

## **CHAPTER III RESEARCH METHOD**

### **3.1 Types of Research**

The research employed descriptive qualitative research. It described, investigated and explored the real situation that happened in the eleventh grade of MAN Bawu Jepara. On the other hand, to obtain the data, the researcher used interaction analysis method. It is an interdisciplinary method for the empirical investigation of the interaction of human activities, such as talk, nonverbal interaction, and the technologies, identifying routine practice and problems and the resources for their solution (Jordan and Henderson, 1995: 39). In this research, the researcher used Flander's Interaction Analysis System (FIACS) and focused on talk investigation. So, the researcher observed the teacher talk and students talk during teaching and learning process in the classroom. Thus, it was suitable for categorizing into which all relevant talk in classroom interaction.

Then, to analyze the data, the researcher used Flander's Interaction Analysis Categories System (FIACS). There are two aims for using this technique, they are ; 1) showing a data of the teacher talk and students talk by percentage; 2) describing teacher and students characteristic. So, this technique can be used to find out the description of teacher and students' interaction in the classroom.

### **3.2 Setting of the Research**

This research was conducted in MAN Bawu Jepara which is located at Bawu Batealit Jepara post code 59461. This study was done in the first semester in the academic year of 2018/2019.

### **3.3 Subject of the Research**

Subject of this research were English teacher and the students of eleventh grade of MAN Bawu Jepara academic year 2018 / 2019. In order to get representative sample which could represent the true situation of population, the researcher collected the data about two times. After that, all the data calculated in percentage and finally, interpreted by the researcher.

### **3.4 Instrument of the Research**

In conducting this research, the researcher used two instruments, Those instrument will be described below:

#### **1. Observation of Tally Sheet**

The aim of tally sheet is to get data by putting specific code in interaction matrix during teaching and learning process. The important thing that should be prepared by researcher is understand observation tally sheet's guidance that included list of Flander's Interaction Analysis Categories System (FIACS). Here is the observation tally sheet's guidance :

### Flander Interaction Analysis Categories System (FIACS)

**Table 3.1**

NO	FLANDER'S INTERACTION ANALYSIS CATEGORIES SYSTEM (FIACS)
Teacher Talk	
A	Indirect Talk
1.	Accept Feelings
	<ul style="list-style-type: none"> <li>▪ In this category, teacher accepts the feeling of the students.</li> <li>▪ He feels himself that the students should not punished for exhibiting his feelings.</li> <li>▪ Feeling may be positive or negative.</li> </ul>
2.	Praise or Encouragement
	<ul style="list-style-type: none"> <li>▪ Teacher praises or encourages student action or behavior.</li> <li>▪ When a student gives answer to the question asked by the teacher, the teacher gives positives reinforcement by saying word like 'good'. 'vey good', 'better', 'correct', 'excellent', 'carry on'.</li> </ul>
3.	Accepts or Uses Ideas of Students
	<ul style="list-style-type: none"> <li>▪ If a student passes on some suggestion, then the teacher may repeat in nutshell in his own style or words.</li> <li>▪ The teacher can say 'I understand what you mean'. Or the teacher clarifies builds or develops ideas or</li> </ul>

	suggestion given by a student.
4.	Asking Question
	<ul style="list-style-type: none"> <li>▪ Asking question about content or procedures, based on the teacher ideas and expecting an answer form the students.</li> <li>▪ Sometimes, teacher asks the question but he carries on his lecture without receiving any answer.</li> </ul>
B	Direct Talk
5	Lecturing/ Lecture
	<ul style="list-style-type: none"> <li>▪ Giving facts or opinion about content or procedure expression of this own ideas, giving his own explanation, citing an authority other that students, or asking rhetorical question.</li> </ul>
6	Giving Direction
	<ul style="list-style-type: none"> <li>▪ The teacher gives directions, commands or orders or initiation with which a students is expected to comply with :</li> <li>▪ Open your books</li> <li>▪ Stand up on the benches</li> <li>▪ Solve 4<sup>th</sup> sun of exercise</li> </ul>
7	Criticizing or Justifying Authority
	<ul style="list-style-type: none"> <li>▪ When the teacher asks the students not to interrupt with foolish questions, then this behavior is included in this</li> </ul>

	<p>category.</p> <ul style="list-style-type: none"> <li>▪ Teachers asks ‘what’ and ‘why’ to the students also come under this category.</li> <li>▪ Stating why the teacher is doing what he is doing.</li> </ul>
Student Talk	
8	Student Talk Response
	<ul style="list-style-type: none"> <li>▪ It included the students talk in responses to teacher’s talk.</li> <li>▪ Teacher asks question, student gives answer to the question.</li> </ul>
9	Student Talk Initiation
	<ul style="list-style-type: none"> <li>▪ Talk by students talk in response to teacher’s talk</li> <li>▪ Expressing own ideas; initiating a new topic, freedom to develop opinion and line of though like asking thoughtful questions; going beyond the existing structure.</li> </ul>
10	Silence or Pause Confusion
	<p>Pauses, short period of silence and period of confusion in which communication cannot be understood by the observer.</p>

Flander (1980 cited in Putri. 2014)

There are some rules for deciding which one the best category should be put consistently on the interaction matrix, because at each three second might involve some categories both teacher and students talk in the same time.

**Table 3.2**

Rule 1	When it is not certain in which of two or more categories a statement belongs, choose the category that is numerically farthest from the category 5. For e.g., if an observer is not sure whether it is 2 or 3 then choose 2. If in doubt between 5 and 7, he chooses 5.
Rule 2	The observer should not involve his personal viewpoint. If a teacher attempts to be clever, students see his statements as critics of students; the observer uses category 7
Rule 3	If more than one category is active in a span of 3 seconds, and then all the categories should be recorded. If after 3 seconds, no category changes, then the same serial number should be repeated in the next 3 seconds.
Rule 4	If the time period of silence exceeds 3 seconds, it should be recorded under the category No.10
Rule 5	When teacher calls a child by name, the observer is supposed to record a 4th category
Rule 6	When the teacher repeats the student's answer and the answer is a correct, that is recorded as a category No. 2. This tells

	the student that he has the right answer and therefore functions as praise or encouragement.
Rule 7	When a teacher listens to a student and accepts his ideas for a discussion, then this behavior belongs to category No. 3
Rule 8	The words “All is ok”, “yes”, “yah”, “hum”, “alright”, etc belong to the category No. 2. (Encouragement)
Rule 8	If a teacher jokes without aiming at any students, this behavior belongs to the category No. 2. But if he makes any joke aiming at some particular students, then it belongs to the category No. 7.
Rule 9	When all the students respond to a very small question collectively, then the serial number of category 8 is recorded.

Flander (1980 cited in Putri. 2014)

Additionally, the researcher should observe in constant time to calculate the interaction between teacher and the students. Tichopondwa in Putri 2014: 34) give recommendation to the researcher to code the teacher and students talk at three seconds intervals when the researcher use FIAC technique.

### Flander's Interaction Matrix

**Table 3.3**

Day :

Teacher's Name:

Class :

Meeting :

Material :

		Teacher Indirect Talk			Teacher Direct Talk				Student Talk			Total
		AF	PE	AI	AQ	L	GD	CJ	SR	SI	SPC	
		1	2	3	4	5	6	7	8	9	10	
AI	1											
PE	2											
AI	3											
AQ	4											
L	5											
GD	6											
CJ	7											
SR	8											
SI	9											
SPC	10											
Total												

Flander (1970 cited in Putri 2014)

#### **NOTE**

AF: Accept feelings

GD : Give Direction

PE: Praise or encouragement

CJ: Criticizing or justifying authority

AI: Accept or uses idea of students

SR: Student talk response

AQ: Asking question

SI: Student talk initiation

L: Lecturing/Lecture

SPC: Silence or pause, or confusion

### 3.5 Recording

The researcher used video recording to collect the data of English teacher and students of Eleventh grade of MAN Bawu Jepara's performance in conversation by recorder. It helped the researcher to get more valid data. The process of recording conducted for two times. And later, the video recorded will be enclosed at Facebook.

### 3.6 Procedure of the Research

There are some procedure of the research, as follows (Putri, 2014: 41):

1. The researcher and co-researcher come to the class and sit at the backside.
2. The researcher prepare audio recording and guidance and rules of Flander interaction analysis.
3. The researcher put code on the particular the teachers and students talk in order to get expected data.
4. The researcher put the plotting of the code data into matrix of Flander interaction analysis.
5. The researcher conducted the observation at three meetings for one class.
6. The researcher calculate the teacher and students talk during teaching and learning process by Flander's formulas
7. The researcher identify students' and teacher's characteristics by referring to the Flander's interaction matrix to identify the

researcher analyze and the correlation between the teacher and the students talk time and students' and teacher's characteristics that they got.

### 3.7 Technique of Data Analysis

#### 1. Flander's Formulate

##### a. Teacher Talk Ratio / Percentage of Teacher Talk (TT)

In TT there seven categories that should be calculated.

$$TT = \frac{C1+C2+C3+C4+C5+C6+C7}{N} \times 100\%$$

##### b. Indirect Teacher Talk Ration (ITT)

$$ITT = \frac{C1+C2+C3+C4}{N} \times 100\%$$

- 1) It indicates the teacher's actions in encouraging and supporting the students participation.
- 2) Its percentage can be calculate by adding the tallies of the first four categories and dividing by the total tallies of the matrix (N)

##### c. Direct Teacher Talk Ration (DTT)

- 1) It indicates the teacher's actions restricting the student participation.
- 2) In this ratio, the tallies of 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> categories are added and divided by "N" to calculate the percentage.

$$DT = \frac{C5+C6+C7}{N} \times 100\%$$

d. Students' Talk Ratio/Percentage of Students Talk (PT)

- 1) It indicates verbal activities of the students in response to the teacher.
- 2) In this ratio, the tallies of 8th and 9th categories are added and divided by "N to calculate the percentage.

$$PT = \frac{C8+C9}{N} \times 100\%$$

e. Silence or Confusion Ratio (SC)

$$SC = \frac{C10}{N} \times 100\%$$

f. Indirect and Direct Ration (I/D)

$$\frac{I}{N} = \frac{C1+C2+C3+C4}{N} \times 100\%$$

### 3.8 Flander's Interaction Matrix

Flander's Interaction Matrix is used to identify the characteristics of teacher talk and students talk during classroom activity. These are the analysing rules of Flander's observation tally sheet that is recommended by Flander (1970 cited in Li et all. 2011 in Putri, 2014: 45) :

- 1 [Total] The cells in the total row show how much the teacher's and students' talking time and silence that indicate their characteristics at the classroom interaction.
- 2 [Row 4-5, Column 4-5] show how much the teacher asks question and lectures in the classroom.

- 3 [Row 1-3, Column1-3] show how much the teacher uses of acceptance and praise that indicate an encouraging teaching style. The teacher's characteristic is teacher support.
- 4 [Row 8-9, Column8-9] indicate how much the students participate at the classroom interaction that is expected being a frequently event in a class with more interactions.
- 5 [Row 6-7, Column 6-7] indicate how much the teacher gives direction and criticizes the students' behavior. The teacher's characteristic is teacher control.

