bhavior charts can be used towards mental issues that usually is the cause of behavior difficulties.

Bacon (2011) stated that if we want to help a child change his direction, we must understand what makes him move. Unless we are aware of what is in back of his behavior, we have little chance to change it. We can only encourage him to behave differently by changing his motivation. Failure indicates a lack of skill and does not affect the value of the person. We need to separate the deed from the doer (Bacon, 2011). According to the Journal of Positive Behavior Intervention Plan and The Effects on Student Behavior by Conley (2013), using behavior charts can help students to be more aware of their own behavior, therefor preventing the students to show disruptive and impulsive behavior.

Both teachers and students will enjoy a classroom that is less in distractions and disruptions during the teaching and learning process. No matter how well a learning activity is designed and prepared, if the students do not observe discipline, the learning objective will not be met. Moelichatoen (1993 as cited in Bafadal, 2004, p. 37) said that students' discipline is the most important factor that determines the success of education. Changing behavior is not just a quick fix; it should be an opportunity to help students see their behavior for what it is and to find proper ways to satisfy the need (Tileston, 2004).

CHAPTER III

RESEARCH METHODOLOGY

This chapter discusses about the method used for the research, the subjects, location, and time allocation of the research, the procedures carried during the research, the method of data collection and research instruments used for the research, and the analysis of the research data.

3.2 Research Methodology

Professionals and practitioners have been conducting research to discover findings that is not only beneficial, but also fascinating. Conducting research will either produce new findings or prove old findings with reliable and valid collected data (Johnson & Christensen, 2014). There are various kinds of research methods that can be carried out in the field of education. In regards to the arousing problem found in the classroom where the research took place, this research was conducted using the *action research* method.

Action research, also called *classroom action research*, is focused on solving specific problems that local practitioners face in their schools and communities (Stringer, 2013). First introduced in 1946 by Kurt Lewin, an American psychologist whose ideas were developed by Stephen Kemmis and Robin Taigan (Aqib, 2009), this method of research is conducted, not to generalize the result of the research but, to seek a solution for a specific classroom or school community (Fraenkel & Wallen, 2008). Mills (2011) described action research as systematic inquiry conducted by teachers, administrators, counselors, or others with given interest in the teaching and learning process for the purpose of gathering information about how their particular schools operate, how they teach, and how their students learn. Craig A. Mertler (2017) mentioned that classroom action

research is considered as a research done by teachers for their convenience and the improvement of their teaching. Many practitioners find action research helpful because it helps them to integrate theory and research with practice.

Fraenkel and Wallen (2008, p. 590) stated some of the following basic norms of action research:

a. Those involved, either singly or in groups, are informed individuals who are capable of identifying problems that need to be solved and of determining how to go about solving them.

b. Those involved are seriously committed to improving their performance and want continuously and systematically to reflect on such performance.

c. Teachers and others involved in the schools want to engage in research systematically – to identify problems, decide on investigative procedures, determine data collection techniques, analyze and interpret data, and develop plans of action to deal with problems.

d. Those intending to carry out the research have the authority to undertake the necessary procedures and implement recommendations.

Harro Van Brummelen (2009) emphasized that a Christian teacher must be reflective. Christian teachers must know how to analyze problems in their class and find and apply related treatments for the problems. Action research is a research method which mainly aims to find solution in order to minimize the problem in a particular classroom or school (Fraenkel & Wallen, 2008). Conducting an action research is in line with the reflective nature of being a Christian teacher.

This research uses the classroom action research model of Kemmis and McTaggart. In this cyclic model of classroom action research, each cycle goes through four phases, namely: planning, action, observation, and reflection (Kemmis & McTaggart, as cited in Burns, 2010). Each phase is described as below:

a. Planning

This phase is where the investigation of the problem is done. The solution for the problem is proposed and the action plan for its implementation is done in this phase. The planning stage focuses on what actions to be taken solve the problem—describing the independent variable.

b. Action

This phase is the implementation of the presumed solution proposed to solve the problem found during the investigation on the previous phase. In the action stage, all that have been planned are implemented in the teaching-learning process.

c. Observation

This phase is the systematic process of gathering, recording, and/or collecting data results of the action phase. The data must contain detailed information about the implementation of the action as well as information of how the solution affected the problem. In the observation stage, all changes occurrence about the dependent variable—variable that is going to be increased—are measured using research instruments.

d. Reflection

This phase is where the researcher analyzes the observation results. Whether or not the action taken has succeeded in tackling the problem is evaluated in this stage. Any weaknesses found should be solved immediately before moving on to the next cycle. In the reflection stage, the teaching-learning process was reflected to find its strengths and weaknesses of the dependent variable, including the action plans for the next cycle.

The figure below represents a classroom action research model by Kemmis and McTaggart:
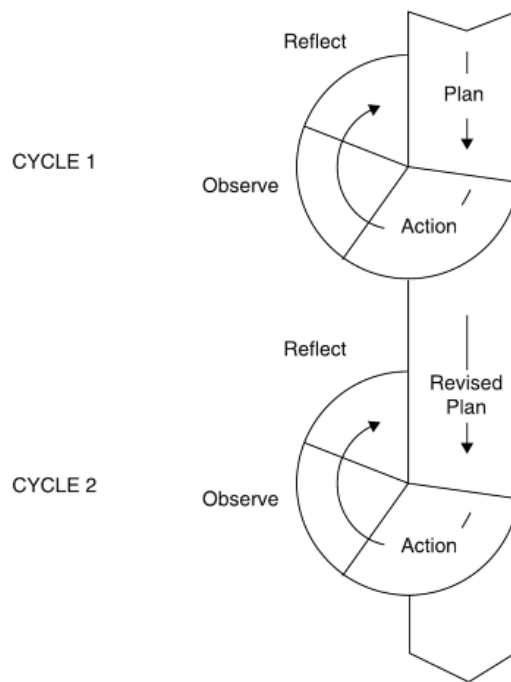
Figure 3.1 *Kemmis & McTaggart Cyclical Action Research Model*

Source: Burns, 2010, p. 9

The number of cycles must be two or more, not less, cycles since there has to be a comparison of the results. The continuation of the cycles ended when the researcher saw that the research objective is accomplished. The results of each cycle have a probability to be different even though the phases are the same. This research involves the conduction of two cycles. The procedures of the research will be explained further in Chapter III part 3.3, and the detailed analysis of each cycles will be discussed in Chapter IV.

3.3 Research Procedures

3.3.1 Pre-Cycle

The aim of this stage was to find the problem occurring in the class during the teaching and learning process. Several aspects – cognitive, affective, and psychomotor, were observed, but the students' impulsive behavior was the focus of the research. Various problems were observed during the observation – cognitive and affective problems. The students were actively involved during lessons with activities that requires the students' motoric skills, therefore psychomotor problems were not much observed. There was only one student who was unaware of the correct way of holding a pencil when writing. The other arousing problems in the classroom were aspects such as grammatical errors, behavior problems, student-teacher relationships, teacher-parent relationships; reading comprehension; and student motivation. The research was decided to be focused on the behavior problem in the classroom, specifically on the students' impulsive behavior. Therefore, a pre-cycle lesson was decided to be conducted. The pre-cycle lesson was done on October 27, 2016. In this cycle, the arousing phenomenon in the classroom was observed with the use of validated instruments. The research was conducted during Bahasa Indonesia class on the first and second periods. Previous observations were also done during the internship experience which started from the 8th day of the month of August 2016 until the 14th day of the month of October 2016. The instruments used in this pre-cycle were behavior checklist (see Appendix B-1) and mentor's interview (see Appendix B-2).

3.3.2 Cycles

The implementation of the treatment is done in this stage. This stage is composed of two cycles. Each cycle is composed of four phases that is ought to be conducted in an orderly way. The order of the four phases goes as follow:

3.3.2.1 Planning

In this phase, an attempt to find a suitable class-friendly solution for the observed problem in the classroom found on the pre-cycle stage was made. Discussion with the mentor was done regarding prior observations and the result of the pre-cycle related to the teaching topic and the research topic. Further discussion about the lesson plan, teaching resources, and research instruments was made with the mentor teacher together with other first grade teachers in the school faculty.

The lesson plan and instruments were prepared. The teaching resources to be used for the lesson was also prepared according to the lesson plan. The instruments used to measure each variable were validated by other first grade teachers in the school. Both validators hold the title of Bachelor of Education, therefore considered having knowledge of educational research.

3.3.2.2 Action

The implementation of the planning phase was made in this phase. The I Can Do It behavior charts for each student was used to monitor the students' behavior during the lesson. This phase was conducted for two sessions of a lesson. The validated instruments prepared during the planning

phase were used in this phase. The teacher mentor observed the progression of the research during the action phase using the instruments for the two variables. The instruments used were behavior checklist, observation questionnaire, and interview.

3.3.2.3 Observation

In this phase, all the data found from the action phase that was conducted were collected. Mentor behavior checklist, mentor observation questionnaire, and mentor interview are the instruments observed for the students' impulsive behavior. The instruments were validated before the first cycle began and were used in both cycles. The second cycle was conducted to strengthen the data for the research.

The result of the data in the first cycle was not proposed to be enough information to state that the proposed solution is essential to the arousing problem in the classroom. Although the result of the first cycle was successful, a second cycle was needed to be conducted to support the data of the first cycle. From the data result of the two cycles, it was concluded that the students' impulsive behavior during lessons was able to be managed according to the indicators.

3.3.2.4 Reflection

In this phase, a reflection upon the strengths and weaknesses of the cycles was made. The strengths of the research were the constant decrease in impulsive behavior of the students and the response of the students towards the use of the treatment. The weaknesses found in the research were that the observer was preoccupied and the time was not enough for each cycle. The weaknesses of the research indicate that if given more opportunities, further research regarding the topic would be conducted to make better the research. The research concludes that behavior chart can be used to monitor students' impulsive behavior.

3.4   Research Instruments and Data Collection

The researcher used a non-test technique of data collection. This covered the three different instruments from one point of view – the teacher mentor. Fraenkel and Wallen (2008) suggest three main categories of data collection techniques, first the teacher observe participants involved in the educational process. Second, interviews to collect can be used. Third, the examination and analysis of existing documents can be done. Another category that was added is composed of quantitative measures, such as checklists, rating scales, tests, and other formal assessments that are routinely used in schools (Fraenkel & Wallen, 2008).

This research uses a method of data collection using a design called data triangulation. The design of this three-typed data collection is called data triangulation (Fraenkel & Wallen, 2008). Triangulation is defined as "collecting data from multiple sources and methods" (Martella, et al., 2013, p. 315). It is believed that triangulation reduces the bias of a research, therefore validity and

reliability are strengthened (Wellington, 2015). Three instruments of data collection were used to measure students' impulsive behavior and behavior chart. Below is a detailed chart regarding the instruments used:

Table 3.1 *Instruments of Research Table*

Variable	Instruments
Impulsive Behavior	Behavior Checklist
	Observation Questionnaire
	Interview

Source: Researcher

3.4.1 Mentor's Behavior Checklist

A checklist (see Appendix B-3 and B-4) was used by the mentor for the observation of the students' impulsive behavior during the lesson. This instrument shows the names of the students and the impulsive behavior indicators. The data from this instrument shows the specific impulsive behaviors that each student demonstrates. The students were observed by the teacher mentor during two sessions of the lesson. When a student fulfilled an indicator, a check mark is given below the specific indicator on the row of the students' name. When a student did not fulfill an indicator, a cross mark is given below the specific indicator on the row of the students' name. The indicators of impulsive behavior observed for this research are as the table below. From these indicators, eight statements were made. The table below shows the statements used for each indicator:

Table 3.2 *Behavior Checklist Statements Table*

Indicator	Statement

The student blurts out and does not ask for the teacher's permission, by raising his/her hand, before speaking.	1. Blurts out 2. Does not raise hand up before speaking
The student does not wait for his/her turn to speak, and cuts in conversations.	1. Speaks while teacher is speaking 2. Speaks while another student is speaking
The student makes unnecessary noises during the lesson.	1. Makes sudden noises using mouth 2. Makes noises with hands and/or feet
The student couldn't stay still in the position they are expected to be at during the lesson.	1. Did not stay still in seat during the lesson
The student frequently disturbs other students.	1. Disturbs seatmate

Source: Researcher

3.4.2 Mentor's Observation Questionnaire

Mentor observation questionnaire (see Appendix B-5 and B-6) was used during the class period by the mentor. It was used by the mentor to rate the frequency of occurrence of the students' impulsive behavior in the classroom through direct observations. The data from this instrument would show the records of impulsive behaviors of the students in certain numbers or degree. The questions in the observation questionnaire sheet are as the chart below:

Table 3.3 *Behavior Observation Questionnaire Questions Table*

Indicator	Questions
The student blurts out and does not ask for the teacher's	1. Did the students blurt out whenever the teacher asked questions?

permission, by raising his/her hand, before speaking.	2. How many students blurts out instead of raising his/her hand first during the lesson?
The student does not wait for his/her turn to speak, and cuts in conversations.	1. How many times was the teacher interrupted by a student while speaking?
	2. How many times was a student interrupted by another student while speaking?
The student makes unnecessary noises during the lesson.	1. How often do the students make noises using their mouths?
	2. How often do the students make noises with their hands and/or feet?
	3. How often do the students make noises using the things around them?
The student couldn't stay still in the position they are expected to be at during the lesson.	1. How many students kept going out of their seat?
	2. How many students did not sit properly on their seats?
The student frequently disturbs other students.	1. How many students like to poke or disturb his/her seatmate?
	2. How many times did a student complain about another student's behavior towards that student?

Source: Researcher

3.4.3   Mentor's Interview

Merriam (2014) states that according to the amount of structure inherent in interview, there are three types of interviews: highly structured/standardized, semi structured, and unstructured or informal. In this study, a semi structured interview with the Grade 1A homeroom teacher was used. Gillham (2010) also added that semi-structure interview is both flexible and standardized at the same time. The interview was conducted in a one-on-one fashion using a pen and notebook. The questions used for the pre-cycle interview (see Appendix B-2) were as follows:

Table 3.4 *Pre-cycle Behavior Interview Questions Table*

Indicator	Questions
The student blurts out and does not ask for the teacher's permission, by raising his/her hand, before speaking.	1. Do students have a clear understanding of behavior expectations and rules in the classroom? Please explain. 2. During the lesson, were the students expected to raise their hand before speaking?
The student does not wait for his/her turn to speak, and cuts in conversations.	1. How often do the students raise their hands before speaking? How often do they blurt out? 2. Were there any interruptions while the teacher is speaking? If so, how often does this occur? 3. Were there any interruptions while a student is speaking? If so, how often does this occur?
The student makes unnecessary noises during the lesson.	1. Were there any students who kept going out of their seats?
The student couldn't stay still in the position they are expected to be at during the lesson.	1. Were there students who roamed around the room during the teaching and learning?
The student frequently disturbs other students.	1. Were there students who complained to the teacher about some students' behavior?

Source: Researcher

These questions were modified for the cycles interview (see Appendix B-7 and B-8). The questions were as follows:

Table 3.5 *Cycles Behavior Interview Questions Table*

Indicator	Questions

The student blurts out and does not ask for the teacher's permission, by raising his/her hand, before speaking	1. Is blurting out considered a disturbance for the teacher? Why/why not? 2. Are the students expected to raise their hand before speaking?
The student does not wait for his/her turn to speak, and cuts in conversations	1. Were there any interruptions while the teacher is speaking? If so, how often does this occur? 2. Were there any interruptions while a student is speaking? If so, how often does this occur?
The student makes unnecessary noises during the lesson.	1. Did the students make unnecessary noises during the lesson? If yes, what were the noises? What did the students do?
The student couldn't stay still in the position they are expected to be at during the lesson	1. Were there any students who kept going out of their seats? 2. Were there students who roamed around the room during the teaching and learning?
The student frequently disturbs other students	1. Were there students who complained to the teacher about other students' behavior?

Source: Researcher

3.5   Data Analysis

Fraenkel and Wallen (2008) stated that the result of each analysis in an action research would influence future data collection and analysis. They also mentioned that there should be a final data analysis after the completion of all data collection. This research uses a combination of both quantitative and qualitative approach in analyzing the data – descriptive statistics supported by inferential statistics. The data of this research were analyzed according to the indicators used for the instruments. In this research, the instruments analyzed were:

1. Behavior checklist

2. Mentor's observation questionnaire (on students' impulsive behavior)

3. Mentor's interview (on students' impulsive behavior)

Further analysis of each instrument data will be discussed in Chapter IV.