The Development of Family 10 Learning Model to Improve Social Studies Outcomes for 5th Grade

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Abstract.
The family 10 learning model is a learning model designed based on active and fun team quiz-based cooperative learning. This study aims to describe the effectiveness of the Family 10 model to improving student learning outcomes in class V social studies content. This research is a research and development type carried out in Sampang District. The results of the study support that the Family 10 learning model can improve student learning outcomes based on the results of data analysis which shows a significant difference between the KKM (minimum completeness criteria) score and the value after the Family 10 model is applied.

Keywords: Learning model Class V Innovation Social Studies

1. INTRODUCTION

Social Sciences is a science that studies social activities and behavior in people’s lives (Supardan, 2008: 35). The learning model is also seen as an effort to bring authentic and meaningful learning to a theory (Pribadi, 2010:86). Semiawan (2008:113) explain the content of social studies related to the formation of good citizens and arranged in a blend of social science content with problems in society, in order to solve social problems through information and certain values. In order for the objectives in the content of social lessons to be achieved properly, it is necessary to use an appropriate learning model. Joyce, Weil & Calhoun (2009:318) explain that the relevant model in the delivery of social science material is learning that can present a social system that upholds democratic values in the classroom, while in fact the use of conventional learning models still dominates such as lectures, retell or summarize material that is not small.
Joyce, Weil & Calhoun (2009:30) explain that the learning model is a description of a learning environment that can reach all fields of education, from curriculum planning materials to instructional design materials including multimedia programs, while Eggen and Kauchak (2012:7) states that the learning model is a scientific approach to teaching, which has three main characteristics, namely: 1) designed to help students develop critical thinking skills and gain an in-depth understanding of specific forms of material, 2) includes a series of steps aimed at helping students achieve their goals. specific learning, and 3) supported by theories and research on learning and motivation. It can be concluded that the learning model is a framework that describes a systematic procedure in organizing learning experiences to achieve learning objectives based on learning theory and motivation theory.

Furthermore, Joyce, Weil & Calhoun (2009:31-45) grouped four members of the model that have an orientation on human attitudes and how they learn, namely: 1) the information processing model (the information processing family) explains how individuals give responses that come from their environment by organizing data, formulating problems, building concepts and problem-solving plans and using verbal and non-verbal symbols, 2) personal models, (the personal family) is a family of learning models that emphasize the process of developing a unique individual personality by looking at the world with its various perspectives, 3) the behavioral system family is built on the basis of a behavioral change theory framework, through this theory students are guided to be able to solve learning problems through the application of behavior in small and sequential quantities, and (4) social models (the social family) efforts to develop students’ abilities so that they can have the ability to relate to others as an effort to build a democratic student attitude by respecting every difference in social reality.

Joyce, Weil & Calhoun (2009:303) explain the process of achieving learning objectives by utilizing social interaction in the clump of social models explained that it can increase mastery of learning materials, foster a sense of responsibility, improve relationships between groups, and lead to better self-confidence. Sagala (2007:176) Emphasizing the social model on efforts to develop the ability of students to have interaction skills as an effort to build a democratic attitude and respect every difference in social reality. Some examples of learning models that are included in the scope of the social learning model group include: 1) cooperative learning, 2) group investigations, 3) role playing, 4) jigsaw, 5) social research. Then Joyce, Weil & Calhoun (2009:302) also explain that there are goals of social learning models, including: 1) synergy in cooperation will increase great motivation, 2) learn from each other, 3) create social complexity, 4) increase positive feelings among others, 5) increase self-esteem, 6)
increase student productivity, 7) improve the ability to work together. In this study, the learning model that will be developed is adaptive (adjusting) with the social model of group investigation (Joyce, Weil & Calhoun: 2009:323-324).

Facts on the ground show that social studies learning in elementary schools is currently not fully optimal and is not in accordance with the characteristics and objectives of social studies content. Based on initial observations at SDN Gunong Sekar I Sampang, it was found that the learning model used by the teacher in delivering the content of social science material was an information processing learning model with the lecture plus method, students were asked to read the text in the student’s book, then the teacher re-explained the material that had been read. In addition to the lecture plus method, the teacher also uses the question-and-answer method by asking students questions that are already in the book. The learning model used is not able to create a social and undemocratic system that will have an impact on students’ learning interest in participating in learning, Schunk, Pintrich & Meece (2008:511) states that undemocratic classroom conditions will have an impact on students’ low motivation to learn. Susanti (2019: 55) states that low learning motivation will result in a loss of student interest in learning, even worse, a decrease in student learning outcomes. Evidently, in the initial observations, students showed symptoms of low student motivation to study social studies, such as the condition of the class being easily crowded and it was difficult to control students to pay attention to learning.

Judging from previous research on the development of learning models. Rindiana, Arifin, & Wahyuningsih (2022) developing the RADEC learning model to improve higher order thinking skills in social studies learning has proven to be able to overcome problems in social learning through increasing students’ higher order thinking skills. Widyaningrum (2018) succeeded in developing an effective ethnosience-based learning model to improve the learning outcomes of elementary school students. Selanjutnya, Hapidin, Nurjannah, Hartati (2018) developing a project-based integrative thematic learning model resulted in a positive response to the implementation of marine learning in elementary schools. It can be concluded that with the innovation of the learning model it provides a new atmosphere in learning so as to increase motivation to student learning outcomes.

Based on the identified problems, research and development was carried out with the title "Family 10 model development to improve social studies learning outcomes for class V students.” The reason for choosing class V aged (11-12) years as research subjects is because at that age students have maximum memory. In line with Kartono’s opinion (2003:138) which reveals that children’s memory at the age of 10-14 years reaches the
highest and strongest intensity, children's memorization and memorization power is able to contain a lot of teaching material. Setiawati & Suparno (2010) explain that interaction with peers in children helps them learn values in society. In addition, Wiyani (2012: 72) also argues that early childhood learns and develops through the process of playing.

2. METHOD

This research is an educational Research & Development (R&D) research. Borg & Gall (1983: 772) explain that development research is a research process used to develop and validate products used in education, the product in question is not only in the form of material objects, such as textbooks, learning films, etc., but also includes for prepare procedures and processes, such as teaching methods and methods of organizing learning. Another opinion, according to Sugiyono (2011: 407) development research is research carried out to produce certain products using a needs analysis approach and testing its effectiveness so that it can be used widely. Setyosari (2016: 282) states that there are three development models, namely: 1) a conceptual model that is analytical or explains the components and interrelationships between components in the product to be developed, 2) the procedural model is a descriptive model and outlines the steps that must be followed. followed in producing a product, 3) the theoretical model shows the relationship of change between events.

Borg & Gall (1983:775) explain that the procedural model has 10 working steps, namely 1) Research and information collecting, is the first step consisting of needs analysis, literature research, literature, small scale, and various reports needed to support the implementation development research, 2) Planning, preparation of research plans, covering various components needed in research. Such as objectives, designs or steps, as well as the scope of research, 3) Develop Preliminary form of product, activities to determine product design to be developed, determine facilities and infrastructure, stage design testing in the field, and determine task descriptions of the parties involved, 4) Preliminary field testing, testing the product on a limited basis while conducting interviews, observations, and distributing questionnaires to determine the level of product feasibility, 5) Main product revision, implementing product revisions and improvements, 6) Main field testing, product testing to obtain an effective design, 7) Operational product revision, product improvement so that the product becomes more perfect, 8) Operational field testing, conducting extensive trials covering the effectiveness and adaptability of products and designs (Hamzah, 2019:57), 9) Final product revision, final product refinement which is being developed based on the results of large-scale trials.
needs of teachers and students of fifth grade elementary school in Sampang Regency. 

Planning 
Planned development of the Family 10 model. 

Early Product Development 
Components and structure of the Family 10 Learning model. 

Needs Analysis 
The needs of teachers and students of fifth grade elementary school in Sampang Regency. 

Figure 1: Framework. 

This study uses qualitative descriptive data analysis techniques and descriptive statistics. Qualitative descriptive techniques are used to process data from the results of input reviews, responses, criticisms, and suggestions for improvement of design experts, content experts, and model experts. Descriptive statistical analysis techniques were used to process the data obtained through questionnaires. The formula used to calculate quantitative data is as follows:

\[ \frac{\text{TSp}}{\text{TSm}} \times 100\% \]

Information:

\( \text{Va} \) = Percentage of validity by expert 
\( \text{TSm} \) = Maximum expected total score 
\( \text{TSp} \) = Total score of validation results

To determine the level of validity of design experts, content experts, and model experts, the criteria in Table 1 are used below.
The technique used to analyze student learning outcomes data is by using descriptive statistics to determine the average student understanding. Learning is considered successful if students reach the minimum completeness criteria (KKM), while classically it is considered complete if 80% of students succeed. To calculate the Guttman scale data use the formula in Figure ?? as follows.

\[
\text{Completed Learning} = \frac{\text{many students have completed}}{\text{total number of students}} \times 100\% 
\]

**Figure 3:** Classical Learning Mastery Formula. Source: Purwanto (2004:102).

### 3. RESULTS AND DISCUSSION

#### 3.1. Needs Analysis

The initial stage of research implementation is needs analysis by conducting field and literature studies. Based on the observations of the initial field study, it was found that there was a discrepancy in the learning model used with social studies learning in elementary schools. The model used by the teacher cannot bring up democratic classroom conditions, causing the acquisition of learning outcomes that are less than optimal. Based on the results of interviews with the homeroom teacher of class V, it was found that the biggest difficulty in learning social studies was encouraging students to understand a social fact, a concept to a broader understanding of meaning. In addition, the results of student interviews showed that most students quite liked social studies learning but found it difficult to remember various information in social studies content and a small number of students expressed dislike for the reason that social studies content was not interesting.

Various studies on the development of learning models prove that new innovations in learning models provide new nuances in the classroom so that they have a positive
impact on interest in learning to have a good influence on student learning outcomes. Based on the study of literature regarding the development of learning models, data were obtained that there was an improvement in learning outcomes by utilizing learning model innovations. Abidin, Mulyati, Yunansah (2017) developing a literacy learning model based on the concept of multiliteration, integration, and differentiation (MID) in elementary school contributes to improving students' writing skills. Hanum, Farida & Raharja, Setya (2013) developing multicultural learning model for social studies in elementary school give positive impact on the ease of understand the teaching material. Pratiwi (2015) developing a jigsaw role playing collaborative learning model succeeded in obtaining classical mastery on social studies content of 97.14%, which means it is effective in improving student learning outcomes.

3.2. Planning

Planning a product development draft for the Family 10 learning model by compiling the components of a learning model consisting of syntax, teacher roles, supporting factors, and social systems. Planning validation through validation instruments and questionnaires for learning content experts, learning design experts, and learning model experts. Planning the implementation of learning by preparing a learning implementation plan which includes KI, KD, learning details, class V social studies content, and evaluation. Designing a test instrument to measure the effectiveness of the Family 10 learning model.

3.3. Early Product Development

The initial product design is produced in the form of learning structure or syntax, social system, teacher role, and support system.

3.3.1. Syntax

The syntax of the learning model in the initial design is listed in Table 2 below.
### 3.3.2. Social System

The creation of interactive learning situations, so students need to be directed to work together in managing their groups and making questions that are in accordance with the material being studied.

### 3.3.3. Teacher Role

The role of the teacher in Family 10 as a facilitator and mentor during learning and providing group reflection at the following levels: 1) assisting students in growing self-confidence, honesty, supportive attitude, and trying hard to achieve goals, 2) teachers must motivate students to provide their best contribution to the group, 3) the teacher accepts all student responses and suggestions to provide appropriate and solution-based feedback.

### 3.4. Support System

The support system needed for the Family 10 learning model is quite easy to obtain and almost all schools have been facilitated. The availability of an internet network can support, facilitate, and be more efficient in obtaining a variety of social science learning materials.

### 3.5. Initial Field Trial

In the initial field trial step, product validation was carried out by three experts, namely design experts, content experts, and learning model experts to determine the level of validity of the products developed.
3.5.1. Learning Design Expert Assessment

The validation of the learning design experts was carried out with the aim of assessing the learning design with the Family 10 learning model as an innovation of the Social Sciences content learning model in class V. The design expert who assessed it was Mr. Drs. Imam Nawawi, M. Pd. Based on the results of data analysis, the total score of validation on the learning design aspect by design experts is 25 out of 28 total scores with 7 indicators. Referring to the Likert scale validity criteria table, namely 85-01% - 100% said to be very valid, then the percentage of design expert validity of 89.28% can be said to be "Very Valid" with test decisions can be used, with a note that it is necessary to add a study of development theory about Family 10 in the background section.

3.5.2. Content Expert Rating

Content validity was carried out to determine the level of validity of learning content by using the Family 10 learning model as an innovation for class V social studies content learning model by Ibu Putri Mahanani, M. Pd. Based on the results of data analysis, the total validation score on the aspect of learning content by content experts was 45 out of 52 maximum scores with 13 indicators. Then the percentage obtained is 86.53%. Referring to the Likert scale validity criteria table which is 85.01% - 100% said to be very valid, then the percentage of content expert validity of 86.53% can be said to be "Very Valid" with test decisions can be used, with notes that improvements include, 1) focus on the model learning in social studies by adjusting the objectives given the content of elementary social studies, 2) the competencies measured are still only in the cognitive realm, and 3) clarifying stages 2 and 3 regarding the provision of material.

3.5.3. Learning Model Expert Assessment

The validation of the learning model was carried out to determine the level of validity of the Family 10 learning model as an innovation of class V social studies content learning model. The expert on the learning model who assessed that was Mrs. Puri Selfi Cholifah, M. Pd. Based on the results of data analysis, the total score of validation by learning model experts is 36 out of 40 maximum scores with 10 indicators. Then the percentage obtained is 90%. Referring to the Likert scale validity criteria table which is 85.01% - 100% said to be very valid, then the percentage of expert model validity of 90% can
be said to be "Very Valid" with test decisions that can be used, with a note that there is a need for consideration in the aspects of the material being studied, evaluation, as well as the number of students who are not ideal in the learning model so that special characteristics are needed.

3.6. Test Result Revision

Several improvements were made based on the implementation of the initial field test. From the results of the revision obtained improvements to the syntax of the learning model listed in Table 3 below.

<table>
<thead>
<tr>
<th>Phase-Step</th>
<th>Step</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>Form a heterogeneous group of up to 10 people. (The teacher can adjust the number of each group according to the number of students in the class)</td>
</tr>
<tr>
<td>Second</td>
<td>Submission of rules &amp; learning flow</td>
</tr>
<tr>
<td>Third</td>
<td>Students explore social facts in the reading text.</td>
</tr>
<tr>
<td>Fourth</td>
<td>Students set strategies and exchange questions that have been formulated.</td>
</tr>
<tr>
<td>Fifth</td>
<td>Summing up scores and awarding prizes</td>
</tr>
<tr>
<td>Sixth</td>
<td>Memory exploration</td>
</tr>
</tbody>
</table>

3.7. Main Product Field Trial

Field trials of the main product were carried out on class V students of SDN Rongtengah 5 and class V-B SDN Gunong Sekar 1 with social studies learning content, then a written test was conducted on students to determine the effectiveness of the Family 10 learning model design on student learning outcomes.

The average learning scores of fifth grade students at Rongtengah 5 Elementary School and fifth grade students at Gunong Sekar 1 Elementary School are listed in Table 4 as follows.

<table>
<thead>
<tr>
<th>No.</th>
<th>School</th>
<th>Score (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>SDN Rongtengah 5</td>
<td>100</td>
</tr>
<tr>
<td>2.</td>
<td>SDN Gunong Sekar 1</td>
<td>90</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>95</td>
</tr>
</tbody>
</table>
The average learning outcome of the two schools in the main product field trial was 95%, so it can be concluded that the students in the two schools completed classically because the classical completeness percentage was >80% so it can be said that the Family 10 learning model was effective on student learning outcomes.

### 3.8. Product Revision

The product revision at this stage is carried out based on the data obtained at the main product field trial stage. Based on the data, the classical completeness of fifth graders at SDN Rongtengah 5 and fifth graders of SDN Gunong Sekar 1 is said to be classically complete because it is >80%, but each individual's score is still quite low. Several notes and revisions to the lesson plan were made to increase the value of each individual.

Revisions are made to the learning strategy by adding a review strategy or strengthening the material being discussed in each quiz session. In addition, there is an additional note where the teacher must provide feedback that motivates each student to successfully answer the questions.

### 3.9. Extensive Trial

A wide-scale trial was conducted on fifth grade students at SDN Polagan 4, SDN Rongtengah 1, SDN Rongtengah 4, SDN Dalpenang 1, and SDN Karang Dalem 1 with social studies learning content, then a written test was conducted to determine the improvement of student learning outcomes. The average score of fifth grade students' learning outcomes for the large-scale trial is listed in Table 5 as follows.

<table>
<thead>
<tr>
<th>No.</th>
<th>School</th>
<th>Score (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rongtengah 4</td>
<td>81.8</td>
</tr>
<tr>
<td>2.</td>
<td>Polagan 4</td>
<td>92.3</td>
</tr>
<tr>
<td>3.</td>
<td>Dalpenang 1</td>
<td>81.2</td>
</tr>
<tr>
<td>4.</td>
<td>Rongtengah 1</td>
<td>89.47</td>
</tr>
<tr>
<td>5.</td>
<td>Karangdalem 1</td>
<td>92.3</td>
</tr>
<tr>
<td></td>
<td><strong>Jumlah</strong></td>
<td><strong>87.4</strong></td>
</tr>
</tbody>
</table>

The average learning outcomes in the large-scale trial at SDN Rongtengah 4, SDN Polagan 4, SDN Dalpenang 1, SDN Rongtengah 1, and SDN Karangdalem 1 are 87.4%. It can be concluded that the students at the five schools completed classically because
the percentage of classical completeness was >80% so it can be said that the Family 10 learning model was effective on student learning outcomes.

3.10. Final Revision

The final revision was made to improve the product based on the data from the large-scale trial. Improvements were made to the teacher’s role in learning which aims to support the enthusiasm and confidence of students. The sharing is in the form of giving attention or attention. Surya (2014:40) suggests that attention is the concentration of mental activity on certain stimuli. In line with Surya’s opinion, Desmita (2006: 136) also explains that attention is the acceptance of a stimulus that is received at a time and ignores all stimuli except the stimulus that has been received.

In addition to improvements to the components of the teacher’s role in learning, adjustments were made to the syntax structure of the Family 10 learning model according to the data obtained in a large-scale trial. The results of adjusting the syntax structure of the Family 10 learning model after the revision are listed in Table 6 below.

<table>
<thead>
<tr>
<th>Phase</th>
<th>After Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>Form a heterogeneous group of up to 10 people. (The teacher can adjust the number of each group according to the number of students in the class)</td>
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<td>Second</td>
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</tr>
<tr>
<td>Sixth</td>
<td>Memory exploration</td>
</tr>
</tbody>
</table>

3.11. Desimination

Dissemination is carried out to report the products developed to the public. The dissemination was carried out through google meet with 7 participants of the dissemination seminar, including: 6 elementary school teachers, and 1 expert, namely Dr. Lidia Susanti, S.P., M.P. head of the Christian religious education high school (STIPAK) Malang as well as the author of books on learning strategies, evaluation of learning, learning motivation in online, onsite, and hybrid situations.

Based on the dissemination, several suggestions and comments were obtained about the product being developed.
1) Comment
   a) Train children's soft skills
      Mrs. Dr. Lidia Susanti, S.P., M.P. argues that the application of the Family 10 model helps students practice their children’s soft skills, namely practicing good social skills.
   b) Develop speaking skills
      Mrs. Dr. Lidia Susanti, S.P., M.P. explained that speaking skills and the courage to express opinions in Indonesian children are still minimal so that the advantages of the Family 10 model are said to be able to help train children’s courage to express their opinions.

2) Suggestion
   a) The need for logical reasons and explanations for product advantages.
   b) Clarify the use of the Family 10 learning model whether online, onsite, or hybrid.

4. CONCLUSION

Based on the results of research and development, it can be concluded that the Family 10 learning model is valid and meets the criteria well. The level of validity is based on (1) the design expert obtained a score of 89.28% which can be concluded that the Family 10 learning model is valid according to the design expert; (2) Content experts obtained a score of 86.53% which can be concluded that the Family 10 learning model is valid; (3) Learning model experts get a score of 90% so it can be said that the Family 10 learning model is valid. In addition, the effectiveness of the Family 10 learning model on learning outcomes shows a score of 95% in the main product field trial, and obtains a score of 87.4% on the results of a large-scale trial. So the data supports that the Family 10 learning model is effective on social studies learning outcomes for fifth grade students.

Future research can apply the learning model to thematic learning in elementary schools. In addition, future research can examine the effectiveness of attention on the teacher’s role in increasing students’ learning motivation.

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