

## ANALYSIS OF TEACHING STRATEGIES OF SEKOLAH MURID MERDEKA (SMM) TEACHERS IN INCREASING THE EFFECTIVENESS OF TECHNOLOGY-BASED BLENDED LEARNING

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### Abstract

In 2021 the Ministry of Education and Culture said that 60% of teachers still have limited mastery of ICT. As teachers who are constantly improving their teaching skills, developing their potential to realize the quality of learning by relying on technology is one way to increase competence in the application of ICT in the education sector. This research aims to describe the preparation of teaching strategies for teachers from schools that have implemented technology-based blended learning methods since 2019. This type of research is descriptive qualitative research using the case study method. Data collection methods used are interviews, observation, documentation, and questionnaires to support research. Interviews were conducted with the Head of the Elementary School Program, 2 offline teachers, 3 learning designers, and 1 online teacher, along with 17 teachers who filled out the questionnaire. From the results of research with questionnaires from 17 teachers, 82.6% strongly agreed and 17.6% agreed on the statement that the preparation of a teaching strategy consisting of a teaching-learning component in it is something that can increase the effectiveness of applied technology-based blended learning. Based on the results obtained, the teaching strategies that were developed before carrying out teaching and learning activities and in the process were considered to improve the quality and effectiveness of technology-based blended learning methods.

**Keywords:** teaching strategy; blended learning; technology; sekolah murid merdeka

### Abstrak

Pada tahun 2021 Kementerian Pendidikan dan Budaya menyebutkan masih ada 60% guru yang penguasaan TIK-nya masih terbatas. Sebagaimana guru yang senantiasa meningkatkan kemampuan dalam mengajar, maka mengembangkan potensi diri demi mewujudkan kualitas suatu pembelajaran dengan mengandalkan teknologi salah satu cara untuk meningkatkan kompetensi dalam penerapan TIK dalam bidang pendidikan. Penelitian ini memiliki tujuan untuk mendeskripsikan penyusunan strategi mengajar guru dari sekolah yang menerapkan metode *blended learning* berbasis teknologi sejak tahun 2019. Jenis penelitian ini ialah penelitian deskriptif kualitatif dengan metode studi kasus. Metode pengumpulan data yang dilakukan adalah wawancara, observasi, dokumentasi dan angket untuk menunjang penelitian. Wawancara dilakukan bersama Kepala Program Sekolah Dasar, 2 orang guru luring, 3 orang *learning designers*, dan 1 orang guru daring, beserta 17 guru yang mengisi angket. Dari hasil penelitian dengan angket dari 17 guru, 82,6% sangat setuju dan 17,6% setuju atas pernyataan bahwa penyusunan strategi mengajar yang terdiri atas komponen belajar-mengajar didalamnya merupakan hal yang dapat meningkatkan efektivitas *blended learning* berbasis teknologi yang diterapkan. Berdasarkan hasil yang diperoleh bahwa strategi mengajar yang disusun sebelum melakukan kegiatan belajar-mengajar serta dalam prosesnya dinilai meningkatkan kualitas serta efektivitas dari metode *blended learning* berbasis teknologi.

**Kata Kunci:** strategi mengajar; *blended learning*; teknologi; sekolah murid merdeka

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## Introduction

Technology is one of the influential parts of the world of education because education is an attempt to attract something within humans as an effort to provide a structured learning experience in the form of education that is formal, non-formal, and informal at school, or outside of school that lasts for during life to optimize individual abilities so that in the future they can have the right role in life (Triwiyanto, 2014). Technology also increasingly innovating and evolving, as it is applied by professionals outside academia and becomes a strategy for those who are ready to make modern learning innovations (Widjaja & Aslan, 2022). In the world of education, information and communication technology has a very important role in online learning. Technology is a medium for teachers to be able to convey learning material that will be given to students. So that the existence of technology makes it easier for us to get something, for example, accessing information, it can also be used as an online-based learning media. As technology develops, it makes the online learning process easier because technology has application media that can be used during teaching and learning activities, including Google Form, Zoom Meeting, Google Meet, and Google Classroom (Shofia & Ahsani, 2021).

Teachers develop themselves by utilizing the ability to use communication and information technology in carrying out their duties as educators by the four competencies that should exist in a teacher. 4 competencies must be inherent in a teacher: (1) pedagogical, (2) personality, (3) social, (4) and professional this refers to PP No. 74 of 2008, the four of them are certainly related to the development of ICT, in pedagogy, the teacher should be able to design learning based on and devise a design for the implementation of the chosen learning strategy. Then in the personality that must exist and be owned by the teacher, namely being able to develop by the reforms in the field of his profession as an educator, for this reason, the teacher should be able to move forward and keep abreast of changes that occur to respond to advances in science and technology and information that continues to develop from time to time (Adrian & Agustina, 2019).

These four competencies should always be attached to every elementary school teacher in carrying out their duties as educators and teachers in schools. Teachers have an important role in fostering student learning motivation, one of which is by developing learning strategies that will be used during teaching and learning activities (Puspitarini & Hanif, 2019). However, the times require educators to always update their knowledge and demand professionals from their profession. Likewise in learning in transferring knowledge many media make it easier for students to explain the knowledge and information needed in the world of education. Technology in the world of education also plays an important role in creating a sense of student enthusiasm in learning motivation the use of technology in education can also increase student interest in learning because students are not bored while participating in learning. Thus, educational technology is said to be able to expedite the learning process that is being implemented. Teachers play a very important role in teaching and learning activities, thus knowledge, skills, and mastering information and communication technology can support the learning process to become something that teachers use today (Tekege, 2017).

Technology and education are things that can be separated in the process. Blended learning can be one way out that teachers can do in teaching and learning activities. In its application, blended learning can minimize the problems found in conventional learning which are less able to facilitate various kinds of characteristics. Blended learning can also provide flexible time, so students can be more independent in improving learning abilities according to their abilities, this can provide innovation in the process of teaching and learning activities. Blended learning does not completely replace face-to-face learning by replacing by

implementing online learning, blended learning only supports completion that has not been conveyed during class learning (Diana et al., 2020). Teaching and learning activities through the blended method are one of the learning methods that support children's development to understand advanced technology in the current era, the goal is to implement blended learning so that students can understand the material by gaining extensive knowledge with various facilities so that they can feel enthusiastic about learning do new things (Maarif, 2022).

Blended learning is a learning facility that combines various ways of delivery, teaching models, and learning styles, introducing various dialogue media options between the facilitator and the person receiving the lesson. Blended learning is also a combination of face-to-face teaching and online teaching, but more than that, it is an element of social interaction (Wijoyo et al., 2020). The potential of blended learning can be said to be limitless and consists of the development of natural processes in the form of conventional learning that form patterns of development with a personal focus.

A teaching-learning strategy is a plan that is prepared in selecting components that include stages or learning patterns to achieve learning objectives. The plan includes the selection of learning approaches, learning strategies, learning models, learning methods, learning techniques, learning resources, learning media, and the form of assessment to be carried out. The components of the teaching-learning strategy consist of 1) Pre-teaching activities. 2) Presentation of teaching and learning content. 3) Student participation. 4) Assessment. 5) Activities or follow-up activities (Bakhruddin et al., 2021).

In addition, the teaching ability of a teacher also influences student achievement. The role of the teacher is needed in guiding students to fulfill and achieve learning competencies which are independence, confidence, creativity, and active learning (Rezania et al., 2020). Moreover, the current pandemic situation in the past few years has required all teachers and the world community to be able to transform and change their teaching style and gain knowledge. This is possible if the teacher is accustomed to using technology in teaching or online media. However, of course, this can also be a significant obstacle if the teacher is not used to technology or is unfamiliar with technology-based learning media. Strategy can be interpreted as a plan on how to use existing capabilities and resources to achieve effectiveness and efficiency to be achieved (Sudjana, 2014). In general, strategy comes in the form of a strategic plan that is used to achieve a goal through predetermined efforts.

In March 2020, the world health organization determined that COVID-19 had become a pandemic that had spread to 200 countries around the world. To minimize this spread, the government in Indonesia has implemented several resolutions that can be implemented in various fields, such as the health, economy, industry, and education sectors. In a short time, it became a pandemic that affected various fields and even the education sector, so many countries in the world temporarily closed educational institutions to control the spread (Hebebcı et al., 2020). In the field of education, the government implements policies regarding teaching and learning processes that are carried out online. Life has very impactful aspects including the process of teaching and learning activities. The education process in schools is required to carry out restrictions to the effect that face-to-face learning must be stopped so that the spread of the COVID-19 virus does not become more widespread (Nurussholihah & Abdullah, 2022). The government gives the will to both teachers and students to remain at home by continuing to carry out learning rules even from different distances and times. The metamorphosis of learning, from face-to-face learning at school to virtual face-to-face learning (Rosidin et al., 2020).

Teachers who are like spearheads are required to be qualified in overcoming the conditions of all learning components related to time, learning methods, and media that will be used later, and are responsible for the learning system that changes from face-to-face to online (Rasmitadila et al., 2020). Teachers often fail to find a purpose for what they will do when faced with technology and efficient methods for teaching elementary school students online (Burdina et al., 2019). The learning method of blended learning cannot be equated with the words e-learning or digital learning. Because the meaning of blended itself means mixing or mixing. So that it can be defined as a combination of the words learning so that in a lexicological sense it is mixed learning, or it can be said as learning that mixes several models in the learning process. This definition is in line with that conveyed by experts, who state that blended learning is an effective and efficient learning program by combining conventional learning methods, independent or practical learning, collaborative learning, or learning based on experience (Davis & Fill, 2007).

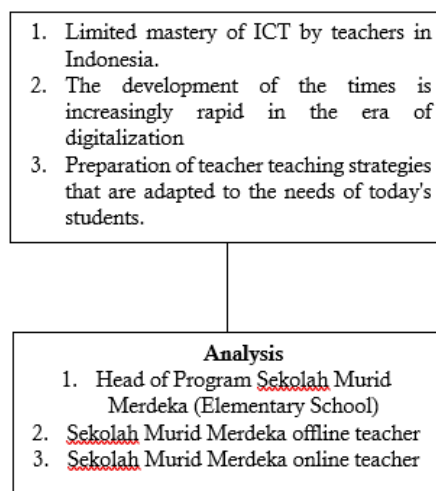
Valiathan (2002) provides the results of a study of the blended learning method which is divided into three meanings, namely, as follows. 1) This learning method is controlled by skills, namely combining independent learning with support from the teacher as a facilitator to develop insight and knowledge and special skills of students in class. 2) Methods that are controlled by behavior, namely methods that integrate various media or learning tools to improve attitudes and behavior for students who prioritize peer-to-peer interaction and a risk-free environment. 3) Competency-based learning methods, namely methods that align between performance support tools and management.

Meanwhile, the Ministry of Education and Culture has explained that in 2021 and has been reported from several internet news portals, as many as 60 percent of teachers in Indonesia have limited mastery of ICT. During the COVID-19 pandemic in Indonesia, education and teaching methods that initially focused only on conventional methods slowly began to shift and adjust from offline to online or online. Thus, teachers as educational facilitators and mediators must always improve their professionalism in line with technology that is growing in every way possible, especially in education. In this study, effectiveness is the achievement of organizational goals through the efficient use of available resources, in terms of input, process, and output. This is based on previous research (Karimatunnissa, 2020) which analyzes learning strategies stating that the preparation of the material, how to deliver the material, and the use of learning media to evaluation can run well even though there are obstacles in the facilities where students but teachers use learning strategies go offline as a troubleshooter. And also research was conducted by (Siregar & Akbar, 2020) where the results of the analysis from this study are that teacher competency plays an important role in the use of technology because it can affect the quality of teaching and learning programs.

Maturity in the use of digital technology supports the achievement of industrial competence 4.0, while teachers still have a low level of maturity in mastering digital technology (Astuti et al., 2021). Teachers must be professional by established laws regarding competencies that should be inherent in a teacher. Combining technology in the preparation of learning increases student stimulus in their desire to learn. In overcoming teacher problems in mastering technology, several things can be done are: 1) procuring supporting infrastructure for teachers; 2) carry out routine programs in the field of ICT in the teaching and learning process; 3) carry out training activities regarding effective and efficient learning methods (Nurhayati, 2016).

Based on the explanation that has been presented, what are the teaching strategies used by Sekolah Murid Merdeka teachers in increasing the effectiveness of technology-based blended learning? This research is focused on analyzing the preparation of the teaching strategies of the

Sekolah Murid Merdeka teachers used in the classroom using a technology-based blended learning method. It can be seen from the thinking structure as follows.



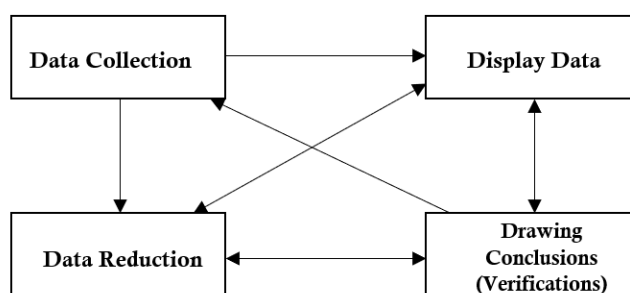
**Figure 1. Thinking Structure**

In increasing the effectiveness of teaching and learning activities in classes that use these methods and are technology-based, the analysis is addressed to the head of the program and the teaching teachers, as well as syllabus makers or also known as learning designers. To know the increase in the effectiveness of the technology-based blended learning method implemented by Sekolah Murid Merdeka. In this case what is meant by resources includes the availability of personnel the teachers themselves, the facilities and infrastructure as well as the methods and models of learning used.

### Research Methods

Based on the problems that have been described, the type of research used is descriptive using a qualitative approach. A qualitative research method is a research method based on the philosophy of post-positivism, this method is used to research natural object conditions, where the researcher is an observer and implementer as well as a data collector that will be used as a result of research (Sugiyono, 2019). This research uses a qualitative descriptive research design where the approach method used is a case study. A case study is a research method that describes a framework for the stages in the process, such as determining the theme and research subject, place, appropriate method, and even relevant data collection techniques which will later be concluded (Hidayat & Purwokerto, 2019). In other words, case studies can be interpreted as research in which the researcher explores a particular phenomenon (case) at a particular time and activity (program, process, social group, or institution) and collects detailed and in-depth information using data collected for a certain period (Wahyuningsih, 2013). Even though it only covers one unit of the system, the approach using case studies does not require a researcher to only examine one person or individual, but research can be carried out for several people or subjects who have one unit and focus on the same situation to be studied. The case study approach is a forum for understanding, analyzing, and interpreting several or more meanings derived from the research conducted. So to be able to obtain data that will be examined more deeply, this research uses interview and observation techniques, as well as documentary studies that can support this research. Thus, case studies applied in research will be analyzed into a theory.

The focus of this research intends to determine an answer to the problem under study by obtaining valid data directly from the research subject. In addition, this method is a view that adheres to social reality with a meaningful nature, that is, it is inseparable from the point of view, as well as the definition or meaning that exists in the human being who views it (Subadi, 2006). This study uses data analysis techniques that are processed systematically and concisely beforehand, which includes the results of observations, interviews, recordings, and documentation. Furthermore, the results are clarified, reduced, and presented. This activity takes place constantly from the time the researcher enters the field, to the analysis of the data that will later be collected. So if an outline is drawn, the stages of data analysis are: 1) data reduction, namely making abstractions and summarizing. 2) presentation of data, namely presenting by taking an outline but guaranteeing its validity. 3) conclusion and verification, namely conclude tentatively so that they can be verified. These stages apply repeatedly according to the sequence of data analysis steps (Saleh, 2017).



**Figure 2. Miles & Huberman on Saleh (2017) Qualitative Research Data Analysis Techniques**

This qualitative method was chosen as the method in the study: analysis of teaching strategies for Sekolah Murid Merdeka (SMM) teachers in improving the effectiveness of technology-based blended learning because it uses a case study approach, which is an approach that is centered on certain phenomena that exist in society so that it is carried out there is research conducted in-depth to study the background, interactions, and conditions that occur in it. By the data collection technique, it produces narratives that will later be reduced to produce descriptive data in the form of words from several individuals who are used as subjects both orally and in behavior which will later be observed through observation and various collection methods that will be used such as interviews and conduct questionnaires if it is felt that the required data is not qualified and also as a support for this research. So that in this study, researchers used research instruments in the form of the researchers themselves, data from interviews, observations, and documentation. The following is a table of stages carried out in the process of conducting research:

**Table 1. Research Implementation Activities**

No.	Stages	Dates
1.	Research permission from University	24 January 2023
2.	Interview the head of the program (SD SMM)	2 February 2023
3.	Observation of Sekolah Murid Merdeka (SMM) Eduverse Bandung & regular face-to-face (offline) teacher interviews	8 February 2023
4.	SMM SD learning designer interview	10 – 14 February 2023
5.	SMM SD online teacher interview	14 February 2023
6.	Cycle	15 – 22 February 2023

The teachers interviewed were 2 offline teachers, 3 learning designers, and 1 online teacher as a comparison between offline and online learning. This research was used to find out how school principals determine or play a role in preparing teacher-teaching strategies using the blended learning model applied by the Sekolah Murid Merdeka itself in its implementation. This research also focuses on knowing and examining more deeply certain strategies used by teachers when carrying out the teaching-learning process both routine face-to-face (TMR) and online. So that in its implementation as well as in the process of teaching activities taking place, the researcher will also examine what factors are the supports and obstacles while teaching at school. The research will be conducted online via Zoom Meetings, and Telegram, and also implemented directly well as observations taking place at the Sekolah Murid Merdeka (SMM) Eduverse Bandung which is on Jl. Banda No. 30, Citarum, Bandung City.

In distributing the questionnaire which will later form the percentage technique of the qualitative descriptive method. So that the data analysis technique used is a data analysis technique called interactive analysis and a percentage technique for the results of questionnaires or questionnaires distributed. Data analysis itself has a definition, which is a process of searching, and compiling data in a structured manner so that observations are obtained from the collection techniques that have been compiled (Sugiyono, 2019). Thus, the results of interviews, observations, and data analysis are included in the section on how to process data from the results of data collection, so that the data will later be reduced, and presented by the data obtained, then the last thing is to conclude.

## Results and Discussion

Listed on their main page in the introduction of Sekolah Murid Merdeka (SMM) from sekolahmuridmerdeka.id that is a school that applies a blended learning model for all levels, from early childhood to high school. This school existed even before the pandemic, namely in 2019. This information can be seen in the following image.

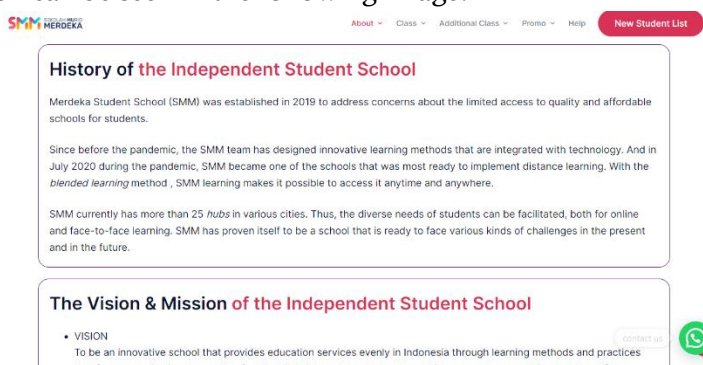


Figure 3. Sekolah Murid Merdeka Website

Teaching activities aren't just conveying information by educators to students, many activities must be considered before being carried out. Teaching is not a simple and easy matter, especially in today's millennial era, teaching must reach every potential that students have. Educators have a responsibility to increase students' interest in expanding and developing their scientific horizons and helping them to be able to answer new challenges and ideas in the future (Huda, 2013). Effectiveness in preparing and developing teaching strategies can be seen from how to filter out the main points of discussion, in other words, the material that will be given to

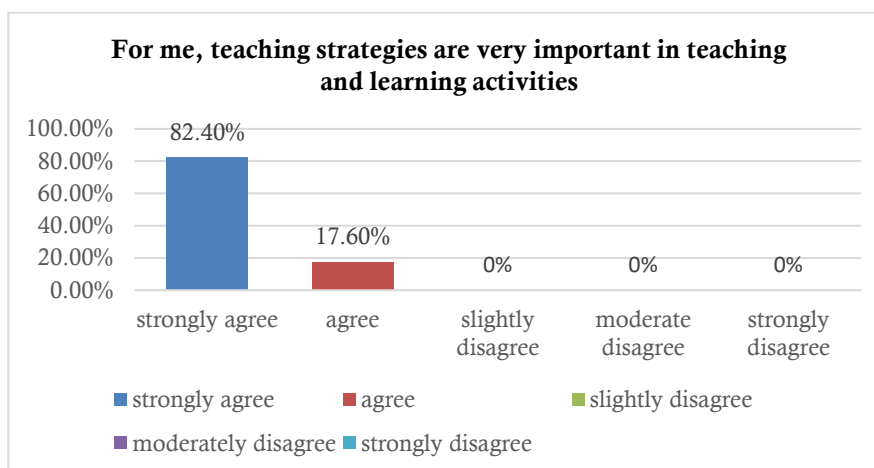


students can be received maturely so that students can understand the teaching conveyed by the teacher.

**Table 2.** Interview Participant

Participant	Positions at School
Resource Person 1	Head of Program Elementary School
Resource Person 2	Offline Teacher
Resource Person 3	Offline Teacher
Resource Person 4	Offline Teacher & Learning Designer
Resource Person 5	Learning Designer
Resource Person 6	Offline Teacher & Learning Designer
Resource Person 7	Online & Offline Teacher

In the table that has been presented, following the formulation of the problem that has been described that the resource persons who act as participants in this study are the Heads of Elementary School Programs (SMM), offline teachers, and online teachers, of which some of these teachers also serve as learning designers. the results of interviews with 6 teachers who teach and learning designers at the Sekolah Murid Merdeka, it was explained by resource person 5 as a learning designer: *"Because learning whether face-to-face or online is limited by time, especially online learning, the task of a teacher in teaching his students to filter the material that will raise questions to students as well as which ones can be explored without further explanation by the teacher, but are still directed, guided, and given appropriate material that students can access as long as it is asynchronous in the school's learning management system."* In addition, there was also a questionnaire that was filled in by 17 teachers showing that teaching strategies are important things that must be prepared before even when carrying out teaching and learning activities. In the diagram, it can be seen that the following is presented in a questionnaire regarding this statement with 17 participants, all of whom filled in were teachers and syllabus makers and Learning Implementation Plans (RPP) as respondents. In this statement, 14 teachers gave answers that strongly agreed and 3 teachers answered that they agreed. More details can be seen in the following table.



**Figure 4.** Diagram Teaching Strategy

From this statement, it can be seen that 17 teachers with a total of 82,6% strongly agreed and 17,6% agreed that teaching strategies are very important things to prepare before carrying out teaching and learning activities. Teaching and learning strategies are weapons for educators in teaching knowledge material in class, educators can also design activities and learning experiences that will be experienced by their students, as a guide for educators in carrying out



their learning activities, as plans and strategies taken to achieve learning objectives, and teaching and learning strategies are also the basis for compiling and designing learning preparations (Awang, 2017). It is necessary to have good preparation in the form of an Implementation Plan from the syllabus as a reference in the implementation of teaching in class for the teachers of the Sekolah Murid Merdeka, and those responsible for making these components are learning designers based on teaching purposes according to the per-grade level in elementary schools.

The intended teaching objectives are of course inseparable from the curriculum used by the Sekolah Murid Merdeka itself, namely the competency-based curriculum Saylor (1981) explains the competency-based curriculum as *“a design based on specific competencies is characterized by specific, sequential, and demonstrable learning of the task, activities, or skill which constitute the acts to be learned and performed by the student.”* Competency-based curriculum leads to specific competencies designed to meet the needs aimed at students, both in terms of learning and meaningful activities. Also, the competency-based curriculum emphasizes optimally exploring students' abilities and potentials, constructing what is learned, and seeking its application in everyday life. A competency-based curriculum seeks to condition every student to have the knowledge, skills, attitudes, and values that are embodied in the habit of thinking and acting so that the delivery process must be contextual (Fitriani et al., 2022).

This is related to the results of interviews regarding the question of teaching objectives which were compiled simultaneously with the preparation of teaching strategies. Questions from interviews posed to teachers and also learning designers: **what are the teaching objectives that you want to achieve in this technology-based blended learning method?** *“the teaching goals for the learning method of bleeding learning have been set by the Sekolah Murid Merdeka, where the teacher aims at teaching goals that are integrated with a competency-based curriculum, the goal is for children to be able to deepen and optimize the knowledge they have learned and they accept. So that in increasing the effectiveness and quality of a teacher who teaches, Sekolah Murid Merdeka emphasizes the achievement of nine future competencies as a reference in making a Learning Implementation Plan (RPP) and learning design or syllabus.”* said resource person 3 on the interview that been held, also reinforced by the answers from resource person 5 as the learning designer who explained that, *“the teaching strategy made for the elementary level refers to a competency-based curriculum, then the objectives are presented in the form of a curriculum circle. This curriculum circle is like a guide in developing teaching strategies that will be given to students, both in preparation and in the final results that are desired and must be achieved by the students themselves.”*

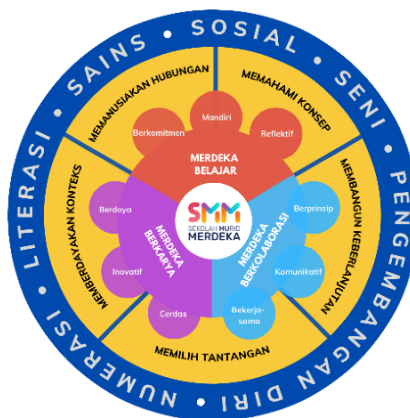


Figure 5. SMM Future Competency Circle

In the curriculum circle presented, resource person 4 elaborated, *“To make teaching objectives, the teacher refers to the nine competencies attached. Another goal is, for schools that apply the*

blended learning method, the Sekolah Murid Merdeka leads to flexibility in the learning process where students can be responsible for the hours they choose, so they cannot study because they will always get good learning. when they don't enter a classroom, or when they don't take part in a class that is taking place, in other words, this synchronous and asynchronous system is very much used as an efficient so that students can get their rights by making it easier to receive knowledge from a teacher, minimizing the incomprehension of participants students in a lesson, and can also be accessed wherever they are through technology, both in face-to-face or offline learning, as well as online learning." This circle belongs to Sekolah Murid Merdeka. Reported from the results of researchers' observations of schools and the resource person's answer, on the school's website, Sekolah Murid Merdeka (SMM) uses a competency-based curriculum with blended learning methods and the use a competency-based curriculum encourages children to explore and optimize the knowledge material they have learned. Sekolah Murid Merdeka uses a competency-based curriculum to emphasize the development of 9 dimensions of future competencies which are also in line with the implementation of the Independent Curriculum.

In addition to objectives, based on the interviews with the teacher of Sekolah Murid Merdeka said that other components such as; the media or learning tools are used to support the teacher's teaching strategy. The questions: **how is your process in making teaching media and tools used during learning activities with this technology-based blended learning method?** This question was answered by resource person 4. "Media and learning tools are an integral part of developing learning strategies that will be implemented in teaching and learning activities. In the process of making it, the media and learning tools that will be used during the teaching and learning activities are adjusted to the Learning Implementation Plan (RPP) that has been prepared, such as making simple slides using Canva, or interactive slides with genia.ly, adapted to teaching and learning activities which will be implemented. However, the school itself has provided it, such as learning kits or toolkits that are sent directly to all students who attend the Sekolah Murid Merdeka. So that each student can follow the process of learning activities that take place."



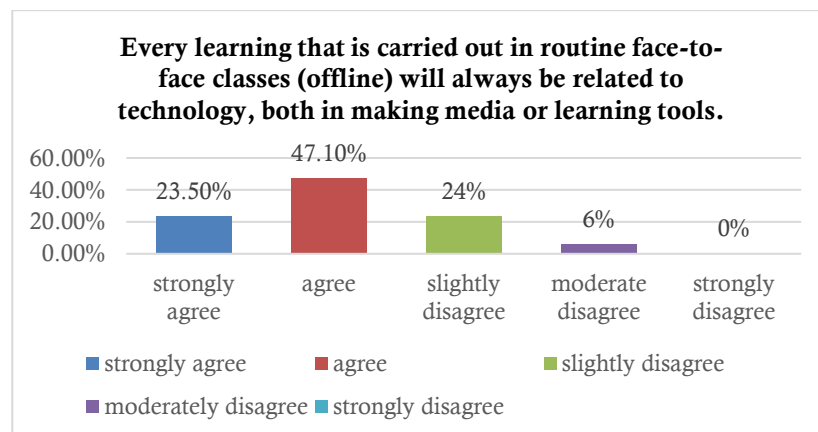
**Figure 6.** Learning Kit Example

Additionally, added by resource person 5. "The components of this learning media cannot be separated into teaching strategies. The teaching media used by the Sekolah Murid Merdeka teachers have been adapted to the blended learning method applied by the school." In the observations made, the researchers saw that the learning media used helped students receive learning. Learning media itself is one of the factors that can motivate students in carrying out learning so that it can encourage students to achieve maximum learning outcomes (Pratiwi & Meilani, 2018).



**Figure 7.** TMR Learning Documentation (Offline)

Another answer was put forward by resource person 7 an online teacher from Sekolah Murid Merdeka. *“In online learning, it will be related to technology, as the basis used by Sekolah Murid Merdeka in this learning method, because of the need to access and also enter the classroom to participate in live learning using Zoom meetings, so technology is a primary need for students. who choose to study online. After all, for students who choose to study face-to-face, researchers have made observations as in the attached documentation that in their learning, technology will be used in every teaching and learning activity.”* It can be explained that both in offline and online classes, the preparation and use of learning media to be used in a teaching and learning activity are adjusted to the situation and needs themselves. The criteria for selecting media originate from the concept that media can be said to be part of the overall instructional system, several things need to be considered in choosing media, including the objectives to be achieved, appropriate to support the content of lessons that are facts, concepts, principles or generalizations, practical, flexible, and enduring, teachers can be skilled in using them, target grouping, and quality from technical (Arsyad, 2014). So that students can independently integrate digital technology and choose or design their learning trajectory according to their learning needs (Samoylenko et al., 2022). The following diagram is the results of the questionnaire with questions about learning media and tools for offline classes.



**Figure 8.** Diagram Media and Learning Tools

A total of 17 teachers, four teachers gave answers that strongly agreed with a percentage of 23.5%, regarding the statement on the use of technology in offline classes. Then eight teachers answered that they agreed with a percentage of 47,1%, four teachers answered that they did not

agree with a percentage of 23,5% and one teacher answered that they did not agree with a percentage of 5,9%, in other words, any learning that takes place offline with students, there is where the teachers only focus on group learning models with learning media without using technology, to increase the creativity of students so that they use media that is tailored to the needs of the lesson to be delivered on that day. This was the answer from one of the TMR (Offline) teachers during an interview.

Resource person explained in the questions asked by the researcher: **what learning models do you always use for learning activities according to school learning methods, namely, blended learning and technology-based?** The answer from resource person 5 is *"With a predetermined method, namely the blended learning method, in planning the learning model used is Inquiry-Project Based Learning. The learning model used in teaching and learning activities for each teacher is indeed different and has its characteristics in conveying knowledge. However, the learning model used and recommended by the syllabus makers of the Sekolah Murid Merdeka, in their Elementary School in the preparation of teaching strategies is more towards the inquiry model and the project-based learning model. Where this inquiry model is closely related to the method applied by the school, namely giving rise to the courage of each student to be more active in asking, arguing, experimenting, and exploring independently during the teaching process. The teacher will guide and direct each student to find answers to every question that comes to mind, this model is very applicable, especially for teachers who teach online because students have to explore what they want to know in a guided way without being separated from monitoring Teachers."*

This is in line with the statement that the inquiry approach emphasizes giving direct experience to students so that students can find answers to their curiosity or what is conveyed by the teacher. Learners can explore knowledge from their learning experiences. Students are allowed to formulate problems, design experiments, and analyze data by making their own decisions (Bakhrudin et al., 2021). Then answers are added by resource person 1 regarding the learning model that the school uses. *"Project-based learning (PJBL) is a model that is used to find out the extent of understanding of students during teaching and learning takes place, this PJBL model is used as an assessment in which there are summative assessments and formative assessments. In its application, a summative project is also referred to as a final project after carrying out learning during the quarter and a formative project, namely an assessment carried out during the learning process."* This is in line with the definition of PJBL itself, which is a learning process that directly involves students to produce a project. This learning model develops more solving skills in working on a project that can produce something. In its implementation, this model provides broad opportunities for students to make decisions in choosing topics, conducting research, and completing a particular project (Sari & Angreni, 2018). There is also an explanation from the (Rusydiyah & Mudlofir, 2017) statement this project-based learning will involve students working in groups to compile a report, experiment, or another project.

In increasing the effectiveness of the indicators included in the teaching strategy. The blended learning method applied by Sekolah Murid Merdeka is an aspect that is at the heart of carrying out a teaching and learning activity. Presented in the interview with the question: **what are the aspects that you would like to improve in your teaching strategy to adjust the application of technology-based blended learning at this Sekolah Murid Merdeka?** Resource 4 states, *"For both in increasing the effectiveness of teaching strategies both offline and online, teachers try to improve teaching styles by making the atmosphere comfortable and pleasant, then interacting as a teacher so that what is conveyed and taught and understood requires assistance from parents to guide when there is asynchronous learning from the application of this technology-based blended learning."* this statement can explain that for the implementation of online learning that is integrated into the learning

outcomes obtained by students, the effort that the teacher can create is a conducive learning atmosphere, packaging interesting and varied material, of course, in learning media and maximum methods so that online learning does not feel boring for students (Isrokatun et al., 2022). The characteristics of blended learning include 1) learning that combines various ways of delivery, teaching models, learning styles, and various technology-based media. 2) is an integration of direct teaching or what is called face-to-face, independent learning, and online learning. 3) learning that is supported by a combination of effective delivery methods, teaching methods, and learning styles. 4) teachers and parents of students have an equally important role, teachers as facilitators and parents as supporters (Husamah, 2014).



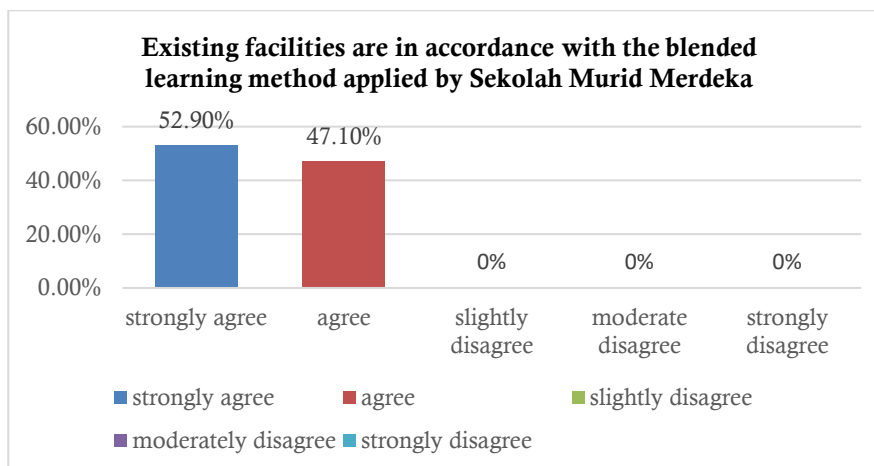
Figure 9. Class Agreement

However, of course in implementing this teaching strategy, of course, will not always be perfect. This is what the researchers asked with the question: **what are the inhibiting factors or obstacles that you face both during the preparation and in implementing teaching strategies to increase the effectiveness of technology-based blended learning implemented by Sekolah Murid Merdeka?** This question was answered by resource person 7 as an online and offline teacher at Sekolah Murid Merdeka. *“However, in its implementation, some obstacles are faced and are considered challenges that will continue to be overcome. in the implementation of the teaching strategies that were prepared the obstacles experienced during offline and online classes were to create a comfortable and pleasant classroom atmosphere, where students could properly accept and understand what was taught that day, this returned to the teachers who taught to improve the learning styles that are acceptable to children in this blended learning method. Then, as we know that this technology will always be there that is not in line with what’s desired because, you know that technology itself is human-made, and there are bound to be obstacles or obstacles in teaching, both in communication.”*

In the teaching strategy by paying attention to the learning methods applied by the school, the researcher again asked about the facilities provided by the school: **what about the supporting factors provided by the school both in the preparation and in the implementation of teaching strategies to increase the effectiveness of technology-based blended learning implemented by the Sekolah Murid Merdeka?** with answers from resource person 3 as well as observations held, *“the school facilitates infrastructure that is following the method applied by the school itself, namely technology-based blended learning. This helps each teacher to carry out the teaching strategies that have been prepared by the learning design. Both the school and the program head provided direction and also held several pieces of training that must be carried out by the Sekolah Murid Merdeka teachers. This helps the teacher to know and adjust the teaching objectives that must be carried out when teaching*

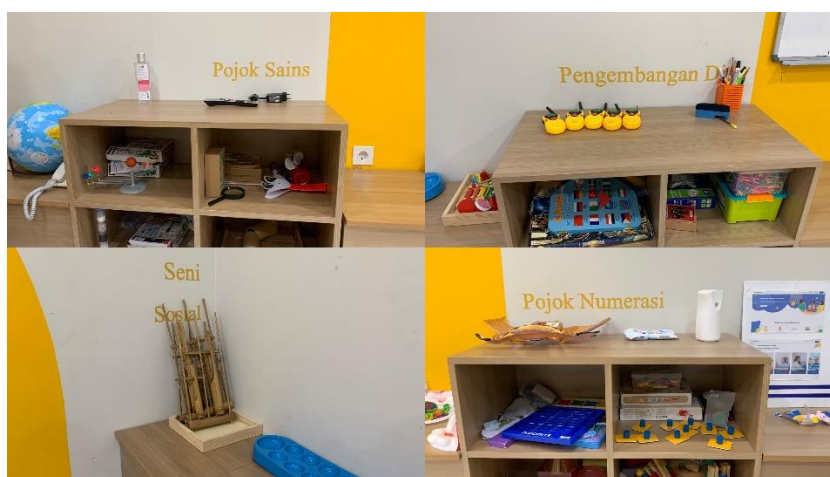


and learning activities in the classroom later.” Researchers also distributed questionnaires to 17 teachers to give their statements on similar questions when conducting interviews.



**Figure 10.** agreement the existing facilities

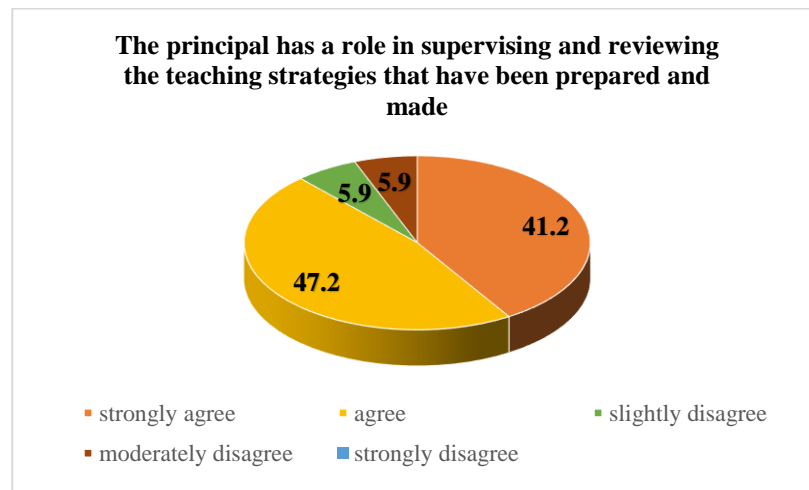
A total of 17 teachers, 9 of whom gave statements that they strongly agreed, and 8 other teachers gave statements of agreement that the existing facilities were by the blended learning method implemented by the school. Both in classes that are held face-to-face (offline) as well as the conditions of the study room or space that students use when attending classes online. In observation, the researcher saw that the condition of the study room was very good with the blended learning method applied, each class had a so-called ‘central corner’, this was the most quirky because in every corner, the facilities needed in each subject that would be carried out in that day.



**Figure 11.** Infrastructure

There are also important roles in supporting teaching strategies to increase the effectiveness of technology-based blended learning methods, namely the school principal, and the role of the school is one the influential roles in determining school progress, in terms of administration and all matters relating to the performance of a teacher in teaching. The principal is a very important educational leader because the principal is directly related to the implementation of educational programs in schools. The achievement of educational goals is very dependent on the leadership skills and wisdom of the school principal, who is one of the educational leaders (Manora, 2019). From resource person 1 as Head of Program Elementary

School SMM, answer the question: **what is your role as head of the program in developing teacher teaching strategies using a technology-based blended learning method?** Resource person 1 answered, *“In carrying out the preparation of teaching strategies, the principal does not act as a developer. However, as an individual who studies and has a role in supervising, and controlling every strategy that will be implemented, as well as those that have been implemented by observing and evaluating things that need to be improved or become obstacles in teaching activities.”* this was clarified by filling out a questionnaire given to 17 teachers teaching at Sekolah Murid Merdeka.



**Figure 12.** Diagram The role of the principal

A total of 17 teachers who filled out the questionnaire, 41,2% stated that they strongly agreed with the statement that the principal had a role in overseeing and reviewing the teaching strategies that had been prepared and made. In addition, 47,1% answered that they agreed. And 5,9% stated that they didn't agree. Based on the data obtained from the statements given by the teacher, the results of the interviews show that the principal is in charge of providing direction and review of the teaching and learning activities carried out. The principal is also the controller in the implementation of teaching carried out by teachers in realizing the preparation of teaching strategies in the form of implementation which can be seen in the Zoom Meeting if the teacher teaches online or coordinates directly with teachers who are in charge of teaching offline. So that in this case, the principal moves as the 'motor' that determines the direction of policies set by the school, in this case, the technology-based blended learning method implemented by the Sekolah Murid Merdeka. Principals need to realize the role they play and the responsibility in combining all elements in the school to work together with one common goal, namely to improve the performance of students in terms of learning (Maponya, 2020). The principal is a leader in his educational unit, so he must be able to bring the educational unit to be better and of higher quality in implementing planned learning activities to achieve goals. A school principal must be able to see changes and be able to see the future in a better life of globalization. The school principal must be responsible for the smooth running and success of all regulatory and management matters formally to his superiors or informally to the community who have entrusted their students (Sirojuddin et al., 2021)

Principal leadership can be said to be the ability aimed at mobilizing educational staff, namely a teacher to achieve the goals of a set educational unit so that they can be achieved effectively and efficiently. The role of the school principal is crucial in solving a problem, both



the teacher and the school principal in one way where the principal must have an attitude of encouraging cooperation between teacher associations (Constantia et al., 2021). The behavior of principal must encourage teacher performance by showing friendly, close, and considerate behavior to teachers who teach, both in terms of individuals or groups. So that the role of the principal from the elementary school level at the Sekolah Murid Merdeka (SMM) as well as from this school has carried out their duties in the role of reviewing and supervising the implementation of teaching strategies carried out by the teacher in the technology-based blended learning method implemented by the Sekolah Murid Merdeka and supporting the preparation of from teaching strategies based on interviews with teachers, namely providing opinions and a forum for aspirations between peer educators whose job is to teach as well.

A teacher is said to be the vanguard in carrying out the learning process so the performance of the teacher deserves to be studied both in the implementation of the learning process and from the results related (Tjabolo, 2020). Various ways can be done by teachers in using teaching strategies, there needs to be awareness to foster student learning motivation and students' desire to follow learning through their environment, so that the preparation of teaching strategies and their components has an important role (Puspitarini & Hanif, 2019). The school facilitates where we can have active discussions both with teachers at one level (teaching at the same grade level), as well as with teachers teaching at different grade levels, as well as with learning designers or Lesson Implementation Plans (RPP) in discussing good strategies and suitable for use in teaching activities.

## Conclusion

Teaching strategy can be regarded as a reference for a teacher to carry out and make the implementation of teaching to students. In this study, the school studied was the Sekolah Murid Merdeka which applied a technology-based blended learning method in its learning activities, so a teaching teacher was required to have qualified skills in using technology as a standard of competence for a professional educator. In preparing teaching strategies that achieve efficiency from the teaching objectives to be achieved, to increase the effectiveness of a teacher creates a teaching strategy that is adapted to the method applied. The process requires indicators that need to be compiled such as teaching objectives, learning models, learning resources, teaching materials, learning media, and evaluation tools that are integrated with technology because the blended learning method itself is an integration of learning offline and online, which will always be related to technology. Thus, to create an effective teaching strategy when learning is carried out. In addition, the supporting factors from the school principal and the school itself influence the teaching strategies that have been prepared by the teacher. So one unit is a blend that is interrelated with each other to develop a teacher's teaching strategy. Input and suggestions from researchers to related parties, that in preparing teaching strategies using this technology-based blended learning method, teachers have a very important role as facilitators for students so in their preparation it is necessary to have coordination and discussion between fellow teachers who are mature to present solutions. on the challenges that teachers feel during teaching so that the implementation of teaching and learning activities, can create effective learning both with the methods and models used by schools.

## Bibliography

Adrian, Y., & Agustina, R. L. (2019). Kompetensi Guru di Era Revolusi Industri 4. *Lentera: Jurnal Ilmiah Kependidikan*, 14(2), 175–181.

- Arsyad, A. (2014). *Media Pembelajaran. Jakarta: Rajawali Pers.*
- Astuti, M., Arifin, Z., Mutohhari, F., & Nurtanto, M. (2021). Competency of digital technology: the maturity levels of teachers and students in vocational education in Indonesia. *Journal of Education Technology*, 5(2), 254–262.
- Awang, I. S. (2017). Strategi Pembelajaran, tinjauan umum bagi pendidik. *Sintang: STKIP Persada Khatulistiwa.*
- Bakhruddin, M., Shoffa, S., Holisin, I., Ginting, S., Fitri, A., Lestari, I. W., Pudyastuti, E. Z., Zainuddin, M., Alam, V. H., & Kurniawa, N. (2021). Strategi Belajar Mengajar. *CV. Agrapana Media.*
- Burdina, G. M., Krapotkina, I. E., & Nasyrova, L. G. (2019). Distance learning in elementary school classrooms: An emerging framework for contemporary practice. *International Journal of Instruction*, 12(1), 1–16.
- Constantia, C., Christos, P., Glykeria, R., Anastasia, A.-R., & Aikaterini, V. (2021). The impact of COVID-19 on the educational process: the role of the school principal. *Journal of Education*, 00220574211032588.
- Diana, P. Z., Wirawati, D., & Rosalia, S. (2020). Blended learning dalam pembentukan kemandirian belajar. *Alinea: Jurnal Bahasa, Sastra, Dan Pengajaran*, 9(1), 16–22.
- Fitriani, D., Rindiani, A., Zaqiah, Q. Y., & Erihadiana, M. (2022). Inovasi Kurikulum: Konsep, Karakteristik dan Implementasi Kurikulum Berbasis Kompetensi (KBK). *Jurnal Dirosah Islamiyah*, 4(2), 268–282.
- Hebebcı, M. T., Bertiz, Y., & Alan, S. (2020). Investigation of views of students and teachers on distance education practices during the Coronavirus (COVID-19) Pandemic. *International Journal of Technology in Education and Science*, 4(4), 267–282.
- Hidayat, T., & Purwokerto, U. M. (2019). Pembahasan studi kasus sebagai bagian metodologi penelitian. *Jurnal Study Kasus*, 3, 1–13.
- Huda, M. (2013). *Model-model pengajaran dan pembelajaran: Isu-isu metodelis dan paradigmatis.*
- Husamah, H. (2014). Pembelajaran bauran (Blended learning). *Research Report.*
- Isrokatun, I., Yulianti, U., & Nurfitriyana, Y. (2022). Analisis profesionalisme guru dalam pelaksanaan pembelajaran daring di masa pandemi Covid-19. *Jurnal Basicedu*, 6(1), 454–462.
- Maarif, S. (2022). Efektivitas Model Blended Learning Berbasis Learning Managements System Terhadap Kemampuan Literasi Matematis Siswa Sekolah Dasar. *Jurnal Cakrawala Pendas*, 8(4), 1208–1219.
- Maponya, T. J. (2020). The Instructional Leadership Role of the School Principal on Learners' Academic Achievement. *African Educational Research Journal*, 8(2), 183–193.
- Nurhayati, T. (2016). Probematika Guru dalam Menguasai TIK Pada Pembelajaran Pendidikan Agama Islam dan Solusinya di MI Al-Asy'ari Kuniran, Batangan Kabupaten Pati. *Semarang: Universitas Negeri Walisongo.*

- Nurussholihah, A., & Abdullah, K. (2022). Strategi Pembentukan Karakter Disiplin Dan Bertanggung Jawab Melalui Penerapan Model Pembelajaran Blended Learning. *Jurnal Cakrawala Pendas*, 8(4), 961–974.
- Pratiwi, I. T. M., & Meilani, R. I. (2018). Peran media pembelajaran dalam meningkatkan prestasi belajar siswa. *Jurnal Pendidikan Manajemen Perkantoran*, 3(2), 173–181.
- Puspitarini, Y. D., & Hanif, M. (2019). Using Learning Media to Increase Learning Motivation in Elementary School. *Anatolian Journal of Education*, 4(2), 53–60.
- Rasmitadila, R., Aliyyah, R. R., Rachmadtullah, R., Samsudin, A., Syaodih, E., Nurtanto, M., & Tambunan, A. R. S. (2020). The perceptions of primary school teachers of online learning during the COVID-19 pandemic period. *Journal of Ethnic and Cultural Studies*, 7(2), 90–109.
- Rezania, V., Nuroh, E. Z., & Mariyati, L. I. (2020). Kemampuan Cognitive Apprenticeship Sebagai Bagian Dari Keterampilan Dasar Mengajar Guru Sekolah Dasar. *Pedagogia: Jurnal Pendidikan*, 9(1), 43–52.
- Rosidin, U., Maulina, D., & Kadaritna, N. (2020). Peningkatan Kompetensi Pedagogik Melalui Kegiatan Penyusunan Soal berbasis High Order Thingking Skills dan Analisisnya bagi Dosen Poltekkes Negeri Tanjung Karang. *Aksiologi: Jurnal Pengabdian Kepada Masyarakat*, 4(2).
- Rusydiyah, A. M., & Mudlofir, A. (2017). Desain Pembelajaran Ino-vatif; Dari Teori ke Praktik. *Jakarta: PT Raja Grafindo Persada*.
- Saleh, S. (2017). *Analisis data kualitatif*. Pustaka Ramadhan, Bandung.
- Samoylenko, N., Zharko, L., & Glotova, A. (2022). Designing Online Learning Environment: ICT Tools and Teaching Strategies. *Athens Journal of Education*, 9(1), 49–62.
- Sari, R. T., & Angreni, S. (2018). Penerapan model pembelajaran project based learning (PjBL) upaya peningkatan kreativitas mahasiswa. *Jurnal Varidika*, 30(1), 79–83.
- Shofia, N. A., & Ahsani, E. L. F. (2021). Pengaruh penguasaan it guru terhadap kualitas pembelajaran dimasa pandemi. *Forum Paedagogik*, 12(2), 201–215.
- Sirojuddin, A., Aprilianto, A., & Zahari, N. E. (2021). Peran Kepala Sekolah Sebagai Supervisor Pendidikan Dalam Meningkatkan Profesionalisme Guru. *Chalim Journal of Teaching and Learning (CJoTL)*, 1(2), 159–168.
- Subadi, T. (2006). *Metode penelitian kualitatif*. Muhammadiyah University Press.
- Sudjana, N. (2014). Penilaian Hasil Proses Hasil Belajar Mengajar. *Bandung: PT. Remaja Rosdakarya*.
- Sugiyono, P. D. (2019). Metode Penelitian Pendidikan (Kuantitatif, Kualitatif, Kombinasi, R&d dan Penelitian Pendidikan). *Metode Penelitian Pendidikan*, 67.
- Tekege, M. (2017). Pemanfaatan teknologi informasi dan komunikasi dalam pembelajaran SMA YPPGI Nabire. *Jurnal FATEKSA: Jurnal Teknologi Dan Rekayasa*, 2(1).
- Tjabolo, S. A. (2020). The Influence of Teacher Certification on the Performance of Elementary

---

School Teachers in Gorontalo Province, Indonesia. *International Journal of Instruction*, 13(4), 347–360.

Triwiyanto, T. (2014). Pengantar Pendidikan, PT. Bumi Aksara, Jakarta.

Wahyuningsih, S. (2013). *Metode penelitian studi kasus*.

Widjaja, G., & Aslan, A. (2022). Blended learning method in the view of learning and teaching strategy in geography study programs in higher education. *Nazhruna: Jurnal Pendidikan Islam*, 5(1), 22–36.

Wijoyo, H., Junita, A., Kristianti, L. S., Santamoko, R., Handoko, A. L., Yonata, H., Ariyanto, A., & Prasada, D. (2020). *Blended learning: suatu panduan*. Insan Cendekia Mandiri.