

The Effectiveness of a Smart TV-Based Reality Approach in Improving the Understanding of Daily Prayers among Students with Intellectual Disabilities

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ABSTRACT

This study aims to examine the effectiveness of a reality-based approach integrated with Smart TV in improving students' understanding of daily prayers among students with intellectual disabilities. The research employed Classroom Action Research (CAR) based on the Kemmis and McTaggart model, conducted in two cycles consisting of planning, action, observation, and reflection. The participants were five students with mild and moderate intellectual disabilities at SLB Putra Mandiri Lamongan. Data were collected through tests, observations, and documentation, and analyzed using descriptive quantitative and qualitative approaches, with a success indicator of at least 75% of students achieving the Minimum Mastery Criteria (MMC) of 75. The results showed a significant improvement in students' understanding, indicated by an increase in the average score from 68.00 in the pre-cycle to 77.00 in Cycle I and 84.00 in Cycle II. The learning mastery percentage also improved from 20% to 60% and reached 80% in Cycle II. These findings highlight that the integration of a reality-based approach with Smart TV creates a more contextual and interactive learning environment suited to students with intellectual disabilities. The novelty of this study lies in the pedagogical integration of Smart TV within the reality approach in Islamic Religious Education learning.

Keywords: Reality Approach, Smart TV, daily prayers, intellectual disabilities, Islamic Religious Education.

INTRODUCTION

Education plays a strategic role in shaping the quality of human resources through a well-planned and meaningful learning process. In this context, teachers hold a central position as the main actors who determine the success of learning through integrated pedagogical, professional, social, and personal competencies (Darling-Hammond et al., 2024). Law Number 14 of 2005 concerning Teachers and Lecturers affirms that teachers have the responsibility to design, implement, and evaluate learning professionally by taking into account the characteristics and needs of students. Therefore, effective learning does not solely depend on the delivery of content, but on the teacher's ability to create learning experiences that are adaptive, innovative, and meaningful for all learners (Muzaini et al., 2025).

However, the implementation of the teacher's role in creating adaptive and meaningful learning, as expected, has not been fully realized in practice. In some educational institutions, the learning process still tends to be dominated by conventional approaches that focus on verbal instruction and memorization,

resulting in suboptimal student engagement (Ramadhani & Puspasari, 2025). In addition, the use of learning media and technology for students with special needs has not yet been fully aligned with their characteristics and learning needs (Ilmi et al., 2022). This condition indicates a gap between the demands of teacher professionalism in creating innovative learning and the reality of classroom teaching practices.

These challenges become increasingly complex in the context of inclusive education, particularly in teaching students with intellectual disabilities. Students with intellectual disabilities have cognitive characteristics that require learning approaches that are concrete, visual, and based on direct experience in order for the material to be understood optimally (Ilmi et al., 2022). In Islamic Religious Education, particularly in lessons on daily prayers, a learning process that emphasizes memorization alone tends to be less effective if it is not accompanied by media and learning experiences that support students' understanding. Therefore, more interactive and contextual learning innovations are needed (Harmi, 2022). Thus, teachers are required to be able to develop adaptive and contextual learning strategies in accordance with the characteristics of students with special needs.

A number of previous studies have shown that the use of learning media and technology can help improve the understanding of students with intellectual disabilities in the learning process (Anggita & Triono, 2024);(Harmi, 2022). However, most of these studies still focus on the general use of media and have not specifically integrated contextual learning approaches with the characteristics of Islamic Religious Education content, particularly in teaching daily prayers. In addition, the use of technologies such as Smart TVs in learning for students with intellectual disabilities remains limited to media presentation and has not yet addressed the development of learning strategies based on students' real-life experiences (Chiner et al., 2024). This condition indicates the need to develop learning innovations that not only utilize technology as a medium, but also integrate it with contextual and meaningful learning approaches in accordance with the needs of students with intellectual disabilities.

As an effort to address these issues, this study proposes a learning innovation through the implementation of a reality-based approach supported by Smart TV media in Islamic Religious Education. The reality-based approach emphasizes the connection between learning materials and students' real-life experiences, enabling them to understand concepts in a more concrete and meaningful way. The use of Smart TVs as a learning medium allows for the visual and interactive presentation of materials, which can enhance students' attention and learning motivation, thereby improving their understanding of the content delivered (Chiner et al., 2024). By integrating a reality-based approach with learning technology, the learning process becomes not only informative but also capable of creating contextual, engaging, and easily understandable learning experiences for students with intellectual disabilities.

The novelty of this study lies in the integration of a reality-based approach with the use of Smart TV media in Islamic Religious Education for students with intellectual disabilities. It does not merely focus on technology as a tool for delivering content, but also as a means of constructing contextual and meaningful learning experiences. Unlike previous studies that tend to separate the use of learning media from pedagogical approaches, this study systematically combines both within a single instructional design that is adaptive to the characteristics of students with intellectual disabilities. In addition, this study is specifically applied to the topic of daily prayers, thereby contributing to the development of more practical and relevant Islamic Religious Education learning strategies aligned with students' everyday needs.

Based on the problems and review presented above, this study aims to analyze and describe the implementation of a reality-based approach supported by Smart TV media in improving the understanding of students with intellectual disabilities in Islamic Religious Education, particularly on the topic of daily prayers. In addition, this study also aims to examine the effectiveness of this approach and media in creating a more interactive, contextual, and meaningful learning process in accordance with the characteristics of students with special needs.

METHOD

This study employs a Classroom Action Research (CAR) approach, referring to the cyclical model proposed by Kemmis and McTaggart, which consists of the stages of planning, action, observation, and reflection carried out repeatedly until the indicators of success are achieved (Kemmis & McTaggart, 2014). Classroom Action Research aims to improve and enhance the quality of both the learning process and learning outcomes through real actions implemented in the classroom.

The study was conducted at SLB Putra Mandiri Lamongan during the second semester of the 2025/2026 academic year. The research subjects consisted of five students with mild to moderate intellectual disabilities in Grade VIII. The selection of subjects was based on the results of preliminary observations, which indicated that students' understanding of daily prayers was still low, particularly in terms of reading fluency and comprehension of the meanings of the prayers.

The study was conducted in two cycles, each consisting of the stages of planning, action implementation, observation, and reflection. During the planning stage, the researcher prepared a Lesson Plan (RPP) based on a reality-based approach, developed Smart TV media displaying videos and texts of daily prayers, and designed research instruments in the form of observation sheets to assess students' activities and comprehension tests involving reading and understanding the meanings of daily prayers. The action implementation stage was carried out by integrating the principles of the reality-based approach, which emphasize responsibility, self-awareness, and behavioral reflection, while utilizing Smart TV media as a means of presenting materials visually and audibly. The observation stage was conducted to monitor students' activities, responses, and the development of

their understanding throughout the learning process. Subsequently, the reflection stage was carried out to evaluate the results of each cycle as a basis for improvement in the following cycle.

The data collection techniques in this study included observation, tests, and documentation. Observation was used to monitor students' engagement and activities during the learning process. Tests were used to measure the level of students' understanding of daily prayers in each cycle. Documentation, in the form of activity photographs and field notes, was used as supporting data.

The data were analyzed using both quantitative descriptive and qualitative approaches. Quantitative analysis was conducted by calculating the percentage of students' learning mastery in each cycle using the following formula:

Learning mastery = (Number of students who achieved mastery / Total number of students) × 100%

Qualitative analysis was used to describe changes in students' activities and responses during the learning process.

The criteria for the study's success were established such that at least 75% of the students achieved the Minimum Mastery Criterion (KKM) of 75, along with demonstrating increased engagement in the learning process in each cycle.

RESULTS AND DISCUSSION

Based on the results of the classroom action research conducted in two cycles, there was an improvement in the understanding of daily prayers among students with intellectual disabilities in Grade VIII at SLB Putra Mandiri Lamongan. This improvement can be seen from both the increase in the class average scores and the percentage of learning mastery at each stage of the intervention.

The development of students' average scores in understanding daily prayers at the pre-cycle, Cycle I, and Cycle II stages is presented in Table 1 below:

Table 1. Research Results

Stage	Average Score	Description
Pre-Cycle	68,00	Not Yet Mastered
Cycle I	77,00	Not Yet Optimal
Cycle II	84,00	Mastered

Based on Table 1, the average score of students in the pre-cycle stage was 68.00 and had not yet reached the established Minimum Mastery Criterion (KKM) of 75. After the intervention in Cycle I, the average score increased to 77.00. In Cycle II, the average score further improved to 84.00 and had met the mastery criterion. The comparison of students' scores at each stage is presented in Table 2 below:

Table 2. Comparison of Students' Scores in the Pre-Cycle, Cycle I, and Cycle II

No	Student	Pre	Cycle I	Cycle II
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1	Vallentino Wesley	60	70	75
2	Alfino Hedi	65	70	80
3	Ihsan Fajar Saputra	70	75	85
4	Raka Wisnu	75	85	90
5	Intan Khalimah	70	85	90

In addition to the average scores, improvement was also observed in the percentage of students' learning mastery, as presented in Table 3 below:

Table 3. Percentage of Learning Mastery

Stage	Mastery Count	Percentage
Pre-Cycle	1 out of 5	20%
Cycle I	3 out of 5	60%
Cycle II	4 out of 5	80%

In the pre-cycle stage, only 1 out of 5 students (20%) achieved learning mastery. In Cycle I, the number of students who achieved mastery increased to 3 students (60%). Furthermore, in Cycle II, the number of students who achieved mastery rose to 4 students (80%), indicating that the research success indicators had been achieved.

Discussion

The results of the study indicate that the implementation of a reality-based approach supported by Smart TV media is able to improve the understanding of students with intellectual disabilities regarding daily prayer materials. This improvement is reflected in the increase in both the average scores and the percentage of students' learning mastery in each cycle. These findings suggest that learning designed adaptively, by considering the characteristics of students with special needs, can have a positive impact on learning outcomes (Palintan et al., 2023). In the context of inclusive education, the effectiveness of learning is largely determined by the teacher's ability to adapt instructional strategies to the individual needs of students, thereby making the learning process more meaningful and optimal (Ramli et al., 2026).

One of the main factors contributing to the improvement in learning outcomes is the implementation of a reality-based approach in the learning process. This approach emphasizes students' active involvement in learning. It encourages students to be aware of and take responsibility for their learning behaviors, making the learning process more meaningful and not solely focused on final outcomes (Rachmawati et al., 2025). In addition, learning that connects the material with students' real-life experiences has been proven to enhance understanding and

retention, particularly among students with special needs who tend to require concrete approaches in learning (Muro-Rodríguez et al., 2020).

In addition to appropriate instructional approaches, the use of learning media is also an important factor in improving students' learning outcomes. In this study, the use of Smart TV media made a significant contribution to enhancing the understanding of students with intellectual disabilities. Audio-visual media can help students comprehend the material more concretely, especially for those who experience difficulties in understanding abstract concepts (Simamora & Winardi, 2024). The use of technology in learning is also known to increase students' attention and motivation, as the material is presented in a more engaging and interactive manner (Kiriwenno et al., 2022). Thus, the integration of Smart TV media in learning functions not only as a supporting tool but also as a means of creating more effective and enjoyable learning experiences for students with special needs.

The findings of this study are also consistent with various previous studies indicating that the integration of appropriate instructional approaches and the use of technology can enhance the quality of learning. Prior research has revealed that the use of digital media in inclusive learning can improve the engagement and learning outcomes of students with special needs, as the material is presented in a more engaging and easily understandable manner (Azizah & Hendriyani, 2024). Moreover, the integration of pedagogical strategies and learning technology is recognized as an effective approach in supporting successful learning, particularly for students with diverse characteristics (Nurfahmi et al., 2025). Thus, the results of this study reinforce previous findings that the combination of contextual learning approaches and the use of learning technology is an effective strategy for improving the understanding of students with intellectual disabilities.

Based on the overall findings, it can be understood that the success of learning is not determined by a single factor, but rather by the synergy between the instructional approach and the media used. The implementation of a reality-based approach combined with the use of Smart TV media has been proven to create a more interactive, contextual, and learner-appropriate learning environment for students with intellectual disabilities. This indicates that innovation in Islamic Religious Education needs to be continuously developed by utilizing adaptive technology and student-centered instructional strategies (Ahmad et al., 2025). In addition, the results of this study also imply that teachers need to enhance their competence in integrating technology and instructional approaches simultaneously in order to make learning more effective and meaningful (Suyuti et al., 2023).

Based on the results of the analysis, it can be understood that the gradual improvement in learning outcomes across each cycle not only indicates the success of the intervention, but also reflects a learning process that is adaptive to the needs of students with intellectual disabilities. The consistent progress observed in each cycle demonstrates that the learning process is not only effective in terms of outcomes, but also responsive to students' needs. This is because each cycle provides opportunities

for the teacher to reflect and refine instructional strategies, thereby making the learning process increasingly optimal. Recent studies indicate that reflective and continuous learning processes make a significant contribution to improving the quality of students' learning outcomes (Maulida & Aslamiah., 2025).

In addition, the success of the reality-based approach in this study can also be explained by students' active involvement in the learning process. When students are directly engaged and able to relate the material to their real-life experiences, the learning process becomes more meaningful and easier to understand. This is consistent with research findings indicating that experience-based learning can significantly improve conceptual understanding, particularly among students with special needs (U-senyang, 2024).

From the perspective of media use, the effectiveness of Smart TV in this study indicates that multimedia-based learning technology plays an important role in supporting students' comprehension processes. The presentation of material through a combination of visual and audio elements has been proven to enhance information retention, as students receive learning stimuli through more than one sense. Recent studies also show that the use of interactive digital media can significantly increase students' attention, motivation, and learning outcomes (Tani et al., 2022).

These findings indicate that the success of learning not only impacts the improvement of learning outcomes, but also has broader implications for teaching practices carried out by teachers. The findings of this study also have practical implications for the development of Islamic Religious Education, particularly in the context of inclusive education. Teachers are not only required to master the subject matter, but also need to be able to effectively integrate learning technology into the instructional process. The appropriate use of technology can help create more engaging learning experiences that are aligned with the needs of students with special needs (Suwahyo et al., 2022).

However, this study also has several limitations that need to be considered. The relatively small number of research subjects, along with the specific characteristics of the students, means that the findings cannot yet be broadly generalized. In addition, this study is limited to the topic of daily prayers in Islamic Religious Education, so further research is needed to examine the effectiveness of this approach on other topics or in different learning contexts.

Based on these limitations, future research is recommended to involve a larger number of participants and to develop more innovative and interactive variations of learning media. Further studies also need to examine the integration of instructional approaches and technology across various subject areas in order to produce learning models that are more comprehensive and adaptive to the needs of students with special needs.

CONCLUSIONS

Based on the results of the classroom action research that has been conducted, it can be concluded that the implementation of a reality-based approach supported by Smart TV media is effective in improving the understanding of daily prayers among students with intellectual disabilities. This improvement is reflected in the increase in learning outcomes and the percentage of mastery, indicating that learning designed in an adaptive and contextual manner can have a positive impact on students' understanding.

The novelty of this study lies in the integration of a reality-based approach with the use of Smart TV media in Islamic Religious Education for students with intellectual disabilities. This integration does not merely position technology as a tool for delivering content, but as an integral part of the instructional strategy that is able to provide more concrete, interactive, and meaningful learning experiences in accordance with the characteristics of students with special needs.

These findings indicate that the success of learning is not solely determined by the use of technology, but by the alignment between instructional approaches, media, and students' characteristics. Therefore, teachers are encouraged to develop integrative learning by making optimal use of technology. Future research is expected to examine the application of this approach across broader topics and contexts in order to strengthen the findings that have been obtained.

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