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# Teacher-student interaction in English class at state senior high school in Banjarbaru

# Ridha Fadillah

Universitas Islam Negeri Antasari, Banjarmasin, Indonesia ridhafadillah@uin-antasari.ac.id

## Muhammad Ridha<sup>\*</sup>

Universitas Islam Negeri Antasari, Banjarmasin, Indonesia ridha@uin-antasari.ac.id

## Ahmad Juhaidi

Universitas Islam Negeri Antasari, Banjarmasin, Indonesia ahmadjuhaidi@uin-antasari.ac.id

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# ABSTRACT

This study investigated the interaction happened in English class at State Senior High School 3 in Banjarbaru, South Kalimantan. English teacher and Class 11 students at Senior High school 3 in Banjarbaru were the research subjects. The object of the research was classroom interaction. Purposive sampling was used in determining the research sample. Flanders Interaction Analysis Category as an observation guide and interviews were used to collect the data in the class. The results indicate that two-way communication among teacher, student, and students occurred in English class. The findings revealed that teacher-talk was 42.79% and student-talk was 53.79%, while silence or confusion was 3.40%. It indicated that two-way communication between teacher and students occurred in English Class. It shows that students are the center of learning process and the students are active during English learning process. However, this study differs from previous studies as the Flanders Interaction Analysis Category used here was analyzed according to the perspectives of foreign language anxiety.

**Keywords:** Anxiety; Flanders' category; Interaction

<sup>\*</sup> Corresponding author

### **1. Introduction**

Interactions between teacher and students during the teaching and learning process always occur. Good interaction is characterized by two-way communication, which ultimately reaches an understanding between teacher and students. In this case, the understanding is the achievement of teacher goals in constructing students' understanding of new knowledge. Dagarin (2004) states that in one classroom situation, teachers and students create two-way communication to achieve the purpose of learning. On the other hand, it is not about the quantity of interaction between teacher and students, but the quality of the interaction. It should be goal-oriented interaction. Therefore, interaction plays a significant role in students' understanding. It has great impact on the quality of teaching and learning. Students who have a good relationship with their teacher show higher academic achievement (Ansari, Hofkens, & Pianta, 2020). When students are active in class, they will learn and understand the lesson well. So, it is obvious that interaction in the classroom is a critical factor for students' understanding. Researchers assume that this condition affect the learning quality for students. Good interaction between teacher and student creates a good climate that influences academic achievement obtained by students (Jafari & Asgari, 2020)

Ideally, the language learning process is a two-way interaction between teachers and students. Therefore, the pattern of teacher interaction determines student engagement in the learning process. From the pre-observation at State High School 3 in Banjarbaru, it was found that the interaction between teacher and students in the English class happened well. This initial finding raised the curiosity of researchers on what and how the interaction between teacher and students in this school. The findings of this study can contribute to improving the learning quality of other schools, especially in the teaching and learning process of English. Hence, the researchers conducted a study related to the interaction of teacher and students in the classroom to reveal the pattern of students and teacher relation in the teaching and learning process. Since the ability to speak, read, write, and listen in English as a foreign language needs to be acquired individually, the students must learn and practice their English directly and individually. On the other hand, seeking out who dominated the instructional activities and why he or she dominated the instructional activities are essential. Therefore, the question of this study was how the interaction happened in English class at State Senior High School 3 Banjarbaru.

## 2. Literature review

The interaction is resulted by two-way communication between teacher and students. Interaction means to ensure the teaching and learning process goes well and the materials deliver to students safely (Meida & Fadhly, 2018). Interaction between teacher and students determines the quality of the teaching and learning process (Dahliana, 2019). Allwright and Bailey (1991) explained that three components make up the interaction consist of input, negotiation, and comprehension. Input is the

speaker's speech to the listener. Through negotiation, listeners will accept the understanding. If the listener responds to the message conveyed by the speaker that will be accepted through the negotiation process, there will be interaction between them. This interaction is seen as a two-way communication process.

Good interaction is an ongoing interaction between the speaker and listener, so a continuous process of understanding happens. In relation to classroom interaction, both teacher and students are speakers and listeners. The teacher influences students through explanation of subject matter, asking questions, giving direction, criticizing, and then the students react to what the teacher does and they respond. Moreover, teacher-students interaction in the classroom is one of the main elements of classroom management. The classroom management components include foundational components, prevention components, and responsive components (Collier-Meek, Johnson, Sanetti, & Minami, 2019). All of these components are largely determined by the ability of teachers to interact with students, verbal or nonverbal interactions. Verbal interactions can be in the form of praise, hope, or motivation while nonverbal interactions describe as teacher gestures that show feedback on student behavior.

Further, regarding interactions in a class, Flanders (1970) found a system of interaction analysis that is known as Flanders Interaction Analysis Category (FIAC). This device is able to record what the teacher and students say in the classroom as a description of classroom interaction. The category consists of teacher's talk, student's talk, and silent or confusion. Teacher's talk is any word the teacher conveys during the teaching and learning process (Solita, Harahap, & Lubis, 2021). According to Flanders Interaction Analysis Category (FIAC), the components of teacher talk are accepting feelings, praising or encouraging, accepting or using ideas of students, asking questions, lecturing (teaching), giving directions and criticizing or justifying authority, and the components of student talk are student talk – responses, and student talk – initiation, and silence or confusion (Flanders, 1970).

Chang (2003) investigated the interaction that happened in an English class as second language learners in a university-based intensive English language program (IEP). It depends on the sociocultural viewpoint of language and learning, which looks language learning as a procedure of socialization into skillful support in socio-culturally language practices. Utilizing information gathered more than seven weeks, this study examined 1) the utilitarian attributes of the interaction worked by the members in their class interactions with an accentuation on the educator's contribution to learner contributions; 2) qualities of learner contributions regarding lexical density and length of normal words, their capacities, and any progressions that may happen in student participation from time to time. At long last, the main pattern of turn-taking interactions was Initiation-Response-Follow-Up (IRF) and learners reacted contrastingly based on the teacher's type of speech. As a rule, changes in learner reactions regarding number and quality of rounds during the semester were vague. But this exploration was significant in light of the fact that it took a gander at how student contributions changed

over time and furthermore recorded their characteristics utilizing a specific expository framework. Since some grown-up second language learning studies have concentrated on classroom interactions from a sociocultural perspective, and even less on IEP, this exploration would add to the subsequent language learning literature by looking at interactions in the adult class in terms of getting the details of what the educator considers to be praiseworthy. This examination would enable English as a second language professional to have progressively explicit thoughts (strategies) about how to manage adult English as the second language learners who are socially assorted in the classroom, indicating a few circumstances in the classroom where language learning happens as well.

In addition, Nurmasitah (2010) investigated the attributes of class interaction and to observe whether English class activities were applied for educating in the tenth grade Immersion at Sekolah Menengah Atas Negeri 2 Semarang using Flanders Interaction Analysis (FIA) to know the interaction in the class, components of teaching effectiveness referring to Walberg's hypothesis, and questionnaire in Likert Scale to quantify students' point of view. The results of the investigation showed that the most dominant characteristics of class interaction in the immersion class were content cross. It reflected that teaching and learning was given to questions and lectures by the instructor. The teacher used 57.43% of the teaching and learning time, while students used 22.20% of the teaching and learning time. This showed that students were dynamic in class interaction. Interaction in this class was in three-way communication; it was the interaction between teacher and students, students and teacher, and students and students. The immersion class interactions met the prerequisites of the teaching effectiveness elements by Walberg. The adequacy components of instructing utilized in the class were; academic studying time, use of reinforcement, cues and feedback, cooperative learning, class atmosphere, high level questions, advanced management, direct teaching, indirect teaching, and democratic class. In light of the students, the teaching and learning process in the class was great, however a few students were awkward with the classroom climate and the discipline of teacher.

Wang and Castro (2010) explored the impacts of classroom interaction between a) learners and learners and b) learners and teachers on the English learning by first language Chinese adult students of English as a foreign language during the language input and output treatments. In stage 1, the two groups were commanded to read and underline the material. After the materials were submitted, the members were asked to create the primary remaking. In the wake of being presented to a similar input material once more, the members produced recreation for the subsequent time. In stage 2, members composed a brief writing on the point given and were shown a composing sample given by the participating educators. The results of this research showed that classroom interaction and the language output could trigger learners to see the target structure and positively affected in improving foreign language learning.

## 3. Method

This qualitative study used the purposive sampling to determine the participants to describe the interaction between English teacher and students that occurred in particular English classroom. The participants of this study were an English teacher and Class 11 students at State Senior High School 3 in Banjarbaru which consisted of twenty-six students.

This study utilized observation and interview based on Flanders Interaction Analysis Category (Flanders, 1970). The observation results were validated by the interview towards the subjects which determined randomized. The observation process done by coding the interaction among teacher and students refers to a matrix based on ten categories of FIAC. Collected data were analyzed through the percentage of teacher and student interactions, then interpreted and drawn conclusion.

## 4. Findings and discussion

From the observation guided by Flanders Interaction Analysis Category (1970), teacher-student interaction showed that teacher talk was 42.79% with giving direction as the highest proportion at 22.34%. While student talk was 53.79% with student talk response at 52.27% and silent or confusion was 3.40% (see Table 1). The results showed that accepting feeling was 5.30%, praising or encouraging was 2.27%, accepting or using ideas of students was 1.89%, asking the question was 4.17%, lecturing (teaching) was 5.68%, giving direction was 22.34%, criticizing or justifying authority was 1.14%, student talk response was 52.27%, student talk initiation was 1.52%, and silence or confusion was 3.40%.

## Table 1

Classroom interaction percentage.

Category	Component	Percentage of Talk	
Teacher Talk	(1) accepting feeling	5.30 %	
	(2) praising or encouraging	2.27%	
	(3) accepting or using ideas of students	1.89%	
	(4) asking question	4.17%	42.79%
	(5) lecturing (teaching)	5.68%	
	(6) giving direction	22.34%	
	(7) criticizing or justifying authority	1.14%	
Student Talk	(8) student talk response	52.27%	53.79%
	(9) student talk initiation	1.52%	
	(10) silence or confusion	3.40%	3.40%

*Source:* Ten items of the component derived from Flanders, N. A. (1970). Analyzing teaching behavior (1<sup>st</sup> Ed.). Reading: Addison-Wesley Pub. Co. p. 174

Table 1 above showed that activities done by the teacher have different proportion. Based on the percentage of seven teacher talk components, it is clear that the highest teacher talk component is giving direction, followed by lecturing (teaching), accepting feeling, asking question, praising or encouraging, accepting or using ideas of students, and criticizing or justifying authority. This condition identifies that the teacher always gives the students opportunities to explore and be active to develop their English ability. Overall, teacher's categories percentage is 42.79% while activities done by the students in English class showed that student talk response has the highest activity (52.7%), and then followed by student talk initiation (1.52%).

Based on the result of interview, student A stated that: ... the teacher gives clear and easy-to-understand directions in teaching and learning process (segment 8). Additionally, student B and D revealed that: when I respond to the teacher's direction, the teacher appreciates me, so there is a sense of pride ... It makes us feel confidents, not scares or nervous (Student B; segment 14 & 16).

You know, my teacher always appreciates me and my friend no matter the responses we give, either right or wrong. For example if our response was wrong, our teacher appreciate our responses first, then show us the correct one. ... So, although I'm still lack of English skills, the appreciation my teacher give strength my motivation in learning English (student D; segment 28 & 30).

Student C stated that:

I feel comfortable because the teacher gives clear directions of what to do when asking for a question. ... So, although I'm still in beginner level it is easy for me to understand about what I should do or...hmmm ... what I should state or explain since the direction is straight to the point (segment 22).

Moreover, it was described that the students were more active in responding to the teacher's command than expressing their initiation. Overall, students' categories percentage was 53.79%.

Looking at teacher's categories percentage produced, teacher's activity was 42.79% while students' activities percentage was 53.79%. It could be concluded that teacher talk component was lower than student talk component. Students were the center of learning process. This showed that the students were active during English learning process. Percentage of teacher talk and student talk component combined was 98.58% while percentage of silence or confusion was 3.40%. This number showed that silence or confusion in the class was very low which meant that teacher and students activities were very active and focused on the material and learning process.

The finding was supported by the data obtained from the interview with the students. It showed that the teacher has given students clear explanations and instructions for class activities (Sofyan & Mahmud, 2014) encouraging students to speak and participate actively through asking questions (Khusnaini, 2019). Students

confirmed that their activeness was caused by the role of teacher which always gave them clear direction what to do then during the learning process and always created unstressed class situation. They emphasized that direction given by the teacher encouraged them to participate actively in the class by responding all commands and questions.

It is possible to draw conclusions based on the findings that two-way communication signed as interaction happened in English class. Despite the teacher talk percentage was lower than student talk, it did not mean that teacher was not active, both teacher and students were active in the learning process. Students were active because the teacher always gave direction to the students. It indicated that the teacher's communication style while talking to students were supportive, creative, friendly and encouraging (Dahliana, 2019). Moreover, the teacher organized the learning process well and the students responded actively after getting direction from the teacher.

It is signed by the highest percentage of student talk response. Here, students were the center of the learning process which meant that the class was not dominated by the teacher, but students. When the class was silent, the teacher gave direction to the student in order to create an active class. Teacher directed the students to a topic and used statements and questions in giving information to the students. After explaining the material, the teacher gave sentences as examples and questions to the students to practice their English based on the material until the students understood well. This two-way communication showed that the situation was educative interaction that happened in the class to reach educational goals.

The reasons for the results could be focused on the role of teacher. In this study, as a tutor, the teacher always responded to all students' expressions and always gave direction on what to do next. The teacher facilitated the students in acquiring new knowledge. Students gained new knowledge through social interactions in which the teacher facilitated the learning process to be more active. It is obvious that emphasizing on social interaction is important thing in teaching and learning process.

Referring to the role of teacher, Harmer (2007) states that the roles of teacher in the class are as controller, prompter, assessor, resource, and tutor. He highlighted that as a language tutor, a teacher is an advisor who responds to what the student is doing and advises them on what to do next so that teacher, as facilitator, has huge task to transfer their knowledge by facilitating all students to participate actively in the class. Breen & Candlin (1980) state that teacher has two main roles. The teacher should facilitate the communication process among students, between teacher and students, between students and the various activities and texts. In addition, the teacher should act as an independent participant within the learning-teaching group (Breen & Candlin, 1980). These roles imply a set of secondary roles for the teacher: first, as an organizer of resources and as resource himself, second as a guide within the classroom procedures and activities. A third role for a teacher is that of researcher and learner, with much to contribute in terms of appropriate knowledge and abilities, actual and observed

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experience of the nature of learning and organizational capacities. Moreover, teachers play essential roles in providing various activities to facilitate students' learning and create enjoyable desirable teaching climates (Huang, 2021). Teachers should ensure the students engagement in the learning process through active communication with other students and teacher (Ridha, 2021). In short, that role of teacher is as learning organizer, learning facilitator, and learning researcher.

The teacher shows good level of classroom management skills where the classroom management skills consist of teaching skills, psychosocial skills, communication skills and organizational skills (Herman, 2019). Besides being a tutor, another role of the teacher identified in this study is that of an anxiety reducer for the students. In order to learn English, the teacher's role as an anxiety reducer is required. Teachers are expected to be friendly to their students in order to create a pleasant atmosphere in the classroom (Fadillah, 2016). It is assumed that English teacher at state senior high school 3 in Banjarbaru was able to create a lively climate in the classroom, therefore, resulted in making the learning context less stressful. It meant the teacher assisted students to cope with anxiety-producing situation and created unstressful teaching and learning process (Aida, 1994; Elkhafaifi, 2005; Gregersen & Horwitz, 2002; Horwitz, Horwitz, & Cope, 1986; Jia, 2013; Saito & Samimy, 1996; Woodrow, 2006).

Teachers' characteristics or attitudes, such as being helpful and encouraging, could have played an important role in reducing students' anxiety in state senior high school 3 in Banjarbaru classroom. By reducing the student anxiety in English learning process, teacher could increase students' responses to the teacher. So, the students in the classroom were very active. This may be looked at the high percentage of student talk response (52.27%) and the low percentage of silence and confusing (3.40%). It is obvious that always giving direction to the students can increase students' responses to the teacher which makes the students more active in the learning process.

However, this study is different from previous studies. Although this study used Flanders Interaction Analysis Category as an observation instrument like previous studies, the results of observations (see Table 1) and interviews obtained were interpreted based on one of the students internal factors, namely student anxiety in foreign languages learning where the teacher as a facilitator can be a reducer of anxiety in English learning by creating a classroom atmosphere that is not stressful, which in this case was by building good interactions in the classroom as one of examples. Thus, this classroom interaction research took the foreign language anxiety as its perspective.

## 5. Conclusion

From the results of the study, it can be concluded that teacher talk, student talk and silence or confusion have different proportion of percentage. Percentage of teacher talk is 42.79% with giving direction as the highest proportion at 22.34%. While student talk is 53.79% with student talk response at 52.27% and silent or confusion is 3.40%. This indicates that two-way communication happened in the classroom were an educative interaction among teacher and students and between students. From the interview with the students, teacher's direction is able to make them participated actively in the class by responding all teacher's commands and questions. To add, they express that teacher always creates relaxed and unstressed classroom climate. So, the roles of teacher, namely as tutor and anxiety reducer, are the factors that cause and influence the results of the study.

Based on the results of the study, there are some suggestions for the teacher to do in teaching and learning. It is suggested that teacher increases the accepting or using students' ideas which when the teacher accepts, clarifies, constructs, and develops students' ideas, the teacher can expect that students will be even more active in English learning process. Further, the teacher should develop the direction given to the students to raise students' initiations, not only focused on the students' general responses. Thus, it is hoped that not only student talk response gains high percentage of interaction, but students talk initiation will as well. Also, it is hope that the teacher can keep the comfortable and unstressed classroom climate in order to keep the students' activeness in English learning process.

#### References

- Aida, Y. (1994). Examination of Horwitz, Horwitz, and Cope's construct of foreign language anxiety: The case of students of Japanese. *The Modern Language Journal*, 78(2), 155–168. https://doi.org/https://doi.org/10.1111/j.1540-4781.1994.tb02026.x
- Allwright, D., & Bailey, K. M. (1991). Focus on the language classroom: An introduction to classroom research for language teachers (1st ed.). New York: Cambridge University Press.
- Ansari, A., Hofkens, T. L., & Pianta, R. C. (2020). Teacher-student relationships across the first seven years of education and adolescent outcomes. *Journal of Applied Developmental Psychology*, *71*, 1–12. https://doi.org/https://doi.org/10.1016/j.appdev.2020.101200
- Breen, M. P., & Candlin, C. N. (1980). The essentials of a communicative curriculum in language teaching. *Applied Linguistics*, *1*(2), 89–112. https://doi.org/https://doi.org/10.1093/applin/I.2.89
- Chang, S. (2003). *L2 learning through interaction: English learning in an adult IEP classroom* [Doctoral dissertation, University of Georgia]. https://getd.libs.uga.edu/pdfs/chang\_sunmee\_200308\_phd.pdf
- Collier-Meek, M. A., Johnson, A. H., Sanetti, L. H., & Minami, T. (2019). Identifying critical components of classroom management implementation. *School Psychology Review*, 48(4), 348–261. https://doi.org/https://doi.org/10.17105/SPR-2018-0026.V48-4
- Dagarin, M. (2004). Classroom interaction and communication strategies in learning English as a foreign language. *ELOPE: English Language Overseas Perspectives* and Enquiries, 1(1), 127–139. https://doi.org/https://doi.org/10.4312/elope.1.1-2.127-139
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- Dahliana, S. (2019). Students' motivation and responsive pedagogy in language classroom. *Englisia: Journal of Language, Education, and Humanities*, 6(2), 75– 87. https://doi.org/http://dx.doi.org/10.22373/ej.v6i2.4601
- Elkhafaifi, H. (2005). Listening comprehension and anxiety in the Arabic language classroom. *The Modern Language Journal*, *89*(2), 206–220. https://doi.org/https://doi.org/10.1111/j.1540-4781.2005.00275.x
- Fadillah, R. (2016). The effectiveness of dynamic discussion model in English learning. *Arab World English Journal (AWEJ)*, 7(1), 476–489. https://doi.org/https://dx.doi.org/10.24093/awej/vol7no1.29
- Flanders, N. A. (1970). Analyzing teaching behavior (1st ed.). Reading: Addison-Wesley Pub. Co.
- Gregersen, T., & Horwitz, E. K. (2002). Language learning and perfectionism: Anxious and non-anxious language learners' reactions to their own oral performance. *The Modern* Language Journal2, 86(4), 562–570. https://doi.org/10.1111/1540-4781.00161
- Harmer, J. (2007). How to teach English (2nd ed.). Harlow: Pearson Longman.
- Herman, R. I. (2019). Study on the impact of the continuous training program classroom management - effective strategies. *Plus Education*, 25(2), 155–163. Retrieved from https://uav.ro/jour/index.php/jpe/article/view/1378
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(2), 125–132. https://doi.org/https://doi.org/10.1111/j.1540-4781.1986.tb05256.x
- Huang, Q. (2021). Exploring teacher roles in relation to classroom activities in an activity-dominated English class: The learners' perspectives. *European Journal of English Language Teaching*, 6(6), 168–190. https://doi.org/http://dx.doi.org/10.46827/ejel.v6i6.3988
- Jafari, S., & Asgari, A. (2020). Predicting students' academic achievement based on the classroom climate, mediating role of teacher-student interaction and academic motivation. *Integration of Education*, 24(1), 64–72. https://doi.org/10.15507/1991-9468.098.024.202001.062-074
- Jia, X. (2013). The application of classroom interaction in English lesson. *The 2013 the International Conference on Education Technology and Information System (ICETIS 2013)* (pp. 209–212). https://doi.org/10.2991/icetis-13.2013.46
- Khusnaini, N. (2019). The analysis of teacher talk and the characteristic of classroom interaction in English for young learner. *ELT Forum: Journal of English Language Teaching*, 8(2), 166–174. https://doi.org/https://doi.org/10.15294/elt.v8i2.32716
- Meida, S. N., & Fadhly, F. Z. (2018). The analysis of teacher and students talk in Indonesian EFL Classroom Interaction. *Indonesia EFL Journal*, 4(1), 73–82. https://doi.org/10.25134/ieflj.v4i1.886
- Nurmasitah. (2010). A study of classroom interaction characteristics in a geography class conducted in English: The case at year ten of an Immersion class in SMAN 2 Semarang [Master's thesis, University of Diponegoro]. http://eprints.undip.ac.id/23803/1/Sita\_Nurmasitah.pdf
- Ridha, M. (2021). Interaksi dan implikasinya terhadap optimalisasi capaian kompetensi

pembelajaran daring. *Kwangsan: Jurnal Teknologi Pendidikan*, 9(2), 153–166. https://doi.org/10.31800/jtp.kw.v9n2.p153--166

- Saito, Y., & Samimy, K. K. (1996). Foreign language anxiety and language performance: A study of learner anxiety in beginning, intermediate, and advanced-level college students of Japanese. *Foreign Language Annals*, 29(2), 239–249. https://doi.org/10.1111/j.1944-9720.1996.tb02330.x
- Sofyan, R. R., & Mahmud, M. (2014). Teacher talk in classroom interaction: A study at an English department in Indonesia. *ELT Worldwide: Journal of English Language Teaching*, 1(1), 45–58. https://doi.org/10.26858/eltww.v1i1.841
- Solita, R., Harahap, A., & Lubis, A. A. (2021). Teacher talk in English foreign language classroom. *Journal of English Education and Teaching*, 5(2), 302–316. https://doi.org/10.33369/jeet.5.2.302-316
- Wang, Q., & Castro, C. D. (2010). Classroom interaction and language output. *English Language Teaching*, *3*(2), 175–186. Retrieved from https://files.eric.ed.gov/fulltext/EJ1081568.pdf
- Woodrow, L. (2006). Anxiety and speaking English as a second language. *RELC Journal*, 37(3), 308–328. https://doi.org/https://doi.org/10.1177/0033688206071315