

## **Chapter Four**

### **Findings and Discussion**

This chapter contains the findings of the investigation that has conducted through interview. The findings are the answers to two objectives of this research. They answer the benefits of Cooperative Learning in Material Design class and the problems of Cooperative Learning used in Material Design class. The quotations of respondents' statement in the interview are included as evidence of the findings.

#### **Finding on the benefits of Cooperative Learning in Material Design class at EED UMY.**

The first objective of this research is to find out the benefits of implementation of Cooperative Learning method in Material Design class at EED UMY. Based on the result of the interview, the researcher found there are eleven advantages of implementation Cooperative learning in Material Design class at EED UMY. They are improving students' critical thinking, developing students' teamwork skill, raising students' confidence in expressing opinion, improving students' communication skill, promoting students' mutual respect, increasing individual responsibility, students became active learner, growing positive interdependence, Learning about Conflict management, growth of learning motivation, and improve students' understanding of material.

**Improving students' critical thinking.** The first finding on benefits of implementation Cooperative Learning is improving students' critical thinking. Implementation of Cooperative Learning in teaching and learning activity in class

Material Design developed students' critical thinking. This is as stated by

Respondent 1 in the interview:

One of what I received, critical thinking. When the lecturer was determining a topic indirectly we were forced to think about the material, like what it was about? How to apply it? If there is a problem then how to solve it. (Respondent 1, 2016)

Statement of Respondent 1 above indicated that the implementation of Cooperative Learning method in class Material Design can force students to think critically. As reflected in statement above that in Cooperative Learning the lecturer is only determining the topic that will be studied but the lecturer also gives students opportunity to explore the material by themselves for example to find out what the material is about, how to apply it, and how to solve if there is a problem. Indirectly this effort can train students to learn think critically.

The finding is in line with Karli and Yuliaratiningsih (2002) as stated group learning will make students are easier to interact actively in processing the material. Students can develop the ability of critical thinking, creative, and also reflective in the process of group work. This means the implementation of Cooperative Learning method in teaching and learning activity in the class can make students to be more active so can help develop various skills including students' critical thinking.

**Developing students' teamwork skill.** The second finding on benefits of implementation Cooperative Learning is developing students' teamwork skill.

There were two of respondents who mentioned this finding including Respondent

1 and Respondent 2. In the interview Respondent 1 stated, "Also got teamwork so there we also work together, solving problem, how to solve this problem? Like that" (Respondent 1). While Respondent 2 stated, "So far my group was great, our team work was also great. So cooperating to each other" (Respondent 2).

The statement of Respondent 1 above indicated that in a group study every group member worked together to analyze a problem and find a solution to resolve it. Respondents were satisfied with the results of the group work as outcome of a great teamwork of the group as mentioned by Respondent 2 above. Statement of two respondents above can be concluded that a good teamwork in a group study will greatly affect to the process of finishing the assignment as well as the result.

Teamwork is one of the characteristics in Cooperative Learning, Lundgren (1994) stated that students should have same purpose, if all of the students have a same purpose, they will do teamwork to achieve the goal of learning. This is also in accordance with the assessment system in the syllabus of Material Design subject in EED UMY where there is 2 assessment system including hardskill and softskill. Softskill aspects including creativity, analytical thinking, team works, and innovation. The finding indicated that due to studying in group when following activity in Material Design class that uses Cooperative Learning, respondents became able to develop teamwork.

**Raising students' confidence in expressing opinion.** The third finding on Benefits of implementation Cooperative Learning is raising students' confidence in expressing opinion. There were three of respondents who mentioned this

finding including Respondent 1, Respondent 2, and Respondent 3. In the interview Respondent 3 stated, "Benefit of the activity, yes frequently we were in group work, group discussion. So we could share idea to friends. Then it could be more, what is it, more confident when speaking in English" (Respondent 3, 2016).

While Respondent 1 and Respondent 2 in the interview stated as following:

From presentation I got confidence. It is because we were required to speak in public and also the material management in my opinion. So we were required to understand the material and must deliver the material clearly and easily understood by other students. (Respondent 1, 2016)

Actually when it comes to discussion like this, there is many benefits for students like me. Honesly, typically I was not confident enough when talking in front of the class. But the scope in a discussion is smaller of course. Therefore through the discussion I can be braver to speak up. So I can be more confident in expressing my own view. (Respondent 2, 2016)

Statement of three respondents above indicated that a learning activity that use Cooperative Learning method in particular group discussion activity can help boost students' confidence to speak up while expressing idea in discussion as well as in presentation in front of the class. Which means the implementation Cooperative Learning especially through group discussion will give students opportunity to expressing their idea or opinion freely especially in group discussion. Thus they can be more confidence to speak up started from smaller scope in a group discussion to wider scope in front of the class. Students

can also be more confident while speaking in English as language to express their idea or opinion.

The finding is in line with Sanjaya (2007) as stated that through the learning activities in Cooperative Learning, students' ability to argue and express their ideas verbally will be increased. Certainly the implementation of Cooperative Learning can help improve students' confidence. Based on the finding Material Design class above students' confidence have developed in form of expressing idea or opinion in group discussion and speaking in front of class while doing presentation. In short students' confidence can be developed using Cooperative Learning method through group discussion and presentation activity.

**Improving students' communication skill.** The forth finding on benefits of implementation Cooperative Learning is improving students' communication skill. Only one of respondents who were mentioned this finding. In the interview Respondent 1 stated:

From presentation I got confidence. It is because we were required to speak in public and also the material management in my opinion. So we were required to understand the material and must deliver the material clearly and easily understood by other students. (Respondent 1, 2016)

Statement of Respondent 1 above indicated that from presentation activity Respondent 1 communication skill was developed. This is because through presentation evidently students not only be required to understand the material but also must be able to present it clearly and understandable. Therefore their communication skill with others will be increased to be clearer and easily

understood. This is in line with Strom & Strom (2003) as mentioned that Cooperative Learning help the students to be a good communicator, listener and also good leader.

**Promoting students' mutual respect.** The fifth finding on benefits of implementation Cooperative Learning is promoting students' mutual respect. There were two respondents who mentioned this finding. Respondent 2 stated, "Personally I can be more confident then also mutually understand other friends' opinion" (Respondent 2, 2016). While Respondent 3 stated as follows:

Because from group discussion so we can exchange our thoughts. Then besides we talk ours also we listen to friends so can put respect to other opinion as well. (Respondent 3, 2016)

Statement of two respondents above indicated that through group discussion besides they learn how to express their argument that they also learn how to respect their friends' opinion. This is also showed that in class Material Design students freely to express their idea or opinion. Besides students is also required to be able to respect other people opinion.

The finding is in line with Kagan as cited by Muhibuddin (2008) that as stated cooperative learning able to build a sense of mutual respect among individuals. In line Ssjoni (2007) also stated that the purpose of Cooperative Learning is to make students work in a group, respect other's opinion, and also give chance to the other to deliver the opinion. Thus students not only learn to express their opinion but also as listener they learn to be a good listener which they should give opportunity to other students to express their own opinion.

**Increasing individual responsibility.** The sixth finding on Benefits of implementation Cooperative Learning is increasing individual responsibility. Only one respondent who was mentioned this finding. In the interview Respondent 3 stated:

About the assignments of course can be finished without problem because most of the assignments were mostly in group. So because in group so will be many brain to think so will be better while finishing the assignments. Then we can share the responsibility to finish part of assignment so it can be quickly done. So that's why responsibility should be within each others.  
(Respondent 3, 2016)

Statement of Respondent 3 above indicated that students in Material Design class are given various assignments. Based on the syllabus one of them is assignment to arrange book which contains material and exercise of teaching. The assignment is commonly assigned to be done in group and each student or member of group gets their own responsibility. It certainly requires responsibility of each individual so that the assignment can be completed properly.

The finding is in line with Sanjaya (2007) who stated that with learning group in Cooperative Learning, each student is required to have learning responsibility in groups and individually. Therefore the responsibility of each individual of group members is very important to achieve a common goal.

**Students become active learner.** The seventh finding on Benefits of implementation Cooperative Learning is students become active learner. There

were two respondents who mentioned this finding including Respondent 1 and Respondent 2. In the interview they stated:

“ So there we were required to be active. In this case active of course means sharing opinions or ideas. For example when the lecturer gives a topic, we will discuss it. I have an opinion like this and my friend had a different opinion. So active mutually we are asked to find the material by our own, from the internet or from books so we become more active.

(Respondent 1, 2016)

“ Based on my experience, it was so quite successfully. Because there we have more chance to do discussion right. Actually if students are what it is if students only listening to the lecturer mean the lecturer who is more active than the students, so for Material Design it was needed to practice.

And the discussion was very helpful for this material. (Respondent 2, 2016)

Statement of respondents above indicted that the implementation of Cooperative Learning in Material Design class has made students to be more active. Through the presence of activities such as group discussion in Cooperative Learning classroom, students find them to be more active when learning in class. This is because when the process of group discussion each student is free to express any opinions, ideas and concepts to solve any problems that exist corporately in group. In addition, students are also given the freedom to find their own materials that needed to complete each task from various sources so indirectly they will be more active.



This is in line with the definition of cooperative learning that according to Liang (2002) Cooperative Learning is a learning process where students are not passive learners but they are active learners. The finding indicated that the implementation of Cooperative Learning to Material Design is appropriate because it can make students to be more active.

**Growing positive interdependence.** The eighth finding on benefits of implementation of Cooperative Learning is growing positive interdependence. Only one respondent who mentioned this finding. In the interview Respondent 1 stated:

Then about the deepening of the material so as seen from the result of the discussion that the deepening of material is more successful. So for example I do not understand with this problem but my friends do understand, so they could have explained it to me. So there is a mutual reciprocity. Otherwise if my friends do not understand then I will help to explain so there is a mutual relationship like that. (Respondent 1, 2016)

Statement of Respondent 1 above indicated that through group discussion has positive effect to students in understanding learning material. This is because when students work in group they will have opportunity to help each other to understand the material. Therefore there will be a good mutual relationship in understanding the material also to develop a good relation among students in order to make a solid group to achieve any learning objectives.

This finding is in line with an element of Cooperative Learning. Lundgren (1994) stated that students have perception that they lost and swim together, so

students should have togetherness in a group. It means that every student should be solid in a group, if there is one of the student incompetent while doing the task, so the others should help in order to the group's success can be achieved.

**Learning conflict management.** The ninth finding on benefits of implementation of Cooperative Learning is learning conflict management. Only one respondent who mentioned this finding. In the interview Respondent 2 stated:

Once we were asked to make a book. A group consist of five to six person. There was one person who wants the theme of the book to follow his idea. But contrary four others member wants the same. We have the same side then our theme finally like this followed those four members. Well finally after we give acceptable reasons so he could accept it. (Respondent 2, 2016)

Statement of Respondent 2 above indicated that there was a conflict in the group because of differences of opinion between two sides of group. However in the end the conflict can be solved. The difference of opinion is reasonable in a group study. It sometimes causes conflict that may inhibit the process of learning. Therefore, students are required to be able to resolve this conflict when learning in a group.

Conflict management is a part of softskill in Cooperative Learning. According to Johnson and Johnson (2008) students learn and use appropriate social skills that include leadership, decision-making, trust building, communication, and conflict-management. This will create positive relation of each individual, develop group ability, and also keep effective work.

**Growing students' learning motivation.** The tenth finding on The Benefits of implementation Cooperative Learning is growing students' learning motivation. Only one respondent who was mentioned this finding. In the interview Respondent 3 stated:

“ If we do not have group discussion certainly I am not going to read the book. But because we have group discussion so it will be embarrassing if we do not understand what the contents of the book so of course I read the book. Because personally I do not like reading. (Respondent 3, 2016)

The implementation of Cooperative Learning in Material Design class has effect the development of students' learning motivation. Based on the statement of Respondent 3 above can be concluded that through learning in group every students were required to understand the material, this is because growth of responsibility among individuals toward their group to achieve their group objectives. This is in line with Slavin (1984) has stated that the factor that influences the success of cooperative learning is the positive motivational impact of peer support for learning. Working in small groups, peers recognize that their rewards are dependant on the success of their teammates and are more likely to provide support for each other's learning.

**Increasing understanding of material.** The eleventh finding on benefits of implementation Cooperative Learning is increasing understanding of material. Where two respondents who were mentioned this finding including Respondent 1 and Respondent 2. In the interview they stated following:

Then about the deepening of the material so as seen from the result of the discussion that the deepening of material is more success. So for example I do not understand with this problem but my friends do understand, so they could have explained it to me. So there is a mutual reciprocity. Otherwise if my friends do not understand then I will help to explain so there is a mutual relationship like that. (Respondent 1, 2016)

It can be understood. Because I did not understand so I could ask question. Sometimes the lecturer's explanation was difficult to be understood so I asked about something that could not easily be understood. So when the lecturer explanation was not easily understood so I could ask question then be explained with the lecturer. So I would understand like that. (Respondent 2, 2016)

Statement of respondents above indicated that the implementation of Cooperative Learning in Material Design class has made students to understand the material more easily. This is because the style of teaching of the lecturer can help students to understand the material. The lecturer is approaching students to make sure every student understand the material and giving opportunity to ask about material that is not yet understood by them. Therefore the role of lecturer is very important in implementation Cooperative Learning. This is in line with Johnson & Johnson as cited in Wahyuni (2001) that one of lecturers' role is to evaluate students and help students in order to have good teamwork.

Related to the presence of group discussion students mentioned that they can be more easily to understand the material from this activity because each

members help others who have lack of understanding. According to Johnson and Johnson (2008) the members of group should be ensuring that each members of group have understanding the material well. This will give positive dependency from each student in finishing the assignment. In line with Asma (2006) also added that, Cooperative Learning is learning style which makes the students become more responsible with the groups so that each member can understand the subject well. Therefore students not only can understand the material from the lecturer but also from other students.

#### **Finding on the Problems of Cooperative Learning in Material Design Class at EED UMY.**

The second objective of this research is to find out the Problems of implementation of Cooperative Learning method in Material Design class at EED UMY. The finding revealed three problems of implementation Cooperative Learning method in Material Design class at EED UMY. They are individual dominance, difficulty to equalize perception and lack of individual responsibility.

**Individual dominance.** The first Problems of implementation of Cooperative Learning method in Material Design class at EED UMY is individual dominance. There were two respondents who mentioned this finding. In the interview, Respondent 1 and Respondent 3 stated the following:

About the obstacle, so the obstacle for a group work is if there are any inaccuracies. Such as if there is someone who smarter than other and better understands the material, mostly will more to talk. But for those who are

not really understood tend to be quiet. So there is inequality. (Respondent 1, 2016)

For example sometimes we have got the idea but we are already way behind to communicate it, nah so automatically we will feel lazy to speak like that. So for example, we are in the same group of people who are clever than us, sometimes we feel inferior. So about grouping there will be counted or counting one until certain numbers. If we are in the same group with friends who have same level with us so we can be more confident. But if we are in the same group with person who were clever we are so insecure like that. (Respondent 3, 2016)

Statement above indicated that in a group discussion there is possibility among members who have different abilities to understand the material. This condition will certainly lead to differences in term of contribution of each student in a group discussion. Students who are less familiar with the material will tend to be less active in the discussion because they feel insecure. Otherwise the students who are more aware of the material will tend to be more active in the discussion process.

Isjoni (2009) stated that sometimes in the discussion process, it dominates with an individual and it causes several students becomes passive learner. In line Gunawan (2003) also stated that if teamwork does not run well, there is only few students who will be clever and active. Therefore domination of individuals in the group discussions will lead to inaccuracies in a discussion group.

**Difficulty to equalize perception.** The second Problems of implementation Cooperative Learning method in Material Design class at EED UMY is difficult to equalize perception. There was only one respondent who mentioned this finding. In the interview Respondent 1 stated:

Then, most of our difficulty is difficult to equalize ideas between friends.

Then if we are not in the same page and we are not take consultation to our lecturer, we will only be confused like that. (Respondent 1, 2016)

Based on the opinion of Respondent 1 above the difficulty in equalize the perception becomes one of the Problems of a study group. This is because in a group learning there will be members who have different background such as race, age, gender, level of understanding to material, and others. This difference can cause a problem in a group.

**Lack of individual responsibility.** The third Problems of implementation Cooperative Learning method in Material Design class at EED UMY is lack of individual responsibility. Only one of respondent who was mentioned this finding. In the interview Respondent 1 stated:

One of problems is for example my work is in accordance with the direction of the lecturer but the of my friend does not comply with the direction of the lecturer. So the problem is only it lack of individual responsibility to other friend. (Respondent 1, 2016)

In a group each member is required to have responsibility for himself or for the group. But in this case sometimes there are some members who lack a

sense of responsibility that affect the process in the group activities. In contrast to the opinion of Respondent 3:

About the assignments of course can be finished without problem because most of the assignments were mostly in group. So because in group so will be many brain to think so will be better while finishing the assignments. Then we can share the responsibility to finish part of assignment so it can be quickly done. So that's why responsibility should be within each others. (Respondent 3, 2016)

Respondent 3 felt each member of the group already has individual responsibility. Respondent 1 felt the lack of responsibility of some members of his group. Whereas individual responsibility is one important element in Cooperative Learning for the purpose of the group can be achieved.

Johnson and Johnson (2008) mentioned that the Students do not only work together but they also should perform independently. Each individual's performance is assessed. Students must take personal responsibility for working toward the group aim. In line with Sanjaya (2006) also stated students who considered has benefits, they feel obstructed by students who considered has less of benefits. It can be disturbing the process of teamwork in a group. Therefore the lack of individual responsibility certainly will obstruct the process of the group activity.