Meta-Ethnography Modification of SFE Learning Model and Time-Token Learning Model

Nurhayati1, Dina Anika Marhayani2, Sumarli3, Buyung4, Lili Yanti5, Evinna Cinda H6, Zulfahita7, Dian Mayasari8, Ip Istirahayu9, Erdi Guna Utama10, Eka Murdani11, Haris Rosdianto12, Andi Mursidi13, Cathy S Lin14

STKIP Singkawang, Singkawang, Indonesia

1nurhayati@stkipsingkawang.ac.id, 2dinaanika89@gmail.com, 3sumarliphysics@gmail.com, 421.buyung@gmail.com, 5liliyanthiana18@gmail.com, 6evinnacinda@yahoo.com, 7zulfahita@yahoo.co.id, 8diansingkawang@gmail.com, 9iip_istirahayu@yahoo.com, 10erdigunautama@gmail.com, 11ekamurdani@gmail.com, 12Harisrosdianto@yahoo.com, 13andimursidi@hotmail.com, 14cathy@nuk.edu.tw

Abstract. This study aims to combine Student Facilitator and Explaining (SFE) learning method with Cooperative Learning Model of Time Token Type. The merger of these two methods of learning is based on the results of previous research. This research used a meta-ethnography method. Meta-ethnography is a technique used to develop new theories to complement existing theories. The unit of analysis in this research is written documents about student facilitator and explaining (SFE) learning model and cooperative learning model of a time-token type in the form of journal articles and research reports taken purposively based on their conformity with the research theme. The main instrument of this research is that a documentation guide assists the researcher itself. The data analysis used is a qualitative data analysis for the result data of narrative study to the researches encountered.

1. Introduction

In learning activities, teachers should be aware that everyone has an optimal and different way of learning and understanding new information, that students need to be taught other ways of standard learning methods they have experienced to maximize information they can understand in teaching and learning activities [1]. To achieve student learning outcomes in school maximum and adequate, required the creativity of teachers in carrying out the learning process. A teacher who has been running the learning process through the method/technique of lectures as the only source of material/subject matter for students needs to be creative and switch to using other forms of methods/techniques/teaching models [1]. Teachers must have the ability to develop models and develop subject matter. The development model and the subject matter can improve, simplify and accelerate understanding of the material presented by educators in the learning process. To that end, the need for a learning management strategy by an educator to realize the quality of human resources in students [2]. One of them is by doing knowledge management through the development of learning materials and models that can improve intelligence and good social attitudes in students [3][4].

Teachers should be able to apply various learning models that can be used as a reference or guidance for teachers in the teaching and learning process. One of them is the Student Facilitator and Explaining (SFE) learning model and cooperative learning model of Time Token type. SFE learning model is a learning model where students present ideas to other students [5]. Meanwhile, the cooperative learning model of Time Token type is a special activity that teaches skills, in which all members of the group are included [6].

Research on SFE learning model and cooperative learning model of Time Token type to maximize student learning outcomes in schools have been widely practiced. The results of the research have been
done to give different results in accordance with the purpose of each research. According to Cooper in [7], today most researchers feel unable to keep up with the progress of the research reports are very rapid except in the very narrow branch of science. Therefore, they are more dependent on the various summaries available.

The summary can be interpreted as an outcome summarizing or summarizing writing or discussion into a shorter description by proportional comparison between the sections summarized by its summary. Summaries can also be interpreted as the result of assembling or unifying the subject-matter or writing that emanated in the form of its major course. Summaries are often called summaries, which are the concise form of a description or conversation. In summary typewriting, the order of content is part by part, and the author's point of view is kept in mind and maintained. There are two methods developed today in making a summary of meta-analysis methods and meta-ethnography methods. Meta-analysis method is a form of a quantitative summary that examines the results of the study statistically. While the meta-ethnography method is a form of a qualitative summary.

Meta-ethnography is a technique used to develop new theories to complement existing theories. The meta-ethnographic approach consists of seven steps: preparation, finding relevant studies, reading and reviewing studies, defining relationships between studies, translating each other's studies, translational synthesis, and synthesis expressions [8], meta-ethnography makes it possible to take concepts that are often implicit in nature to be linked together and compiled into a model of new meaning. So, by doing this meta-ethnography, the researcher would like to get a general conclusion about the SFE learning model and cooperative learning model of Time token type. From the exposure that has been proposed, the researchers conducted a meta-ethnography journal about the implementation of SFE learning model, the cooperative learning model of Time token type, in the hope of becoming a complete reference.

2. Method
The method used by researchers is a systematic review with a qualitative approach that is meta-ethnography. A systematic review is a research method for identifying, evaluating and interpreting all relevant research outcomes related to specific research questions, specific topics, or phenomena of concern [9]. A systematic review is a synthesis of primary research studies that present a specific topic with clear and specific question formulations, explicit and reproducible search methods, involving critical review processes in the selection of studies, and communicating results and their implications [10]. Thus, a systematic review will be very useful for integrating relevant research results, so that the facts presented to policymakers are more comprehensive and balanced [8].
3. Results and Discussion

a. Modification Student Facilitator and Explaining Learning Model and Cooperative Learning Model

| Table 1. Overview Steps of SFE Learning Model and Cooperative Learning Model of Time Token Type |
|---------------------------------------------------------------|
| **No** | Author's Name | Steps |
|--------|---------------|-------|
| 1      | Hader [11]    | 1. Lecturer delivered the competence to be achieved;  
2. Lecturers present the material;  
3. Providing an opportunity for the public to explain or express ideas to other people either through other charts or concept maps;  
4. Lecturers conclude student ideas or ideas;  
5. The lecturer explains or summarizes all the material presented; and  
6. Closing. |
| 2      | Kustini [12]  | 1. A brief description of how to make a various cube and beam nets;  
2. Students show their work to be observed and discussed;  
3. Students present the results of their discussion;  
4. Other groups responded;  
5. Summing up the results of class discussions. |
| 3      | Muslim [13]   | Apperception, Exploration, Elaboration, and Confirmation |
| 4      | Hidayah, Syahrir [14] | 1. Teacher conveys the competence to be achieved, the  
2. Teacher demonstrates or presents the material outline,  
3. Gives students or participants the opportunity to explain to other participants for example through charts or concept maps and others,  
4. Master summarizes ideas or opinions from students,  
5. Master explains all the material presented at the time,  
6. Concluding. |
| 5      | Widyawati [15] | 1. At the beginning of the teacher convey the competence and outline of learning materials.  
2. Divide small groups of 4-6 students.  
3. In the learning of the teacher provides an opportunity for students to explain to other students.  
4. In the end, the teacher gives appreciation to students who become Student Facilitator and Explaining. |
| 6      | Saifuddin, Utomo [16] | 1. Teacher conveys the competence to be achieved.  
2. The teacher demonstrates or presents an outline of the learning material.  
3. Teachers give students the opportunity to explain to other students, for example through charts or concept maps. This can be done in turns or random.  
4. The teacher sums up the students' ideas or opinions.  
5. Master explained all the material presented at the time.  
6. Concluding. |
| 7      | Marjuki, Fitri [17] | 1. Conducting class to conduct discussion (cooperative learning).  
2. Each student is given a coupon talking with time ± 30 seconds.  
3. Each student is given a certain amount of value according to the time used.  
4. When finished speaking, the student's handed coupons.  
5. Each was speaking one coupon, a student who has exhausted his coupon should not talk anymore.  
6. Who still holds the coupon should talk until the coupon runs out, and so on. |
| 8      | Purnomo, Rahima, Muslim [18] | 1. The teacher explains the learning objectives.  
2. Teacher conditions the class to conduct the discussion.  
3. Teacher assigns the students. |
4. Teachers give some speaking coupons with approximately 30 seconds per coupon on each student.

5. Teacher asks the students to submit the coupon before talking or commenting. Each show speaks one coupon. Students can appear again after taking turns with other students. Students who have run out of coupons should not talk anymore. Students who still hold the coupon must speak until all the coupons run out.

6. Teachers give some values according to the time each student uses.

9 Wiyarsi [19]  
1. Distribute cards for all students.
2. Every time talking both in the group and classical cooperation must submit a card.
3. For students who have finished the card is not allowed to speak again.
4. So it is expected that all students will have balanced participation (participation) that result in understanding better.

10 Mauliza, Asiah [20]  
1. The teacher explains the learning objectives as well as how the steps of the cooperative learning model type Time token Arends.
2. Explain the material conventionally.
3. Divide the group; one group consists of 3-4 students.
4. Each student gets a talking coupon for 30 seconds.
5. So all the students in each group have an opportunity to talk and express their respective opinions about the material that has been delivered on that day.

11 Muhib [21]  
1. Submission of competence.
2. Group discussion Speech.
3. Distribution speech.
4. Presentation of material.
5. Assessment.
6. Presentation of competence.

Until now many SFE learning model and cooperative learning models of Time token type have been developed. However, the overall research results are still scattered in various journal articles, conferences or final project. Also, there is no agreement on the modification of SFE learning model steps and cooperative learning model of Time tokens type used. For example, Saifuddin, Sugeng, & Utomo (2015) have implemented SFE learning models with the steps of 1) the teacher conveys the competencies to be achieved; 2) the teacher demonstrates or presents the outlines of instructional materials; 3) the teacher gives the students the opportunity to explain to the other students; 4) the teacher sums up the student’s ideas or opinions; 5) the teacher explains all the material presented at the time, and 6) cover [16]. Research Widyawati (2016) with the steps: 1) At the beginning of the teacher conveys the competence and outline of learning materials; 2) divide small groups of 4-6 students; 3) teacher learning provides an opportunity for students to explain to other students; and 4) at the end of the teacher to give appreciation to students who become student facilitators and explaining. Both of these studies were conducted at different times [15].

If we dug deeper, there are some steps developed by Saifuddin, Sugeng, & Utomo (2015) and Widyawati (2016) there are similar steps and different steps. Once traced, there are still many other journal articles or conferences that have also implemented the SFE learning model. Therefore, the synthesis process can be done from several journal articles or conferences related to the SFE learning model.

In addition, Wiyarsi (2010) has implemented cooperative learning model of Time token type with the steps: 1) distributing cards for all students; 2) every time speaking both in group and classical cooperation must submit the card; 3) for the expired student the card is not allowed to speak anymore; 4) so it is expected that all students will have a balanced (participation) involvement which results in a better understanding [19]. Research Marjuki, Dewi, & Fitri (2015) with the steps: 1) condition class to
carry out discussion (cooperative learning); 2) each student is given a speaking voucher of approximately 30 seconds; 3) each student is assigned a number of values according to the time spent; 4) When you have finished speaking, the student-held coupons are handed over; 5) each speaking one coupon, the student who has exhausted the coupon should not speak any more; and 6) who still hold the coupon should talk until the coupon runs out, and so on. Both of these studies were conducted at different times [17].

If we dug deeper, there are some steps developed by Wiyarsi (2010) and Marjuki, Dewi, & Fitri (2015). There are similar steps and different steps. Once traced, it is still a lot of journal articles or other conferences that have also implemented a cooperative learning model of Time token type. Therefore, the synthesis process can be done from several journal articles or conferences related to the cooperative learning model of Time token type.

3.1 Synthesis Process: SFE Learning Model
The following synthesis process is in accordance with the Meta-ethnography step which can be described as follows:

a. Preparation
   The topic of this research is the SFE learning model.

b. Determine relevantly
   Studies relevant to the focus of this study are only those that are significantly related to the SFE learning model. All articles in this study were taken from various journal articles or conferences. But there are also other resources involved to enrich this research so that a larger explanation can be obtained from the various studies available.

c. Study Review
   At this stage, the researcher reads repeatedly and reviews the total of 6 existing studies, then the researcher gives and marks six steps obtained from 6 existing studies.

d. Determine Relationships between Studies
   Researchers also make a comparison between the steps applied. It can be said that the steps of the present study are directly comparable and there are many similar steps to each other thus the whole study is related.

e. Translate each other's Studies (translations)
   Consider an explanation of each step then synthesize into new steps.

f. Synthesis of Translational and Expressions of Synthesis
   At this stage, expression forms of the synthesis results have been made previously (Table 5).

There are several steps that can be taken when implementing the SFE learning model:

1. Teachers convey the competence to be achieved.
2. The teacher demonstrates or presents an outline of the learning materials
3. Teachers provide an opportunity for students to explain to other students, for example through charts or concept maps.
4. Teachers convey ideas or opinions from students.
5. Master explained all the material presented at the time.
6. Closing.

3.2 Synthesis Process: Cooperative Learning Model of Time Token Type
The following synthesis process is in accordance with the Meta-ethnography step which can be described as follows:

a. Preparation
   The topic of this research is the cooperative learning model of Time token type.

b. Determine relevantly
   Studies relevant to the focus of this study are only those that are significantly related to the cooperative learning model of Time token type. All articles in this study were taken from various journal articles or conferences. But there are also other resources involved to enrich this research so that a larger explanation can be obtained from the various studies available.

c. Study Review
   At this stage, the researcher reads repeatedly and reviews the total of 5 existing studies, then the researcher gives and marks seven steps obtained from 5 existing studies.
d. Determine Relationships between Studies
   Researchers also make a comparison between the steps applied. It can be said that the steps of
   the present study are directly comparable and there are many similar steps to each other thus
   the whole study is related.

e. Translate each other's Studies (translations)
   Consider an explanation of each step then synthesize into new steps.

f. Synthesis of Translational and Expressions of Synthesis
   At this stage, expression forms of the synthesis results have been made previously (Table 5).

Several steps can be done when applying cooperative learning model of Time Token type is:

1. The teacher explains the purpose of learning.
2. The teacher conditions the class for discussion.
3. The teacher gives some speaking coupons with approximately 30 seconds per coupon per
   student.
4. Every time talk has to submit a coupon.
5. Students who have run out of coupons should not talk anymore.
6. Students who still hold the coupon must speak until all the coupons run out.
7. The teacher gives the number of values according to the time spent.

3.3 Synthesis Process: Modified SFE Learning Model and Cooperative Learning Model of Time Token Type
The following synthesis process is in accordance with the Meta-ethnography step which can be
described as follows:

a. Preparation
   Topics of this research are the SFE learning model and cooperative learning model of Time
   token type.

b. Determine relevantly
   Studies relevant to the focus of this study are only those that are significantly related to the SFE
   learning model and the cooperative learning model of Time Token type. All articles in this
   study were taken from various journal articles or conferences. But there are also other resources
   involved to enrich this research so that a larger explanation can be obtained from the various
   studies available.

c. Study Review
   At this stage, the researcher reads repeatedly and reviews a total of 11 studies, then the
   researcher gives and marks 12 steps obtained from 12 existing studies.

d. Determine Relationships between Studies
   Researchers also perform comparisons and amalgamation among the steps applied. It can be
   said that the steps of the present study are directly comparable and there are many similar steps
   to each other thus the whole study is related.

e. Translate each other's Studies (translations)
   Consider an explanation of each step then synthesize into new steps.

f. Synthesis of Translational and Expressions of Synthesis
   At this stage, expression forms of the synthesis results have been made previously (Table 5).

Several modifications steps can be done when applying SFE learning model and cooperative learning
model of Time token type are:

1. Teachers convey the purpose/competence of learning to be achieved.
2. The teacher conditions the class to carry out the discussion.
3. The teacher demonstrates or presents an outline of the learning material.
4. The teacher gives some speaking coupons with approximately 30 seconds per coupon per
   student.
5. Teachers provide opportunities for students to explain to other students, for example through
   concept charts.
6. Every time talk must submit a coupon
7. Students who have exhausted the coupon should not talk anymore.
8. Students who still hold the coupon must speak until all the coupons run out.
9. The teacher summarizes the ideas/opinions of the students.
10. Master explained all the material presented at the time.
11. The teacher gives the number of values according to the time spent.
12. Closing.

4. Conclusion
Based on the analysis and discussion that has been done, it can be concluded:
1. SFE learning model can improve learning outcomes, mathematical understanding, learning activities, attitudes, spatial intelligence, problem-solving skills, and critical thinking skills, learning motivation, social interaction, and linguistic intelligence.
2. Cooperative learning model of Time Token type can improve learning outcomes, activities, understanding, communication, creative thinking, interests, and mathematical disposition.
3. Modification steps SFE learning model and cooperative learning model of Time token type:
   a. Teachers convey the purpose/competence of learning to be achieved.
   b. The teacher conditions the class to carry out the discussion.
   c. The teacher demonstrates or presents an outline of the learning material.
   d. The teacher gives some speaking coupons with approximately 30 seconds per coupon per student.
   e. Teachers provide opportunities for students to explain to other students, for example through concept charts.
   f. Every time talk must submit a coupon
   g. Students who have exhausted the coupon should not talk anymore.
   h. Students who still hold the coupon must speak until all the coupons run out.
   i. The teacher summarizes the ideas/opinions of the students.
   j. Master explained all the material presented at the time.
   k. The teacher gives the number of values according to the time spent.

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