

# A Study of Classroom Interaction in Microteaching Class Conducting in English: The Case at Fifth Year of Science Education Study Program of Semarang State University

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**Abstract**— Microteaching subject is one of the compulsory subjects in Semarang State University, especially in education program. This subject is conducted both in Indonesia and English language. The students of Science Education Study Program must take microteaching subject on the fifth semester of the study. The lecturer of this subject is not from English Department, but she is from Science Education Study Program. The objectives of this study are to explore the classroom interaction characteristics and to find out whether or not the English classroom activities as used to teach at fifth year of Science Education Study Program of Semarang State University have met Walberg's teaching effectiveness. The subject of the study was 42 students and one lecturer at the fifth year of Science Education Study Program of Semarang State University. The observation used two instruments to obtain the data; Flanders Interaction Analysis (FIA) to identify the classroom interactions, and teaching effectiveness elements based on the Walberg's theory. The results of the analysis showed that the most dominant characteristic in classroom interaction was the content cross. It showed that the students were active enough in the classroom interaction.

**Keywords**—classroom interaction, microteaching, teaching effectiveness.

## I. INTRODUCTION

**S**TUDIES on classroom characteristics are developing rapidly, such as study on student-centered classroom (Jones L, 2007), learner-centered classroom practices and assessments (McCombs, B., & Miller, L, 2007), the influences of classroom characteristics and teacher-student relations on student academic achievement (Anna Vu, 2009).

In this globalization era, English, as the world language for international communication and science, will be used for communication in many countries. According to Ramelan (1992:2-3) English as an international language is used to communicate, to strengthen and to fasten relationship among all countries in the world in all fields, for example in tourism,

business, science, technology, etc. Considering the importance of English, people from various non-English speaking countries, including Indonesia, learn English either as a second or a foreign language.

In Semarang State University, the students are also forced to have English skills to prepare them in the work field. The students of Science Education Study Program of Semarang State University must take microteaching subject on the fifth semester. They must take this subject in order to prepare the teaching practice in the real school next year. This subject is conducted both in Indonesia and English language for one semester (16 meetings). The teaching-learning process that conducts in Indonesia is spent for eight meetings, and for English is spent also for eight meetings. The lecturer of this subject is from Science Education Study Program, not from English Department. Because of that reason, the interaction in this microteaching class is supposed to be different from the general ones. The lecturer might use English for the whole interaction program with the purpose that the students can improve their mastery in English. One of the reasons is that when English is used as a scaffolding talk, the students are getting used to interact in their daily activities using the language (Diknas, 2004: 63).

Based on the syllabus of the microteaching subject, students, in the end of the course, should meet the standard competency of the subject; students are expected to apply the teaching skills in classroom using English, such as opening, closing, giving questions and answers, organizing classroom, explaining material, teaching a small group or individual student. Conducting microteaching class using English for non-English Department student is not a simple job. It needs to have particular preparation such as the lecturer's competencies (approach, method, technique, media, and material) and also learning environment, or classroom setting. For the sake of having more concentration to the research, the discussion will be focused on the classroom interaction between lecturer and students whether or not will influence the learning activities and learning outcomes.

The classroom climate is built up by the pattern of interaction between lecturer or teacher and students' verbal exchange, asking questions, responding and reacting. The most

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important factors in a classroom situation are the interactions and exchanges initiated by teacher and students. Since the lecturer and the students are from Science Education Study Program and they are not used to communicate and explain in English, the interaction characteristics might be different with classroom interaction in general or in English class. The objectives of this research are to explore the classroom interaction characteristics and to find out whether or not the English interactions as used to teach microteaching subject at the fifth year of Science Education Study Program of Semarang State University have met Walberg's teaching effectiveness.

## II. RESEARCH METHOD

This study was an observational type of the descriptive method. The following procedure was adopted for studying pattern of classroom interaction and the teaching effectiveness. The population as the sources of the data in this research was the microteaching subject class students at Science Education Study Program of Semarang State University. The students and the lecturer became the subjects of the research. There were 42 students and one microteaching subject lecturer, Novi Ratna Dewi, M.Si. In this research the writer used observation as the instrument to collect the data. The writer observed the interaction between lecturer and students in teaching learning process. Besides, the writer also observed the teacher's performance during teaching learning process. This observation was done to explore the classroom interaction characteristics and to observe teaching effectiveness in teaching learning process.

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The observation data were taken from the fifth year of Science Education Study Program of Semarang State University. In order to obtain the data, the following observation procedure was adopted:

1. The writer observed 4 meetings of microteaching using English classroom.
2. In each class period of 90 minutes, 30 minutes (1800 seconds) were used as observation period.
3. 30 minutes (1800 seconds) were divided in to three time units.
4. One time unit was 10 minutes (600 seconds).
5. In the first thirty minutes of the class observation period, one time unit was observed randomly, comprising 10 minutes (600 seconds).
6. In the second thirty minutes of the class observation period, one time unit was observed randomly, comprising 10 minutes (600 seconds).

7. In the third thirty minutes of the class observation period, one time unit was observed randomly, comprising 10 minutes (600 seconds).
8. Total time for observation in a classroom comprised 30 minutes (1800 seconds) in each meeting.

Camera video was settled in the best position to record the classroom interaction, while the researcher sat at the back of the classroom to take back up notes on students' responses which were otherwise not recorded in camera.

### A. Flanders Interaction Analysis

The first instrument in this research is FIA (Flander's Interaction Analysis) that was developed by Flanders (1970) and has been used extensively in various studies regarding classroom interaction. FIA is a standardized check list type instrument which has the following steps as the procedures:

- Step 1: Coding the verbal interaction
- Step 2: Plotting the coded data into a matrix
- Step 3: Analyzing the matrix
- Step 4: Analyzing additional data

### B. Elements of Teaching Effectiveness by Walberg's

To find out whether the interaction in class meets the requirements of the teaching effectiveness elements, the following observation sheet was used beside the Flanders Interaction Analysis instrument.

TABLE I  
FLANDERS INTERACTION ANALYSIS INSTRUMENT

No	Teaching Elements	Yes	No
1	Academic learning time		
2	Use of reinforcement		
3	Cues and feedback		
4	Co-operative learning		
5	Classroom atmosphere		
6	Higher order questions		
7	Advance organizers		
8	Direct instruction		
9	Indirect teaching		
10	Democratic classroom		

## III. RESULT AND DISCUSSION

### A. Result

From the data collection, this research recorded four meetings of classroom interactions. Each meeting was observed in 30 minutes length. The observed behavior was translated into the descriptive codes. The summary results could be seen as follows.

In order to know the teaching effectiveness in microteaching classroom interaction, the second instrument (Walberg's teaching effectiveness observation sheet) was used. The following table is the results.

TABLE II  
SUMMARY RESULTS OF CLASSROOM INTERACTION CHARACTERISTICS

No	Profile	First	Second	Third	Fourth	Total
1	Content Cross	99.22 %	93.88 %	88.11 %	70.11 %	87.83 %
2	Teacher Control	1.50%	1.50%	3.67%	3.33%	2.50%
3	Teacher Support	0.44%	0.50%	1.05%	0.72%	0.68 %
4	Student's Participation	14.22 %	17.89 %	20.22 %	36.50 %	22.20 %

TABLE III  
SUMMARY RESULTS OF ADDITIONAL DATA

No	Profile	First	Second	Third	Fourth	Total
1	Teacher's Talk	58.50%	61.06%	59.67%	50.50 %	57.43 %
2	Lecturing	37.55%	32.67%	30.67%	19.44 %	30.08 %
3	Direct Teaching	74.45%	70.88%	70.95%	63.59 %	69.72 %
4	Indirect Teaching	25.55%	29.12%	29.05%	36.41 %	29.79 %
5	Silent	27.28%	21.05%	20.11%	13.00 %	20.36 %

TABLE IV  
ELEMENTS OF TEACHING EFFECTIVENESS IN MICROTEACHING CLASS EACH MEETING

No	Teaching Elements	First Meeting		Second Meeting		Third Meeting		Fourth Meeting	
		Y	N	Y	N	Y	N	Y	N
1	Academic Learning Time	✓		✓		✓		✓	
2	Reinforcement		✓	✓	✓	✓	✓	✓	✓
3	Cues and Feedback		✓	✓	✓	✓	✓	✓	✓
4	Co-operative Learning		✓	✓		✓	✓	✓	✓
5	Classroom Atmosphere	✓		✓		✓		✓	
6	Higher-order Questions	✓		✓		✓		✓	
7	Advance Organizers	✓		✓		✓		✓	
8	Direct Instruction	✓		✓		✓		✓	
9	Indirect Teaching	✓		✓		✓		✓	
10	Democratic Classroom		✓	✓		✓		✓	

## B. Discussions

### 1) Classroom Characteristics

Based on the results, it could be concluded that most dominant characteristics in the classroom interaction was content cross, it meant that most of the teaching-learning time was devoted to asking questions and lecture by the teacher. Here, asking questions means the teacher asks a question about

content or procedure with the intent that a student answers, while lecturing means giving facts or opinion about content or procedure with his own ideas, asking rhetorical question. So, the classroom activities were still in a teacher's dominant or teacher-centered learning, just like typical classroom characteristics in Indonesia. Teacher-centered learning or passive learning, on the other hand, occurs in a setting that the teacher plays the main role. Bowers and Flinders (1990) identified teacher-centered model as an industrial production in which student is a product and behaviors of "exit skills" or "out comes". In this class, teacher spent the most her talking time in explaining the material to the students. She used English in all her teaching activities. The students also tried to respond their teacher in English, but sometimes they still used Indonesian when they couldn't find the words in English.

Teacher control had a little proportion in the classroom interaction. It showed that the teacher used a little time to control the students, such as giving direction and criticizing or justifying activity. It meant that the teacher gave directions, commands, or orders to which a student was expected to comply in little proportion. Teacher gave direction when she asked the students to do assignments or tasks and to answer the questions. The result also reflected that the teacher spent a little time to accept feeling, praise or encourage the students, and accept or use ideas of students. The teacher rarely clarified, built, or developed ideas suggested by a student. It would be better if the teacher praised the students more to increase the students' participation in classroom interaction. Teacher praised the students by saying praising words or phrases to the students who answered the teacher's question correctly; e.g. good, excellent, etc.

The students were active enough in the classroom interaction. The result showed that the students' participation (students' talk response and students' talk-initiation) was high enough from the total teaching-learning time. The teacher spent the teaching learning time in a good proportion. She used the teaching learning time for explaining materials, asking questions, giving tasks and other activities in a fit proportion. Teacher could arrange the time well, but some meetings the silent proportion was still high.

### 2) Teaching Effectiveness

Walberg in 1986 made the most comprehensive review of elements of teaching effectiveness. The selected elements consists of academic learning time, use of positive reinforcement, cues and feedback, cooperative learning activities, classroom atmosphere, high order questioning, and use of advance organizers. Each elements of teaching effectiveness are discussed one by one as follows;

#### 1. Academic Learning Time

Teacher's talking time was the dominant proportion in the classroom, then the students were active enough in the classroom interaction, but the silent time was in high proportion. Silent time means confusion, pauses, short periods of confusion in which communication cannot be understood by

the observer. It meant that sometimes the teacher didn't prepare the class well. It would be better if the teacher prepared everything before the class started, so there was no confusion or silent time in the teaching learning process.

## 2. Use of Reinforcement

According to Chitiyo and Wheeler (2009), educators can teach students appropriate behaviors by establishing classroom routines, modeling desired behaviors, and building naturally occurring reinforcement aimed at displaying positive behaviors and improving the classroom environment through the use of positive reinforcement. In the observed classroom, the proportion of reinforcement was in very small proportion. Teacher didn't usual to give reinforcement to the students. In the first and second meetings, the teacher didn't reinforce the students. In the third and fourth meetings, teacher reinforced the students but in little proportion; in the third meeting was 1.44% and the fourth meeting was 1.61% of the total teaching-learning time. The teacher usually reinforced the students after they answered her questions. For example, if the students answered the question correctly, the teacher would praise them with expressions "good; good answer; that's right," etc. But if the student's answer wasn't correct, the teacher would criticize them with expressions "no; it's not correct answer; I don't think so," etc then justified the answer. The teacher never punished the students using action punishment, but only used verbal punishment, e.g critics, reprimand, etc.

## 3. Cues and Feedback

Usually, in a general classroom, after communicating cues clearly, teachers are encouraged to incorporate the same ideas as part of the feedback process (Landin, 1994). In this way carefully chosen cues help teachers target their feedback throughout a lesson and unit. Cues and feedback in this classroom interaction were appeared in the classroom interaction, but in very little proportion. When the students couldn't answer teacher's question, sometimes the teacher would give little cues, so that the students could answer the question. Then after students answered the teacher's question or gave opinion, the teacher gave a feedback. The students also gave feedback to the teacher when the teacher made mistake in explaining the material.

## 4. Co-operative Learning

Several definitions of cooperative learning have been formulated. The one most widely used in higher education is probably that of David and Roger Johnson of the University of Minnesota. According to the Johnson & Johnson model, cooperative learning is instruction that involves students working in teams to accomplish a common goal, under conditions that include the following elements:

### a) Positive interdependence.

Team members are obliged to rely on one another to achieve the goal. If any team members fail to do their part, everyone suffers consequences.

### b) Individual accountability.

All students in a group are held accountable for doing their share of the work and for mastery of all of the material to be learned.

### c) Face-to-face interaction.

Although some of the group work may be parceled out and done individually, some must be done interactively, with group members providing one another with feedback, challenging reasoning and conclusions, and perhaps most importantly, teaching and encouraging one another.

### d) Appropriate use of collaborative skills.

Students are encouraged and helped to develop and practice trust-building, leadership, decision-making, communication, and conflict management skills.

### e) Group processing.

Team members set group goals, periodically assess what they are doing well as a team, and identify changes they will make to function more effectively in the future.

The co-operative learning is an effective way to make the students have active interaction in teaching – learning process. They will interact to their group partner to answer question or do assignment from the teacher. In this observed time, the teacher also asked the students to work in group. The students also gave opinion that the teacher sometimes asked them to work in group.

## 5. Classroom Atmosphere

The observed classroom consisted of 42 students. This condition was not really conducive for the teaching learning process because the number of students was too large. But the classroom was facilitated with teaching media, such as; white board and OHP. The classroom arrangement was similar to other classes characteristic; they sat in a row, usually 3 -4 tables in a row.

## 6. Higher – Order Question

Higher – order questions does not only mean high intense of teacher's question, but also a query that requires the student to analyze and produce a reasoned response, not the teacher's words. In order words, there is not an already prescribed factual answer to the question.

In classroom interaction, the proportion of teacher's question was high enough. The teacher asked questions about content or procedure with the intent that the students answer. The results showed that the proportion of teacher's question was 13.83% in average, from the total teaching-learning time.

## 7. Advance Organizer

The teaching learning process in this class was organized quite well. During the observation (4 meetings), the teaching learning process in this classroom was in similar pattern. In the beginning of the lesson, teacher usually told the students what they were going to study. After that, she asked some questions to the students to review the last meeting's lesson. The next

part, teacher began to explain the material and sometimes asked some students to check whether they understand or not. Some minutes before she ended the lesson, she sometimes gave task or exercise for students' discussion or practice.

#### 8. Direct Instruction

Direct instruction in the classroom interaction reflects the proportion of lecturing, giving direction, and criticizing or justifying authority. In Flanders Interaction Analysis, it is categorized in category 5, 6 and 7. The results showed that the proportion of direct influence was more than a half of teacher talking time in average (69.72%). It reflected that the teacher did more activities in lecturing, giving direction, and criticizing or justifying authority.

#### 9. Indirect Teaching

Indirect teaching is categorized by Flanders in category 1, 2, 3 and 4; accept feeling, praise or encourage, accept or use ideas of students, and ask questions. The results showed that the proportion of indirect influence in classroom interaction was lower than the direct influence. In average, 29.79% of teacher talking time was used for indirect influence. It reflected that the teacher spent more her talking time in direct influence than in indirect influence.

#### 10. The Democratic Classroom

The democratic activity was appeared in this classroom, but only in the second and fourth meetings, because the classroom control was still in under teacher's control. Teacher controlled the activities during the teaching learning process, such as; material, teaching learning time, discussion, doing exercise, etc. The democratic activity in the classroom interaction was done, for example, when the teacher gave exercises or assignments to discuss in groups. The students chose the group's member, and also the group's leader. They tried to do democratic activities through this activity.

### IV. CONCLUSIONS

Based on the data analysis and the results of the study, following conclusions were drawn.

1. The most dominant characteristic in classroom interaction was content cross. It reflected that most of the teaching-learning time was devoted to questions and lectures by the teacher. Teacher emphasized on the subject matters. The students were active enough in the classroom interaction. The results showed, in average, 22.20% from the total teaching-learning time was devoted to students' participation. The students participated in talk-response and talk-initiation. The interaction in this classroom was in three-way communication; there were interaction between teacher-students, students-teacher, and students-students.
2. Most of the teaching effectiveness elements were on the classroom interaction; academic learning time, use of reinforcement, cues and feedback, co-operative learning, classroom atmosphere, higher order questions, advance

organizers, direct instruction, indirect teaching, and the democratic classroom.

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