

## **CHAPTER II**

### **THEORITICAL REVIEW**

#### **A. Brainstorming**

##### **1. The Definition of Brainstorming**

Brainstorming as a technique that was first introduced by Alex Oxborne in the 1930s as a process for developing creative solutions to problems. According to Fernald and Nickolenko, brainstorming is probably one of the most well-known tools of creative problem solving. It is simple, easy to learn, and has potential to improve idea generation and enjoyment with the activity itself. Brainstorming works by focusing on a problem, and then coming up with as many solutions as possible and by pushing the ideas as far as possible. In brainstorming, each idea will be discussed and considered, some ideas may be eliminated, and a final list will be ranked for possible use as a solution toward solving the problem. In the teaching process, brainstorming is used by teacher to get the students ideas from the problem given by the teacher. According to Sobry Sutikno (2007; 98) brainstorming method is a discussion in order to gather all ideas, suggestion, information, knowledge, experience, from the students. When the teacher provides a problem and the students invited to propose any ideas related to the problems.

Even the strange ideas, we cannot criticize it. After the teacher gathers all the ideas, they evaluate the ideas and make a rank list for possible solution.

## **2. The Aim of Brainstorming**

The purpose of using brainstorming is to get all what the students' thinking in responding a problem given by the teacher (Roestiyan, 2007; 74).

Brainstorming can help the students learn the material. The students start with their own knowledge and identify the gaps with others. The aim of brainstorming is to collect as many ideas as possible within a specific period.

These ideas are not evaluated until the end and a wide range of ideas is often produced. Each idea produced does not need to be usable. Instead, initial ideas can be viewed as a starting point for more workable ideas. The principle of brainstorming is that people need lots of ideas to get good ideas (Cullen, 1998)

## **3. The type of Brainstorming Techniques**

There are several types of brainstorming activity that usually used by the teacher:

- a. Brainstorming using pictures

Cullen (1998) stated that pictures are rich sources of inspiration for brainstorming. Most of the students will let their imagination fly. Using picture from textbook, magazine or other sources can be used to fulfill this purpose. The question that may be related to the picture:

1. What are these people doing?
2. List the objects in the picture.
3. Write four words to describe this person.

b. Brainstorming using a video

Video is very important example of instrumental materials. Oguntuase (2008) defined that video is a record on any medium through a moving image. They are derivative works which are usually based on original literacy, dramatic, musical, and artistic works.

c. Brainstorming using a song

Songs are wonderful for reducing nervousness. They seem to be particularly effective in whole-class brainstorming when the teacher is writing the ideas on the board. Play a song for the class and ask questions like the following.

1. How does the singer feel?

2. What do you think the singer looks like?
3. Suggest titles for this song.
4. When do you think that this song was written?

d. Finding Alternative For a Blank in Sentence

The teacher usually used this kind of technique to know how far the students understanding about the topic before the class begin. The teacher gives some blank sentence to the students, then the students can answer the question.

1. The man got off ..... and walk away.  
(Answer could include: horse/bicycle/letter/backside)
2. Peter lived in a .....  
(Answer could include: caravan/house/apartment/fantasy world)
3. I don't like her because she is .....  
(Answer could include: too talkative/boring/the teacher's pet)

e. Simple word list

In simple word list, the teacher asks the students some questions related to the unfamiliar words on the text. The teacher uses open-ended question such as who, what, when, where, why, and how. Then, the students guess the word and the meaning and the teacher

writes the students answer on the whiteboard. And the last, if the correct answer is found, the students write the word and the meaning in simple word list.

f. Free Writing

When the teacher asks the students to explore their ideas through free writing, the student will write what the teacher ask by writing. They can let their ideas and thoughts flow as they will. The teacher asks the students to write whatever comes to the students mind. The students will write as much as they can and the teacher will not judge anything while the students are writing. The students will not look at their writing whether it is good or not.

g. Time travel

Time travel is where the teacher and students sit down and imagine they are from the past or the future and write down what would the students do if they were in a certain situation at that time.

h. Webbing

This is basically where the students write the main idea on a piece of paper and circle it. Then they draw a line and write down a similar

idea. Keep doing this until all of the students write the ideas down on a paper. And the teacher will have a whole sheet of paper full of ideas.

i. Mind mapping

Using a mind map is a way to visually organize data and information. The students will understand easier using data visually instead of as lists or outlines. Organized around a central idea, a mind map works like the branch of a tree. Ideas and then sub ideas that are associated with the main idea branch off from the central idea.

**4. The Basic Rules of Brainstorming**

There are four basic rules in brainstorming (Osborn, 1963). They are:

a. No criticism

Criticism of ideas are withheld during the brainstorming session as the purpose is on generating varied and unusual ideals and extending or adding to these ideas. Criticism is reserved for the evaluation stage of the the process. This allows the members to feel comfortable with the idea of generating unusual ideas

b. Encourage Wild Ideas

These may open new ways of thinking and provide a better solution than regular ideas.

c. Quantity Wanted

The greater the number of ideas generated, the greater the chance of producing a radical and effective solution.

d. Combine and improve ideas

Not only are a variety of ideas wanted, but also ways to combine ideas in order to make them better. Good ideas can be combined to form a single very good idea. Working in a group leads to synergy that can combine a person's idea with others.

**5. The Advantages and the disadvantages of Brainstorming**

a. The advantages using brainstorming as follows:

1. To make the students active to give their opinion.
2. To increase students' motivation.
3. To make the students think fast and logical.
4. To make the students free and cheerful.

b. The disadvantages of brainstorming as follows:

1. Going through the processing and ordering the ideas can become a complex procedure.

2. It is difficult for the participants to speak without making them feel intimidated.

