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## DIGITALIZATION OF EDUCATION AND STUDENTS' ABILITY TO LEARN POST COVID 19 PANDEMICS

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### ABSTRACT

This research focuses on the topic of students' ability to receive material in digital learning. This research aims to see in detail how students receive material, where different student abilities are motivated by geographical, economic and social conditions in their lives. The differences that exist will distinguish the range of students in capturing material delivered digitally.

This research uses a qualitative method with a phenomenological approach to see the real experiences experienced by students. Determination of informants using probability design and purposive sampling. Data collection techniques used primary and secondary data by conducting semi-structured interviews. Data analysis uses data processing, analysis and making conclusions on the results of the study.

The results show that the digitalization of education has a positive impact on students' abilities in online-based learning, especially in the aspects of technology skills and the ability to learn independently. However, there are still obstacles in using technology and limited access that need to be overcome. The implication of this research is the importance of technology integration in the learning process and the expansion of digital access for all students to optimize students' ability to learn based on technology.

**KEYWORDS:** Ability, Learning, Digitalization

### 1. INTRODUCTION

Information and communication technology has become an integral part of modern human life [1]. More than half of the global human population has been connected to the internet and utilizes it for various purposes [2]. The development of information and communication technology is even

broader in its development through data, artificial intelligence, machine learning, internet of things (IoT), and automation [3]. These various developments create new opportunities to facilitate human work through adaptation and increasing the digital intelligence of society as a whole [4].

The use of technology or digitalization also touches the world of education, where the integration between the world of teachers and technology creates new challenges for the world of teachers themselves [5]. Digitalization of teachers itself has the benefit of overcoming the problem of accessibility of the teacher itself through a distance learning mechanism that makes knowledge accessible from the location of all students [6]. Digitalization also affects and changes the dynamics between students and education itself. Students are beginning to explore new opportunities arising from technology for their future and expect the classrooms they attend to be able to accommodate learning about these opportunities [7]. Furthermore, the digitization of teachers also enhances the two-way communication between teachers and students [8]. Specifically, teacher digitization will create conditions where classroom learning needs to accommodate a variety of different student characteristics rather than the conventional interaction through teacher and student meetings in the classroom [1].

The digitization of education has changed the paradigm of education policy and transformation in many parts of the world. Developed countries have utilized the digitalization of education through technological adaptation to fill the skills gap between the labor market and students as future workers, and open up new opportunities [9]. However, developing countries experience difficulties in implementing education digitization due to limited capabilities and resources, political instability, and often late policy development [10]. This creates a real gap in the practice of digitizing education itself, which will ultimately impact students' competitiveness and progress to meet the future in a digital world [11].

The arrival of the covid-19 pandemic has accelerated the need to adopt education digitization globally. More than 190 countries are forced to adopt education digitization quickly to protect their students [12], which affects the learning process of more than 1.6 billion students in the world. It is a temporary solution to ensure both education and student safety through distance learning. However, the majority of schools and teachers are not ready for such a drastic change in learning approach [13]. Such drastic changes eventually emphasize and increase the distance learning gap and the effectiveness of learning itself due to the digital divide in each region.

The digital divide that occurs causes schools that are not ready to accommodate the digitalization of education to ultimately only be able to implement digital in low-learning activities such as exercises and watching videos, so that learning effectiveness is not maximized [14]. The role of teachers and educators is needed to overcome the digital divide while helping students achieve their abilities and potential in facing the digital world itself. Teachers play a significant role in developing education directly through teaching and learning activities.

The era of digitization of education has changed the role of teachers from lecturers in the classroom to managers of student behavior and emotions, mentors for students in their learning that will be applied to the real world, to motivators for students to equally adapt to technological changes [15]. The digitization of education means that teachers are no longer the main source of knowledge for students because students can easily access the knowledge they need through the internet (Bates, 2015). Students also have various learning references, so conventional learning methods need to be developed creatively [16].

Teachers face a big challenge to develop interactive two-way communication in the virtual world [17], Teachers also need to develop collaboration methods between themselves and students to maximize digital learning [18]. In general, the digitalization of education makes teachers need to develop learning methods that can accommodate all students in a digital framework, utilize the internet as a source of knowledge, and use facilities on the internet to facilitate the learning process [19].

Teachers in the modern era have difficulty in adapting technology in teaching and learning activities [20]. The availability of access and facilities provided to teachers will directly affect teacher performance in the digitalization of education [21]. The availability of access and school facilities has not been maximized, some teachers also experience difficulties in preparing themselves to develop learning methods that are suitable for the digital era [22]. Teachers are often unable to meet the expectations of their students, which results in a reduced role of the teacher in learning itself [15].

Teachers generally assume that the utilization of technology in teaching and learning activities actually increases the workload of teachers and does not have substantial benefits in the results of teaching and learning activities themselves [23]. Teachers generally focus on the practical aspects of technology itself, but have not succeeded in developing technology to help achieve the goals of teaching and learning. Most teachers can be categorized as 'digital immigrants', individuals who were not born in the digital era so that the use of technology is not part of their daily lives[24]. 'Digital immigrants' generally have problems in maximizing technology and the availability of time and facilities needed to learn the technology [25].

The digital divide in the context of education can be caused by various things, differences in geographical location also affect the process of digital adaptation by schools and teachers and students in related schools [21]. Family income levels also affect a person's ability to become 'digital natives'[26], aspects of gender, race, economic level and technology availability affect the smooth adaptation of digital technology [27]. The digital divide in teachers tends to be more complex, as teachers tend to be in a phase of life where it is more difficult to adopt new technologies as a daily habit [28].

The role of teachers and digital contributions have become a concern in the study of teaching and learning, especially after the pandemic era where digitization of education has been implemented globally. It is necessary that the overall experience of teachers will provide additional depth for specific policies regarding the digitization of education itself [29]. Furthermore, the accelerated digitization of education in the pandemic era creates conditions where the digitization of education has become a necessity, so teachers need to be able to adapt as much as possible to these changes [30]. It is very important that the benefits of digitizing education need to be implemented thoroughly through policies and structural decision-making processes, where teachers and their experiences and problems become an important part of the formulation of decisions and policies [31].

## **2. LITERATURE REVIEW**

### **2.1 Personal Ability**

Ability is an individual's capacity to perform various tasks in a particular job. Ability as mental and physical capabilities to perform various tasks [32]. Abilities consist of two main groups that are most relevant to a person's behavior at work. The abilities in question are intellectual abilities that include the capacity to perform various cognitive tasks and physical abilities that refer to the capacity to perform physical actions. The ability of an individual is essentially composed of two basic sets of intellectual abilities and physical abilities, stamina, dexterity, strength, and similar skills [33]. Furthermore, ability is a capacity possessed by an individual to perform various tasks in a field of work. Ability can be divided into intellectual ability and physical ability [33], [34]. Intellectual ability is the ability needed to perform or carry out mental activities. There are seven dimensions that make up intellectual ability, namely: Numerical intelligence, which is the ability to count quickly and precisely. Verbal comprehension, which is the ability to understand what is read and heard. Perceptual speed, which is the ability to recognize visual similarities and differences quickly and precisely. Inductive reasoning, which is the ability to recognize a logical sequence in a problem and solve it. Deductive reasoning, which is the ability to use logic and assess the implications of an argument. Visualization of space, which is the ability to imagine how an object would appear if its position in space were changed. Memory, which is the ability to hold and recall past experiences [33].

Physical ability can be defined as the ability to perform tasks that demand stamina, dexterity and skill. If intellectual abilities play a big role in complicated work, physical abilities only drain physical capabilities. The high and low level of students in capturing the material delivered by the teacher has an influence on the achievement of student learning outcomes or achievements at school. This is also motivated by several factors, including internal factors and external factors [35].

Internal factors or physical aspects, include the physical condition and health of the individual. Each person has a different physical condition, there are people who can stand to learn for a long time and there are those who cannot stand to learn for a long time. Physical conditions also involve the completeness and health of the senses of sight, hearing, touch, smell and taste. Psychic or spiritual

aspects, concerning psychological health conditions, intellectual, social, psychomotor abilities and affective, cognitive conditions of learners [36]. The demand for fluency requires not only physical health but also spiritual health. Spiritual health is closely related to intellectual conditions, concerning the level of intelligence, talent, and ability to perform some mental activities (reasoning, thinking, and solving problems). Intellectual condition is a student's mastery of knowledge or past lessons.

External factors (coming from outside the individual). Family environment factors, which are the first and main environment in education, provide a basic foundation for the learning process [36]. The school environment also plays an important role in the development of students' learning. This environment includes the physical environment of the school, learning media and so on. The community environment, very large influence on the spirit and learning activities of students. A community environment where citizens have a sufficient educational background, towards educational institutions and learning resources in it will have a positive influence on the enthusiasm and development of student learning.

From some of the above definitions, it can be concluded that learning is a process of changing a person's ability with the acquisition of insight into an environmental situation he experiences. In the learning process, there are fundamental differences in the way each person transfers or absorbs knowledge. The ways of learning are also called learning styles. Learning style is defined as a combination of how information is absorbed, organized and processed [37].

So, a person's learning style is a combination of how he absorbs information, then organizes and processes the information. If it is related to the world of education, learning style means the combination ability possessed by a learner to receive, absorb, organize and process the learning material he receives during the learning process.

## 2.2 Digital Learning

Digital learning in the context of education in the school environment can be defined as a mechanism for educational reform through the transformation of learning practices carried out by teachers to utilize modern technology [38]. The existence of technology is actually a supporting aspect to facilitate the transformation itself, where the existence of technology will affect the improvement of standards and facilitate learning independently. Thus, it can be said that the success of digital learning does not only lie in the technology applied, but also depends on how teachers utilize technology to create collaboration and knowledge formation with students in the new knowledge era [39].

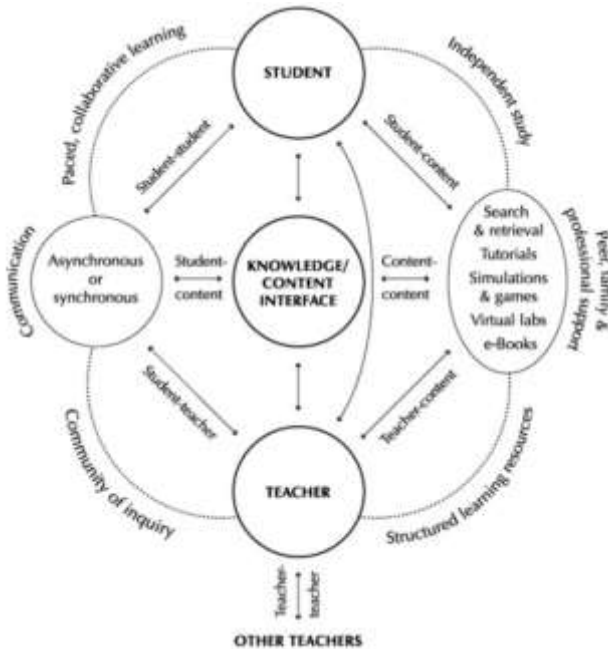
Students and teachers in learning are the main actors who directly absorb, apply, and evaluate the learning practices [40]. In practice, the implementation of digital learning is also influenced by extrinsic influences which are often referred to as the 'first barrier' of digital learning implementation[41]. First, teachers and students need access to physical resources and technical support in implementing digital learning. Secondly, institutional influences such as learning support

for teachers to adapt to technology [42] as well as the culture, leadership style, and support for innovation from schools also influence the implementation of digital learning. Thirdly, the national or compulsory curriculum and its tasks often hinder the implementation of digital learning itself[43].

Furthermore, teachers' intrinsic influence is the most influential factor in the implementation of digital learning [44]. First, teachers' preference for technological adaptation will affect teachers' acceptance and engagement [45] where this preference is formed from professional principles and daily habits [46]. Second, the existence of digital learning disrupts the teaching and learning activities that teachers have mastered [47] thus causing a decrease in confidence [48] and questions about their reputation and credibility as teachers [49]. Furthermore, teachers' internal motivation to improve their skills and knowledge and their ability to design learning mechanisms to respond to challenges [50] influence how teachers implement digital learning. However, teachers' preference and perception of digital learning disruption is a more fundamental factor, where teachers' motivation and ability will increase automatically when teachers have positive preference and perception of digital learning itself [51].

Anderson in his research established an integrated learning model that combines traditional learning approaches with digital learning [52]. In general, the model combines the convergent lens approach in the learning environment consisting of community orientation, knowledge orientation, learner orientation, and assignment orientation with the facility and availability of the internet and the interaction between teachers and students themselves [39]. The model adds that the collaborative approach in teacher and student interaction is a factor that is also influenced by the intensity of interaction between teachers and students, so that the collaborative approach requires a different understanding between interactive classroom learning and independent learning where the interaction between teachers and students is very limited. Anderson's model is presented in Figure 2.2 as follows:





Source: Anderson (2011)  
Figure 2.2 Digital Learning Model

This figure describes how teachers and students as the main objects in digital learning interact with knowledge and the interface of the knowledge content itself. Students as learners have the flexibility to choose the method of interaction with knowledge, either in the form of independent or collaborative learning. Independent learning by students tends to be more flexible, but it is highly dependent on adequate learning resources that can be accessed by students. Furthermore, collaborative learning between students and teachers can be done by utilizing community inquiry in the form of the internet. Collaborative learning allows students to learn social skills and interaction, the principle of collaboration in learning knowledge, as well as developing personal relationships between students or between teachers and students themselves. However, collaborative learning tends to have a certain period of time so that the pace of learning is determined by the planning of predetermined learning sessions or the formation of specific groups according to the speed of understanding of each individual [52].

Collaborative learning model to improve students' ability, it is necessary to see the cognitive condition of students so that the speed of knowledge transformation is evenly distributed. Students' abilities can be seen from the six levels of the thinking process, namely:

- a. Knowledge, is a person's ability to recall or recognize names, terms, ideas, symptoms, formulas and so on, without expecting the ability to use them. This knowledge or memory is the lowest thinking process.

- b. Comprehension is a person's ability to understand or comprehend something after something is known and remembered. In other words, understanding is knowing about something and being able to see it from various aspects. A learner is said to understand something if he can provide an explanation or give a more detailed description of it using his own words. Understanding is a level of thinking ability that is a level higher than memory or memorization.
- c. Application is a person's ability to apply or use general ideas, procedures or methods, principles, formulas, theories and so on, in new and concrete situations. This application or application is a higher level thinking process than understanding.
- d. Analysis (analysis), includes the ability to break down a unit into parts so that the overall structure or organization can be understood properly.
- e. Synthesis is a person's ability to detail or describe a material or situation according to smaller parts and be able to understand the relationship between parts or factors with one another. Synthesis is a process that combines parts or elements logically, so that it transforms into a structured pattern or a new pattern. The level of synthesis is higher than the level of analysis.
- f. Evaluation (evaluation) is the highest level of thinking in the cognitive domain according to Bloom. Assessment or evaluation here is a person's ability to make considerations of a situation, value, or idea, for example if someone is faced with several choices, then he will be able to choose the best choice, according to existing benchmarks or criteria.

**The following is table 2.2  
Classification of learning abilities and how they are characterized;**

Ability / Learning Outcome	The characteristics of
<i>Knowledge</i>	<ul style="list-style-type: none"> <li>➤ Lowest level of learning</li> <li>➤ Ability to recall facts</li> <li>➤ Ability to memorize formulas, definitions, principles, procedures</li> <li>➤ Ability to describe</li> </ul>
<i>Comprehension</i>	<ul style="list-style-type: none"> <li>➤ Able to translate (translation comprehension)</li> <li>➤ Able to interpret, describe verbally</li> <li>➤ Extrapolation comprehension</li> <li>➤ Able to make estimates</li> </ul>
<i>Application</i>	<ul style="list-style-type: none"> <li>➤ Ability to apply subject matter to new situations</li> <li>➤ Ability to apply principles or generalizations to new situations</li> <li>➤ Can structure problems so as to establish generalizations</li> <li>➤ Can recognize things that deviate from principles and generalizations</li> <li>➤ Can recognize new phenomena from principles and generalizations</li> <li>➤ Can predict what will happen based on principles and generalizations</li> </ul>



	<ul style="list-style-type: none"> <li>➤ Can determine certain actions based on principles and generalizations</li> <li>➤ Can explain the reasons for using principles and generalizations.</li> </ul>
<i>Analysis</i>	<ul style="list-style-type: none"> <li>➤ Can separate an integrity into elements, connect elements, and organize principles</li> <li>➤ Can classify principles</li> <li>➤ Foresee qualities/conditions</li> <li>➤ Can predict certain specific properties</li> <li>➤ Recognize patterns and principles of organization of the material at hand</li> <li>➤ Recognize patterns of relationships, or cause and effect</li> <li>➤ Foresee the basic point of view or frame of reference of the material.</li> </ul>
<i>Synthesis</i>	<ul style="list-style-type: none"> <li>➤ Bringing together elements, or parts into a whole</li> <li>➤ Can find unique relationships</li> <li>➤ Can plan concrete steps</li> <li>➤ Can abstract a symptom, hypothesis, research results, etc.</li> </ul>
<i>Evaluation</i>	<ul style="list-style-type: none"> <li>➤ Can use internal criteria and external criteria</li> <li>➤ Evaluation of the validity of a work/document (internal criteria)</li> <li>➤ Determine the values/viewpoints used in making decisions internal criteria)</li> <li>➤ Comparing relevant works (external)</li> <li>➤ Evaluating a work against external criteria</li> <li>➤ Comparing a number of works against a set of external criteria</li> </ul>

## 2. RESEARCH METHOD

This research uses qualitative research, that qualitative research processes information from objects that are considered as cases and is carried out on a broad scope, asks general questions, and most of the data are participants' speech to be analyzed and explained [53]. The research will be conducted in Madiun Regency at Madrasah Aliyah Negeri (MAN) 2 Madiun which is domiciled in a rural area, precisely on Jalan Raya Kebonsari, Rejosari Village, Kebonsari District, Madiun Regency. This school has implemented digital learning, which utilizes the e-learning application from the Ministry of Religious Affairs as the main technology for implementing digital learning.

### 3.1 Research Approach

The approach used in this research is a phenomenological approach. The phenomenological approach studies events in human life through a direct approach to real experiences [54]. The phenomenological approach outlines several characteristics as follows; first, the phenomenological approach focuses on understanding the essence of specific events. Second, the unit of analysis of the phenomenological approach is several individuals who have similar experiences. Third, the phenomenological approach is best used when there is a need to describe the essence of a real event [53]. Phenomenological research pays attention to surface structure and deep structure in its implementation. These two structures are concepts that describe cultural sensitivity, where cultural sensitivity is the degree to

which certain cultural characteristics such as norms, values and behavior patterns are accommodated in the design, delivery and evaluation of a message [55].

### 3.2 Research Focus

Phenomenological research in the context of education can be done by letting participants elaborate on their experiences without any intervention on how they should feel about the experience [56]. The focus in this research is information obtained from teachers who teach with digital learning approaches and related to the digital divide, digital learning adaptation, and the role in overcoming the digital divide. Teachers as research subjects will interpret their experiences, where the meaning will relate to opinions, assessments, expectations, difficulties, feelings and various subjective responses that are still related to gaps, adaptations, and the roles they play in digital learning.

### 3.3 Determination of Informants

This research approach uses non-probability which does not provide an opportunity for all members of the population to be selected as informants in the research [42]. Furthermore, the research uses a purposive sampling technique which is used to select a sample of informants who have rich information and are aligned with the research objectives through determining several criteria [54].

**Table 3.3**  
**List of Research Informants**

Guru		Class X Social Studies		Class XI Social Studies		Class XII Social Studies	
No.		No	Name	No	Name	No	Name
1	Herlin Rachmawati, (48)	1	Afriza Mandala Putra	1	Ahmad Ali Muchtar	1	Yasinta Amalia
2	Siti Nurul (56)	2	Khoni' Herawati	2	Izaz Murarifah	2	Abdul Hafidz
3	Sri Miningsih (58)	3	Mareta Abidah Ishma	3	Nuraini Yusmaida	3	Taufiqurrahman

### 3.4 Data Collection Technique

This research uses two types of data, namely primary data and secondary data. Primary data in this study are the results of interviews conducted during the research process. The interviews used are in-depth interviews with semi-structured methods, semi-structured interviews are conducted by starting the interview from specific questions which then follow the flow of the interviewee in the interview corridor. Data analysis was carried out through a process; Preparing and processing data for analysis obtained from the stages of recording interviews, digitizing documents, writing field data, and selecting and compiling data based on sources of information. Reading the whole data as a whole and providing additional notes on the general ideas obtained. Analyzing in more detail by coding the data by considering the setting and context, subject perspectives, subjects who tend to think about others,

as well as activity codes, strategies and social structures. Describing the setting, individuals, categories and themes to be written about. Showing how these descriptions and themes will be written in a qualitative narrative or report. The last stage is to interpret the data [53].

## 4. RESULTS AND DISCUSSION

### 4.1 Knowledge

The ability to absorb and understand the material of each student is different. Differences in students are motivated by various things in the students' daily environment. The characteristics of students with lower middle-class farmers, laborers, traders and entrepreneurs also affect students. This difference is used as the basis for the author to analyze using categories from Peter Bloom to see the extent to which students are able to capture the material presented. In line with what was stated by the research informant.

"The intelligence of students in receiving material is diverse and plural, from smart and ordinary in receiving material. The nature of the students here is on average wayward, although there are also diligent ones too ". (Herlin Rachmawati)

This difference in receiving material is based on students' tendency to follow lessons and the learning media used by the teacher. When the pandemic has not yet become an epidemic, schools have implemented a digital learning model. Although this introduction aims to make students familiar with the digital world. The covid-19 pandemic has forced both teachers and students to carry out a digital learning system. Learning through various online platforms. Almost all students have cellphones but sometimes there are obstacles, signal, quota, gadget specifications, finally learning becomes through Whatsapp media.

Once a month using zoom, so the learning is less interactive. (Siti Nurul)

After the pandemic for more than 2 years, students experience boredom in learning. Students experience a status quo like not going to school. Some meetings are online and the rest are offline. Online meetings through social media are lightweight for student gadgets and save quota. Online meetings are not optimal. Although the ability of the material is not so plummeting, it is also not too high.

The KKM of this madrasah is around 70. And the average ability of students to meet the KKM is normal, not too high or low. (sri miningsih)

The effect of this lack of learning independence is because students tend to pay attention to lessons that students feel capable of learning. Some teachers also see that students will only study carefully if the lesson is liked by the student.

Learning only what is liked, not what is needed. The fragility of the social skills of the class together, the loss of direction of where my friends are going and how the essence of learning is lost. (Sri Miningsih)

#### **4.2 Comprehension**

The low acquisition of KKM is congruent with the ability of students to absorb the material provided by the teacher. Visual materials in the form of videos and Power Points have not been able to be evenly interpreted or described by students.

Learning with PPT and videos is fun, but I often miss the content of the material presented by the teacher. (Afriza Mandala Putra)

The delay in digesting the material delivered by the teacher, affects the overall condition of students' high curiosity. The weakness of students in arousing curiosity affects students' ability to explore knowledge. So that it makes it difficult for students to do time reading (estimation) in capturing material.

I experience weakness in exploring the material, especially when the material is delivered through a monotonous meet or zoom. (Nuraini Yusmaida)

Children's creativity after the pandemic has increased with the many online applications used. It is also undeniable that with online learning, students have more abilities in terms of learning and using learning applications. Applications such as g-meet, zoom and other applications. The habit of using applications makes them have the ability to explore and operate them.

Many students know the features in the learning application program, which often the teacher does not know how to use. (Siti Nurul)

#### **4.3 Application**

Students are more capable in using learning applications knowing various features. On the one hand, this knowledge also threatens students' analytical and critical abilities in applying the material during learning. Students are spoiled by the existing technological facilities, so that the use of the brain to think analytically is reduced.

Many students have not mastered the material in new conditions, they do not have certain principles to address general conditions. (Herlin Rahmawati)

This was admitted by several students in grades 10 and eleven. They have not been able to organize the main problems in learning related to certain principles to determine solutions, although in fact it can be observed through things that deviate from the general rules or principles that already exist.

My weakness is in seeing events or phenomena that exist from things that already exist in general. (Khoni' Herawati)

This weakness in seeing phenomena causes students to be weak in terms of imagination to imagine a solution to the problems experienced. This condition ultimately causes students to lose their attitude in dealing with a problem. Students tend to imitate previous attitudes without knowing where the final destination is.

I usually follow my friend's advice, rather than thinking about it myself later. (Mareta Abidah Ishma)

The condition of instant decision-making shows that existing students do not find the essence of learning delivered digitally. Media technology has threatened students' conditions, where students experience threatened learning loss in learning and do not find the meaning of learning.

#### 4.4 Analysis

The ability to reason critically in sorting out information is important in supporting the learning process. In honing students' abilities at the analysis level, the teacher presents a problem-based learning model, where at this stage their ability to understand the material is easily supported by the utilization of available media. Enthusiasm for the use of media as a stimulation for students in capturing learning is quite high. However, students' interest in responding to questions from the teacher is very low.

Friends when presented with ppt slides in the form of pictures or videos they are interested, but when given questions that respond only 1-2. (Yasinta Amalia)

Teachers try to provide different learning methods and strategies to improve critical thinking skills in solving problems. One of them is using cooperative learning, often this method is applied in class or outside the classroom, students tend to explain back not with their thoughts but with the exact same sentence structure as book or internet sources. In the end, this will have an impact on the end of learning where students are not able to explain what conclusions are drawn on each material.

I also sometimes do not understand the material that has been delivered. Usually, I just write down the material. (Taufiqurahman)

In the ability to analyze material in learning, students are able to sort out various elements even though learning through online media. From various materials with various elements, students are able to sort out the elements by organizing them and separating them with certain criteria with the help of some notes.

Although not optimal, students are able to classify the elements of material in the subjects taught. (Herlin Rachmawati)

In addition to organizing various elements, students are also seen from their analytical ability to provide conclusions from the elements that have been grouped. How is the conclusion produced after knowing the various elements in it.

I make conclusions with various things that I sort and have in common. I also often still doubt the conclusions I make. (Ahmad Ali Muchtar)

The shortcomings that students have in class 12 are still relatively reasonable, students find several problems as a means of learning. Besides that, the problem is also a means for students to learn to understand new conditions outside the initial description in the student's analytical framework. That way students will always think about finding a variety of new things or new patterns in learning. Things that are beyond my imagination, often spur my enthusiasm to find newer things. (Izaz Mufarirah)

The factor that causes low critical thinking skills is that the curriculum is so broad that teachers only focus on completing the material so that the material is not maximally conveyed. This student's ability is certainly a problem. Another cause is their tendency to rely on one source of information. When faced with analysis questions, students tend to limit the answer to yes or no or right or wrong without explaining the cause and effect.

When given an article link and the teacher gives an order to analyze, they tend to repeat words in the information in the article. (Sri Miningsih)

As educators, teachers have an important role in the learning process to achieve learning objectives. Teachers must be able to use a variety of learning strategies and methods to improve students' critical thinking skills in the classroom.

#### **4.6 Evaluation**

In knowing the achievement of learning objectives, the teacher knows that the learning process carried out is effective enough to provide good results or vice versa, an evaluation is carried out. In this case, it is not only the role of the teacher to carry out the evaluation but students also take part in assessing themselves to what extent the material has been understood and understood. However, students' ability to assess situations, conditions, ideas or other ideas at the end of learning is lacking.

At the end of the lesson students are not conducive so as to measure the achievement of the material presented. (Siti Nurul)

The challenges of post-pandemic learning teachers are students who are still accustomed to relying on gadgets, resulting in students tending to be passive in the learning process. Lack of motivation to learn by attending class, the relationship with the teacher cannot be established solidly. In realizing teaching



and learning patterns that make students active due to changes in social order and avoid social gaps between teachers and students, collaboration and interactive dialogue between teachers and students are needed.

Before ending the lesson, students tend to rush to close the book and do not give questions or conclusions from the material that has been learned. (Sri Miningsih)

### 5. Other recommendations

Education digitization is a process of education transformation that integrates digital technology in the learning and teaching process. The COVID-19 pandemic has accelerated the digitization of education worldwide, and has forced many educational institutions to shift to online learning. The ability of students in post-COVID-19 pandemic learning largely depends on how well they can adapt to online learning and digital technology. Students who are already familiar with technology may find it easier to adapt to online learning, while students who are less familiar with technology may face challenges.

Digitalization of education can also provide benefits to students' ability to learn. Online learning can provide time and location flexibility, as well as access to a wider range of learning resources. Therefore, to improve students' ability to learn after the COVID-19 pandemic, educational institutions should optimize the use of digital technology in learning and teaching. Students also need to be equipped with the necessary digital skills to utilize digital technologies in learning. In this way, digitization of education can be an effective means to improve the quality of education and students' abilities.

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