Analysis of Teacher and Student Interaction Patterns During Online Learning at the Covid-19 Pandemic Period at SMP Negeri 3 Anggeraja

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Abstract. The Reality shows that the learning process in Indonesia for the last few years has been disrupted by the COVID-19 pandemic which brings many negative impacts, especially at the primary level of education level. Thus, the significant influence rises on the lack of face-to-face but using online application platforms such as Google Classroom, Google Meeting, WhatsApp, etc. This study aims to analyze the pattern of interaction (Instructional Communication) carried out by teachers and students in the online learning process during the covid’19 pandemic at SMP Negeri 3 Anggeraja, Kabupaten Enrekang. The research methodology used is explanatory qualitative. Data were collected using in-depth interviews and then analyzed using the Analysis Interactive Model from Miles and Huberman in the form of data reduction, data display, and drawing conclusions or verification. The results of the study found that the student-content interaction pattern showed that the majority of teachers gave material in the form of learning videos and others to students both in synchronous and asynchronous learning. This activity made students interact with the material. Then for the student-teacher interaction pattern, the teacher uses the assignment method (Asynchronous) and the lecture method (Synchronous) in interacting with students. Student-student interaction also occurs through chat on the WhatsApp and Google Classroom applications as well as through video conference (Google meeting).

Keywords: Interaction Pattern · Online Learning · Covid’19 Pandemic

1 Introduction

The success of the learning process is highly dependent on the quality of communication interactions between teachers and students. During a pandemic like Covid’19 like some time ago. The learning process in schools is required to use online by utilizing information and communication technology which can be in the form of video conferencing applications as learning media.

In connection with this, Effendy (2007) in Nufriion [1], explains that education is communication in the sense of the word that a process involves two components consisting of humans, namely teachers as communicators and students as communicants.
The difference between communication and Education lies in its purpose or expected effect. Judging from the expected effect, the purpose of communication is general while the purpose of education is specific.

In addition, the behavior of teachers and students in online learning can predict the form of interaction used. The learning objectives, the learning strategies that the teacher wants to implement, the provisions that must be implemented during learning, the lesson plans that are implemented, need to be implemented by the teacher by building effective communication with all school members including students. The learning process in the classroom is a process of transforming educational messages in the form of learning materials from teachers to students. The success of the learning process will depend on the effectiveness of the communication process that occurs between teachers and students. The teacher is the party most responsible for the ongoing effective communication in the learning process so the teacher as an educator is required to have good communication skills to produce an effective learning process, following the learning objectives.

There are at least 2 basic considerations that deserve attention to answer why educational communication is very important. First, education expects a holistic, comprehensive, essential, and orderly interpretation of the application of teaching and learning process communication. Without good communication, educational goals will not be achieved. In this situation, Educational communication can be equated with teaching methodology, Education management, education administration. In daily interactions in the world of education, it shows that most of the teacher’s activities in the classroom are communication activities, both verbal and non-verbal. Therefore, poor acceptance of material by students and students is not necessarily due to misguided teachers and lecturers, it could be precise because their communication methods are very bad in teaching. Second, communication in education will show the direction and process of the social construction of reality. Education. As the sociology of knowledge theorists Peter L Berger and Thomas Luckman in Social construction of reality, understand that reality is constructed by the meanings exchanged in the actions and interactions of individuals [2].

The pattern of online learning is essentially the same as face-to-face learning. However, online learning is only done face-to-face via the internet using certain online learning methods. This will be a very difficult challenge for teachers by applying online learning methods. Teachers will work hard so that students can follow online learning methods. Considering conventional learning alone, not many students want to pay attention when learning. But on the other hand, conventional learning has its advantages. Student psychology will be formed if students can meet directly with the teacher. Students can remember the teacher’s teaching style and will always be remembered in students’ minds because teaching does not only gain knowledge but on the other hand, students will get character formation. The emotional relationship formed between teachers and students during conventional learning methods will help students succeed.

In Indonesia, the e-learning method has been known since the early 2000s and developed in the middle of 2006. Abroad, e-learning methods have been commonly used. Based on the ASTD (American Society for Training and Development) survey in 2004, 90% of universities in the United States have used the e-learning method of learning [3].
The learning system implemented by teachers to students in the classroom is slowly eroding because it has been replaced with various online learning applications that provide direct space between teachers and students without having to meet face-to-face in the current pandemic. Therefore, teachers, students, and even parents are forced to adapt faster to use this method. During a situation like this, online learning is the most appropriate solution to do. However, there is still minimal knowledge of teacher technology, students, and parents which is a problem for online learning. Although teachers are asked to adapt quickly to understand learning from various online-based applications, it is not easy.

The success of education has to do with the skills of teachers in learning to their students. As this learning is very important in education that allows students and educators to interact. However, currently, there are not a few educators who still have difficulty using online learning tools. Teachers who only give assignments every day without any feedback or interaction with students. With the presence of the current COVID-19 pandemic, it shows the unpreparedness of the education system in certain schools, such as SMP Negeri 3 Anggeraja in carrying out online learning activities.

According to Moore [4], in online learning there are three different types of interaction patterns, namely:

1. Student-content interaction is a process of intellectual interaction with material that produces changes in students’ self, knowledge, students’ perspectives, or the cognitive structure of students’ minds. This can be in the form of interaction with subjects through videos or textbooks.

2. Student-teacher interaction is a process of interaction between students and teachers who plan curriculum, prepare lessons, present knowledge, organize discussions, and motivate students. In distance learning, students and teachers simultaneously interact synchronously in the form of a video conference application or asynchronously using applications such as WhatsApp, google classroom.

3. Student-student interaction is a process of interaction between students and other students, either in groups or in class. Can be monitored by the teacher or not. Student-student interaction can occur synchronously or asynchronously through the application.

Research conducted by VT Le [5], found that the majority of teachers surveyed held student-student interaction activities, 4 out of 10 teachers held organized activities that could make students interact with each other, such as online talks (asynchronous) or online discussions. (Synchronous), but does not monitor the course of the discussion. In terms of student content, the majority of teachers hold assignments to students at their respective homes, but some teachers do not check that students interact with the material. Regarding student-teacher interaction, teachers mostly use the lecture method to teach online and communicate asynchronously with students through other applications. They try to involve students during the learning, but some do not show involvement.

Shannon and Weaver (1949) that communication is a form of human interaction that influences each other, intentionally or unintentionally. Not limited to forms of communication using verbal language, but also in terms of facial expressions, painting, art, and technology [6].
Seeing the phenomena that occur in online learning during the current covid-19 pandemic, the teacher’s task in learning is to deliver learning materials to students of SMP Negeri 3 Anggeraja through online learning methods, similar to the learning process in the classroom. The success of the teacher in delivering the material depends on the smooth interaction of the teacher’s communication with the students, therefore it is important to analyze further the patterns of interaction and communication disorders that take place at SMP Negeri 3 Anggeraja.

2 Research Method

The research method used in this research is qualitative-explanative. This research was carried out in January 2022 in the even semester of the 2021/2022 academic year at SMP Negeri 3 Anggeraja.

In this study, two sources of data were used, namely primary data sources and secondary data sources. The primary data sources in this study were school principals, teachers, and students at SMP Negeri 3 Anggeraja. The secondary data sources in this study are data directly collected by researchers as support. It can also be said that data are arranged in the form of documents, literature studies, literature, articles, scientific journals, and data from the internet.

The informant withdrawal technique that will be used is purposive sampling. Therefore, in this study, the informant withdrawal technique took the principal, 3 subject teachers (Mathematics, Social Sciences, and Science), and 6 students by taking representatives from the entire class.

Data collection techniques that will be used in this research are in-depth interviews, observation, and documentation. The data analysis technique used in this research is the Analysis Interactive Model from Miles and Huberman, which divides the steps in data analysis activities into several parts, namely data reduction, (data display), and conclusion drawing or verification.

3 Results and Discussion

3.1 Three Types of Interaction

3.1.1 Student-Content Interaction

The results show that the majority of teachers at SMP Negeri 3 Anggeraja use the Whatsapp application, and google classroom in the online learning process, however, some of the teachers have also used google meeting and zoom applications for online learning during the covid’19 pandemic.

Before learning begins, some of the teachers send teaching materials such as learning videos taken from YouTube to be shared with students on the WhatsApp and Google Classroom applications. According to Monje [7], the results show that short videos are the best in active online interactions. Some other teachers also provide material in the form of PDF files, Powerpoint and others. The material that is shared is material that will be discussed during asynchronous and synchronous learning. This activity makes students interact with the material before synchronous learning begins. After students
learn the material. It is time for synchronous learning, when there are things that you want to ask or don’t understand, then the teacher explains the material that is not understood. Then, at the end of the lesson, the teacher is given an assignment.

Content that is usually uploaded in online learning applications can be in the form of learning videos, e-books, PDF files, Powerpoints, and Word files as student teaching materials. Some teachers also provide LKPD (student worksheets) as assignments. Students can also study books given by the teacher in their respective homes. When students do assignments, most of the students look for references on the internet because the teacher gives students the freedom to look for references from anywhere including the internet. For students who have problems with the internet network or do not have a smartphone, they can come directly to the school to take teaching materials or collect assignments.

Most of the students only cheat from the internet in doing assignments, they rarely use their own words, students’ reading interest is still lacking, students’ critical thinking skills are also reduced during online learning. This can be explained by Garisson [8] that some students only access the material to complete assignments. They are not focused on acquiring knowledge but want to achieve good grades with minimal effort.

3.1.2 Student-Teacher Interaction

During the online learning process, teachers at SMP Negeri 3 Anggeraja admitted that they had difficulty controlling and managing students to learn, many of the students were not active or did not pay attention to the teacher while studying synchronously, it could be said that only half of the total number of students who attended and only one or two active students. This is also because parents do not monitor their children when they enter class, it is also caused by the self-awareness of the students themselves.

Most teachers use the assignment method during the online learning process, for example: when at a certain time there is an assignment from the teacher, the teacher informs students via the WhatsApp application then is given time to do the task and collects it again in the WhatsApp or Google Classroom application. During the assignment process, many assignments from students were not collected, were late, or did not even collect assignments at all, seeing this condition the teacher usually notified parents to collect their assignments.

The method used by the teacher during synchronous learning is the lecture method, the synchronous discussion method is also used, but the students are less active in responding to the teacher. For example, the teacher gives a case during a synchronous or asynchronous discussion, most of the students are not active in solving the problems given by the teacher. Usually, only one or two students are active in the discussion. It can also be seen through other examples such as when the teacher asks students about things that are not understood during the lesson, only one or two students ask the teacher again about things that are not understood by the students.

Most teachers admit that the difficulty is the activeness of students in the learning process, many of the students are lazy to do assignments, plus there are more distractions when studying from home, for example, homework (helping parents), playing with friends, playing social media or playing games. In contrast to face-to-face learning, which has fewer distractions.
Another consideration may be that teachers do not have sufficient knowledge about the importance of an interactive process in learning, or have received pedagogical training, training on how to manage, organize, and provide online learning. They only teach intuitively based on what they think is effective. Teachers need to encourage student-teacher interaction in online discussions [9].

Teachers should be given more space in terms of how they decide what methods they use and how they evaluate them [10].

3.1.3 Student-Student Interaction
Interaction between students during asynchronous learning is done through chat on the WhatsApp and Google Classroom applications, while at the time of synchronous learning through the Google Meeting application, the teacher sometimes cannot see it because it sends chats from one student to another.

Student-student interaction also occurs during synchronous learning through video conference, for example, students ask other students either before or after synchronous learning takes place.

The findings show that some teachers do not always facilitate discussions in synchronous and asynchronous forums where students can interact with each other. This is in line with previous research which found that the low interaction between students and other students was caused by the majority of teachers not organizing and facilitating discussions. These findings suggest that discussions in online learning do not start immediately, but need to be regulated and provided by the teacher [11].

3.2 Teacher and Student Challenges in Online Learning Interactions

3.2.1 Network
Some of the areas where students live at SMP Negeri 3 Anggeraja experience disturbances at certain times that can affect teaching and learning activities for teachers and students, for example in one of the villages in the sub-district. Anggeraja, certain locations have a network and some don’t have a network, so if a student’s house doesn’t have a network, the students will look for a place that has a network so usually, in certain places, there are piles of students doing online learning.

3.2.2 Mastery of Information and Communication Technology
The existence of online learning has a positive impact because teachers and students will learn how to use technology, as well as material that can be accessed online instantly and quickly so that students can easily acquire new knowledge and skills via the internet. But on the other hand, there are still many students who have not been able to use technological devices properly and correctly. Starting from how to send assignments, etc., this also happened to some senior teachers who had difficulty using online learning applications to teach both synchronously and synchronously.
3.2.3 Facilities and Infrastructure
There are still many students who do not have tools in the form of smartphones, tablets, or laptops that are used during online learning, which is a problem for students and teachers. Students who do not have smartphones usually borrow from their parents or relatives to study online or students come directly to the school to pick up their materials or assignments and then do them at home.

3.2.4 Parental Support
Parental support for their children in online learning can be said to be not optimal, many parents complain when their children study from home, they also think that online learning is not effective for their children. Besides working and taking care of the household, parents must accompany their children to study from home.

3.2.5 Character Building
The difficulty of teachers in guiding students during online learning makes the process of character building very difficult and can even be said to be lost. According to the teacher, student character is very difficult to form when using online learning because it is not supported by direct interaction with students. Moreover, if the teacher uses the assignment method in teaching, it will be even more difficult.

4 Conclusion
This study found that the interaction pattern in this case student-content is that the majority of teachers provide material to students such as learning videos, Powerpoints, PDF files in the WhatsApp and Google Classroom applications. In addition, teachers also distribute LKPD (student worksheets) and eye books lessons to students, this makes students interact with the material during synchronous and asynchronous learning.

This study also found that the interaction pattern, in this case, was student-teacher, with the majority of teachers using the assignment method (asynchronous) and the lecture method (synchronous). The teacher uses the WhatsApp and google classroom applications for assignments and communicates asynchronously as well as google meetings to teach online (synchronous). Student-student interaction also occurs when synchronous learning through video conference and student-student interaction during asynchronous learning is carried out through chat in the WhatsApp and Google Classroom applications.

Suggestion
Based on this research, the authors provide the following suggestions: 1) Synchronous and Asynchronous learning should be used collaboratively to facilitate online forums or online discussions to improve student-student interaction. 2) Teachers are advised to be more creative in presenting materials such as making learning videos as a medium to increase student-content interaction. 3) Teachers and students are advised to better master Information and Communication Technology to support the smoothness of online learning. 4) Teachers can provide more opportunities for students to actively ask
questions, answer questions, raise problems (case examples) for discussion to increase student-teacher interaction.

**Acknowledgments.** We would like to thank the Principal, Teachers, Staff, and Students of SMP Negeri 3 Anggeraja, Kabupaten Enrekang, and the Kabupaten Enrekang Education and Culture Office for their cooperation during this research.

**Authors’ Contributions.** In the preparation of this paper, all authors contributed to the research and preparation. Author 1 collected data, analyzed the data, and wrote reports then authors 2 and 3 provided input and revised to improve the paper.

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