# The effectiveness of communication and online language disruption during the era of pandemic covid-19 in senior high school students in implementation of learning cycle 7e

*by* Susi Darihastining

**PAPER · OPEN ACCESS**

# The effectiveness of communication and online language disruption during the era of pandemic covid-19 in senior high school students in implementation of learning cycle 7e

View the article online for updates and enhancements.

# The effectiveness of communication and online language disruption during the era of pandemic covid-19 in senior high school students in implementation of learning cycle 7e

**S Darihastining[1*], E S Utomo[2], and Chalimah[3]**

[1]Department of Indonesian Language and Literature Education, STKIP PGRI Jombang, Jl. Pattimura III No. 20, Jombang 61418, Indonesia
[2]Department of Mathematics Education, STKIP PGRI Jombang, Jl. Pattimura III No. 20, Jombang 61418, Indonesia
[3]Department of English Language Teaching, STKIP PGRI Jombang, Jl. Pattimura III No. 20, Jombang 61418, Indonesia

[*]susi.darihastining@stkipjb.ac.id

**Abstract**. OECD in Paris reveals the result of Programme for International Assessment (PISA) 2018 that the ability of students' literacy is 371 out of 487, which means that there are 30% of Indonesian students who have minimum ability of reading. The things that have relation to students' ability in reading are communication and language disruption. During pandemic of COVID-19, learning activity is conducted by using online, in which there are some obstacles and problems in showing the material through visual and audio that create miscommunication among the teachers and the students. In this case, learning cycle 7E is one of learning that is centred in students by emphasizing on the effectiveness of communication and language disruption. The phases of learning cycle 7E are: Elicit, Engage, Explore, Explain, Elaborate, Evaluate, and Extend. This research is conducted by using descriptive qualitative. 32 students of SMA IT Misykat Al Anwar are purposively chosen as the research subject. The research instruments involved are observation, teaching scenario, and interview. It is analysed by using data reduction, data analysis, and conclusion. The result of this research that is conducted in 4 meetings reveals that the students can communicate systematically in language structure implication and the level of language content legibility are fulfilled, moreover, students' verbal communication can expose the students' schemata which can less its miscommunication, other than that, students' language disruption during the implementation of Learning Cycle 7E shows that the students are more innovative in expressing the language content in implementing the digital technology, therefore, it is way more efficient and good result. Therefore, it is needed to apply the *Learning Cycle 7E* in the era of pandemic Covid-19 and answers the challenge of industry 4.0 Era

## 1. Introduction

In the classroom learning, students are required to develop their potency in terms of hard and soft skill in an integrated manner and thoroughly. Therefore, teacher is demanded to have not only knowledge based on the field but also the learning aspects holistically which can support the students' potency in a maximal result [1]. Some integrated aspects in students' learning process are the interaction with the teacher, material, media, instrument, and teaching method. However, based on the result of *Programme for International Assessment* (PISA) in 2018 released by OECD in Paris, it shows that the average ability of Indonesian students in mathematics was 379 from the mean score of 487. In other words, only 28 percent of Indonesian students are classified in the second level. It shows that the learning

implementation in Indonesia has not been maximal yet. One of the factors from the problem is on the students' communication, both orally and written.

During these days' situation, the whole world including Indonesia suffers from pandemic covid-19 which causes significant change in education. The learning process was changed from face-to-face into online learning. Internet-based instructional media constitutes as one supplementary and supporting learning facility during online learning. Furthermore, multimedia-based instructional media is able to support students' understanding about lesson topics, both independent and guided [2]. It has the obstacle faced by the teacher and the students where each teacher is asked to be able to develop in technology skill because the material is given in online way. The students are also hoped to be able to understand the material independently. The use of sentences in delivering the material in online can influence the students' understanding level. It means that if the teacher uses the right sentence in delivering the material, the students will be easier in understanding the material and vice versa. It is uncommon that communication delivered in written can be understood easily. It means that the written communication is difficult to do because it is affected by the language disruption in using the sentences. In online learning, there are many factors trouble the students in understanding the material. One of the impacts in language disruption can raise the students' worry[3]. Therefore, choosing the appropriate teaching model during the global pandemic situation must be considered by the teacher.

Learning method is one of important aspects in learning process. The use of right learning method will give a good impact and vice versa. Choosing the suitable learning model in delivering the lesson content must be suitable with students' characteristics. It is essential in simplifying students to understand the learning concept. One of the solutions in designing the attractive learning activity is by using student-oriented learning model. For the current situation these days, the most available and suitable instructional media is an online-based instructional media that is able to support students' learning in a distance classroom to avoid the spreading of Covid-19. In addition, the distinction features of online learning is there is no limit in terms of time and space. According to [4], The distinction features of online learning are as follows: an unlimited access for both teachers and student to access lesson content from internet, an unlimited time and space, an up-to-date lesson references, a convenient approach to improve students' independence of learning. Furthermore, e-learning  model is able to improve learning qualityu since it is not limited to certain time and space [5].

The learning model of 7E Learning Cycle is a learning model which is included in student-centered approaches. [6] states that 7E Learning Cycle is a learning model with student-centered which consists of series of learning activities that are well-organized thus, the students can master the competency that must be achieved in learning process actively. The knowledge is constructed from the students' experience. It is in line with the opinion [7] that the characteristic of learning model in 7E Learning Cycle is that each student learns the lesson content prepared by the teacher individually. Then, the result of individual study can be brought to groups to be discussed and all the members of the group will be responsible for the answer. According to [6], the implementation of 7E Learning Cycle in oriented learning is the investigation and finding to solve the problem. According to [7] the stages of learning model in 7E Learning Cycle consists Elicit (raising the students' initial understanding), Engagement (involving), Exploration (investigating), Explanation (explaining), Elaboration (elaborating), Evaluation (giving assessment), Extend (enhancing). Referring to 7E Learning Cycle taxonomies and stages, indeed, the role of teacher in the process of learning determines the accomplishment of learning, where there is an interaction between teacher and students in the process of discussion and exploration of students' understanding, particularly during online and distance learning [8 − 9].

Seeing the learning model of 7E Learning Cycle, the students are asked to Elicit (to rise the students' initial understanding), Engagement (to involve), Exploration (to investigate), Explanation (to explain), Elaboration (to elaborate), and Evaluation (to evaluate), Extend (to enhance) in learning process. The purpose of this research is to identify the effectiveness in using learning model of cycle 7E in online learning mainly in communication used by the teacher and the students. Besides, this research aims at observing the language disruption found in online learning via Google Classroom with the implementation of 7E Learning Cycle during covid-19 pandemic.

## 2. Method

The research method employed the qualitative approach. The main instrument was the researchers and the supporting instruments were lesson plan, observation sheet, and online learning documents[10]. The research subject was 34 students of SMA Misykat Al Anwar chosen with purposive sampling during online learning by using Google Classroom. The research procedure done in this research was as follows: delivering the lesson content by the teacher via Google Classroom media, giving the task based on the lesson content discussed, and asking the students to give response as well as the problem solving. The research analysis referred to the communication indicator in understanding, learning joy, and character impact [11]. The research analysis was done in several stages, specifically: data reduction, data explanation, and conclusion to identify the effectiveness of the implementation of learning model cycle 7E in online learning.

## 3. Result and Discussion

### 3.1. Students communication in online learning

During the online learning done in covid-19 pandemic at SMA IT Misykat Al Anwar, it uses Google Classroom for six meetings. The result of the research refers to the discussion done in the online learning process. The written communication written done by teacher is shown in Figure 1.
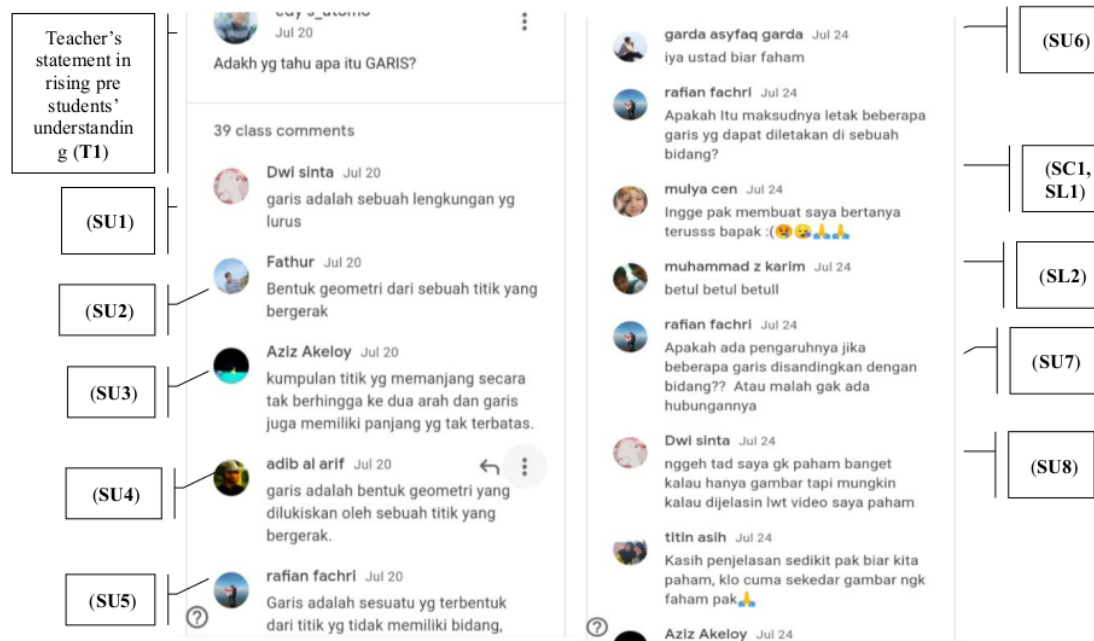


**Figure 1.** Written communication in online learning

Based on Figure 1 show that some communication forms shown by the teacher and students during the online learning refers to the learning indicators to know and to explore the students' understanding by giving the stimuli by the teacher about the definition of line in geometry field. In the indicator of understanding, the student expresses the definition of line based on their previous knowledge where the definition of line is related with the building blocks in geometry as like period. In the subject of SU1 expressed that definition of line is a straight arch. In the subject of SU2 expressed that the definition of line is a geometry form from a moving period while the subject of SU3 expressed that the line as the group of long unlimited periods to the both directions and lines that both of them are unlimited. While the subject of SU4 stated that the line is the geometry form drawn in a moving period and the last is the

subject of SU5 that stated the line as something formed from the period which has no field. Based on the result of the communication shown by each subject that students' understanding, it is still based on the initial knowledge acquired by relating to some items such as period and field. If it is related with the *7E Learning Cycle*, the subjects show the stages of exploration, elaboration and elicitation.

Then, the students also stated how the understanding form in following online learning, such as in SU6, SU7 and SU8 where the subjects expressed that they have not understood the explanation given by their peer in defining the line. It was caused by some sentences which are difficult to be understood. The relation of each indicator in communication during the online learning process is shown in Figure 2.
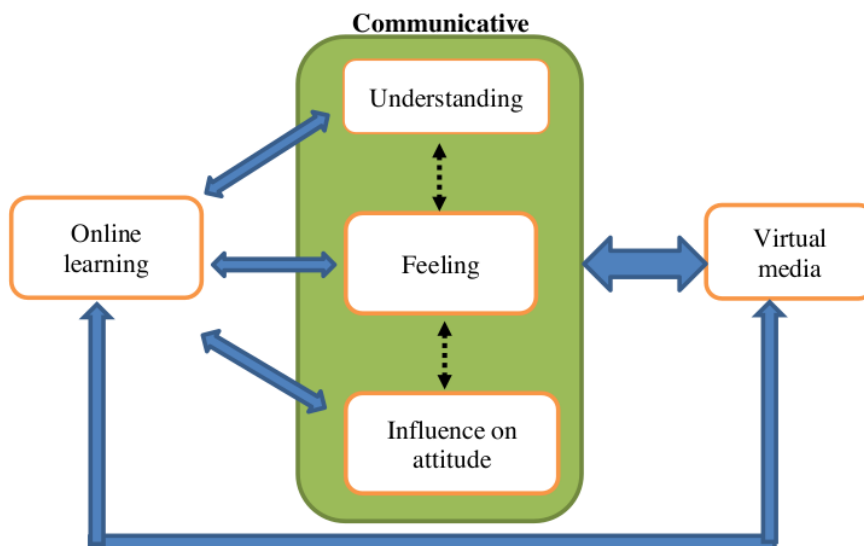


**Figure 2.** Relation between communication and online

Figure 2 shows that the relation between each indicator of communication with the online learning and the use of virtual media is influenced each other. If during the online learning, the student can only have communication by writing, then the students will have different perception. Of course, it will influence the feeling shown by students in understanding the materials. Besides, the written communication can also influence the attitude shown by the students in giving response or answer. Therefore, in online learning it is supposed to combine the virtual media which has not only shown the written communication[12]. If it related to the 7E Learning Cycle, the stage of Evaluation and Extension during learning has not been maximized.

*3.2. Language Disruption*
Disruption is a form of innovation. It is an innovation which replaces the old system with the new one. The disruption replaces the old system which relates with physically learning while the new one relates with digital technology which is more efficient and more benefit. Therefore, the disruption brings innovation to move faster, to think fast with disruptive mindset. The form of change stated by Rhenald Kasali that will be elaborated with the literacy see that (1) through technology can change all the products become digital services and can form the marketplace. (2) the generation who adapts as millennial generation, (3) the demand for human to think exponential not the linear one to respond fast without the relation of time and place with disruptive mindset,(4) the business life moves from massive to platform one, unlimited to the sector but spreads to the multi-industry so it urges to change the old mindset to the new one, gives the new regulation input and creates the new employment, (5) the old form of job in 20

century is changed to technology application and (6) the education finds a big pressure from the aspect of teaching, technology, and quality standard. Algorithm in artificial intelligence will influence significantly in learning process from what to learn becomes how to learn [6]. The view from dr. Kurt Godsten states that the personality determines the way we communicate or the use of verbal behavioural patterns in thinking related with language disruption.

Based on some disruption characteristics through millennial generation that adapt easily and think exponential in solving the problem, the implementation of disruption is collaborated with mathematics science literacy in language communication through 7E Learning Cycle, specifically Elicit (to understand), Engagement (to involve), Exploration (to explore), Explanation (to explain), Elaboration, Evaluation and extension (to extend). It appears that written communication done by teacher and students connected with the character of disruptive communication. The student and the teacher has development and fast responsive, in statement (SU1) "a line is a straight arc" which means the simple definition. In statement (SU2) states "geometric shape of a moving point" which signs that the student can think by connecting the line form and dynamic line. (SU3) states "a collection of points extending infinitely in both directions and the line also has an infinite length". This sentence means that the student can think, count, integrate the statistical measure. The statement in (SU4) and (SU5) means that the student can think and collaborate it with the build fields.

While in Figure 1, the explanation stage in a statement "a line is a collection of points that extends infinitely in both directions an infinite length" and the statement "because it is less than 2, it means that it is not a line but it is a point, why the minimal is 2 because the first point is called point (1) to be pulled by the second point (2) so that gets the line" [13]. In the context of the statement, the student can reason by using algorithm and artificial intelligence which influences significantly in learning process and the student can apply the characteristic from the disruption by thinking exponential in explaining and giving understanding.

### 3.3. Discussion

In online learning by implementing the *7E* Learning Cycle related with the communication and characteristics of disruptive language can be stated that the students with their lacks in translating language system and combining them in a language context as a whole will influence the mastery of thinking competency in mathematics and express in verbal way based on the experience context learnt. In addition, online learning is strongly correlated with students' motivation during learning process, where the motivation is represented by how students express and deliver their opinion as well as emotion that is illustrated. As stated by [14], online learning significantly influences students' motivation and performance, particularly related to the utilization on online-based instructional medi. In other words, [15 − 16] if the students have ability in logical mathematics that the language arranged will be more systematic and can think more exponential in developing mathematics ability. If the mathematics ability is weak the structural use will be less systematic and meaningful [3]. It can be the existence of language disruption and miscommunication in the failure of mathematics thinking and misunderstanding with the language context and it brings the different level of satisfaction. This is contradicting with the arguments of [17 − 18] stating that Google Classroom media is able to provide positive influences on students' learning outcomes as well as learning motivation and it is also able to improve students' creativity. This signifies that there is a strong correlation between a lesson topic and a type of instructional media, where during an exact subjects students mostly encounter disruption and miscommunication compare to non-exact subject lessons.

### 4. Conclusion

Based on the result of the research about the effectiveness of written communication in the application of learning model of cycle 7E, it is known that by referring to the understanding indicator, feeling and attitude influence. In understanding indicator, the subject has obstacle in interpreting each sentence structure used to explain. Each student has different perceptions in understanding materials delivered by the teacher and peer in discussion. In feeling indicator, the student shows the feeling when they cannot understand the material in the picture of emoticon. Finally, the influence of indicator in the attitude from

each student shows the mutual respect to the answer given by teacher and peer. In translating the emoticon also depends on the logical ability and understanding language context.

## References

[1]   Lim D H and Kim H 2003 Motivation and learner characteristics affecting online learning and learning application *Journal of Educational Technology Systems* **31** 423–439.

[2]   Kenney J and Newcombe E 2011 Adopting a blended learning approach: challenges encountered and lessons learned in an action research study *Journal of Asynchronous Learning Network* **15** 45–57.

[3]   Leinonen P and Bluemink J 2008 The distributed team members' explanations of knowledge they assume to be shared *Journal of Workplace Learning* **20** 38-53.

[4]   Goyal E and Tambe S 2015 Effectiveness of moodle-enabled blended learning in private indian business school teaching niche *The Online Journal of New Horizons in Education* **5** 14–22.

[5]   Kintu M J and Zhu C 2016 Student characteristics and learning outcomes in a blended learning environment intervention in a ugandan university mountains of the moon university and vrije universiteit brussel *The Electronic Journal of E-Learning* **14** 181–195.

[6]   Lin B and Vassar J A 2009 Determinants for success in online learning communities. *International Journal of Web-based Communities* **5** 340–350.

[7]   Maskur R, Latifah S, Pricilia A, Walid A and Ravanis K 2019 The 7E learning cycle approach to understand thermal phenomena *Jurnal Pendidikan IPA Indonesia* **8** 464–474.

[8]   Gazi Z A 2009 Implementing constructivist approach into online course designs in distance education institute at eastern mediterranean university *Turkish Online Journal of Educational Technology* **8** 68–81.

[9]   Coldwell J, Craig A, Paterson T and Mustard J 2008 Online students: relationships between participation, demographics and academic performance *The Electronic Journal of E-Learning* **6** 19–28.

[10] Utomo E S, Juniati D and Siswono T Y E 2018 Exploring aspects of mathematical visualization of junior high school student in a problem-solving task *Malaysian Journal of Mathematical Sciences* **12** 421–436.

[11] Genot E J 2018 *Strategies of inquiry: the 'sherlock holmes sense of deduction' revisited Synthese* **195** 2065-2088.

[12] Darihastining S, Ambarwati A, Kustiyarini K and Sulistyaningsih E 2019 Jombang local stage literary as the strengthening media for character education of cultural literacy *SSRN Electronic Journal* 29–30.

[13] Darihastining S, Sholihah I, Nur F, Putri A and Hidayah A W 2019 Online game as a media to improve students ' speaking skill *ISLLAC: Journal of Intensive Studies on Language, Literature, Art, and Culture* **3** 156–168.

[14] Kazu I. Y and Demirkol M 2014, Kazu I Y and Demirkol M 2014 Effect of blended learning environment model on high school students' academic achievement *Turkish Online Journal of Educational Technology* **13** 78–87.

[15] Utomo E S, Juniati D and Siswono T Y E 2017 Mathematical visualization process of junior high school students in solving a contextual problem based on cognitive style *AIP Conference Proceedings* **1868** 050011.

[16] Arum D P, Kusmayadi T A and Pramudya I 2018 Students' logical-mathematical intelligence profile *Journal of Physics: Conference Series* **1008** 012071.

[17] Chitanana L 2012 A constructivist approach to the design and delivery of an online professional development course: A case of the iearn online course *International Journal of Instruction* **5** 23–48.

[18] Sang C 2010 Designing an online class using a constructivist approach *Journal of Adult Education* **39** 26–39.

# The effectiveness of communication and online language disruption during the era of pandemic covid-19 in senior high school students in implementation of learning cycle 7e

# The effectiveness of communication and online language disruption during the era of pandemic covid-19 in senior high school students in implementation of learning cycle 7e

FINAL GRADE

## /0

GENERAL COMMENTS

**Instructor**

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8