TEACHER COMPETENCE IN DEVELOPING INTERACTIVE LEARNING IN MADRASAH IBTIDAIYAH IN THE 21ST CENTURY

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Abstract: The 21st century is known for its fast pace and is also recognized as the "knowledge age." In the process of learning, in the 21st century, students are required to achieve excellence and possess the 4C skills, which are Communication, Collaboration, Critical Thinking and problem solving, and innovative and creative. Certainly, in the application of these 4Cs, teachers need specific strategies and methods to ensure effective learning. There are four competencies that teachers must possess to carry out interactive learning in the classroom effectively. This research is conducted to analyze the competence of teachers in developing interactive learning in Islamic primary schools (Madrasah Ibtidaiyah) in the 21st century and to analyze the impact of interactive learning in Madrasah Ibtidaiyah in the 21st century. This research was conducted at MI Qur'ani Islamic Center in Jakarta. The method used in this research is field research with a qualitative involving interviews, descriptive approach, documentation, and observation. The subjects of this research are 8 classroom teachers. The results of this research show that teachers need to master four teacher competencies in developing interactive learning to achieve optimal results, create a conducive classroom environment, and make learning engaging in acquiring 21st-century 4C skills.

Keywords: Interactive Learning, Teacher Competencies, 21st Century, Islamic Elementary School

INTRODUCTION

Learning and education have undergone tremendous transformations in recent years, especially at the turn of the millennium, marking the beginning of the 21st century. The 21st century differs significantly from the 20th century, not only in the realm of education but also in various other aspects, including work, community living, and self-actualization. The 21st century is characterized by the rapid development of information technology and the advancement of automation, where many manual jobs are being replaced by machines and computer technology.¹

MI Qur'ani Centre, where MI stands for Madrasah Ibtidaiyah, is a private Islamic primary school located in DKI Jakarta. Madrasah Ibtidaiyah is equivalent to Elementary School and is under the administration of the Ministry of Religious Affairs. Madrasah Ibtidaiyah, similar to elementary schools in general, is typically a six-year program, starting from grade 1 and ending in grade 6. Elementary school is the most crucial level of education. It is universally recognized that without completing elementary education or its equivalent, a person cannot formally continue to or enroll in Junior High School (SMP).² Graduates of Madrasah Ibtidaiyah can further their education in religious institutions under the Ministry of Religious Affairs, such as Madrasah Tsanawiyah or Junior High School (SMP).³

MI Qur'ani Centre is a private Islamic primary school located in DKI Jakarta. The researchers selected this school based on their observations, as there were several teachers at MI Qur'ani who had not yet implemented methods and strategies for interactive learning with technology during their lessons. The teaching and learning activities at the school primarily relied on lecture-style methods. This is due to the school's limited facilities and a lack of motivation among the teachers to learn and apply interactive teaching methods in the classroom.

The 21st century is known for its rapid transformations and is also referred to as the "knowledge age," where efforts to meet various knowledge-based needs have become prevalent.⁴ In the 21st century, education has become increasingly crucial to ensure that learners have the skills for learning and innovation, the ability to use technology and information media, and the capacity to work and survive with life skills (lmsspada.kemdikbud.go.id). The 21st century is also characterized by (1) the widespread availability of information accessible anywhere and anytime, (2)

¹ Wijaya E.Y., D.A Sudjimat, A. Nyoto, Transformasi Pendidikan Abad 21 Sebagai Tuntutan Pengembangan Sumber Daya Manusia di Era Global. *Paper 1*. (2016).

² Widyanto, E., Penerapan Kurikulum Pendidikan Sekolah Dasar Islam Terpadu Mutiara Insani Gatak Delanggu Dalam Meningkatkan Prestasi Belajar Anak Tahun Pelajaran 2012/2013. *Skripsi*. Universitas Muhammadiyah Surakarta. (2012)

³ Pendis.kemenag.go.id. 2018. Sejarah Pendidikan Islam Dan Organisasi Ditjen Pendidikan Islam.

⁴ Wiharsri, "Efektivitas Penggunaan Lkpd Melalui Model Guided Inquiry Untuk Meningkatkan Pemahaman Konsep Dan Keterampilan Proses Sains Pada Materi Ekosistem Kelas X IPA SMA". *Thesis*. Universitas Negeri Yogyakarta. (2019).

rapid advancements in computing, (3) automation replacing routine jobs, and (4) communication that can occur from anywhere to anywhere.⁵

In the 21st century, the learning process demands that learners excel and possess the 4C skills, which are Communication, Collaboration, Critical Thinking, and Problem Solving, as well as Innovation and Creativity.⁶ Focusing on these 4C skills is expected to help learners apply their abilities as a result of the learning process, making them useful in problem-solving and competitive situations.

Education needs to complement learners in the pedagogical dimension, life skills, collaboration, critical and creative thinking. Teachers also need to be technologically savvy, collaborative, creative, risk-takers, humorous, and teach holistically. They should be able to create student-centered, meaningful, and community-integrated learning.⁷

Teachers are agents of change and play a crucial role in the progress of learners to compete in various fields.⁸ As agents of change, teachers are required to easily adapt and evolve in line with the changing times to facilitate learners' education. This is because teachers act as facilitators of the learning process. In the 21st century, teachers are expected to develop their pedagogical skills, particularly in terms of professional skills. Teachers in the 21st century need to do more than just understand the subject matter; they also need to use technology as a teaching aid, develop teaching strategies and methods that are appropriate for the material to be taught to learners. As stated in Permendiknas No.16 Tahun 2007, as cited in the research by Setiawati and Rahmawati, a teacher needs to master at least four teacher competencies, namely (1) pedagogical competence, (2) personality competence, (3) social competence, and (4) professional competence, in addition to information technology competence.⁹

⁵ Litbang Kemdikbud. Kurikulum 2013: Pergeseran Paradigma Belajar Abad-21. Retrieved September 29, 2015, from http://litbang.kemdikbud.go.id/index.php/index-berita-kurikulum/243kurikulum-2013-pergeseran-paradigma-belajar-abad-21. (2013).

⁶ Robbia, A. Z. & Husnul Fuadi. "Pengembangan Keterampilan Multimedia Interaktif Pembelajaran IPA Untuk Meningkatkan Literasi Sains Peserta Didik Di Abad 21". *Jurnal Ilmiah Profesi Pendidikan* 5, no. 2 (2020): 117-123.

⁷ Lase, Delipiter, "Pendidikan Di Era Revolusi Industri 4.0." *Jurnal Sunderman 1*, no. 16. (2019): 28-43.

⁸ MZ Setiawati, & Rahmawati, A. F., "Peranan Guru Dalam Penggunaan Multimedia Interaktif Di Era Revolusi Industri 4.0." *Prosiding Seminar Nasional Pendidikan Program Pascasarjana Universitas PGRI Palembang* 12, no. 1, (2019): 819–836.

⁹ MZ Setiawati, & Rahmawati, A. F. "Peranan Guru Dalam Penggunaan Multimedia Interaktif Di Era Revolusi Industri 4.o." *Prosiding Seminar Nasional Pendidikan Program Pascasarjana Universitas PGRI Palembang 12*, no. 1, (2019): 819–836.

According to Setiawati, "there are three requirements that a teacher must have to develop education from a global perspective: conceptual ability, cross-cultural experience, and pedagogical skills."¹⁰ According to Lian (2018: 45), "pedagogical skills involve appropriate teaching methods by teachers so that learners can understand a problem in a broad and comprehensive context. In addition to mastering the material and problem concepts, teachers must have the ability to make what is conveyed easily accepted and motivate learners to learn and delve into other topics."¹¹

The learning process involves two-way communication between teachers and learners.¹² Therefore, communication between learners and teachers is often not effective. This happens because teachers' abilities to deliver information are not always suitable for conveying instructional materials, and learners' abilities to process information may not always capture it effectively, resulting in learners not fully comprehending the material. To address this, the presence of interactive learning methods and media is considered crucial to make the learning environment more enjoyable and ensure the effective delivery of instructional materials. Several studies have shown that using interactive learning has been proven to increase learners' motivation to learn, making it easier for them to understand instructional materials. Furthermore, interactive learning media has a significant impact on improving learners' competencies.¹⁴

Considering the learning process, it is still common to see learners getting drowsy during class and lacking attention to the teacher delivering the material. Given these conditions, a more in-depth discussion is needed regarding teachers' competence in creating interactive learning to ensure that MI Qur'ani Centre

¹⁰ MZ Setiawati, & Rahmawati, A. F. "Peranan Guru Dalam Penggunaan Multimedia Interaktif Di Era Revolusi Industri 4.0." *Prosiding Seminar Nasional Pendidikan Program Pascasarjana Universitas PGRI Palembang 12*, no. 1, (2019): 819–836.

¹¹ MZ Setiawati, & Rahmawati, A. F. "Peranan Guru Dalam Penggunaan Multimedia Interaktif Di Era Revolusi Industri 4.0." *Prosiding Seminar Nasional Pendidikan Program Pascasarjana Universitas PGRI Palembang 12*, no. 1, (2019): 819–836.

¹² Fauzi, Lalu Muhammad, "Workshop Pembuatan Media Pembelajaran Interaktif dalam Memenuhi Tuntutan Pembelajaran Abad 21". *Jurnal Absyara 2*, no. 2. (2021): 185 – 194.

¹³ Zawacki-Richter, O., Müskens, W., Krause, U., Alturki, U., & Aldraiweesh, A. Student media usage patterns and non-traditional learning in higher education. *International Review of Research in Open and Distance Learning 16*, no.2. (2015): 136–170.

¹⁴ McDougall, J., & Potter, J., "Curating media learning: Towards a porous expertise". *ELearning* and Digital Media. 12, no. 2 (2015): 199-211.

learners can apply the learning and teaching process that aligns with the developments of the 21^{st} century.

The research employs field research methodology conducted systematically, collecting findings from the field. Field research is a qualitative study in which the researcher observes and directly participates in small-scale social research and observes local culture.¹⁵

The qualitative approach is used by the researcher due to several considerations, namely that the qualitative approach is more flexible, easy to adapt, and suitable for the research to be conducted. This approach presents the essence of the relationship between the researcher and informants directly, and it is more sensitive, enabling it to adapt and delve into the shared influences on the value patterns encountered by the researcher during the research.¹⁶

DISCUSSION

How Teachers Create Interactive Learning in the Classroom

In the 21st century, it is an era of rapid changes and significant transformations. Particularly in the field of education, teachers are required to have expertise in shaping students with 4C skills, which are Communication, Collaboration, Critical Thinking and Problem Solving, and Innovative and Creative skills.¹⁷ With these standards in place, various strategies and teaching models have emerged to make learning enjoyable and active. Of course, these teaching strategies and methods require supportive facilities to enhance the motivation in the learning process, as well as the teacher's abilities to carry out effective classroom teaching.

Based on Permendiknas No.16 of 2007, teachers need to evolve and possess four competencies that are mandatory for effectively implementing interactive learning in the classroom. These competencies include pedagogical competence,

¹⁵ Maros Fadlun, "Penelitian Lapangan (Field Research) pada Metode Kualitatif". *Thesis*. Universitas Sumatera Utara. (2016).

¹⁶ Salladien. "Memahami Penelitian Kualitatif. Swara-Pendidikan". *Artikel.* Universitas Negeri Malang. (2016).

¹⁷ Sari, Karmila, Penerapan Strategi Pembelajaran 4C Creative Thinking, Critical Thinking and Problem Solving, Communication, Collaboration, dalam Pembelajaran Bahasa Indonesia Siswa Kelas IV di MIN 01 Kepahiang. *Skripsi*. Universitas Islam Negeri Fatmawati. (2022).

personality competence, social competence, and professional competence, along with information technology skills."¹⁸

1. Pedagogic Competence

Pedagogical Competence is the ability of an educator or teacher to manage a learning process or the interaction of teaching and learning with students (pintek.id). Pedagogical competence encompasses the entire process from lesson planning to learning evaluation.

Based on the field observations, the researcher found the following results:



Picture 1 Learning Process

Here is the documentation of the 1st-grade classroom learning. The teaching and learning activities in the 1st grade of MI Qur'ani still rely on the lecture method, delivered orally to the 1st-grade students. Teachers at MI Qur'ani still use a chalkboard, which is employed to assess the students' abilities.

Picture 2 Results of learning activities



¹⁸ MZ Setiawati, & Rahmawati, A. F. "Peranan Guru Dalam Penggunaan Multimedia Interaktif Di Era Revolusi Industri 4.o." *Prosiding Seminar Nasional Pendidikan Program Pascasarjana Universitas PGRI Palembang 12*, no. 1, (2019): 819–836.

The results of the 1st-grade learning activity on the family lineage material used visual media arranged on A4-sized drawing paper sheets. If the delivered learning uses digital media, it can be developed into more diverse versions, such as online quizzes, short videos, simple online games, and others that are renewable. However, even without reaching the digitalization stage, the students still give their best efforts.

Based on interviews conducted on November 28, 2022, from 09:00 to 10:00 AM, it was found that not all teachers make lesson plans and conduct learning evaluations. This is supported by the following interview result:

"I rarely create lesson plans (RPP), and even making assessment questions is infrequent. But, in reality, there should be an evaluation to measure the extent of students' abilities. However, evaluation doesn't necessarily have to be in the form of written questions; it can also be a summary or quiz during Q&A sessions."

Evaluation is a process to collect, analyze, and interpret information to determine the level of achievement of learning goals by students.¹⁹ The objectives of assessment in the learning process are: 1. Making decisions about learning outcomes. 2. Understanding students. 3. Improving and developing teaching programs.²⁰ It can be concluded that MI Qur'an teachers do not have a well-established teaching strategy, as the evaluation is not being conducted effectively. However, there are conceptual ideas for evaluation that they can apply in the future."

2. Personality Competence

Positive personality is a must for a teacher because teachers should serve as role models for their students. Furthermore, teachers should be capable of educating their students to have good ethics.²¹ Based on the results of field observations, the researcher found the following results:

¹⁹ Magdalena, I., H.N Fauzi., R. Putri. "Pentingnya Evaluasi Dalam Pembelajaran Dan Akibat Memanipulasinya". *Bintang Jurnal Pendidikan dan Sains 2*, no. 2. (2020): 244-257.

²⁰ L. Idrus. "Evaluasi Dalam Proses Pembelajaran". *Adara: Jurnal Manajemen Pendidikan Islam* 9. no 2. (2019): 920-935.

²¹ Rosyada, Dede. "Guru Profesional Harus Memiliki Kepribadian yang Baik". *Artikel*. UIN Syarif Hidayatullah Jakarta. (2016).



Picture 3 Activities before studying

Starting the morning, it begins with a collective prayer in the classroom. MI Qur'ani is a school rooted in the Islamic faith, where Islamic values are integrated into the teaching and learning activities. By instilling the habit of reciting prayers before learning, teachers set a good example of character.

Based on interviews conducted on Monday, November 28, 2022, from 09:00 to 10:00 AM Western Indonesian Time (WIB), it was found that the majority of MI Qur'ani teachers implement a reward and punishment system for their students. This was further supported by the following interview result:

"If the class becomes less conducive, then I apply a reward and punishment system inside the classroom."

In the teaching and learning activities at the school, a teacher plays several important roles, such as managing teaching and learning activities, designing and planning lessons, and assessing and evaluating students' learning outcomes. Within the family environment, a teacher acts as a guide and educator. Meanwhile, in the community, a teacher serves as a director and mentor.²²

In conclusion, to maintain a conducive classroom atmosphere, MI Qur'ani teachers provide rewards or small incentives to students who participate in the learning process effectively and administer mild, educational punishments to students who do not adhere to the rules of learning properly.

3. Social Competence

²² Arfandi, Kandiri. 2021. "Guru Sebagai Model Dan Teladan Dalam Meningkatkan Moralitas Siswa". *Edupedia 6*, no. 1, (2021)

Satori states that a teacher's social competence is the teacher's ability to understand themselves as an integral part of society and their capability to fulfill their role as a member of the community and a citizen.²³ Social competence also refers to the teacher's relationship with their environment. Based on observations conducted on Friday, November 25, 2022, from 09:00 to 10:00 AM Western Indonesian Time (WIB), it was found that the teacher's relationships with students, fellow teachers, and even students' parents are very strong. This was further reinforced by observations during the celebration of Teacher's Day. All students, teachers, and even parents were actively engaged in decorating classrooms for a competition. Moreover, a significant number of students' parents devoted their time until late at night to decorate the classrooms and make the Teacher's Day event lively. Many parents also gave gifts to the teachers on that day. Based on field observations, the researcher found the following results:

Picture 4 Teacher's Day



The relationships established at MI Qur'ani with students and parents/guardians are strong. Parents/guardians show their appreciation for teachers by giving gifts on Teacher's Day.

²³ Jendela.kemdikbud.go.id. 2022. Latar Belakang Guru Berpengaruh terhadap Kompetensi Sosial dan Kepribadian



Picture 5 Class Decoration Activity

The togetherness of teachers and the parents of students is evident during the classroom decoration activity in preparation for Teacher's Day. It's not just about the gifts they give as a token of gratitude; parents are also enthusiastic about participating in the joint effort with teachers to decorate the classroom to make it look beautiful, clean, and tidy on that day.

Picture 6 Teacher and Students



The closeness between teachers and students is very strong. For them, teachers are like their second parents whom they love and can look up to as role models for their future lives.

4. Professional Competence and Information Techniques

It is found that the main aspects to consider in interactive media-based learning are that the media should be able to captivate the students' interest, adapt to the students' characteristics, and align with the teaching materials. By focusing on these aspects, it is expected that the interactive media used can achieve the learning objectives.



Picture 7 MI Qur'ani Classroom

Based on the field findings, it was observed that the MI Qur'ani classrooms currently lack interactive media technology that can support engaging and innovative learning processes. Typically, the devices used as aids for delivering interactive content, such as projectors connected to the teacher's laptop to display teaching materials on a whiteboard, aim to optimize teaching and stimulate greater interest in learning. Additionally, a sound system is used to amplify the teacher's voice and connect it to a computer or the teacher's laptop, ensuring that the audio is clear to all students in the classroom.

Information technology facilities are indeed a key factor for teachers to easily create interactive learning experiences. Based on interviews conducted on Monday, November 28, 2022, from 09:00 to 10:00 AM Western Indonesian Time (WIB), the results indicated that the facilities available at MI Qur'ani are still very limited, even lacking. As a result, teachers rarely use digital teaching media and mostly rely on lecture-based methods in their daily teaching. This situation was supported by statements from various interviewees:

"Not always using media, depending on the subject taught in class because the school's media facilities are insufficient."

"Not always, as it depends on the topic and the lack of facilities and media in the school."

"Sometimes I create my own teaching media because digital teaching media in the school is inadequate, making it challenging for teachers to utilize digital teaching media."

"Yes, I always use teaching media, but digital teaching media is rarely used due to the lack of facilities and teaching materials such as projectors to display teaching materials." As the driving force in achieving the goals of education, teachers are expected to create a meaningful, enjoyable, creative, and dynamic learning environment for students, motivating them to learn. In addition, teachers are expected to have a high level of commitment to their professionalism and serve as role models for improving the quality of education.²⁴ In conclusion, professional competence and information techniques face challenges in terms of interactive teaching media that can support the learning process, as teachers predominantly rely on lecture-based methods and occasionally incorporate their own ideas.

The use of interactive media should also consider various factors. Based on interviews conducted on Monday, November 28, 2022, from 09:00 to 10:00 AM WIB, the following results were obtained:

"When creating teaching media, we should create engaging content that is not boring and can provide good feedback from the children."

"Creating teaching media should not be random; we must consider the target age group of the children we are teaching and adapt the teaching aids accordingly."

"Allowing children to experiment in answering/discussing questions while maintaining polite and cheerful behavior."

"Teachers should create simple teaching media that align with the learning theme and encourage students to try the media created by the teacher."

"What should be considered when creating teaching media are: 1) instructional objectives; 2) effectiveness; 3) students; 4) availability; 5) procurement costs; 6) technical quality."

"By considering the students' characteristics and selecting appropriate teaching materials for use in teaching through teaching media."

"The delivery method should be clearer and include real-life examples."

"The media displayed should align with the material, and teaching media should be created as engaging as possible to create a pleasant learning atmosphere."

²⁴ Utami, I.H., U. Hasanah. Kompetensi Profesional Guru Dalam Penerapan Pembelajaran Tematik Di SD Negeri Maguwoharjo 1 Yogyakarta. *Pionir Jurnal Pendidikan 8,* no. 2 (2019).

The Impact of Interactive Learning

According to Purwanto ²⁵ learning outcomes are measured to assess the achievement of educational objectives, and as such, learning outcomes should align with these objectives. Furthermore, learning outcomes represent a change in behavior that is achieved after students undergo the teaching and learning process.

With the advancement of information technology, it has become increasingly important for educators to have in-depth knowledge of information technology, as it can be utilized as a teaching medium.²⁶ With the successful implementation of interactive learning, there are several impacts on both teachers and students. Based on interviews and observations conducted on Monday, November 28, 2022, from 09:00 to 10:00 AM Western Indonesian Time (WIB), the following results were obtained:

Students feel happy, enthusiastic, and not bored when learning is conducted using specific strategies, media, and methods. This is corroborated by the following interview responses:

"It's more enjoyable to learn using media because children will understand and comprehend more quickly."

"The difference between using media and not using it is that when using media, children feel more motivated to learn, whereas without media, children feel bored and uninterested."

Learning motivation is the change in energy within a student that generates the drive to achieve learning goals. Students with strong motivation will have high drive and enthusiasm for learning, while those with low motivation will have limited drive and enthusias.²⁷ It is concluded that implementing specific strategies, media, and methods is crucial in delivering learning materials, especially interactive media, which plays a vital role in motivating the students of MI Qur'ani. When students are motivated to learn, they also grasp the material more easily and can master it optimally.

Teachers must possess four competencies to create interactive learning. Interactive learning can help students achieve the 4Cs: Communication, Collaboration, Critical Thinking and Problem Solving, and Innovation and

²⁵ Purwanto, N. "Tujuan Pendidikan Dan Hasil Belajar: Domain Dan Taksonomi." *Jurnal Teknodik*, (2019): 146.

²⁶ Collins, O. O. "the Use of Ict in Teaching and Learning the Pervasive Solution . Continental J". *Education Research* 4, no. 2, (2011): 29–32.

²⁷ Sari, A.P.K., D Novian., R. Takdir. *Multimedia Pembelajaran Interaktif Untuk Meningkatkan Motivasi Belajar Siswa Pada Mata Pelajaran Geografi*. Universitas Negeri Gorontalo. 2022.

Creativity.²⁸ The 4Cs can be achieved when teachers apply strategies, methods, and teaching media in the classroom. By implementing media and methods, the learning process becomes enjoyable and yields optimal results. This aligns with the research conducted by Fauzi and colleagues, which explains that teaching media is crucial in the 21st-century learning era because it can enhance students' learning in the classroom.²⁹ In MI Qur'ani, most teachers have applied interactive learning quite well using printed media. Despite the inadequate facilities at the school, this does not diminish the value of their teaching competency.

According to Permendiknas No. 16, 2007, there are four competencies that a teacher must possess: pedagogical competence, personality competence, social competence, and professional competence, including information technology skills. Teachers at MI Qur'ani possess all four of these competencies. Pedagogical competence is performing well, but there is room for improvement in the evaluation of learning outcomes. Personality competence is applied through classroom rules in the form of rewards and punishments. Social competence has been successful, as evidenced by the positive relationships between colleagues, students, parents, and the application of teaching media used by teachers with limited resources. In the fourth competence, professional competence and information technology skills, it is evident from the interviews that the lack of adequate digital interactive media facilities has led some teachers to rely on traditional teaching methods, such as lecturing. Nevertheless, some teachers have developed their own interactive media ideas.

CONCLUSION

The 21st century is an era characterized by rapid progress and development, especially in the field of education. With the evolution of this era, the learning process in classrooms has also evolved. A teacher must be capable of turning the learning process into an interactive one. To implement interactive learning, a teacher must master at least four competencies: (1) pedagogical competence, (2) personality competence, (3) social competence, and (4) professional competence, in addition to information technology competence.

Based on Permendiknas No. 16, 2007, regarding the four competencies of a teacher, it is found that MI Qur'ani possesses all four aspects of competence, including pedagogical, personality, social, and professional competencies.

²⁸ Robbia, A. Z. & Husnul Fuadi. "Pengembangan Keterampilan Multimedia Interaktif Pembelajaran IPA Untuk Meningkatkan Literasi Sains Peserta Didik Di Abad 21". *Jurnal Ilmiah Profesi Pendidikan* 5, no. 2. (2020): 117-123.

²⁹ Fauzi, Lalu Muhammad. 2021. "Workshop Pembuatan Media Pembelajaran Interaktif dalam Memenuhi Tuntutan Pembelajaran Abad 21". *Jurnal Absyara*. Vol. 2, No. 2. 185 – 194.

However, attention needs to be paid to pedagogical and professional competencies.

The impacts that will result from interactive learning include creating a more enjoyable learning environment, fostering students' enthusiasm, achieving maximum learning outcomes, and boosting students' motivation to learn.

REFERENCES

- Arfandi, Kandiri. 2021. "Guru Sebagai Model Dan Teladan Dalam Meningkatkan
 Moralitas Siswa". *Edupedia*. Vol. 6, No. 1.
 https://journal.ibrahimy.ac.id/index.php/edupedia/article/view/1258/999
- Collins, O. O. (2011). "the Use of Ict in Teaching and Learning the Pervasive Solution . Continental J". *Education Research*, 4 (2), 29–32. <u>http://www.wiloludjournal.com</u>.
- Fauzi, Lalu Muhammad. 2021. "Workshop Pembuatan Media Pembelajaran Interaktif dalam Memenuhi Tuntutan Pembelajaran Abad 21". Jurnal Absyara. Vol. 2, No. 2. 185 – 194.
- Jendela.kemdikbud.go.id. 2022. Latar Belakang Guru Berpengaruh terhadap Kompetensi Sosial dan Kepribadian
- Kusumastuti, Adhi. Mustamil, Ahmad. 2019. *Metode Penelitian Kualitatif*. Semarang: LPSP. ISBN 978-623-7253-64-8.
- Lase, Delipiter (2019). "Pendidikan Di Era Revolusi Industri 4.0." *Jurnal Sunderman* 1(1):16. 28-43
- L. Idrus. 2019. "Evaluasi Dalam Proses Pembelajaran". *Adara: Jurnal Manajemen Pendidikan Islam*. Volume 9 No 2. P-ISSN: 2407-8107
- Litbang Kemdikbud. (2013). Kurikulum 2013: Pergeseran Paradigma Belajar Abad-21. Retrieved September 29, 2015, from http://litbang.kemdikbud.go.id/index.php/index-berita-kurikulum/243kurikulum-2013-pergeseran-paradigma-belajar-abad-21.
- lmsspada.kemdikbud.go.id. 2021. Globalisasi Pendidkan.

- Magdalena, I., H.N Fauzi., R. Putri. 2020. "Pentingnya Evaluasi Dalam Pembelajaran Dan Akibat Memanipulasinya". *Bintang Jurnal Pendidikan dan Sains*. Vol. 2 No. 2. 244-257. ISBN: 2685-9610.
- Maros Fadlun, 2016. "Penelitian Lapangan (Field Research) pada Metode Kualitatif". *Thesis*. Universitas Sumatera Utara.
- McDougall, J., & Potter, J. 2015. "Curating media learning: Towards a porous expertise. ELearning and Digital Media". Vol. 12 No.2. Hal. 199-211. https://journals.sagepub.com/doi/full/10.1177/2042753015581975
- Monika, Tessa Salma. "Peran dan Problematika Guru Mengembangkan Keterampilan 4c Abad 21 Masa Pandemi Di Sekolah Dasar", *Jurnal Cakrawala Pendas*. Vol. 8 No. 3. Juli 2022.
- MZ Setiawati, & Rahmawati, A. F. (2019). "Peranan Guru Dalam Penggunaan Multimedia Interaktif Di Era Revolusi Industri 4.o." Prosiding Seminar Nasional Pendidikan Program Pascasarjana Universitas PGRI Palembang, 12(1), 819–836. https://jurnal.univpgripalembang.ac.id/index.php/Prosidingpps/article/view/2640
- Pendis.kemenag.go.id. 2018. Sejarah Pendidikan Islam Dan Organisasi Ditjen Pendidikan Islam.
- Pintek.id. 2020. 4 Standar Kompetensi Guru yang Wajib Dimiliki di Era Digital.
- Praditia, Aji. 2013. "Pola Jaringan Sosial Pada Industri Kecil Rambut Palsu Di Desa Karangbanjar Kecamatan Bojongsari Kabupaten Purbalingga". *Skripsi*. Universitas Negeri Yogyakarta
- Purwanto, N. (2019). "Tujuan Pendidikan Dan Hasil Belajar: Domain Dan Taksonomi." *Jurnal Teknodik*, 146. https://doi.org/10.32550/teknodik.voi0.541.
- Robbia, A. Z. & Husnul Fuadi. (2020). "Pengembangan Keterampilan Multimedia Interaktif Pembelajaran IPA Untuk Meningkatkan Literasi Sains Peserta

Didik Di Abad 21". *Jurnal Ilmiah Profesi Pendidikan*. Vol. 5. No. 2. ISSN: 2502-7069. 117-123. https://doi.org/10.29303/jipp.v5i2.125.

- Rohman, Arip. 2011. "Pengelolaan Sekolah Berbasis Religi: Study Situs Madrasah Aliyyah Futuhiyyah – 1 Mranggen Demak". *Thesis*. Universitas Muhammadiyah Surakarta.
- Rosyada, Dede. 2016. "Guru Profesional Harus Memiliki Kepribadian yang Baik". *Artikel*. UIN Syarif Hidayatullah Jakarta.
- Salladien. 2016. "Memahami Penelitian Kualitatif. Swara-Pendidikan". *Artikel*. Universitas Negeri Malang
- Sari, A.P.K., D Novian., R. Takdir. 2022. Multimedia Pembelajaran Interaktif Untuk Meningkatkan Motivasi Belajar Siswa Pada Mata Pelajaran Geografi. Universitas Negeri Gorontalo
- Sari, Karmila. 2022. Penerapan Strategi Pembelajaran 4C Creative Thinking, Critical Thinking and Problem Solving, Communication, Collaboration, dalam Pembelajaran Bahasa Indonesia Siswa Kelas IV di MIN oi Kepahiang. *Skripsi*. Universitas Islam Negeri Fatmawati

Sarosa, Samiaji. 2012. Penelitian Kualitatif Dasar-dasar. Jakarta Barat: PT Indeks.

- Sugiyono. 2015. *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung : Alfabeta.
- Utami, I.H., U. Hasanah. 2019. Kompetensi Profesional Guru Dalam Penerapan Pembelajaran Tematik Di SD Negeri Maguwoharjo 1 Yogyakarta. *Pionir Jurnal Pendidikan*. UIN Sunan Kalijaga Yogyakarta. Vol 8, No 2, 2019. https://jurnal.ar-raniry.ac.id/index.php/Pionir/article/view/6232/3809
- Widyanto, Eko. 2012. Penerapan Kurikulum Pendidikan Sekolah Dasar Islam Terpadu Mutiara Insani Gatak Delanggu Dalam Meningkatkan Prestasi Belajar Anak Tahun Pelajaran 2012/2013. *Skripsi*. Universitas Muhammadiyah Surakarta.

- Wiharsri, 2019. "Efektivitas Penggunaan Lkpd Melalui Model Guided Inquiry Untuk Meningkatkan Pemahaman Konsep Dan Keterampilan Proses Sains Pada Materi Ekosistem Kelas X IPA SMA". *Thesis*. Universitas Negeri Yogyakarta.
- Wijaya E.Y., D.A Sudjimat, A. Nyoto. 2016. Transformasi Pendidikan Abad 21 Sebagai Tuntutan Pengembangan Sumber Daya Manusia di Era Global. *Paper*. Universitas Negeri Malang. Volume 1. ISSN 2528-259X.
- Zawacki-Richter, O., Müskens, W., Krause, U., Alturki, U., & Aldraiweesh, A. Student media usage patterns and non-traditional learning in higher education. International Review of Research in Open and Distance Learning. Vol. 16 No.2. Hal. 136–170. 2015. <u>https://doi.org/10.19173/irrodl.v16i2.1979</u>.