CHAPTER I

INTRODUCTION

1.1 Background of the Study

The primary goal of teachers is always to equip learners with things they need in order to succeed after graduating from school. The definition of success itself is constantly changing. It is not stagnant. As much as grades and knowledge are important to become a successful graduate, educational institutions are increasingly aware that students also need to develop graduate attributes to help them performing well as they career professionally. Though experts have not reached any agreement yet about which knowledge, skills, and attributes are most prominent to prepare students for their future career, the ability to communicate and share knowledge seems to be valuable in every discipline (Brouwer & Jansen 2019, 220). According to the guide of implementing Cambridge curriculum (2019, 41), being eager to share ideas and arguments is one of the qualities possessed by confident students.

Other factor contributing to students' success is curiosity. Gallagher & Lopez (as cited in Cankaya, Liew & Freitas 2018, 1696) stated that individuals with a high level of curiosity would meet and experience more opportunities to grow and achieve desirable outcomes. Needless to say, it is an unquestionable fact that curiosity and confidence are needed by students in the 21st century. Hence, educational institutions need to establish the development of these two attributes throughout school years. In practice, however, the researcher finds a contradictory situation, in which students are not curious of what they are learning, not keen to

participate during the lesson, and reluctant to communicate their thinking, especially in mathematics class.

This, then, gives rise to the question of the factors that affect students' curiosity and confidence. As proposed by McCombs (as cited in Santrock 2016, 403), a positive learning environment that encourages students to actively participate in the lesson and an interpersonal relationship with the teacher are two crucial elements to build up students' curiosity, motivation, confidence to speak their minds, and academic achievement. Those two elements, in fact, are associated with student-centered educational approach.

The idea of student-centered educational approach is evidently not new to the 21st century. The movement to introduce and implement this idea in schools worldwide has started since the late 19th century. The writings from some prominent education theorists, such as John Dewey, Jean Piaget, Lev Vygotsky, and Maria Montessori had greatly influenced the development of this movement until the 20th century. In practice, teachers are inevitably in charge when it comes to utilizing student-centered approach. The strategy they are using would clearly show whether or not they embrace pedagogy which focuses on student-centered approach. Among the extensive varieties of instructional strategies to be implemented, cooperative learning is seen to incorporate the elements signifying student-centered approach.

Based on the studies and facts above, it is apparent that students' curiosity and confidence are considered as important elements in educational field as it can possibly affect students' success within school years and after they graduated from school. Specifically, students' curiosity and confidence have been seen to be closely linked to one of the existing educational approaches, which is student-centered.

Furthermore, the elements marking the application of student-centered approach are seen to be integrated in cooperative learning strategy. As the approach implemented in the classroom is seen to either advantage or disadvantage the students, it is important to closely see the strategy applied in the lesson and how it affects students' development. Hence, the researcher has decided that it is necessary to conduct a study of the implementation of cooperative learning strategy to improve students' curiosity and confidence in mathematics class.

1.2 Problem Identification

Based on the studies and facts explained in the background of the study, some problems are identified as follows:

1) Curiosity is seen as a motive that influences human behaviour, especially human's motivation to look for opportunities to keep growing and attain desirable results. However, in practice, some students are not found to be curious and engaged to the lesson in mathematics class. The signs of their disengagement and lack of curiosity are observed from their tendency to stay quiet, to avoid answering questions or asking questions, to get easily distracted during the lesson or when completing the tasks.
2) Being confident is one of the characters needed for individuals to succeed in this era. Yet, in mathematics class, it is common to see students being doubtful to take parts in activities and to express what they have in mind, which reveals their lack of confidence.
3) Student-centered approach is actually not a new thing in the field of education. The effectiveness of this approach to provoke students to be

motivated and participative in the lesson, which signify their curiosity and confidence, has also been widely discussed. Based on studies and research from the experts in the field of education, cooperative learning strategy might serve as means to implement this approach. However, cooperative learning strategy is still found to be rarely incorporated in mathematics class.

1.3 Scope of the Study

This study focuses on how cooperative learning strategy affects students' curiosity and confidence. As the discussion about cooperative learning strategy, curiosity, and confidence is complex and might include many aspects, this research is limited to the scope of study as follows:

1) The data will be gathered only in one of the private Christian schools in Jakarta Barat. Specifically, it will be done in one mathematics class in year 4.
2) Students' level of curiosity will be measured based on three indicators: having good attention during the lesson; actively asking and answering questions; not easily giving up upon meeting challenging/unfamiliar problems.
3) Students' level of confidence will be measured based on three indicators: able to express and defend views and opinions; willing to take part in the activities conducted in the lesson; able to do presentation in front of the class.

4) Cooperative learning strategy will be implemented through problem solving activities.
5) The respondents of the study are 9 students in class 4C enrolled in the first term of 2020/2021 academic year. Classroom action research will be conducted in this particular class and the data will be collected for curiosity and confidence in mathematics class.
6) In addition to the students, there is one mathematics teacher of year four who will be the collaborator in conducting classroom action research.

1.4 Research Questions

This study is intended to identify whether the application of cooperative learning strategy in mathematics class can improve students' curiosity and confidence. Therefore, the researcher has proposed several research questions to be answered as follows:

1) How can cooperative learning strategy be implemented to improve students' level of curiosity and confidence in mathematics class?
2) How is students' level of curiosity in mathematics class progressing after the implementation of cooperative learning strategy?
3) How is students' level of confidence in mathematics class progressing after the implementation of cooperative learning strategy?

1.5 Purpose of the Study

In accordance with the proposed research questions, the purpose of this study is as follows:

1) To describe the implementation of cooperative learning strategy that is effective to improve students' level of curiosity and confidence in mathematics class.
2) To analyse the progress of students' level of curiosity after the implementation of cooperative learning strategy. The measurement of students' level of curiosity will be done based on three indicators: having good attention during the lesson; actively asking and answering questions; not easily giving up upon meeting challenging/unfamiliar problems.
3) To analyse the progress of students' level of confidence after the implementation of cooperative learning strategy. The measurement of students' level of confidence will be specifically done based on the following indicators: able to express and defend views and opinions; willing to take part in the activities conducted in the lesson; able to do presentation in front of the class.

1.6 Significance of the Study

The focus of this study is to explore how cooperative learning strategy affects students' level of curiosity and confidence in mathematics class. This study is expected to have theoretical and practical significances. Theoretically, this study can be used as a reference for further research about approaches to improve students' curiosity and confidence, especially through the implementation of cooperative learning strategy.

Practically, this study is expected to be beneficial for:

1) Teachers

Students' success in school years and even after graduating from school would not wholly depend on their literacy skills, mathematical skills, or intelligence level in general. In fact, educational research and theories support the point that students' curiosity and confidence are also essential factors to be taken into consideration. This study will be useful for teachers to raise their awareness that the strategy they use in their teaching practices would greatly affect students' curiosity and confidence, in either favourable way or non-favourable way. Hence, in anticipating students with low level of curiosity and confidence, teachers are expected to be more knowledgeable and precise to get hold of the underlying cause, to humbly evaluate their own teaching practices, to step out of the comfort zone, and to make necessary changes if needed. By this means, students are hoped for reaching their best potential and teachers would continue developing themselves professionally.

2) School counselors

Not only by teachers, the observation of students at school is commonly done by school counselors. Thus, counselors are vital members of the education team at school who are expected to provide psychological perspectives in handling issues at school. This study is intended to raise their awareness to be more sensible of students' characters while conducting class observation and be more proactive in providing suggestions for teachers on what can be done to aid the students, especially those who have low level of curiosity and confidence in the learning process.

3) Head of school

Reports on students' academic and character development are periodically sent to the head of school to be evaluated. Moreover, the head of school also plays an important role in appraising and giving feedback on the teaching-learning sessions. This study is also expected to broaden the perception of the head of school regarding the close link between teaching-learning practices and students' character and achievement. Therefore, educational strategies used during the lesson need to be one of the crucial elements to be observed and assessed when the head of school conducts class observation and gives constructive feedback afterwards.

1.7 Organization of the Paper

This research paper is organized into five chapters. Chapter One is the Introduction. This chapter covers the background of the study, problem identification, scope of the study, research questions, purpose of the study, significance of the study, and organization of the paper.

Chapter Two, which is Literature Review, discusses different theories, studies and points of view from scholars and experts in related field regarding curiosity, confidence, educational approaches, and cooperative learning strategy. Based on those references, this chapter also provides a conceptual framework for clearer representation of how the discussed topics are linked to one another.

Chapter Three is Research Method. This chapter describes the research design used, which is classroom action research, as well as research place, time and subject. Moreover, this chapter provides the description of data collection methods

and instruments, research procedure, and analysis and interpretation of the collected data.

Chapter Four is Research Findings and Discussions. This chapter analyses the findings as the results of this study, and which are related to the research questions. It also discusses the implementation of cooperative learning strategy through three cycles of classroom action research and the results in relation to the improvement of students' curiosity and confidence.

Chapter Five is Conclusion and Recommendations. This chapter provides the conclusion drawn from the findings of this study as well as recommendations for implementation and further studies.