CHAPTER III

RESEARCH METHODOLOGY

This chapter discusses about the research methodology, research settings, research procedures, the method of data collection and research instruments, indicators and data analysis.

3.1 Research Methodology

The methodology that used on this research was the Classroom Action Research. Some people gave their thoughts about classroom action research.

Action research is a form of self–reflective inquiry undertaken by participants in social (including educational) situations in order to improve the rationality and justice of (a) their own social or educational practices, (b) their understanding of these practice, and (c) the situation in which these practices are carried out. (Kemmis, 1983 as cited in Hopkins, 2008, p. 48)

Mills added that "Teacher seeks to research problems in their own classroom so that they can improve their student's learning and their own professional performance" (2011, p. 579). Trianto said that in classroom action research, the teacher take the important role as she involve in plan, action, observation and reflection (2011). Based on this, classroom action research is a self-reflective inquiry by the teacher as the important role on the research. The researcher do the research on the problems in the classroom so they can improve the student's learning as the researcher is involve in the plan, action, observation and reflection of the research.
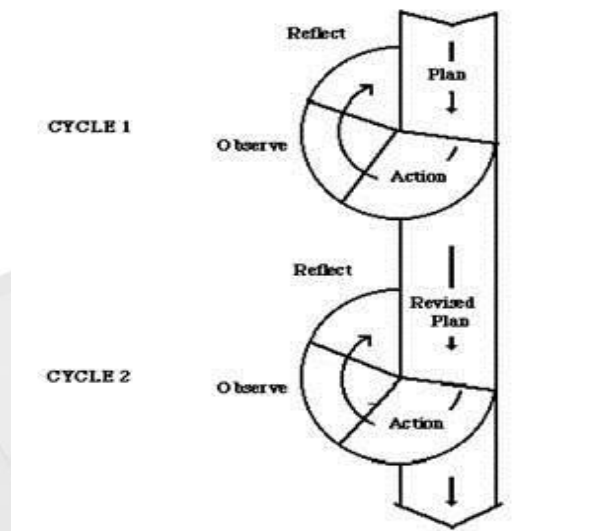
Figure 3. 1 The spiral model by Kemmis and Mc Taggart

The researcher used the models of action research that is Spiral Model by Kemmis and Mc Taggart, which include 4 steps in one cycle: Planning, Action, Observation and Reflection. The planning is the part on which the researcher planned the action and instrument needed. Action was the implementation of the plan that has been established before. The observation was part when the researcher looked through all things that happened on action and saw how the plan went using the instruments. In reflection part, the researcher thought through plan, action and observation steps and reflected on strength and weaknesses on the action based on observation result and thought the improvement plan next cycles.

Jensen and Laurie (2016, p. 16) gave thoughts about when the cycle should be stopped. "The decision about when to stop this cycle is usually a practical one based on available time and resources, or when a satisfactory 'action' result has been achieved." On this research, the researcher continued the cycle from cycle 1 to cycle 2 because of the researcher wanted to improve students who did positive behavior more. But the researcher needed to stop in cycle 2 because of the limitation of the time.

3.2   Research Setting

3.2.1   Subject

The subjects for this research were five students from one 2nd grade class in one private Christian school in Jakarta. This class consisted of 20 students (13 boys and 7 girls). This class had many different students from many other countries. On this research, the researcher already had a discussion to limit this research and took these 5 boys as the research subjects. This happened because the limitation of the observation to be done with all students in the classroom. The mentor teacher agreed with this.

The first student to be observed was S1. S1 told the researcher that he had imaginery world in his mind so he was not able to focus and concentrate on his task. Based on the observation, S1 rarely raised his hand. He was not able to keep his hand to himself. He needed attention especially to sit properly on the chair because sometimes he moved his leg up on the chair.

S2 was the only son in the family which made him have confidence to control over his friends and the mentor teacher directed him to be in the positive ways to control their friends. In the classroom, he was very active and sometimes he got influenced by his friends or he influenced his friends to play. Therefore he stuggled to keep his hands to himself and to sit properly on the chair. He showed that he raised his hands well and he worked on the task well.

Some concern for S3 was because he might have ADD (or attention deficit disorder) because he easily got distracted when he was working worked and he heard or saw something. Sometimes S3 had hard time to keep his hands to himself and sit properly on his chair because he likes to stand while he worked

and he did not keep effort on the task given because he likes to move around the classroom. He demonstrated that he was able to raise his hands before speaking.

Based on the observation S4 had a problem to keep effort in the task given because sometimes he was having hard time to focus. He had trouble to keep his hands to himself because he liked to play with his friends and he got distracted because of it. The problem was also in sitting on the chair because sometimes he sat lazily on his chair. He was a very critical student who always raised his hands especially on the science lessons and this was good for him.

Based on the observation, S5 was very strong personality student and he had the potential to control over his friends. He also had some special needs. Therefore, it was difficult for him to keep his hands to himself, and when he was surprised or attracted with something, sometimes he usually called out to say what he had in his mind. Sometimes, he sat lazily on his seat and was not able to sit properly. Most of the time he showed that he was the fastest to finish his task, but when he had friends to played with, he was distracted and did not focus to keep effort on the task

3.2.2   Place

This research was done in one of the private Christian school in West Jakarta in which the Vision and Mission was in accordance with the Christian belief that they carried to be given and taught to the students.

In the 2nd grade classroom on which the researcher did the classroom action research, the researcher found that the classroom was very tidy and all was supportive to student learning. The classroom also had some carpets, desk and chair which were arranged to help the students to have the ability to learn at the

maximum. There were high quality children books to help the student learning and increase their reading and English ability and some pillows in reading corner.

The learning time usually took place on the carpet which enabled the students to listen to the teacher explanation and saw the boards clearly. There was a laptop, a projector and a camera to support learning processes. On working time for the worksheet or test, sometimes the student worked on their desk.

3.2.3 Time

Table 3. 1

Time allocation on the research

Dates	Research Activity
August 1st – October 20th, 2016	Observation in the classroom
September 1st – October 20th, 2016	Discussed and Planned about independent variables.
	Made and Validated Instruments and
	Planned for Cycle 1
October 21st – October 28th, 2016	Cycle 1 (Day 1 – Day 3)
	(Planning, Action, Observation, Reflection)
October 29th – October 31st, 2016	Reflection on Cycle 1
	Planned for Cycle 2
November 1st, 2016	Cycle 2 (Day 1 – Day 2)
	(Planning, Action, Observation, Reflection)
November 2nd – March 10th, 2016	Made report

3.3 Methods of Data Collection

The researcher used several methods of data collection to collect the data. There were observation, checklist, reflection, anecdotal notes and documentation.

3.3.1 Observation

This method involves collecting data by "observing observable phenomena" (Pawar, 2004, p. 17). Sugiyono (2007, p.203) added that "The data collection method using observation use if the data is related with the behavior of

human or natural phenomena and the observed respondent is not big." Grady (1988, as cited in Putman and Rock, 2017) said that observation is "Looking with a purpose." Therefore the method of the observation is observing the phenomena and could relate to the human behavior with the small respondent and has purpose inside of it.

Pawar said that the advantage of observation is to help the researcher in the natural setting to take some rich and insightful data (2004). The disadvantages are "Some the important limitations are subjectivity, lack of generality, selectivity, interpretation and bias" (2004, p. 18). Therefore the researcher gets the richful data on observation, but it has limitation of subjectivity and lack of generality.

3.3.1.1   Structured observation

Pawar said in structured observation, the plan is systematically made and the observation categories have been defined before (2004). Sapsford and Jupp (2006, p. 62) said that "It is also possible to establish the reliability of more structured techniques by for example comparing data from two researchers observing the same behavior." Then in the structured observation, the plan was systematically made and there are observation categories. Then the reliability can be established using the structured techniques.

3.3.1.2   Non - Participant Observation

Sugiyono said that the researchers who take role as independent observer and not involve in the research are called the non-participant observer (2007). Then the non-participant observer is not involved in the research. Then in this research, the researcher used structured observation with non-participant observer.

3.3.2   Checklist

"Checklist is a list or table that includes the things that will be observed with the column that can be used to check whether or not something happen or not happen" (Suparno, 2008, p. 48). Fraenkel and Warren said that the performance checklist have the list of behaviors from certain type of performance. The observer give checkmark only if the student performs the certain behaviors (2008). Therefore the performance checklist has list of behaviors that will be given checkmark once the observer saw the students did the behavior. The researcher decided to use checklist as both instruments for the reinforcement and positive behavior, especially the checklist observation.

3.3.3   Researcher Reflection

Suparno said that all of the researcher notes in the field are the files notes which have the things the researcher have been heard or seen (2008). Elliot (1991 as cited in Wiriaatmadja, 2009, p. 123) said that "The content of it could be the personal notes about the observation, feelings, response, interpretation, reflection, hunch, hypothesis, and explanation." Suparno said that researcher reflection is the combination of what was observed and thoughts of the researcher (2008). Therefore the researcher reflection was one of the field notes to write the observation in the teaching and the reflection. It also contained about the observation feelings, explanation and interpretation and thoughts

3.3.4 Anecdotal Notes

Castle (2012, p. 18) said that "Anecdotal notes are commonly used by teachers to help in making written profiles of individual children for reflection on what they might need next to advance their learning." Phillips and Carr said that

this can be done in busy classroom and the data collection is effective when it concern about the specific student (2014). Then the anecdotal notes is commonly used by the teacher in busy classroom to make the written profiles of the student to advance student learning and effective to collect data for specific students. The researcher used this as the instruments for positive behavior.

3.4 Instrument of Data Collection

The dependent variable is the things that we want to see changed and the independent variable is the things we do to affect the change (Sagor, 2005). Then the researcher differed the instrument to measure the independent variable that is the reinforcement and dependent variable that is the positive behavior.

3.4.1 Mentor Checklist Sheet

In the mentor checklist sheet, the researcher tried to combine the structured observation and checklist.

3.4.1.1 For Reinforcement

The researcher used the indicator on reinforcement and made the statements to measure the indicator. When the researcher did the statement during action time, the observer checked the column. The checklist sheet contained the statements to measure indicator and the checklist box is the implementation of structured observation.

3.4.1.2 For Positive Behavior

The researcher used the indicator on the positive behavior and left a blank box on each student for each specific behavior. The observers recorded the effect of the reinforcement to the student as they put tally mark on the box based on the reaction of the students after the reinforcement given.

3.4.2   Researcher Reflection

The researcher made the reflection based on what the researcher observed in the teaching process and the experience of the students. This included the activity, interpretation and explanation about the things happened and the researcher feelings. The researcher wrote this at the end of each day after teaching.

3.4.3   Anecdotal Notes

The researcher made the anecdotal notes in each day of cycle, for specific students on four indicators of positive behavior and about how the students do the positive behavior on that day.

3.5 Indicator and Instruments

Table 3. 2

Summary of all indicators and instruments

Aspects	Indicators	Instruments	Question number
Reinforcement	1. The teacher demonstrates expected positive behavior to the students together with the consequences (following their actions).	Mentor Feedback Sheet Researcher Reflection	1
	2. Reinforcement given in balance amounts.	Mentor Feedback Sheet Researcher Reflection	2A 2B 3
	3. The reinforcement consistently given right after the behavior happens	Mentor Feedback Sheet Researcher Reflection	4A 4B 4C 4D 4E 4F

	4. Variety of Reinforcement.	Mentor Feedback	4A
		Sheet	4B
		Researcher	4C
		Reflection	4D
			4E
			4F
	5. Recognizing Positive Behavior.	Mentor Feedback	5A
		Sheet	5B
		Researcher	5C
		Reflection	5D
Positive Behavior	1. Keep the hands and feet to yourself	Mentor Observation Sheet Researcher Reflection and Anecdotal Notes	1
	2. The student will raise their hand if they have questions of thoughts.	Mentor Observation Sheet Researcher Reflection and Anecdotal Notes	2
	3. Sit properly and keep on seated during the classroom.	Mentor Observation Sheet Researcher Reflection and Anecdotal Notes	3
	4. Keep effort on the task given	Mentor Observation Sheet Researcher Reflection and Anecdotal Notes	4

Table 3. 3

Grades conversion for the standard

Grades Conversion	Category	Meaning
81-100	A	Very good
61-80	B	Good
41-60	C	Good Enough
21-40	D	Less Good
0-20	E	Not Good

Source: Tampubolon (2014, p. 55)

On this research, the researcher used the standard for positive behavior based on Tampubolon (2014, p. 55) who said that "Indicator for the success in fixing the student behavior (for example motivation to learn) minimal 'Good'. Therefore based on this grades conversion that was able to be used to measure the success in the student behavior, the researcher used this guide and had the standard for this research in 61% - 80% which the conversion was 'good'.

3.6 Data Triangulation and Validation

Sugiyono (2007, p. 173) said that "Valid means the instrument that used to measure it can measure the things that need to be measured" when Sagor (2005, p. 93) said that "Validity refers to whether the data actually reflect the phenomena they claim to." Therefore the validity of the instrument can be seen when it valid to measure the things that need to be measure so it reflect the phenomena. Sugiyono (2007, p. 173) said "Instrument that is reliable is the instrument that if it use for several times to measure the same object, will produce the same data." Sagor (2005, p. 93) said that "Reliability refers to the accuracy of data." Therefore the instrument that reliable is the accurate instrument that produce the same data if use several times to measure the same object.

Sugiyono said that the data strength increase using the triangulation as it compared to the only single approach that used (2007). While Sagor called triangulation was the attempt to corroborate the evidence in order to create the validity and reliability (2005) There is source triangulation that Sugiyono (2007, p. 331) means "is to get the data from different source with the same technique." Therefore triangulation is the attempt in corroborating evidence that from different point of view that create the more valid and reliable data. The source

triangulation is when the data taken from different source but the technique are the same.

The researcher used triangulation by source (to get data from different point of view) for this research. For the reinforcement, the researcher used the observation from the mentor teacher and the researcher herself as the other observer and researcher's reflection. For the positive behavior, the researcher used the observation from the mentor teacher and the researcher herself as the other observer and combination of researcher's reflection and anecdotal notes.

3.7   Research Procedure

3.7.1   Precycle

The researcher observed students since the researcher taught several subjects on August, 20th 2016 until October 20th 2016. The researcher found problems that was students could not conduct themselves positively in the classroom. The researcher talked to the mentor teacher about this problem. She agreed and allowed the researcher to do classroom action research. The mentor teacher supported the researcher to implement reinforcement. The independent variable is reinforcement and the dependent variable is positive behavior.

The researcher discussed with the thesis supervisor, mentor teacher and one teacher in school about how long will be counted as a cycle and agreed that the behavior was not one thing that can be observed only for a day or a short amount of time and the dependent variable on this research is positive behavior, therefore one cycle was counted in three days of implementation of reinforcement to increase student positive behavior. This research had two cycles so it could be better to see the result.

3.7.2   Classroom Action Research Steps

3.7.2.1   Plan

On planning, the researcher planned the reinforcement program along with the instruments for the observer, circle chart and behavior chart with the green circles and red circles. The researcher printed the instruments for positve behavior and had four positive behaviors to be observed.

3.7.2.2   Action

On action part, the researcher implemented the plan and gave reinforcement according to student behavior. On cycle 1, the researcher did all reinforcement, but on cycle 2, the students involved in reinforcement program.

3.7.2.3   Observation

On observation, the observer recorded what happened in each cycle used the instruments that given for both variables. The researcher also made reflection for both variable and anecdotal notes for positive behavior.

3.7.2.4   Reflection

On the reflection part, the researcher gathered data from the observation, researcher's reflection and anecdotal notes and tried to see the strengths and the weaknesses from each cycle and made the improvement plan.

3.8   Data Analysis

Miles and Huberman (1984 in Sugiyono, 2007, p. 337) stated that "Activity in data analysis is data reduction, data display and conclusion drawing / clarification." Therefore the researcher used this three steps to analyze the datas on this research with the addition to make codes of the datas before displaying them.

3.8.1 Data Reduction

Sugiyono (2007, p. 338) said that "Data reduction means gather, find the main things, focus on the important parts, find the theme and pattern, discard the unnecessary." For data reduction, the researcher gathered the datas from different instruments, found the main and important part, made a pattern and category based on important findings and discarded the unnecessary part.

3.8.2 Coding Process

Wiriaatmadja (2009, p.140) said that "Code is or symbol that is used to classify some words, a sentences or an alinea from field notes that already typed so it will make easy for the people who read it." Therefore on this research, the researcher used coding to make people easier to read the data.

3.8.3 Data Display

Miles and Huberman (1984 in Sugiyono, 2007, p 341) said that "Looking at displays helps us to understand what happened and to do something further analysis or caution on that understanding." Sugiyono said that the researcher can display the data using graph, matrix chart or network instead of the narrative text (2007). For data reduction and coding, the researcher used graph or text to display data and did the further analysis based on the understanding from the data display.

3.8.4 Conclusion and Clarification

On the conclusion, the researcher concluded all the result after display the data and gave some clarification if there were some thing that the researcher needed to clarify.