was shown when students often raised their hands to answer or ask questions, participate in group discussion, present the results of work, and show enthusiasm for learning; (2) The students learn teamwork through group discussion, students express their opinions through small groups and respect the opinion of other members of the group; (3) The students learn character building with materials developed (building a culture of honor) especially those in charge of civic education materials; (4) The students easily understand the material because students learn from their immediate environment with things that are often encountered in daily life; (5) The students acquiring specific skills by trying to actualize the knowledge acquired during the learning activities; and (6) The students learn about self-reliance, courage and self-confidence through the history of local knowledge possessed by local area (through the history of the Soppeng district).

Multimedia presentation and electronic worksheets that have been revised and some of the findings in the research and development for the field can be summarized as follows: (1) The final product of this research is the development of CD Multimedia presentation and electronic worksheets Thematic Water, Earth and Sun equipped with RPP and instructions for use; (2) The results of the validation test by a product expert on multimedia presentations and electronic worksheets obtained the value of 72.5% with valid criteria. The

validation of the multimedia resulted in comments and suggestions in the form of systematic and consistent use of buttons, images and video drawing more attention and adapted to the living conditions, and the use of the letters that are tailored to the needs of second grade elementary school students; (3) The results of field trials include testing the practicality of achieving 93.65% with a practical criterion. The attractiveness of the products obtained results of 96.2% with interesting criteria. The effectiveness of the product obtained the result that there is a significant difference to the learning outcomes of students before and after using the multimedia product presentations and electronic worksheets. This is demonstrated by the results of pretest and posttest students; (4) Products of multimedia presentations and electronic worksheets allows teachers to deliver the focus material in thematic learning; and (5) Learning thematic may give a different impression to the students in an atmosphere of learning when accompanied by multimedia presentations and electronic worksheets.

Findings thematic learning in class III SD Brawijaya Smart School Malang regarding classroom management is the management of physical and nonphysical classroom. The impact of treatment of students to classroom management nonphysical include: (1) When the teacher gives an example (modeling), students can follow the direct instruction from the teacher; (2) When the teacher and the students do a deal classroom rules, students can become responsible, confident, and honest in the classroom; (3) When the teacher gives the opportunity to create a rule to play in the classroom, students are active in the field of opinion and creative thinking; (4) When the teacher gave the question by calling the name of the student, the student becomes ready to answer questions and to feel close to her teacher; (5) When the teacher tests that will be tested, students can prepare for the exam material and easily work on the problems being tested; (6) When the teacher to monitor the classroom, students have motivation in learning; (7) When that teachers instruct the rest of the time working on assignments, students use the time in doing; (8) When teachers provide reinforcement and reward, the students feel valued and to make a positive motivation in itself; (9) When the teacher gives feedback, students can find out his mistake and quickly be able to fix it; and (10) When teachers deliver the message at the end of learning, students become actively responding to questions and get learning as stock in everyday life.

The impact of treatment of students to the physical classroom management include: (1) If a classroom in thematic learning equipped with the means necessary, it can be used when learning takes place. Fans used by teachers and students when the atmosphere becomes hot. CCTV can be used by teachers to do monitoring from outside the class; (2) When the teacher in the classroom utilizing Mading can change the course of events thematic learning that students become active when responding to questions given by the teacher; (3) Setting ventilation

with adequate lighting, students become comfortable in their study, including the arrangement of light on the utilization of the LCD and the board; (4) If the teacher to make modifications varied seating, students become more familiar with his friends, doing group work with many friends; and (5) When doing outdoor learning, students actively in learning through play and can learn in practice.

Research findings show that the role of pedagogical competence of teachers in thematic learning in Paguyangan 2 Brebes Elementary School include the role of the teacher in the learning plan, the implementation of learning, assessment of learning, as well as the teacher's role in fostering students' engagement with learning.

The pedagogical competence of teachers in Paguyangan 2 Elementary School varied. This can be seen from the value of Teacher Competency Test (UKG). Teachers who have a high pedagogical competence have a high score on UKG primarily on pedagogical competence components. Teachers who have a low pedagogical competence tend to score low on the UKG primarily on pedagogical competence components.

The role of pedagogical competence of teachers on lesson necessitates that the RPP be used in his or her class. Teachers who have high pedagogical competence tend to develop lesson plans that will be used. This development still refers to the students' needs. This development follows the model to be used in teaching. Teachers who achieved low pedagogical competence tended to use RPP "as-is" without expanding it first.

The role of pedagogical competence of teachers in the implementation of learning can be seen in developing learning activities carried out in class. Teachers who have high pedagogical competence tend to carry out learning activities while paying attention to what props are used. The teacher's role in creating the scientific approach is also highly visible with a variety of learning activities that in doing it. Teachers who have low pedagogical competence tend to conduct conventional teaching in a one-way fashion. Teachers only deliver learning material while students listen.

The role of pedagogical competence of teachers on assessment of learning can be seen from how the teacher assesses the learning process. Teachers who have a high pedagogical competence tends to asses any learning process in doing it. Assessment process carried out for example when the student is being practice. Teachers who have a low pedagogical competence tends to skip the learning assessment and only assessing the cognitive domain alone, for example by doing replications.

Thematic learning is done in the classroom and outside the classroom fosters active students in their learning activities. Competent teachers tend to use instructional media such as videos during the learning. Students watch the video to foster students' activity is visual activities. Teachers who have high pedagogical competence tend to involve students in the learning process. Examples of direct practice with teacher

observation and demonstrate or present the results of practice can foster student's activity, namely in the motor activities and oral activities at once. After practicing students typically write reports in text form that can foster students' activeness in writing activities. Thematic learning undertaken by competent teachers will take students on a sense of excitement in the students themselves (emotional activities). Teachers who are less competent in the implementation of learning tend not to use the media in learning. Such teaching tends again to be one-way. Students are never involved in learning. Students also tend to be passive in learning because students do not feel challenged or want to know about new knowledge.

Teacher competence has resulted in findings that teachers who have good pedagogical competence tend to develop lesson plans that will be used [12]. Such material development takes into account the specific needs of the students. If there are students who have not completed the assignment, they created groups. The group division is done randomly by combining students who have not finished the task with the students who completed it. The teacher allows students to help each other and make friends while solving problems.

Planning helps allow for easier decisions about what and how to teach. The purpose of the lesson plan is the ability to make decisions about how and what to teach. This decision is based on three main considerations: (1) the student before he/she has had experience in the classroom, (2) the content originating from the curriculum guides, textbooks, study guides, and teacher materials are developed, and (3) the context or the condition of the learning will take place.

The application of the group-investigation-based character learning model resulted in the finding that through thematic learning, students can achieve learning goals effectively with the high percentage of attainment of the criteria of 90%. The development of thematic textbooks based on local wisdom produced findings that through thematic learning, students can achieve learning goals effectively. The effectiveness reaches the percentage that is equal to 92.5%, with very effective criteria. It shows that students can achieve the learning objectives effectively through thematic learning. The research of Utami [13] resulted in the finding that the learning outcomes of students achieve the expected goals based on the increase of the post-test from the pre-test. This shows the effectiveness of thematic learning using multimedia presentations and Electronic worksheets.

Thematic teaching materials that are used as a guide for students in conducting simple experiments in the classroom [13]. The teaching materials guide students in developing their ability with the help of the media that support. Teachers who have high pedagogical competence tend to carry out learning activities by utilizing props used. Teachers use the media to say that the teacher as a facilitator [14]. As a facilitator, a first step that can be used is to provoke the response of students in early

learning with the goal of teachers can identify students' learning needs. When teachers use the media, students become active and understand the teacher explained. For example, allow students to be creative, students can think creatively under his wishes, utilizing the existing wall magazine in the classroom, utilizing existing technology in the classroom by playing the video so that students become enthusiastic and able to take the story in the video message.

The use of the video can affect both in terms of cognitive, affective, psychomotor and interpersonal skills of students [15]. In terms of cognitive, students can observe the events in the video. In terms of effectiveness, playing videos in class can affect the attitudes of the students. In terms of motor skills, students can record quickly and be able to receive feedback from the teacher. The video also affects students' interpersonal skills. As students watch the video, students can analyze and then practice in their lives.

The book teacher and student books produced findings that the third-grade students of 07 Salotungo Elementary School can associate the knowledge acquired during the learning in everyday life. This is shown when the students mentioned examples of the materials under local wisdom contained in the student environment. Actualize the knowledge of students into things that are often encountered students automatically establish the significance of student learning.

Textbook development of Thematic-Based Local Wisdom produced findings that the third-grade students of 07 Salotungo Elementary School can learn with enthusiasm and not feel bored. This is shown when students often ask to answer questions. Besides, variations in learning activities make students feel given the opportunity to express opinions and explore the capabilities. Fun learning activity that allows students to be more open and to position themselves as learners should demonstrate their involvement during learning. Research Utami [13] resulted in the finding that the use of computer media as one of the facilities that support learning, making students more excited and not saturated with conventional learning. The existence of computers in thematic learning creates a learning environment that is not fixated on the monotony of the usual types of learning resources obtained from the print media alone. Students learn with curiosity higher again by learning while playing through the computer.

Thematic learning the ideal is a learning system that allows students either individually or in groups actively seek, explore and discover concepts / principles of science in a holistic, meaningful and authentic through the theme certain [16]. Evaluation during the learning process in each lesson is the key for teachers to see the success of learning. This assessment will provide input for teachers, things that are necessary for the improvement of future learning.

Teachers who have high pedagogical competence tends to assess on every lesson in doing it. Assessment

process carried out for example when the student is being practice. It can be said the role of the teacher in the learning is as evaluators. When teachers create questions varied students can think critically about the teacher. When the teacher gives a direct assessment, students become more aware of errors in the task. Evaluation in each lesson can be conducted by reflection.

Students at Kauman I Elementary School play an active role in constructing knowledge, they look to learn without a load through a series of games including group discussions, classical discussions, presentations and skipping rope. The use of books teachers and students in learning books thematic produced findings that students actively express their opinions through “Tudang Sipulung” (sitting down with members of the group to discuss the matter / issue contained in the book). Students also participated in any learning activities such as reciting a summary of fairy tales have been heard or when demonstrating the material fractions in front of class. Multimedia presentations and worksheets Electronics cultivate the curiosity of students to engage directly operate the computer. Students learn the material and answer exercises directly through the computer so that learning does not only see but students’ cognitive skills of students in using computers.

Teachers who have high pedagogical competence tend to involve students in the learning process, for example the practice of direct observation of teachers and demonstrate. When students are allowed to discuss students active in responding to questions, ask questions, group work, giving feedback and advice work friends, and communicating [14]. When students are allowed to solve the problem of active students do chores, take advantage of teaching materials. When students are allowed to think creatively students can be creative as he wishes. When performing outdoor active student learning in learning through play and can learn in practice. Thematic learning can develop communicatively, friendliness, love for reading, tolerance, democracy, respect for achievement, social care, responsibility, honesty, discipline, hard work, creativity, independence, a sense of curiosity, caring and a religious environment. The thematic textbook based on local wisdom is one way to introduce the culture of honors one of the Bugis community character values, such that students are better maintain the attitude and self-esteem as a civilized society. Thematic learning in a Brawijaya Smart School Malang teacher urged the students to throw garbage in the trash; the student’s responsibility may be accompanied by an attitude of honesty.

5. CONCLUSION

Based on the validation results obtained information that the model developed by the theory of the validity of the percentage of the product amounted to 90.5% with very valid category can be used so that it can be used. The questionnaire results obtained

implementation syntax percentage of 98.75%. As for the results obtained implementation models percentage of 96.04%. If both the percentage in the average, then obtained a percentage of 97.39%, with a very practical criterion. the feasibility of the product in the form of effectiveness derived from observation sheet student activities and student questionnaire responses after learning activities. Of both instrument information obtained percentage of student activity by 90%. And the percentage of student questionnaire responses result of 86.5%. If both results are averaged then obtained a percentage of 88.25%. With very effective criteria, so it can be used.

The validity of the developed Thematic Textbook Based on Local Bugis-Makassar Wisdom on Everyday Needs reached 94.25% with very valid criteria that can be used in learning. On an individual scale trials yield data, among other things an implementation percentage of 83%, the percentage of the benefit being 82%, 93% effectiveness. In small groups of scale trials yield data, among other implementation percentage of 86%, the percentage of the benefit by 85%, 94% effectiveness. The data obtained from the implementation of field trials to produce data, among other things implementation percentage at 93.5%, the percentage of the benefit of 91%, and 90.5% effectiveness.

The validity of the Multimedia Presentations and Thematic electronic product LKS Air, Earth, and the Sun obtained a percentage of 72.5%, meaning that multimedia product presentations and electronic worksheets on thematic learning Water, Earth, and the Sun qualifies as a valid or can be used with minor revisions. The level of practicality by teachers to achieve the percentage of 94.2%, while the percentage of students reaching 92.6%. If converted into a quantitative score that qualitative score criteria practicality of this product from the teachers included in the practical criteria. Further criteria for this product from the students included in the practical criteria. The level of attractiveness of the percentage of students reaching 96.1% by the criteria of attractive and usable. While the effectiveness of the products derived from the mean before using multimedia is 73 and the mean after using multimedia is 86.7. This shows that there is a significant difference to the learning outcomes of students after using multimedia products, so that the multimedia product presentations and thematic electronic LKS Air, Earth and Sun Earth categorized effective.

Based on Thematic Learning Implementation research we concluded that thematic learning in class III of Brawijaya Smart School in Malang is inseparable from the role of teachers and students, classroom management, and instructional strategies. The role of teachers in thematic learning that as a scaffolder, a transmitter of information, motivator, facilitator, and evaluator. While the role of students in thematic learning that students as recipients of information, follow discipline, active discussion, problem solving, and creative thinking. While other findings related to classroom management is the

management of physical and nonphysical classroom. For learning strategies concluded that there are two learning strategies were used that learning strategies direct and indirect learning strategies.

Teachers' Competency in the 2013 Curriculum concluded that: (1) the pedagogical competence of teachers in Paguyangan 2 Brebes Elementary School vary from one teacher to another. This can be seen from the results of the Teacher Competency Test (UKG) scored mainly on pedagogical components; (2) the role of pedagogical competence of teachers on lesson plans can be viewed through CSPs used in learning; (3) the role of pedagogical competence of teachers in the implementation of learning can see in the learning process in the initial activities, the core, and the final activity of learning; and (4) thematic learning is done in the classroom and outside the classroom fosters active students in their learning activities.

REFERENCES

- [1] E. A. de Kemp and D. J. Scott, "Compilation methodology for the North Baffin Partnership Project geoscience knowledge base." Natural Resources Canada/ESS/Scientific and Technical Publishing Services, 1999.
- [2] A. Prastowo, "Pengembangan bahan ajar tematik." Yogyakarta: Diva Press, 2013.
- [3] A. P. Putra, "Pengembangan multimedia interaktif pada pembelajaran tematik kelas V tema Sejarah Peradaban Indonesia," SKRIPSI Mhs. UM, 2019.
- [4] R. M. White, "How Thematic Teaching Can Transform History Instruction," Clear. House A J. Educ. Strateg. Issues Ideas, vol. 68, no. 3, pp. 160–162, Feb. 1995.
- [5] S. Thiagarajan, Instructional development for training teachers of exceptional children: A sourcebook, vol. 14, no. 1. 1976.
- [6] K. Soenarso and O. Usman, "The Effect of Intelligence Intellectual, Emotional Intelligence and Intelligence Spiritual on Attitudes Ethical S1 Accounting Universitas Negeri Jakarta," SSRN Electronic Journal. Elsevier BV, 2019.
- [7] S. Malik and A. Agarwal, "Use of Multimedia as a New Educational Technology Tool—A Study," Int. J. Inf. Educ. Technol., vol. 2, no. 5, pp. 468–471, 2012.
- [8] Y.-T. Chen, "The effect of thematic video-based instruction on learning and motivation in e-learning," Int. J. Phys. Sci., vol. 7, no. 6, pp. 957–965, 2012.
- [9] T. Supriyatno, "The Application of Peace Building Education Based on Local Wisdom in Malang Surya Buana Islamic Boarding School," IOP Conference Series: Earth and Environmental Science, vol. 175. IOP Publishing, p. 12162, 2018.
- [10] A. Prastowo, "Pemenuhan kebutuhan psikologis peserta didik SD/MI melalui pembelajaran tematik-terpadu," J. Pendidik. Sekol. Dasar Ahmad Dahlan, vol. 1, no. 1, pp. 1–13, 2014.
- [11] A. P. Putra, R. Rumiati, and A. R. Al Atok, "The development of interactive multimedia on thematic learning in grade V by the theme history of Indonesian Civilization," J. Soc. Sci. (COES&RJ-JSS); Vol 6, 2017.
- [12] K. Khofiatun and M. Ramli, "Peran Kompetensi Pedagogik Guru Dalam Pembelajaran Tematik Di Sekolah Dasar," J. Pendidik. Teor. Penelitian, dan Pengemb., vol. 1, no. 5, pp. 984–988, 2016.
- [13] U. Utari, "Pengembangan Buku Ajar Tematik Berbasis Kearifan Lokal Bugis-Makassar Untuk Siswa Kelas III Sekolah Dasar," DISERTASI dan TESIS Progr. Pascasarj. UM, 2016.
- [14] N. Isbadianingtyas, "Implementasi pembelajaran tematik di kelas III SD Brawijaya Smart School Kota Malang," SKRIPSI Mhs. UM, 2019.
- [15] S. E. Smaldino, D. L. Lowther, J. D. Russell, and C. Mims, "Instructional technology and media for learning," 2008.
- [16] S. Akbar, "Instrumen perangkat pembelajaran." Bandung: PT Remaja Rosdakarya, 2013.