# Teacher's Perspective for Thematic Learning Systems During the Covid-19 Pandemic

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**A B S T R A K**

*Covid-19 telah membawa perubahan yang komprehensif di bidang pendidikan seperti melakukan pembelajaran dengan sistem pembelajaran jarak jauh. Tujuan utama dari penelitian ini adalah untuk menganalisis pandangan guru mengenai kebutuhan belajar dan menggali faktor-faktor yang menjadi penghambat dalam pembelajaran tematik online di sekolah dasar. Jenis penelitian ini adalah penelitian metode campuran, yaitu desain penelitian kualitatif dan kuantitatif. Subyek penelitian ini adalah mengambil sampel dari guru di 20 SD dengan populasi 200 guru dengan sampel 20 guru. Metode pengambilan sampel menggunakan simple random sampling. Data kuantitatif berupa sampel berdasarkan skor angket dari guru kelas 5 dengan sampel 20 guru dari 20 sekolah dasar. Analisis data digunakan untuk menarik kesimpulan akhir atas hasil data, baik dari wawancara, observasi, maupun dokumen dengan menggunakan teknik analisis interaktif yaitu pengumpulan data, kondensasi data, penyajian data (data display) dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa sistem pembelajaran tematik belum maksimal diterapkan di sekolah; perlu dibiasakan menerapkan sistem berbasis android yang meliputi zoom untuk pertemuan tatap muka online, materi pembelajaran dan evaluasi pembelajaran, sehingga guru dapat mendalami sistem pembelajaran yang digunakan selama masa pandemi Covid-19. Kesimpulannya sistem pembelajaran pada pembelajaran tematik dimasa pandemi Covid-19 masih perlu dikembangkan dan dieksplorasi karena terdapat kendala dalam pelaksanaan proses pembelajaran.*

**A B S T R A C T**

Covid-19 has brought comprehensive changes in the field of education such as conducting learning with a distance learning system. The main purpose of this research is to analyze the teacher's view of learning needs and explore the factors that become obstacles in online thematic learning in elementary schools. This type of research is a mixed methods research, namely qualitative and quantitative research designs. The subject of this research is to take a sample of teachers in 20 elementary schools with a population of 200 teachers with a sample of 20 teachers. The sampling method used simple random sampling. Quantitative data in the form of samples based on questionnaire scores from 5th grade teachers with a sample of 20 teachers from 20 elementary schools. Data analysis is used to draw final conclusions on the results of the data, both from interviews, observations, and documents using interactive analysis techniques, namely data collection, data condensation, data display (data display) and drawing conclusions. The results showed that the thematic learning system had not been maximally implemented in schools; it is necessary to get used to implementing an android-based system which includes zoom for face-to-face online meetings, learning materials and evaluation of learning, so that teachers can explore the learning system used during the Covid-19 pandemic. In conclusion, the learning system in thematic learning during the Covid-19 pandemic still needs to be developed and explored because there are obstacles in the implementation of the learning process.

## 1. INTRODUCTION

The Covid-19 pandemic affects various sectors of life such as the economy, social, including education and culture. The purpose of the impact of the Covid-19 pandemic is for the continuation of the educational process and in the context of participating in breaking the chain of spread of the corona virus, the implementation of learning in schools which was originally done conventionally, must be replaced with online learning (Churiyah et al., 2020; Hunt et al., 2021; Malboeuf-Hurtubise et al., 2021). Online learning does not fully run smoothly and in accordance with the objectives. Based on the information provided by the teacher, online learning still causes various problems. Among them, the problem of limited interaction in learning, device and connection problems (Nguyen, 2021). The solution that has been done so far to deal with this problem is the teacher's actions to provide support to parents if problems occur properly related to technology that is directly used in the learning process (Churiyah et al., 2020; Hernández-Campos et al., 2020; Vagg et al., 2020). UNESCO recommends distance

learning and education programs with open applications during school closures caused by Covid-19 so that schools and teachers are used to teach their students and tie up educational interruptions. Therefore, many institutions take online classes (Arifin, 2018; Donitsa-schmidt & Ramot, 2020; Shehzadi et al., 2021).

Thematic learning applied in elementary schools has several problems, including the lack of technology involvement in thematic learning. Children are already using social media as the main communication tool and have started to switch to online games. The phenomena that occur in the child's environment become a social phenomenon in the spotlight that needs attention. Students are required to master skills that can be used to overcome the problems students face, so that students can master the undeveloped potential. The ability to solve problems can be developed through problem-based learning presented in class and students are asked to complete it with all their knowledge and skills (Amaliyah, 2019; Anggraeni et al., 2020; Rachmadtullah et al., 2019). Technology integration into education can develop itself towards the integration of technology, which has been considered as a determinant factor in how well prospective teachers can use technology effectively to improve teaching and learning The use of technology is generally beneficial but the key lies with the user. The positive attitude of prospective teachers help using more instructional technology tools and make learning more interesting for students (Aisyah et al., 2021; Alshaikh et al., 2021; Kabudi et al., 2021).

Android-based applications have advantages, namely applications are made to assist teachers in analyzing student learning styles and identify easy learning students to transfer knowledge in schools (Hariri et al., 2020; MacKenzie et al., 2020; Trimurtini & Ahmadi, 2019). The android application system can motivate students to be more active in learning. Mobile devices are very interesting for students. Those who have a high curiosity about technological developments will be eager to learn. However, the solution carried out still has weaknesses, including the development of the system only in learning mathematics. The reason for implementing an Android-based learning system is because this product has advantages, namely that this thematic learning system is integrated in the learning process, there is a zoom feature, thematic learning materials, and student worksheets. Implementation of technological developments can create a more effective and efficient educational process. So it is necessary to implement technological advances in the field of education with the development of technology in the field of education. Therefore, the development of science and technology increasingly encourages renewal efforts in the use of technological results in the learning process. Disadvantages of integrative thematic learning system products, among others, this learning system is limited to only six themes and one semester of learning, besides the zoom feature still uses the internet network (Julia et al., 2020; Longhurst et al., 2020; Saini & Salim Al-Mamri, 2019). Based on the description of the facts that have been described by the researchers above, the efforts made for the needs of the learning process are an Android-based integrative thematic learning system. Thus, researchers developed thematic learning into a learning system that was first applied in integrative thematic learning in elementary schools. Thematic learning system that a system that utilizes modern technology acts as an effective tool in a thematic learning activity (Morales-Martinez et al., 2020; Rachmadtullah et al., 2019; Sulistyowati et al., 2021). Android technology is indeed applicable to be used as a supporting element of a learning system.

The advantages of the thematic learning system namely a) students are more interested in learning the material, b) the material is more easily accepted by students, c) the material takes longer for students to remember. While the shortcomings of the thematic learning system are 1) teachers must understand the technology used to present the learning process, 2) teachers are more extra in preparing learning materials, and 3) teachers must be able to carry out integrative thematic learning taught to students (Azwar et al., 2018; Ekowati et al., 2018; Faisal et al., 2019; Kalgotra et al., 2021). The purpose of the android-based integrative thematic learning system is applied to elementary school students because students have the ability to maintain (conservation), the ability to group adequately, perform sorting (sorting from the smallest to the largest and vice versa), and are better able to operate android-based cellphones. under the guidance of parents/guardians (Abdulrahaman et al., 2020). Themes consisting of several subjects into a single unit in the android base are needed in the learning process during the COVID-19 pandemic. Given the importance of an Android-based learning system for students, it is necessary to analyze student needs. The main purpose of this research is to analyze and interpret how much influence the Android-based learning system has on perception. The teacher's perspective is intended to clarify the strengths and weaknesses of using this system. The purpose of this research is relevant to inform and improve the android-based learning system that students need. The implications of the results of this study are needed to increase knowledge and realize the importance of an Android-based learning system in the life of the Covid-19 pandemic.

## 2. METHOD

The method in this study is a mix method with the main aim of focusing on the teacher's views regarding material needs and exploring the factors that become obstacles in the acceptance of Android-based learning system, especially in learning science in elementary schools. This study took a sample using simple random sampling. This

data is presented in qualitative data and quantitative data. Qualitative data in the form of structured interviews with a qualitative approach. Diagram of the research design in this study is presented in Figure 1.
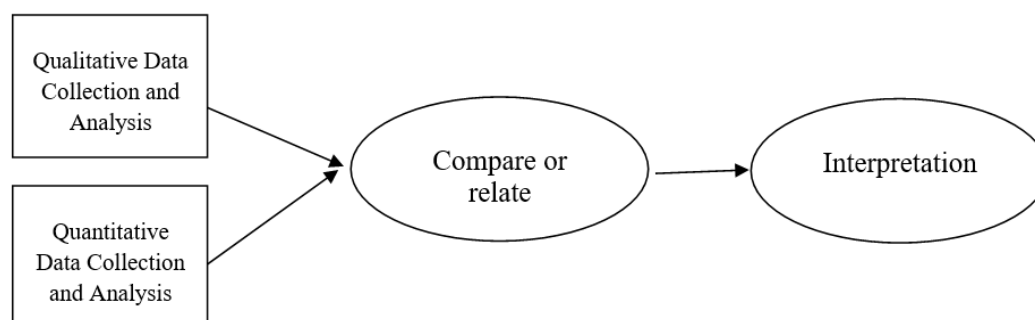


**Figure. 1.** Diagram of the Research Design (Harrison et al., 2020)

The researcher adds the questions to the research. Quantitative data in the form of samples based on questionnaire scores from grade 5 teachers with a sample of 20 teachers from 20 elementary schools in Blora, Indonesia. The instruments grid is presented in Table 1.

**Table 1**. Instruments of Uses of Android-Based Learning System

| Aspects | Indicators | Statement Item No | Sum |
|---------|-----------|-------------------|-----|
| Content Eligibility | The material presented Includes the material Contained in the Thematic's book | 4, 5, 6, 7, 8, 9, 10, 11, 12 | 12 |
| Serving Eligibility | The presentation of concepts is presented in a coherent manner starting from easy to difficult | 1, 2, 3, 4, 5, 6, 7 | 7 |
| Language Eligibility | The sentences used represent the content of the message | 1, 2, 3, 4, 5, 6, 7, 8, 9 | 9 |
| **Sum** | | | **28** |

The data analysis technique used to measure the validity of the questionnaire needs for an android-based learning system that has been given. Determination of the level of validity in Table 2.

**Table 2**. Validity of Instruments of Uses of Android-Based Learning System

| Criteria | Validity Level |
|----------|----------------|
| 75,01% - 100,00% | Very valid |
| 50,01% - 75,00% | Fairly valid |
| 25,01% - 50,00% | Invalid |
| 00,00% - 25,00% | Totally invalid |

(Maryati et al., 2019)

Data collection techniques in this study used in-depth interviews, observation, and document analysis techniques. The interview technique is used to determine the teacher's activities in carrying out thematic learning for students and to determine the needs of teachers in an android-based thematic learning system to support students in gaining broad knowledge and students can understand all the material optimally in accordance with the learning objectives that have been set to be achieved. Observation This technique aims to determine the use of interactive thematic learning applications in the 2013 curriculum, both in terms of how the teacher implements, knowing the obstacles faced, as well as what needs are needed so that learning activities become more optimal.

The data collection instruments were interview guides, observation sheets, and document analysis sheets. Data were obtained from various sources, either guide interviews, or observation sheets, or document analysis sheets validated using triangulation. Triangulation is a technique that is based on a multi-perspective

phenomenological mindset or to draw solid conclusions and requires more than one point of view (Sutopo, 2002). Data analysis is used to draw final conclusions on the results of the data, both from interviews, observations, and documents using interactive analysis techniques from (Miles, M. B., Huberman, A. M., & Saldaña, 2018), namely: Data collection; Data condensation; Presentation of data (data display); and Conclusion.

## 3. RESULT AND DISCUSSION

**Result**

Based on the results of interviews and observations of elementary school teachers, data were obtained that had been analyzed and summarized. Based on the analyzed data, it can be seen that there are differences in the use of interactive applications in elementary schools. The results of the needs analysis show that the use of interactive applications in elementary schools located in Blora District is still low. Sample responses related to each area based on the questionnaire scores in the sample distribution by class and gender are presented in Table 3.

**Table 3**. Teacher Sample Data by Class and Gender

| | Gender | | |
|---|---|---|---|
| **Class** | **Man** | **Woman** | **Total** |
| 5 | 8 | 12 | 20 |
| **Total** | 8 | 12 | 20 |

Teacher responses show that teachers strongly agree with the interactive application, this is indicated by the large percentage obtained by 96% of the maximum percentage of 100%. And according to the Likert scale interpretation table for data with a percentage of 76%-100% in the category of strongly agree. The percentage of teacher responses to the analysis of interactive application needs in thematic learning is described in the diagram as shown in Figure 2. Sample responses related to each area based on interview questions in presented in Figure 3.

Following are sample responses related to each area based on interview questions. Based on the response to the question "How is the application of interactive applications in elementary schools?". Researchers use responses by teachers whose answers have the same or repeated answers. Then the teacher's response to the question was "The application of thematic learning system does not seem to be able to run optimally as well as interactive applications that cannot be applied in elementary schools". Based on the response to the question "What are the things that affect the delay in thematic learning in elementary schools? Researchers found responses to responses that describe teacher barriers that affect the inhibition of thematic learning in elementary schools, namely "most teachers still have difficulty applying thematic learning during the Covid-19 pandemic because of the lack of practice and lack of socialization about the use of interactive applications in the school environment, some schools are located In villages that lack technology and are located in rural areas, there is a need for intensive training carried out by experts to promote the use of interactive applications in simpler and easier to understand packages for all people". The response to the question "materials that require interactive application in thematic learning in elementary schools?" The researcher found several thematic focus materials needed in developing interactive applications in fifth grade elementary schools, including material on the digestive system, the meaning of the Pancasila precepts, the human organ system, and the human circulatory system.
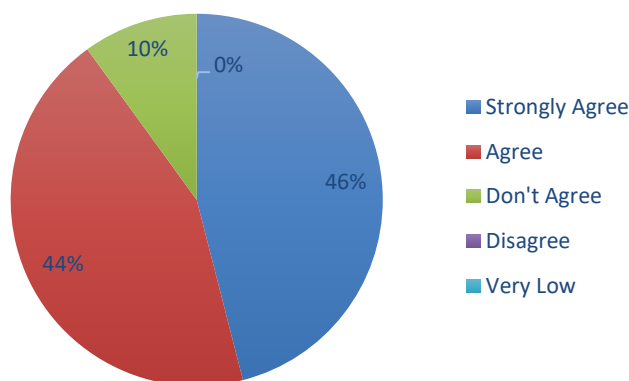


**Figure. 2.** Percentage of Teacher Responses to the Need for Interactive Applications in Thematic Learning
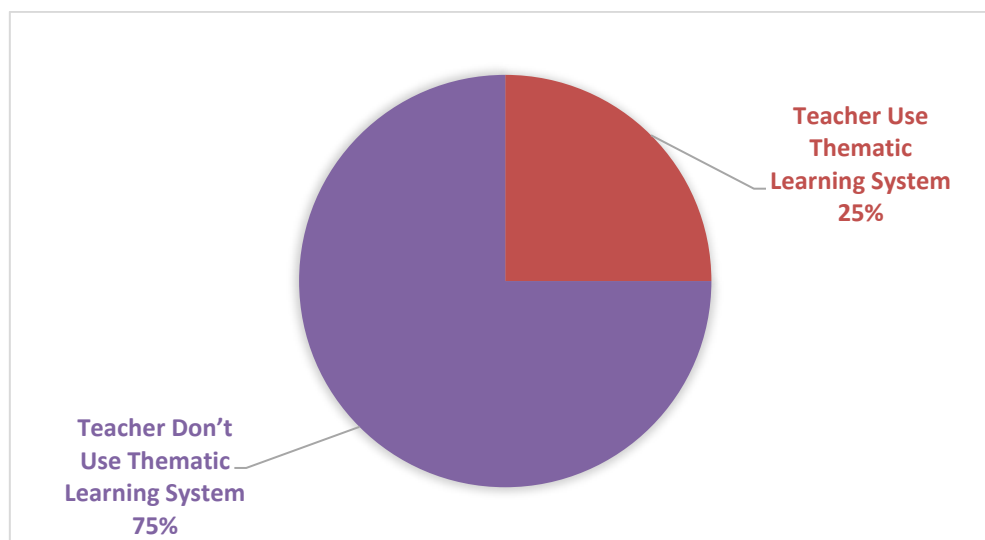
**Figure 3.** Percentage of Teacher Responses the Use for Learning System in Thematic Learning

**Discussion**

From the results of the analysis, it can be seen that it is clear that inter-active applications have not been implemented optimally, many things need to be optimized so that interactive applications can be spread in elementary schools. That's because, the researcher's investigation is centered on educational leadership that applies in schools during the COVID-19 pandemic. Educational institutions have received less attention from experts during the COVID-19 pandemic. The first attempt to investigate how primary school leaders have demonstrated the ability to position themselves as leaders and bring schools to a better position during the pandemic. In the following section, the researcher explores the role that teachers need to play in times of crisis, followed by describing the role of teachers in supporting the use of interactive applications to adapt to the "new normal" COVID-19 pandemic (Alfina, 2020; Aljerf, 2018; Bedi et al., 2021; Han et al., 2021; Hanafi et al., 2021). Interactive applications have not been widely used in educational institutions. Modeling and designing new complexities in the interconnected modern higher education system. This needs to be implemented in modern education which involves several components in learning. Applications can empower greater connectivity, thereby increasing the potential of architecture in modern higher education (Kehoe & Goudzwaard, 2015; Molina-Carmona et al., 2018; Saundarajan et al., 2020; Usriyah & Prayogo, 2018; Vallejo-Correa et al., 2021).

With regard to this, in result, the obstacles that occur are the lack of training, support and socialization, because teaching is a profession that requires special knowledge and skills, teachers as mentors need to have certain competencies, it is important to obtain these competencies through organized training by the relevant department. Because teachers must be given special training before starting professional teaching. Today's environment presents tremendous challenges, which span all areas of education. The impact of the thematic system will be felt long after the initial phase of the COVID-19 pandemic has passed and specific responses must be developed. This requires innovation and flexibility by many stakeholders. There must be a willingness to engage with regulatory bodies, adopt and share new ideas, develop new best practices, provide high-quality education, and ensure emotional and physical well-being. It is very important for teachers, to continue to act as advisors, mentors, and educators for elementary school students (Miranda et al., 2021; Wahyuni & Ananda, 2021; Weissman et al., 2020).

Result shows the description of most of the needs for interactive applications in supporting thematic material which consists of "digestive system, meaning of Pancasila precepts, human organ system, human blood circulation system". Therefore, special attention is needed in developing material in the form of interactive applications as soon as possible from both educational institutions and technology experts in supporting thematic materials in the form of interactive applications. Because learning using interactive applications can increase student motivation. This application technology is also a facility for understanding scientific concepts equipped with user's sensory perception of the real world as well as interesting computer-generated content to the user's environment offering new creativity that students have never experienced before between the real and virtual worlds (Aljerf, 2018; Bedi et al., 2021; Bunting et al., 2021; Lebeaux et al., 2021).

Based on the above, it can be assumed that the teacher's opinion in the use of a good Android-based learning system from each individual can help accept the presence of the system and improve the quality and performance of the desired work of students. This research is expected to provide recommendations to stakeholders regarding the impact of the system on the learning process and its achievements, informing potential shortcomings

in its use, and enriching the literature on android-based learning systems in Blora. However, this study has limitations; that is, the data collection method only uses a questionnaire so that it cannot describe other perspectives in detail for each teacher. So that's more Researchers are expected to use mixed methods or other types of research to answer the limitations previous research. This research implies that educators or stakeholders should be aware of the importance the use of android-based learning systems in online learning.

## 4. CONCLUSION

Android-based thematic learning system has a significant positive effect on perceived usefulness. use of technological readiness in elementary school students has a positive impact on achievement knowledge transfer process and researchers did not find any obstacles during the distance learning process. The results provide new reinforcement to the impact of COVID-19, making students ready to use a new learning system that is as needed.

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