

The Effect of Flexible Grouping on Students' Engagement in Classes

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Abstract

Flexible grouping is a method of class management that use various types of activities to design a teaching-learning process. The groups can be changed according to the needs. With various approaches, students' engagement and progress are going to increase. To prove this, research was conducted in a private school. Grade 9 students who chose Biology and/or Global Perspectives classes were included in the research. Data were collected qualitatively by class observation and interviews. Both students and teachers were interviewed about their opinions and feelings toward the flexible grouping method. Results showed that students' engagement increased. Teachers also considered using this method as a regular activity in the class.

Keywords: flexible grouping; qualitative data collection, students' engagement

1. Introduction

The purpose of this study was to evaluate the process of grouping students in class with active learning. Active learning or student-centered learning is the methodology or philosophy that is mostly used nowadays in education. Students are given responsibilities and ownership of their learning process. They need to be actively engaged and involved so they will progress. Students need to learn how to learn, especially in this rapidly changing world, where no one can predict what the future holds (Holland, 2018). Students need to be ready for everything that will come in the future.

There are four types of learning environments described in the book "How People Learn: Brain, Mind, Experience, and School" (2000). These four environments are intersected and support one another. A learner-centered environment is one of those, where students develop their knowledge and skills. Assessment should be given to measure students' progress and to identify whether students have achieved the learning objectives. All of these are done in a community-centered environment. This is in line with the purpose of education which is to prepare students to give back and contribute to the community.

One of the methods to promote active learning is problem-based or project-based learning. Students are divided into groups and given tasks to be done as groups. Therefore the grouping mechanism is also important for groups' dynamics. The decision of using homogeneous or heterogeneous grouping will affect the works in the groups as well as how teachers design the teaching plan (Johnson, 2014). Homogeneous groups consist of students with the same level of understanding, or same learning styles, or the same backgrounds (and prior knowledge). There can be a possibility that some groups will be fast in doing the work because the members are fast learners, meanwhile, the other groups will need more help. Teachers who use this method can have

more time and effort helping slow-paced learners. Teachers can focus on these students and help them with their needs. Meanwhile, the fast-paced groups can discuss between the groups if they have finished their work. Heterogeneous groups consist of students from different backgrounds, learning styles, and capabilities. Students who are fast learners and slow learners are mixed. With this type of arrangement, students can become tutors and help one another so all students can progress through their learning.

Flexible grouping is the idea to group students in different formats according to their needs. The groups are not static, they can or most likely will change day by day (McDonald, 2014). This will ensure equal participation and meaningful roles for all members. Since group work is essential in the active learning process and problem-based or project-based learning, I wanted to do research on how flexible grouping affects students' progress in learning, especially in science and social science subjects.

1.1. Statement of the problem

The problem with grouping is how to determine when to use heterogeneous grouping and when to use homogeneous grouping. Sometimes, teachers are judged to be subjective when they assign students to groups. With homogeneous grouping, students can feel that they are targeted because of their low performance. On the other hand, the students who performed well might feel neglected because the focus of the teachers will be more on the other groups. With heterogeneous groups, teachers need to assure students become peer tutors. In the process, students may not like the idea because maybe they think they get extra work to look after their friends.

Flexible grouping in which the groups will change may be a good solution to this problem, however, the effectiveness of doing flexible grouping must be measured. Therefore, this research was going to review the use of flexible grouping in the classroom.

1.2. Rationale

Active learning requires students to work in groups more often. Group dynamics and discussions will affect students' learning process. The process is not only about the scores but also the experiences students will have in the classroom. Students will learn to work with other people, deal with different types of people, resolve conflicts, manage time and build their social skills. With the correct and suitable types of grouping, students can improve not only their academic performances but also improve their communication and social skills which are useful in society. Keith Sawyer (2017, as cited in Minero, 2019) mentioned that group work promotes collaboration, interaction, and conversation that trigger cognitive processes inside the brain. Students can develop their academic skills, for example, their problem-solving skills, as well as social skills in communication with others.

2. Literature review

For years, classrooms all across Indonesia used classical methods in delivering instructions. All students listened to the teachers passively. Therefore the teaching happened in one direction only. Students were in the position of receiving information passively. Nowadays, classrooms transform into active learning environments, which promote collaboration, communication, critical thinking, and creativity. One of the methods used is grouping. Students are divided into smaller groups so they can interact and communicate

with each other about the topic learned. With discussion, they enrich one another using their prior knowledge and backgrounds.

Small-group instruction means placing students physically into several groups for learning (Lou et al, 1996). To be considered instructional, the activity of learning educational material should be included in the group dynamics (Ward, 1987). This also differentiates learning groups from other groups such as friend groups, playmates, or social groups.

2.1. The rationale of grouping students

Before discussing the reasons for grouping students, first, let us discuss the reasons for giving whole-class instructional techniques. Uniformity of instruction is emphasized in whole-class instruction (Lou et al, 1996). Teachers' explanations and deliverance of materials are the main purposes. This method is needed for teachers to give their presentations on topics or materials as directed or instructed in the syllabus (core curriculum). Teachers need to prepare a single set of instructional materials, so it is less time-consuming. This technique also ensures the same opportunity for all students to access learning materials and facilities. Whole-class instruction can be used to introduce new topics or direct students' work then students can practice the skills needed by guided individual practices.

The main reason why grouping is used widely in classrooms is to assure that all students learn (Ward, 1987). Students in a classroom might have different levels of skill and knowledge. Some of the students need a short time to understand a topic or material, while others take a longer time. Other factors that should be taken into account are related to students' background, such as race, nationality, gender, social status, religion/belief, and economical status. These are important as classrooms grow to be more diverse and inclusive. Lastly, students' motivation and perspectives on learning and schools are also different. The goal of education is for everyone. Therefore, teachers need to understand and meet the needs of diverse students (Reisner, 2008).

The single instructional technique assumes that the instructions given fit all and give fairness to all. However, this technique will help or benefit some students while ignoring others (Dube, Dorval, & Bessette, 2013). With diverse backgrounds and starting points, students shouldn't be given fairness and the same instructions at the same pace. Instead, they should be treated just and differently to promote their learning progress from their different starting points. The increased diversity also means new challenges for classroom management (Rytivaara, 2011). Grouping techniques then become important to help teachers as well as students for betterness and progress.

2.2. Homogeneous and heterogeneous groups

Grouping students based on their ability is called the homogeneous group technique. This technique had been implemented since World War I (Barr, 1989, as cited in Flood et al, 1992). These groups are also known as ability groups. "In the 1940s, ability groups were seen as good for slow children, but bad for bright ones" (Otto, 1950, as cited in Flood et al, 1992, p609). Another type of grouping students homogeneously is by grouping them based on their backgrounds, such as race or socioeconomic status.

One type of grouping of students can be based on their learning styles. Rytivaara (2011) mentioned color groups in which students are divided into four groups: red (analytic, auditory, demands challenges, likes to

ponder things), blue (fast, likes to discuss things, kinesthetic), yellow (demands silence, visual, calm, processes information slowly), and green (demands concreteness, holistic, kinesthetic). The red and blue groups' lessons will be noisy while the other two will learn in silence.

Heterogeneous groups are small groups that consist of students with different backgrounds or abilities. Students who are considered the "bright" ones are expected to lead the groups and do peer tutor or peer teaching to the other members of the groups. This can also trigger the other students in the group to do better and improve themselves. In the end, all students will progress and achieve more than when they work by themselves.

2.3. Flexible grouping

"Flexible grouping is a data-driven practice in which teachers can target specific needs for students by creating a variety of fluid groups in which students are provided specific instructional needs" (McDonald, 2014). Flexible grouping acknowledges all grouping patterns (large groups, small groups, homogeneous or heterogeneous, partners, or individuals) have value and impact on students' learning progress and outcomes (Ford, 2005). It simply groups the students most advantageously based on the needs of the topics/materials or the curriculum.

Flexible grouping ensures lower teacher-to-student ratios, so the lessons can be made specifically for each student's needs. It is also in line with students' skills and paces, therefore giving more opportunity and time for students to practice the skills (Reisner, 2008). It incorporates a variety of learning strategies (McKeen, 2019). Curriculum and syllabus are considered in designing the activities and the grouping techniques, so students can experience authentic learning and develop themselves. Maybe in some topics, whole-class instruction is needed, while in other topics, students can be grouped based on their learning styles, or their socioeconomic backgrounds. At one time, working in groups is the best choice, while on other occasions, individual work or practice is more needed. Therefore, besides having the requirements from the curriculum or syllabus, teachers need to know their students and their needs. Teachers can use formative assessments to identify students' progress and struggles (McDonald, 2014). If needed, for example, students then can be grouped based on their progress so teachers can help the low-performing students while the high-performing students can focus on the enrichment (advanced) materials. Another option in this situation is to group students with one high-performing student in each group for peer tutoring.

3. Methodology

Since group work is essential in the active learning process and problem-based or project-based learning, the grouping mechanisms must benefit students and ensure the learning process run positively and well. Therefore, the flexible grouping mechanism should be evaluated to whether it affects students' progress in learning.

The participants of this study were students from a private international school. Although it was located in Indonesia, the school adopted the Cambridge Assessment International Education (CAIE) curriculum. Students sat in grade 9 with ages varying from 14 – 15 years old. There was a total of 50 students from two classes (Science class and Social Science class) that were participating. The gender of the participants was equally the same between males and females. All participants were Indonesian in nationality and of Asian ethnicity. The class was conducted in a face-to-face setting.

These classes (Science and Social Science) were electives. Students could choose the subjects and attend the classes they choose only. The research focused only on 1 science class which was Biology and 1 social science class which was Global Perspectives. Since the school was a Christian school, most participants were Christian or Catholic. However, the school also accepted students with different religions and beliefs. Most students were from middle to high economic status.

Students chose their elective classes. It meant they chose their favorite subjects or subjects that would help them in the future. For example, if students planned to be a programmer, they would have been taking the Information and Communication Technology subject. However, among students in age 14 – 15 years old, some of them had not had a clear perspective of their dream job yet. So, they would just choose the subjects based on their liking, which was mostly not because of the subject itself. For example, students chose a subject because they liked the teacher, or because their friends also chose that subject. That's why it was interesting to observe the effects of the implementation of a flexible grouping approach. Would this approach increase or decrease students' engagement? Would this approach enhance the learning process? Furthermore, would this approach make students like the subject, thus giving them visions for their future job or major to be taken in the university?

Besides that, these students were chosen as the participants because of their backgrounds. Since they were all from the same nationality and ethnicity, the diverse cultural background factor could be eliminated. Then, other factors such as economic status and social status could be ignored as well since they mostly came from the same level of socioeconomic status. This would also direct the research to only focus on the intervention and the effects on the learning process.

3.1. Intervention

The intervention was to apply flexible grouping. The groups were not static, they could or most likely would change day by day (McDonald, 2014). Depending on the needs, learning activities could use different approaches, sometimes they could be done individually, and sometimes could be done as group works. Although there are several group projects, the members of the group could be different. Sometimes teachers could set homogeneous groups, while other times, teachers could set heterogeneous groups. The groups themselves could be randomly assigned or purposefully assigned to distribute the students equally.

According to Ford (2005), flexible grouping has an impact on students' learning processes and outputs. It would also eventually affect students' achievements. More importantly, with various methods in the teaching-learning process, students could be more engaged and involved, so they would also improve their learning. In the research performed by McKeen (2019), flexible grouping improved the results of students' competency tests in Math class.

The intervention will take 2 weeks in total. The order is as follows:

Week One Period 1: Individual work.

Week One Period 2: Create homogeneous small groups.

Week Two Period 1: Create heterogeneous small groups.

Week Two Period 2: Whole class discussion.

3.2. Sources of data

The sources of data for this research were taken directly from the participants. To know the demography of the participants, data were collected through a survey. Students' scores before and after the implementation were taken from the teachers' scoring data. While for the qualitative data, it was collected through direct observation inside the classroom. Some general qualitative data was collected through questionnaires. However, some students were interviewed one on one. Interviews with teachers were done also to take the qualitative data from teachers' perspectives.

The preliminary data about students' demography was collected through forms. Students filled in the questions about their genders, ages, and grade levels. There were some questions to assess students' economical status, such as parents' income per month, where the students spend their holidays, and their favorite foods and drinks (favorite restaurants or cafes). The scores of students in the particular subjects before the intervention were taken from the teachers' records.

During the implementation, the situations were observed directly by sitting inside the classroom and observing the whole teaching and learning process. This observation was routinely performed so students would not feel differently and thus would perform as usual as they were in the regular classroom. Some students were interviewed directly related to their feelings or thoughts on the intervention. By the end of the second week, all students filled out a questionnaire that consists of five open-ended questions. The questions were what they thought of the homogeneous groups, what they thought of the heterogeneous groups, which one they preferred and the reasons, which one they chose between individual or group activities, and how the flexible grouping helped them in their learning.

Besides that, the teachers (Biology and Global Perspectives) were also interviewed about the intervention. The questions were about how they thought about the intervention (flexible grouping), what the merits and demerits were, and what changes they should make to apply flexible grouping.

3.3. Data collection procedure

A pre-study form for participants (students) was given to be filled out. The form consisted of demographical questions, such as age and gender. Their names were not needed. Besides that, it also asked about the economical status and social status of the participants. For example, the question was asked about their parents' jobs and their approximate annual salary. Other questions were given in the form such as the students' hobbies, favorite foods, or drinks. These questions gave clearer pictures of students' social and economical status.

The information about students' scores and performances in the class books was also taken from the teacher's record. The teacher was interviewed about the student's behavior before the intervention was implemented. The teacher explained how the intervention (flexible grouping) would be done. Discussions with the teacher were performed to plan the groupings.

Week one period 1: The activity in the class was done individually. The teacher explained about lesson's objectives. The teacher designed an activity to stimulate the prior knowledge and connected it with this new topic. Then, the teacher explained the content as written in the syllabus. Classroom observation was conducted.

Week one period 2: Students were divided into several small groups consisting of students with homogeneous backgrounds, for example, the same learning styles or the same level of understanding. This data was taken from week one period 1 observation and students' progress scores as recorded in the teacher's scorebook. These homogeneous groups were given some work related to the topic discussed. The teacher then focused on the groups that consisted of the slow learners or the weak learners, meanwhile, the high-performing groups could be given enrichment works or activities. The groups' dynamics were observed directly in the classroom. Then, some students were interviewed about their opinions on this homogeneous grouping.

Week two period 1: students were now divided into heterogeneous groups that consisted of high-performing students and low-performing students altogether. To ensure that all members participated in the group work, the roles of the members were defined and each member had a role. Students were given activities to discuss a problem related to the topic. Then, they produced solutions such as products or programs. The groups' dynamics were observed directly in the classroom. Then, some students were interviewed about their opinions on this heterogeneous grouping and the comparison with last week's homogeneous grouping.

Week two period 2: the groups presented their products or programs. The other groups gave feedback and assessed their friends as well. The teacher had explained the rubrics before so students could do the peer-assessing well. The dynamics of this whole-class discussion and presentation were observed directly. Then, some students were interviewed about their opinions on this week's activity. The teachers were asked about their opinions about this flexible grouping method. The data on students' performances were taken from the peer-assessing scores and the teacher's scores for students' work and presentations.

3.4. Ethical considerations

Doing research that involves human beings as the subjects need to consider ethical issues. Particularly with qualitative research where the researchers need to interview the subjects, ethical issues may arise during the interview, perhaps due to stress and fatigue (Arifin, 2018). Ethics are moral principles, guiding conduct, which are held by a group or a profession (Wellington, 2000, as cited in Abed, 2015). The intimacy and relationship between researchers and participants can raise some concerns, such as respect for privacy, getting an honest response from the participants, and misinterpretations (Sanjari et al, 2014). When conflicts arise, researchers can face some ethical challenges. Therefore, in research, we need to maintain these aspects, such as anonymity, confidentiality, and informed consent.

Before the intervention, which is the flexible grouping method, students were given the information without interrupting the process of implementation. All participants should give their consent to join the research. They needed to understand what they were asked to do and they were illegible for giving consent (Arifin, 2018). Because this research was performed on minors (students), their parents had to give their consent. Parents had to get the information about the research and signed the informed consent form also.

During the intervention, the condition inside the classroom would be observed closely. This was to ensure the objectivity and honesty of the participants. When the whole process was recorded, the behavior of participants could be observed wholly. Since this was informed before, this would not cause ethical problems in the future.

There were three methods of data collection. First, to collect the demographic aspect of the participants, forms were distributed. Students filled them out anonymously because the data needed were socio-economical status, learning styles, and preferences. Anonymity must be kept by not mentioning students' real names or positions (Abed, 2015).

The second method was by doing direct observation inside the classrooms. Observation also put researchers to become more objective. Video taking or recording was done to support the first-person point of view. In this situation, ethical concerns that may arise included the identity of the participants. To minimize the risk, students and their parents were explained this matter and gave their consent to the observation methods.

The third method was by doing interviews with participants. They were asked about their feelings and opinions toward the intervention. Interviews had to be done individually in a closed room to protect the participants (Arifin, 2018). This way also ensured the protection of students from the risks that might happen.

The researcher had to maintain professionalism when conducting the research. They needed to build a professional relationship with the participants and their families. The role of the researcher as a stranger, visitor, initiator, or insider must be explained (Sanjari et al, 2014). In this case, the position of the researcher was a visitor. Especially during the interview sessions, to prevent bias, the sessions were recorded so they can be revisited if necessary to compare them with the written record.

4. Data analysis and result

4.1. Data analysis procedures

The demography data was taken from a questionnaire. Students filled out the online form consisting of several questions such as their ages, how they travel to school, the distance from their houses, how they spend their holidays, and what they do in their spare time. Of 56 students altogether from Biology and Global Perspectives class, 32 students returned the filled-in questionnaires.

The results of the interviews were grouped and analyzed per question. The trends shown represented the majority of opinions or phenomena. From here, it was used as evidence to support or not support the hypothesis. Either way, it contributed to classroom management strategies and helped teachers to better design the teaching activities.

The data were taken from several parallel classes to ensure validity and reliability. For example, there were three Biology classes and two Global Perspectives classes. The implementation was done in all classes. Teachers also gave the same instructions and activities for all classes.

The data taken by interviews also ensured reliability. Besides the answers provided by the interviewee, their tones and expressions were also recorded and noted. Class observations were done to capture the real moments and behaviors of students inside the class.

4.2. Results

Students who were involved in this research were 13-14 years old. The pre-research questions showed that students were from similar socioeconomic statuses. They chose the subject Biology and/or Global Perspectives as their elective courses. The reasons why they chose those subjects were mostly because they like and enjoy studying those subjects. They found the subjects fun, interesting, and easier. Some of the students understood exactly the subjects and chose them because they think the subjects were needed and essential for their future studies or for reaching their dream jobs.

Students answered the questions about their opinions towards the homogeneous grouping method and heterogeneous grouping method. They also compared the flexible grouping with individual work or with whole class instructions. The answers are grouped into the same category and are presented per question.

Table 1. What did the students think about the homogeneous group?

No	Coded answers	Frequency
1	The homogeneous group is fun, excellent, cool, fine	13
2	The homogeneous group allows all members to participate and work, with equal distribution, the same assignment, and the same goal	13
3	Students had no idea about the homogeneous grouping	6

From this, 81.25% of the students thought that homogeneous grouping is a good method for them to work collaboratively.

Table 2. What did the students think about the heterogeneous group?

No	Coded answers	Frequency
1	The heterogeneous group is good, fine	11
2	The heterogeneous group is interesting because it consists of students with different abilities, a more balanced group, enables work with experiences	7
3	The heterogeneous group encourages students to cope with changes, even though it was difficult	7
4	The heterogeneous group is no different from the homogeneous group	2
5	Students had no idea about the homogeneous grouping	5

From this, 78.125% of the students thought that heterogeneous grouping is a good method for them to work collaboratively.

Table 3. What did the students prefer? Homogeneous or heterogeneous?

Type of grouping	Reasons
Homogeneous (46.875%)	It was easier to work with friends I know or was comfortable with. I used to work in the original group
	More fun and not much work because doing the same thing
	Similar goals and achieving the same things
	It worked well because discussing the same topic.
	It included more teamwork
	I didn't know anyone in the hetero group
Heterogeneous (28.125%)	Each person had a different specialty.
	Could explore others' work
	Wider variety and range of ideas to be explored, more options
	Faced different challenges and worked with different experiences
	Could share opinions
	More balanced group
Both (15.625%)	Could get along together
	Able to cooperate
	Fine with anyone
No idea (9.375%)	Don't know/cannot choose

Table 4. Group work or individual work, which one did the students prefer?

Group/Individual	Reasons
Group (68.75%)	It is more fun to do it with friends
	Can discuss and do brainstorming with friends
	More ideas
	Can get help from friends
	Faster and more productive
	Work becomes easier
	There won't be much work (workload can be divided among students with different skills/abilities)
	Can socialize with other people and have less workload
	Can ask friends/peers if face difficulties
	Less boring
Individual (25%)	Fully control what is happening, fully responsible for own work
	Get distracted in the group activities
	Bad at communicating with someone
	Free to do the work with my styles
	Don't like to be the last option in forming groups
Both (6.25%)	Depends on the work. If it's making a video, I'd rather work in a group, but if it's an essay, I prefer individual work.

Table 5. How does flexible grouping help in the learning process?

Work with other people I would not normally work with, can get to know others well
Help with the skills that we are lacking
Give more ideas and learn new things, increase knowledge because everyone has different opinions.
Helpful because everyone can see and explore others' work
Test students to face a sudden change, teach us to adapt and adjust
Each group can get their job done more easier
Help others with social skills and communication
The group will not be unbalanced
Each student can specialize in the role they are best with
Learn more efficiently
The group member can help to explain and answer
It is fun since I can work with a lot of friends

The Biology teacher mentioned that not every topic in Biology (or Science) can use the flexible grouping method. For example in the chapter or the topic that explains a process (the organ systems), whole-class instruction and learning stations can be the best options. However, for a certain topic, this can be done and enhance students' engagement and participation. The Global Perspectives teacher had a different opinion about this. He thought that this method was interesting and could be applied in future times as well. He planned to use the flexible grouping method to boost students' critical thinking and problem-solving skills. He mentioned that by using the flexible grouping method, students will learn to think about new ideas especially when the groups are changed. Students also learn to share and help each other.

Both teachers explained that there were no difficulties in preparing the activities. Students followed the activities well, had a discussion, and worked in groups. However, the Biology teacher mentioned that one challenge she faced was determining whether students meet the learning objectives or not. She could not be sure that all students learn from the group activity only. In the Global Perspectives class, the challenge was about the role of students in the group. Some students were free riders and didn't contribute much to the group, while others did most of the work.

5. Discussion and conclusion

81.25% of students answered that the homogeneous grouping method was good and helped them in their learning process. Students liked the idea of staying in a group that had the same vision, goal, and assignment. It made them easier to collaborate and communicate because they had the same things in common. Students also prefer homogeneous groups (46.875%) to heterogeneous groups (28.125%) because of these reasons. Besides that, students also feel more comfortable and can work well in a homogeneous group.

Most of the students (78.125%) also answered that the heterogeneous grouping method was good and useful. They mentioned that it was hard at the beginning, but then they learned something valuable besides

academic skills. Students learn to understand others, communicate, and work with persons different from them. Students also learn to adapt to changes and get ideas from others as well as give their ideas.

These two results represent the increase in the engagement of students in the lessons due to the flexible grouping intervention. Students showed positive responses to both homogeneous and heterogeneous grouping. They also chose group work (68.75%) rather than individual work (25%). As students enter the digital era which requires them to improve some skills such as collaboration and communication, flexible grouping can be a suitable method to encourage students to engage and work together. When the groups are changed, students learn to work with different people and it can enhance their social skills. Students also practice their critical thinking and problem-solving skills. With the changes in the grouping, students can get more ideas from more peers. Thus students will learn more and get insights from many perspectives and opinions. Therefore it can be concluded that the impact of flexible grouping on students' engagement is a positive impact that increases students' collaboration and communication.

The second research question focuses on the teachers' opinions towards the flexible grouping method. Both teachers said that flexible grouping is a great tool to increase students' engagement and progress. However, in science class, this method cannot be applied every time. For topics that emphasize processes such as the human organ systems, the teacher mentioned that it is better to be delivered using the whole class instruction method. For topics related to the environment and people's opinions, the flexible grouping will be the best method for collaboration. Students will discuss in group A and the other week will discuss in group B. Therefore, students will be enriched with knowledge and skills from many perspectives and points of view. In the Global Perspectives class, flexible grouping is favored by students and the teacher. The teacher even mentioned that he would use the flexible grouping method again in discussing other topics.

The difference between science and social science classes is how the topics should be delivered. Science classes emphasize facts. Students are prepared to understand the facts and how it operates in the world. Therefore, in science classes, teachers will become the center of the teaching-learning process. Students are encouraged to be actively involved. Students can search for the information online and then present their findings. Teachers will still need to make sure that all students understand the concepts, therefore teachers will still lead the teaching-learning process. The Biology teacher I interviewed also mentioned the same thing. The challenge of using the flexible grouping method is to make sure that all students will understand the lesson and get the concept and context.

In social science classes, the flexible grouping method creates an opportunity to be exposed to many socioeconomic backgrounds. Students are directed to discuss and communicate with many people. They are trained to adapt to changes as the groups change. Since social science emphasizes how to see and solve problems from many aspects, students can learn to holistically observe and design solutions to real-world problems. As they are exposed to many different perspectives, they will become more skillful and knowledgeable. This, of course, will improve students' performances and progress.

The third research question is about students' opinions toward flexible grouping. Students mentioned that flexible grouping helped them in their learning because they learned to work in groups and with different people. Other than that, students also learned to cope and adapt to changes. This is a very important skill as students will also face rapid changes in the world. By working in different groups, students can learn from each other and get more ideas. Students can also divide the workload and roles inside the group equally based on their specialization. Thus, students can cooperate and communicate. Flexible grouping also teaches

students social skills in which they learn how to work together effectively in a group. The groups formed will be equal and students learn to do their best and contribute to the groups.

5.1. Learning themes

During the implementation of flexible grouping, teachers were briefed and planned their activities to accommodate flexible grouping. At first, teachers explained the learning objectives, the outlines and context of the topic, and the activities that would be done. Students were divided into homogeneous groups. The distribution of students was pre-planned based on the teacher's observations of the students. They are grouped based on their academic backgrounds or their learning styles. Students felt that the distribution was random, but actually, it was pre-planned by the teacher. This was to ensure that students didn't feel discouraged. They were given some topics that were different among the groups. Students discussed this in their groups. Then, at the next meeting, the groups were changed. They were required to interact with other friends from other groups. They brought their topics and combined them with other topics so they would understand the whole concept of the lesson.

The implementation ran successfully. Students interacted in the groups well and contributed to the learning. Students gave input and feedback to their peers also. The unexpected outcome is students also understand the benefits of working in groups. They also enjoy and prefer working in groups. The things that should be improved include how teachers help each group while they are working in their groups. The teachers tend to spend more time with one or two groups. This can be improved so teachers will have equal time with every group to help them during their group works.

The process that would be conducted differently is the time or duration set for different approaches. For example, the homogeneous groups can be maintained for 2-3 meetings before they are changed or redistributed. Then, the duration students work in the heterogeneous groups can be longer also. This can also ensure students are more exposed to their peers, thus they can practice and improve their communication skills. As they spend more time working in groups, they will know and understand their peers. The dynamics of the groups can be more lively. Students will have the chance to resolve conflicts that might appear in the group. This skill is needed and students have the chance to practice and learn it.

5.2. Implications

Data collected shows that students prefer group work to individual work. Students also understand that the flexible grouping method in which the groups are not fixed but changes according to their needs is suitable and helps them to learn. Students learn more than the subjects, they also learn about social skills, communication, collaboration, creativity, critical thinking, and problem-solving skills. Flexible grouping also encourages students to lead their learning. They will actively engage in the learning processes. Students search, observe and find data related to the problems they discuss.

As we have this data, teachers can better adjust and plan their teaching. Teachers can design more group activities and can change the group distribution. Teachers need to be equipped with knowledge about group work and how to distribute groups. They need to be trained to effectively incorporate group activities into their teaching plans. Teachers need to know their students' characteristics, backgrounds, and needs so that

they can distribute them to the groups. During the group activities, teachers need to assess the approach and whether students meet the learning objectives. They need to make changes to ensure the students' learning.

Further research can be conducted to measure the impact of flexible grouping on students' academic progress and achievements. The progress of students is measured before and after implementation to know how flexible grouping contributes to the changes. It can also be researched how flexible grouping help to improve students' social skills as well. This can be done with the help of school counselors. Different types of group work can be analyzed and evaluated as well, for example, the learning stations method. Therefore different methods of grouping students can be evaluated and assessed to find the more effective. However, each class or each student has their own needs and preferences. The result of this research may not represent the whole community or all students of the same age. However, this result shows that students also value group activities and don't mind having a flexible group. They feel that flexible grouping helps them in their learning and social skills.

5.3. Conclusion

Flexible grouping does not specifically describe an approach or method to divide students into groups. It is a combination between individual work and group work. It is also a combination of whole-class instruction methods and grouping. The classroom management and approach can be changed to meet the needs and the learning objectives.

This research shows that flexible grouping has a positive impact on students' engagement. Students learn not only the academic contents and contexts of the subject but also learn to collaborate and communicate. Students preferred to work in groups as they feel the benefits. They can improve their social skills while getting knowledge and ideas from different people. Students learn to work with different characters and behaviors. Thus, they are prepared to face a society where they can meet a lot of people with their dynamics. With flexible grouping, students are ready to face changes. They can share their opinions and be open to more input from others.

Teachers learn to understand students' needs and characteristics so they can better put them into groups. Teachers design and plan the teaching activities and can change them according to their needs. Teachers are trained to be reflective and evaluative. By using flexible grouping, teachers can arrange the groups according to the context of the subjects. Teachers can also set whole class instruction methods, individual works, or group works.

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