TEACHER-STUDENT INTERACTION IN A PROJECT-BASED LEARNING CLASSROOM

Muhammad Ilyas Nasruloh*
stephenberg1@gmail.com
*Muhammad Ilyas Graduated in 22 February 2013 from English Education Study Program of Indonesia University of Education

Abstract: This paper reports on a study aiming at investigating the realization of teacher-student interaction during the implementation of Project-Based Learning approach. The data in the form of observations, interviews, and video transcripts were taken from an elementary school English teacher and 30 fifth grade students in a private school in Bandung. The findings reveal that Teacher Talk took a greater proportion than Pupil Talk throughout the interaction. If it is compared with traditional method, Project-Based Learning did not give significant changes in overall percentage. However, Project-Based Learning relatively gives a major contribution especially to the characteristics of teacher-student interaction.

Introduction

Teaching and learning innovations in English are required to maximize each effort in improving student's English proficiency level. The first thing that can be done is identifying the target learners. In elementary school level, the learners are children with the age ranging from five to twelve years old. In those ages, children are in the condition called concrete thinking and having something as a purpose (Cameron, 2001). In other words, children learn to comprehend their environment as a whole, not separated like most adults do (Brown, 2000). It is because many children commonly cannot synthesize their neighborhood into certain categories (Brown, 2000). Hence, children require contextual and meaningful learning environment.

Project-Based Learning (PBL) is an approach which encompasses contextual and meaningful learning. The learning takes both teachers and pupils into real-life situation, real problems, and real solution in such a way that the pupils cannot see barriers between what they learn inside and outside the class.

Besides, the learning also leads the pupils to be active as well as constructive learners. It means that the pupils independently develop certain skill that can assist them in the future.

In order to provide students with a contextual and meaningful learning, some teachers in a private elementary school in Bandung started to employ Project-Based Learning (PBL) approach. They expect as what Bell (2010) claims regarding the positive effects of PBL implementation that it may enhance students' motivation and leads them to think in a critical way. In addition, Thomas (2000) mentions that PBL practically enacts learning relevant to real world, offers many chances to go deeper into a number of concepts and considers authenticity as the most important aspect.

Based on the explanation above, this research is intended to discover, describe, and compile in-depth information about the implementation of Project-Based learning (PBL) approach as a means to enhance students' speaking strategies in elementary school level. In doing so, the researcher is going to conduct a case study in a private elementary school in Bandung. Hopefully, by applying Project-Based Learning approach, students are going to master speaking strategies in such a way that it enables them not only to develop other supporting skills exclusively but also positive learning attitudes.

Literature Review

- Young Learners

The term young learners employed in this paper refers to those who are learning in the elementary school, that is to say, children in the first grade to the sixth grade (Curtain and Dahlberg, 2004). Young learners in the upper level of primary school are considered as older learners (Pinter, 2006) or children in the second age group (Scott and Ytreberg, 1992).

- Teacher-student Interaction

Flanders' system is an observational tool used to classify the verbal behavior of teachers and pupils as they interact in the classroom. Flanders' instrument was designed for observing only the verbal communication in the classroom and ignoring non-verbal gestures.

So far, according to Sampath *et al.* (2007) and Singh *et al.* (2008) there are seven basic theoretical assumptions lay behind interaction analysis.

1. The relation between teachers and students is considered a prominent factor in terms of teaching process and methodology as well.

2. Teachers' behavior primarily shown in classroom in the form of verbal behavior affect pupils' behavior

3. The classroom climate influences the learning process

4. Verbal communication is used predominantly in a normal class situation (*see* also Flanders, 1965)

5. Verbal behavior can be observed with higher reliability than that of non-verbal and it can also be a good indicator to draw overall behavior in classroom

6. Verbal statements of a teacher are considered consistent with his non-verbal gestures as well as his overall behavior (*see* also Flanders, 1966)

7. Teachers can possibly modify his/her behavior through feedback (*see* also Flanders, 1966)

In addition, there are two main processes in the interaction analysis, that is to say, encoding and decoding. The encoding process is used for recording classroom events and preparing observation matrix by encoding the numbers of ten category system. The decoding is process of interpreting observation matrix.

- Project-Based Learning

Project-Based Learning is a systematic teaching method that engages students in learning knowledge and skills through an extended inquiry process

structured around complex, authentic questions and carefully designed products and tasks (Nastu, 2009). In addition, PBL specifically has five criteria. The five criteria are (1) PBL projects are central, not peripheral to the curriculum; (2) PBL projects are focused on questions or problems that "drive" students to encounter (and struggle with) the central concepts and principles of a discipline; (3) Projects involve students in a constructive investigation; (4) Projects are student-driven to some significant degree; and (5) Projects are realistic, not school-like (Thomas, 2000).

Methodology

- Research Design

    The main purpose of this paper is to find out how teacher-student interaction realized in a young learner classroom using activities conducted in the form of Project-Based Learning framework. By considering the purpose, a case study research was conducted in this paper.

- Sites and respondents

    This study was conducted in a well-known private elementary school in northern Bandung. The respondents of this study were a teacher and a fifth-grade classroom which consists of 30 students.

- Data Analysis

    The organized and transcribed were data analyzed using a qualitative method. According to Creswell (1998) and Lodico *et al*, (2006), data analysis in qualitative research is inductive processes. Therefore, the data analysis in this study passed through some steps, namely:

1. Coding the verbal interaction

    The observer sat in the classroom in the best position to see and hear the participants' activities. At that time, all the observed verbal behavior were recorded and translated into the serial number of the category.

2.   Constructing interaction matrix

    After encoding process, the coded behaviors were written in 10 x 10 table known as a matrix. The category numbers of the record sheet tabulated in the matrix table. Each number was entered in the form of sequence pairs, being used twice, first as the first numbers and second as second number. The row of the matrix represent the first number and the columns is the second number (*see* Flanders, 1970).

3. Interpreting the interaction matrix

    After completing the matrix, the researcher noticed that some areas had tallies than others. It surely gave information about who was talking and what kinds of talking were taking place.

4. Data display.

    The data displayed in the form of figures and tables.

5. Conclusion drawing.

    The researcher made an interpretation toward the data in such a manner that the researcher is able to obtain an in-depth description of teacher-student interaction patterns (Creswell, 1998; Lodico *et al*., 2006).

Data Presentation and Discussion

There are three points to be underlined in accordance with the findings above. Firstly, it could be generally observed that the teacher tended to dominate the verbal behavior during the classroom interaction. Secondly, the students seemed to have many opportunities to talk in class but were still restricted in some ways. Thirdly, the students relatively developed some speaking strategies while they were interacting with the teacher.

In teacher-student interaction, the teacher initiated a talk by giving direction, lecturing and criticizing or justifying authority. The teacher always gave commands or direction to which the students were expected to comply. In giving direction, the teacher always employed simple sentences so that the students could understand the message easily (*see* also Cameron, 2001). Unfortunately, the teacher sometimes gave commands or direction in a way that it was hard to be understood. To cope with that, the students employed speaking strategies in the form of asking for clarification.

When it was necessary, the teacher gave lectures to students. This was intended to give clearer description about certain objects or materials which were considered as new things for the students. The particular response from the students towards those kinds of lectures could sometimes appear in the form of asking someone to repeat something. In doing so, they often used some expression, such as "Huh?" or "What?". However, too many lectures were often inappropriate for the students. They sometimes got bored and unmotivated easily. Some students often gave excessive reaction, such as shouting, hitting the desks or making noisy. To cope with that, the teacher shifted from lecturing to ask questions.

In the middle of the process of teaching and learning, the teacher sometimes had to give reprimands with the intent that the students would change their behavior from a non-acceptable to acceptable pattern. When the teacher gave lectures or commands, some students seemed to behave inappropriately to show that they were not interested in activities provided, such as making noise or incurious behavior. In facing such a situation, the teacher pointed out the students and gently asked them to settle down and listen to her. It was solely undertaken because such behaviors potentially impeded the process of imparting knowledge from the teacher to the students (Brown, 2000; Harmer, 2001). Then, the response of the students towards this kind of verbal behavior was simply being silent.

In interacting with the students, the teacher responded to students' talk by asking questions, praising or encouraging, clarifying feeling constructively and developing or making use of ideas suggested by students. In response to those

kinds of Teacher Talk, the students frequently employed some speaking strategies, such as using fillers in order to gain time to process, using conversation maintenance cues and using paraphrases for structures one cannot produce.

To begin, the teacher asked a question with the intent that students would answer it. When the students answered the questions correctly, the teacher always gave positive feedback in the form of praise. At this moment, the students sometimes use fillers and conversation maintenance cues, such as "Hmm" or "Okay". Then, the teacher also gave encouragement whenever the students gave irrelevant answers or do some mistakes.

In addition, the teacher seemed not to be dependent on clarifying the feeling tone of students and making use of ideas suggested by students. It could be seen from the small proportion of talk during the process of teaching and learning. When the students showed their bad feeling at the beginning of the lesson, the teacher sometimes asked for clarification. Instead of using verbal expressions, at this time the students sometimes employed mime and nonverbal expressions to convey meaning (*see* also Brown, 2000; Cameron, 2000; Pinter, 2006). Besides, the teacher exerted ideas of students when the ideas are relevant to project. Then, in expressing the ideas, the students use formulaic expressions, such as "What is __?" or "How to __?" This showed that some students developed their speaking strategy and self-esteem (Blumenfeld *et. al*., 1991; Thomas, 2000).

To sum up, there were three main points to be taken into account in connection with teacher-student interaction. Firstly, the support from the teacher to initiate students' talk and to maintain a conversation with them hinged on praise and encouragement. Then, the process of imparting knowledge or information was primarily dependent on asking questions. Finally, the restriction from the teacher to elicit responses from the students emerged in the form of giving commands or direction.

Although the teacher seemed to be relatively successful in carrying on the learning through Project-Based Learning approach, the students dealt with some inhibitions during the classroom verbal interaction (*see* studies from Gaer, 1998; Fraugolis, 2009). To begin, the students were not familiar with group work. At the

beginning, although clear roles for group members were assigned, some students dominated the work, while others did little work. In the worst case, none of the group members accomplished the project. While doing the project, some students did not use English as a means for communication, but their mother tongue. The teachers fixed these problems by providing a lot of repetition, clear direction, worksheets, modeling and illustrations (*see* also Brown, 2000; Cameron, 2001; Pinter, 2006).

In addition, some students felt that the duration of the project was too long. Such students seemed to have lost interest and motivation in the middle of the project. It seems that short-term projects are more acceptable for elementary school students (*see* studies from Gaer, 1998 and Fraugolis, 2009).

Finally, some students had a difficulty to accept the new role of the teacher as a facilitator, not as a source of knowledge and provider of solutions. At the beginning of project work, some students felt inconvenient with being given a project theme. They seemed to be comfortable with the traditional learning. However, they started to receive this condition soon after realizing that the teacher was there to give her assistant and supports to them. Consequently, the students could overcome their inhibitions in accomplishing group project and their acquisition process would develop during the group project.

Conclusion

This paper attempted to investigate teacher-student in a Project-Based Learning classroom. The results generally showed that the teacher tended to dominate the verbal behavior during the process of teaching and learning. It indicated that even though the teacher used Project-Based Learning, the students still possessed a smaller proportion of talk than the teacher. If it is compared with traditional method, Project-Based Learning did not give significant changes in overall percentage. However, Project-Based Learning relatively gives a major contribution especially to the characteristics of teacher-student interaction. First, the way teacher supported the students was quite different from traditional method. Praise and encouragement were the requirement in PBL in order to

sustain students' motivation while this aspect was not fairly important in traditional method.

Secondly, the process of imparting knowledge or information in PBL was undertaken through asking and answering questions technique. This was relatively different from traditional method which the process of transferring information is undertaken through lecturing. The technique was frequently avoided since it tended to restrict students' performance during the classroom interaction.

Finally, the big proportion of giving directions in Teacher Control indicated that the students were not totally independent learners yet. This surely seemed to contradict a criterion of PBL which mentioned that PBL promotes students to be independent learners. Probably, the contradiction appeared because the observation was only conducted in five meetings. Besides, the project theme was chosen by the teacher so that the students were less enthusiastic and hinged on the teacher's commands.

References

Bell, S. (2010). "Project-Based Learning for 21st Century: Skills for The Future." *The Clearing House*. 83, (2), 39-43.

Blumenfeld*et al.* (1991). "Motivating Project-Based Learning: Sustaining the Doing, Supporting the Learning." *Educational Psychologist,* 26, (3&4), 369-398.

Broughton *et al.* (2003).*Teaching English as a Foreign Language:2ndedition.* New York: Taylor & Francis e-library.

Brown, H.D. (2000). *Teaching by Principles: An Interactive Approach to Language Pedagogy.* New York: Longman.

Cameron, L. (2001). *Teaching Language to Young Learners.*Cambridge: Cambridge University Press.

Capraro, R. M. and Slough, S. W. (2009).*Project-Based Learning: An Integrated Science, Technology,Engineering, and Mathematics(STEM) Approach.* Rotterdam: Sense Publisher.

Cohen, L., *et al*. (2005). *Research Method in Education 5th Edition*. New York: Taylor & Francis e-library.

Cook, V. (1996) *Second Language Learning and Language Teaching*: Oxford: Oxford University Press.

Cresswell, J. W. (2008). *Educational Research.*New Jersey: Pearson Education.

Curtain, H., & Dahlberg, C.A. (2004).*Language and Children: Making The Match, New Languages For Young Learners, Grade K-8,4/E.* Allyn& Bacon.

Depdiknas (2003).Kurilulum 2004.StandarKompetensi. Mata pelajaranBahasaInggris.SekolahDasardan Madrasah Ibtidaiyah. Jakarta: Depdiknas.

Deneme, S. *et al.* (2011). "Teaching a Foreign Language and Foreign Culture To Young Learners". *International Journal of Business, Humanities and Technology.* 1, (1), 152-164.

Fragoulis, Iosif. (2009). "Project-Based Learning for the 21st Century: Skills for the Future".*Routledge: Taylor& Francis Group* 83, (2), 39-43.

Flanders, N. (1970). *Analyzing Teacher Behavior*. New York: Addison-Wesley.

Gaer, S. (1998)."Less Teaching and More Learning."*Focus on Basics Connecting Research and Practice.*2, 50, 1-7.

Gerring, J. (2007). *Case Study Research*. Cambridge University Press: New York United States.

Graham, S. (1997) *Effective Language Learning*. Clevedon: Multilingual Matters.

Grant, M. M. (2002). "Getting A Grip On Project-Based Learning: Theories, Cases, and Recommendations." *Computer Technologies Journal*.5, (1), 1-17.

Halliwel, S. (1992). Teaching English in The Primary Classroom. New York: Longman Publishing, USA.

Harmer, J. (2001).*The Practice of English Language Teaching.* Singapore: Longman.

Hatch, J, M. (2002).Doing *Qualitative Research in Education Settings.*Albany: State University of New York Press.

Johnson, E. B. (2007). *Contextual Teaching and Learning: Menjadikan Kegiatan Belajar-Mengajar Mengasyikkan dan Bermakna*. Terjemahan: Ibnu Setiawan, MLC: Bandung.

Klancar, N.I. (2006). "Developing Speaking Skills in the Young Learners Classroom."*The Internet TESL Journal*.11, 11.

Linse, C.T. (2005). *Young Learners*. New York: MGraw Hill.

Lodico, M.G., *et al.* (2006). *Methods in Educational Research: From Theory to Practice.* USA: Jossey-Bass A Wiley Imprint.

Moon, J. (2000).Young learners Learning English. MacMillan Heinemann, UK.

Nastu, J. (2009). "Project-Based Learning: Engages Students, Garners Results." *eSchool News Special Report*.1, 21-27.

Nihat, S. (2010). "Theory-Practice Dichotomy: Prospective Teachers' Evaluations about Teaching English to Young Learners". *Journal of Language and Linguistic Studies.*6, (2), 22-53.

O'Malley, J. M and Chamot, A.U. (1990) Learning Strategies in Second Language Acquisition. Cambridge: Cambridge University Press.

Oxford, R.L., 1990: *Language Learning Strategies: What Every Teacher Should Know.* Boston: Heinle&Heinle.

Patton, A. and Robin, J. (2012) .*Work That Matters: The Teacher's Guide To Project-Based   Learning.* San Diego: Paul Hamlyn Foundation.

Paul, D. (2003). Teaching English to Children in Asia. Pearson Education Asia Limited: Hong Kong.

Pinter, A. (2006). *Teaching Young Language Learners.*New York: Oxford University Press.

Poonpon, K. (2011). "Enhancing English Skills Through Project-Based Learning." *The English Teacher.* 90, 1-10.

Richards, J. C. (2008). *Teaching listening and speaking: From theory to practice.* Cambridge: Cambridge University Press.

Rubin, J. & Thompson, I. (1994) How To Be a More Successful Language Learner. Boston: Heinle&Heinle.

Sampath K., *et. al.* (2007).“Introduction to Educational Technology.” Sterling Publishers Private Limited, New Delhi (pp 53-64).

Saville-Troike, M. S. (2006). *Introducing Second Language Acquisition.*New York: Cambridge University Press.

Scott, Wendy A. and Ytreberg, Lisbeth H. (1992).*Teaching English to Young learners*. New York: Longman.

Singh,Y.K., et. al. (2008). “Educational Technology: Teaching Learning.” A P H Publishing Corporation, New Delhi (pp 263-280).

SRI International. (2000). *Silicon Valley Challenge 2000: Year 4 Report*. San Jose, CA: Joint Venture, Silicon Valley Network.

Stewart, J. H. (2005). “Foreign Language Study in Elementary Schools: Benefits and Implications for Achievement in Reading and Math”. *Early Childhood Education Journal*. 33, (1), 11-16.

Thomas, J.W. (2000). *A Review of Research on Project-Based Learning*. San Rafael, CA: Autodesk.

Vicheanpant, T. and Ruenglertpanyakul W. (2012). “Attitude about Project-Based Learning and Lecture Based for Develop Communication Skill.” *European Journal of Social Science*. 28, (4), 465-472.

Yin, R. K. (2003).*Case Study Research: Design and Methods (Third Edition).* Sage Publication, Inc. Thousand Oaks California United States.