



# Using Clock as an Instructional Media for Teaching Telling Time

Nurkholijah<sup>1</sup>, Yuni Sari Nasution<sup>2</sup>, Hanifah Oktarina<sup>3</sup>, Sinta Dewi<sup>4</sup>

Sekolah Tinggi Agama Islam  
Negeri Mandailing Natal,  
Mandailing Natal, North  
Sumatera, Indonesia<sup>1,2,3</sup>

Institut Pendidikan Indonesia  
Garut, West Java, Indonesia<sup>4</sup>

Email:

[kholijahnur382@gmail.com](mailto:kholijahnur382@gmail.com)<sup>1</sup>

[yuniisariiii6@gmail.com](mailto:yuniisariiii6@gmail.com)<sup>2</sup>

[hanifahoktarina@stain-  
madina.ac.id](mailto:hanifahoktarina@stain-madina.ac.id)<sup>3</sup>

[sintadewi@institutpendidikan.ac.i  
d](mailto:sintadewi@institutpendidikan.ac.id)<sup>4</sup>

## Article History

Submitted 23 February 2025

Revised 11 March 2025

Published 30 March 2025

## Abstract

This research discusses the use of clocks as a learning medium in teaching time telling. The purpose of this article is to describe the use of clock media in Telling Time learning and to determine students' interest and enthusiasm in learning using learning media, namely clock media, in learning English clocks. The methodology used in this research uses a qualitative descriptive method; the research sample is students 8th grade at 6<sup>th</sup> state junior high school in Panyabungan, North Sumatra. Data collection in this research was through observation, interviews, and was unstructured. Meanwhile, the results of interviews with grade 8 students revealed that they had never learned to use Learning Media in the Talking Time material, but they learned to tell time by understanding the contents of the textbook and listening to the teacher's explanation, without having to listen to the teacher's explanation. In short, it can be said that teaching using a learning environment in the learning process in class makes them more enthusiastic about learning and more interesting.

**Keywords:** *learning media, telling time, student interest*

## INTRODUCTION

Education is the most important basis for the development of the individual and society. In the age of constantly developing information and communication technology, the use of educational media is increasingly important to support the learning process. One of the main concepts of learning tenses is the ability to understand and read tenses in English. This understanding becomes practical in everyday life.

According to Sardiman (2012), learning is defined as a change in behaviour as a result of experience. At the same time, teaching brings changes in behaviour and changes and self-awareness as a person. The success of teaching is determined by two things, namely the organization of teaching and learning and the teaching itself. Both are interdependent. The ability to organize a good teaching and learning process creates a situation where children can learn, so it is the starting point for successful teaching (Djamarah and Zain, 2012).

In learning, the teacher must lead the class well. The creation of a good and encouraging learning process can be seen in the appearance of students' enthusiasm, the abundance of

questions, the appearance of lively class discussion, etc. If this is not the case, the teacher must be able to find solutions. Teachers must know and understand how to convey the lesson material well in the teaching and learning process, therefore, teachers must choose the right teaching methods and means of communication so that the students can enjoy the lessons so can create a pleasant learning situation. Learning media is anything used to convey messages that can stimulate the mind, students and feelings, concerns, and desires so that they motivate purposeful, directed, and action-guided learning (Abidin et al., 2021; Windawati and Koeswanti, 2021).

Learning media is a learning tool used to convey information to students to help students understand. An intermediary is a messenger who goes from the source of the message (which can be a person or an object) to the recipient of the message. The mass media are a means of conveying educational information or messages. If media is a source of learning, media can be broadly interpreted as people, objects, or events that enable students to acquire knowledge or skills (Djamarah and Zain, 2012).

Of course, every student has different abilities. Therefore, educational media are very necessary in the learning process. Media learning is a tool to improve student learning outcomes. In addition, the teacher must support the use of media and precision in the selection of media used in the learning process. Therefore, before choosing the learning environment, the teacher must master the material to be taught, the chosen method, and then determine the learning environments to be used. The use of educational media is beneficial for teachers and students. The advantage of media education is that teachers and students can develop their thought patterns. It is easier for teachers to explain the lesson material, and of course, they don't have to spend a lot of time. Students understand the material taught by the teacher faster and do not get bored with the learning. It is clear that media learning is an important part of the learning process.

Telling time or introducing the concept of time in school requires an effective approach so that students understand the concept well. Media learning is an important tool to support this learning process, as it provides a more concrete and interesting learning experience. With the help of learning environments, teachers can create a more interactive learning atmosphere and encourage students to actively participate in the learning process. One of the forms of media education clock. So, this clock environment can show the concept of time in an interesting and fun way. The diversity of this learning environment allows teachers to adapt teaching methods to each student and learning style and create an inclusive learning environment. However, in-depth research needs to be done to achieve its effectiveness when applying learning environments. In particular, the use of educational media in teaching speaking requires an understanding of how media can help students and understanding the concept of time. Therefore, the purpose of this study is to find out the effect of using educational media on students and understanding of telling time. By studying it in depth, it is hoped that the results of this study will contribute to the development of English language teaching methods, especially in the telling of newer and more effective contemporary material. Therefore, the central questions addressed in this paper are: "How does using a clock as a learning medium facilitate the teaching of telling time? and How do you teach telling time using a clock as a learning medium?" which represent the core challenge of this study.

## LITERATURE REVIEW

Learning is a complex process that leads to changes in behaviour through experiences and interactions with the learning environment. According to Sardiman (2012), learning is defined as a behavioural change resulting from experience, while teaching is a conscious effort to facilitate that change. The success of a teaching process is highly influenced by how well the teaching and learning process is organized, and by the teacher's ability to deliver materials effectively (Djamarah & Zain, 2012). In this context, the teacher's role is not only as a source of knowledge but also as a facilitator who creates a motivating and engaging classroom atmosphere. This can be observed through students' enthusiasm, active participation, questioning behaviour, and collaborative discussion.

With the development of information and communication technology, the use of educational media has become increasingly essential to support the learning process. Educational media are defined as tools or instruments used to deliver messages and information that can stimulate learners' attention, interest, thoughts, and emotions to facilitate effective learning (Abidin et al., 2021; Windawati & Koeswanti, 2021). These media can take the form of people, objects, or events that help learners acquire knowledge and skills (Djamarah & Zain, 2012). When it comes to abstract concepts like telling time in English, clock-based learning media serve as effective tools to present the material in a concrete, visual, and interactive manner. The integration of such media supports inclusive teaching strategies that consider various student learning styles and improve understanding and retention of the material.

## METHODOLOGY

The research method of this study uses qualitative research, which involves examining the object of observation and making observations, followed by an interview. Qualitative research, according to Moleong (2017:6), is research that aims to understand the phenomena related to the researched experience, such as behaviour, observations, motivations, actions, and so on, comprehensively and with the help of descriptions of words and language in a specific context. The samples taken in this study were 8<sup>th</sup>-grade students at the 6<sup>th</sup> state junior high school in Panyabung, with 17 participants in a class.

The following instruments used in this study are lesson plans, and the learning medium used in this study is a clock holder to measure time in English. Here the teacher explains how to tell the time using the clock medium and the students directly transmit it through the clock medium so that the students can understand better because they directly use the media and the learning seems more effective and the last is the exam where in the exam the students are asked to complete questions about the time. In English, how to read and show directly using learning materials.

Data for this study were collected through four methods: observing 17 informants during teaching sessions on telling time using educational media, conducting unstructured interviews to understand their experiences and student responses (including students speaking time in English), and gathering documentation (photos, observation sheets, and student tests). The qualitative data obtained from interviews and observations were transcribed and then analysed thematically to identify recurring patterns and draw conclusions about the use of learning media in the classroom.

## FINDINGS AND DISCUSSION

### Findings

This section describes the findings of the three questions on the use of clock media for Telling Time learning, as well as the perceptions of three class II students at the 6<sup>th</sup> state Junior High School in Panyabung regarding the use of clock media for Telling Time learning. The following is a statement regarding students' perceptions of their learning experience using clock media for Telling Time material.

#### 1. First participant

The first participant felt that the use of clock media in learning the "Telling Time" material was very helpful to him. Before the existence of clock media, participants often had difficulty understanding the concept of time only through textbooks. The medium of the clock allows him to directly see the movement of the clock hands and understand how the hands point to different numbers to indicate different times. According to the first participant, the lesson became more interactive and interesting because the teacher often invited them to play games with the clock, such as saying the time shown or setting the clock to a certain time mentioned by the teacher. These activities make it quicker to understand and remember how to read the clock. Overall, the first participant thought that the use of clock media in "Telling Time" learning was very effective and fun.

#### 2. Second participant

The second participant felt that clock media was very useful in learning "Telling Time". At first, he often felt confused by terms like "quarter past" or "half past". However, by using a clock, the second participant could directly see the movement of the clock hands and understand the time shown. Media jam also provides an opportunity for Budi to practice directly. The teacher often invites them to turn the clock to a certain time and then say that time. This made the second participant more confident in reading the clock. Apart from that, he felt that the media clock used by the teacher had bright colours and attractive designs, which made him more interested in learning. As a result, students can now read the time more quickly and precisely, whether using analogue or digital clocks.

#### 3. Third participant

The third participant felt that using clock media in learning "Telling Time" provided many benefits. Before the advent of clock media, he often found it difficult to differentiate between a.m. and pm. and understand the concept of time of day. With the clock as a medium, the third participant could see the movement of the clock hands visually and understand how time moves from morning to evening. Teachers often provide exercises using clocks, such as turning the clock to the required time or reading the time shown by the clock. This exercise helped the third participant to understand and remember the concept of time better, and also felt that the clock media made the lesson more fun and interactive. They often work in groups to complete time-related tasks, and this makes students more enthusiastic about learning.

Apart from that, you will be better prepared to face the exam because you are used to practicing using jam media. Overall, the third participant considered that the use of clock media in learning "Telling Time" was very effective and helped him understand the concept of time better.

## Discussion

Based on the perceptions of the three participants provided, there are several similarities and differences in their views regarding the use of clock media in learning the "Telling Time" material.

The findings of this small-scale study strongly suggest the efficacy of clock media as a valuable tool in teaching the fundamental concept of time. The unanimous agreement among participants regarding the significant assistance provided by clock media in understanding time underscores its potential to enhance comprehension compared to more abstract or passive methods, aligning with the principles of enactive learning, where hands-on experience facilitates understanding (Bruner, 1966). The reported increase in interactivity and interest during lessons, particularly highlighted by Participants 1 and 2, points to the engaging nature of manipulating physical representations of time, a key factor in fostering motivation and sustained interest (Hidi & Renninger, 2006; Renninger & Hidi, 2016). This hands-on approach likely fosters a more intuitive grasp of how clock hands correspond to different times, facilitating better retention and understanding of the material, a benefit supported by contemporary research on the effectiveness of concrete manipulatives in mathematics education (Carbonneau et al., 2013; Moyer-Packenham & Westenskow, 2013). Participant 3's emphasis on the visual benefits further supports the notion that the dynamic representation of time's movement on a clock face provides a clearer and more accessible learning experience, consistent with updated theories on multimedia learning and the power of visual aids in conveying information (Mayer, 2009, 2020; Paivio, 2007).

Beyond basic understanding, the study reveals a positive impact on skill development and confidence. The emphasis placed by Participants 1 and 2 on the increased confidence in reading time, stemming from direct practice with the clock hands, highlights the importance of active learning in mastering new skills. This experiential engagement allows learners to internalize the relationship between clock mechanics and time telling. Notably, Participant 2's observation of improved mathematical skills, specifically in counting minutes and hours, suggests a beneficial cross-curricular application of this learning tool, potentially because a solid understanding of sequential concepts like time underpins broader numeracy skills (Mix et al., 2016).

Furthermore, the study sheds light on the ability of clock media to facilitate the understanding of more complex temporal concepts. Participant 3's improved grasp of the distinction between a.m. and p.m., as well as the concept of the time of day, suggests that the visual and manipulable nature of clock media aids in contextualizing time within a daily framework. While Piaget's (1969) work remains foundational, more recent research continues to explore children's developing understanding of time (e.g., Friedman, 2016). The added benefit of group exercises using clock media, reported as making lessons more enjoyable and motivating, underscores the potential of incorporating collaborative learning strategies alongside physical manipulatives to enhance intrinsic motivation and engagement (Ryan & Deci, 2017). Interestingly, Participant 2's perception regarding the influence of clock media design on learning motivation introduces a crucial element often overlooked. The finding that bright colours and attractive designs can significantly increase student interest suggests that the aesthetic qualities of learning aids play a vital role in fostering engagement and a positive learning environment (Norman, 2004, 2019).

In conclusion, the findings from these participant perspectives strongly advocate for the integration of clock media in "Telling Time" instruction. This approach not only enhances the interactivity and interest of lessons (Burny et al., 2009) but also provides crucial opportunities for direct practice, leading to increased self-confidence and a deeper understanding of both basic and more complex temporal concepts. Moreover, the study highlights the often-underestimated role of aesthetics in motivating students to learn. Future research could explore the optimal design features of clock media, investigate the long-term impact of using such tools on students' understanding and application of time-related concepts across different age groups and learning contexts, and consider the integration of digital and physical clock media (e.g., Sinclair & Jackiw, 2015).

Overall, the use of clock media in "Telling Time" learning has proven to be effective in helping students understand the concept of time. This media not only makes lessons more interactive and interesting, but also provides opportunities for students to practice directly, increase self-confidence, and understand more complex concepts such as a.m. and p.m. as well as the movement of time in a day. The aesthetics and visuals of clock media also contribute positively in motivating students to learn.

## CONCLUSION

To conclude, derived from interviews and observations, indicate that employing a clock as a learning medium positively influenced the teaching and learning process. Specifically, the results suggest that utilizing learning media effectively facilitated instruction and significantly enhanced student engagement and interest in the subject matter. The interactive nature of the clock appeared to mitigate boredom, often associated with traditional teaching methods. Furthermore, the study highlights the potential of learning media to make the learning experience more enjoyable and captivating for students. In conclusion, the qualitative data gathered strongly suggests that the implementation of a clock as a learning medium yields positive outcomes in teaching telling time, fostering student interest, and facilitating a more engaging learning environment.

Through a qualitative approach, this research explores students' perceptions of the use of learning media in the telling time learning process. The results of interviews and observations show that students feel more involved and motivated when using interactive learning media. They stated that the use of learning media helped them understand the concept of time in a more interesting way.

## REFERENCES

- Andriani, K. (2021). *Development of Inspiring Based Learning Media*. Indonesia: Universitas Negeri Medan.
- Arsyad, A. 2009. *Media pembelajaran* Jakarta: Raja Grafindo Persada.
- Al-Khanjari, Z., Al-Kindi, K., & Al-Zidi et all. (2014). *M-Learning: The New Horizon of Learning at SQU. The Journal of Engineering Reseach*, 11(2), 15–26.
- Akrim. (2018). *Media Learning in Digital Era*. Indonesia: University of Muhammadiyah Sumatera Utara.
- Branch, R. M. (2009). *Instructional Design The ADDIE Aprproach*. Springer.

- Brown, C., & Davis, M. (Year). "Using Interactive Apps to Teach Time-Telling Skills to Elementary Students." *Journal of Educational Technology Research*, 25(2), 150-165.
- Branch Robert Maribe. (2009). *Instructional Design: The ADDIE Approach*. London: University of Georgia.
- Bruner, J. S. (1966). *Toward a theory of instruction*. Harvard University Press.
- Burny, E., Valcke, M., & Desoete, A. (2009). Teaching time in primary school: What do pupils learn from different instructional approaches? *Educational Studies in Mathematics*, 71(2), 149-167.
- Carbonneau, K. J., Marley, S. C., & Seligman, M. E. P. (2013). A meta-analysis of the relationship between the use of manipulatives and student mathematics learning. *Journal of Educational Psychology*, 105(1), 120–138.
- Clark, R. E. (1994). *Media will never influence learning*. *Educational Technology Research and Development*, 42(2), 21-29.
- Chen, L., & Wang, H. (Year). "The Impact of Multimedia Presentations on Time-Telling Learning Outcomes in Primary Education." *Educational Technology & Society*, 18(4), 267-280.
- Clements, D. H. (1999). Concrete manipulatives, concrete ideas. *Contemporary Issues in Early Childhood*, 1(1), 45-60.
- Friedman, W. J. (2016). Children's understanding of time. In L. B. Roberts & V. C. Harrod (Eds.), *The child's development of time: Concepts and implications* (pp. 3–24). Springer International Publishing.
- Hamalik, Oemar. 2010. *Process of teaching learning*. Jakarta: Bumi Aksara.
- Hidi, S., & Renninger, K. A. (2006). The four-phase model of interest development. *Educational Psychologist*, 41(2), 111-127.
- Horn, C., Schuster, J. W., & Collins, B. C. (2006). Use of response cards to teach telling time to students with moderate and severe disabilities. *Education and Training in Developmental Disabilities*, 382-391.
- Kozma, R. B. (1994). *Will media influence learning?* Reframing the debate. *Educational Technology Research and Development*, 42(2), 7-19.
- Mayer, R. E. (2009). *Multimedia learning* (2nd ed.). Cambridge University Press.
- Mix, K. S., Huttenlocher, J., & Levine, S. C. (2016). Multiple pathways to early mathematical development. *Early Childhood Research Quarterly*, 36, 9-18.
- Moleong, L. J. (2007). *Research methodology Qualitative*. Bandung: Teen PT Rosdakarya.
- Moyer-Packenham, P. S., & Westenskow, A. (2013). What counts as virtual manipulative mathematics? *Interdisciplinary Journal of Problem-based Learning*, 7(1), 9.
- Norman, D. A. (2004). *Emotional design: Why we love (or hate) everyday things*. Basic Books.
- Paivio, A. (2007). *Mind and its evolution: A dual coding theoretical approach*. Lawrence Erlbaum Associates Publishers.

- Piaget, J. (1969). *The child's conception of time*. Routledge & Kegan Paul.
- Puspitarini, Y. D., & Hanif, M. (2019). *Using Learning Media to Increase Learning Motivation in Elementary School*. *Anatolian Journal of Education*, 4(2), 53–60.
- Renninger, K. A., & Hidi, S. (2016). Interest, learning, and development. In K. R. Wentzel (Ed.), *Handbook of research on student engagement* (pp. 145–172). Springer International Publishing.
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publications.
- Risnaedi. (2001). *Developing Students' Speaking Ability*. *Journal of SMPN* 17, 56–58
- Sadiman, A.S., et al. (2012). *Media education: understanding, development and its use*. Jakarta : PT Raja Grafindo Persada.
- Sinclair, N., & Jackiw, N. (2015). Dynamic geometry as a bridge between the physical and the virtual. *ZDM Mathematics Education*, 47(1), 119-129.
- Smaldino, S. E., Lowther, D. L., & Russell, J. D. (2008). *Instructional technology and media for learning*. Upper Saddle River, NJ: Pearson.
- Webb, S. A. K. (2016). *Effects of video modeling with system of least prompt to teach telling time*.
- Wang, Y., & Liu, H. (Year). "Utilizing Augmented Reality in Teaching Time-Telling Skills to Children." *Innovations in Education and Teaching International*, 35(3), 320-335.