

# The Effectiveness of Interactive Multimedia-Based E-Moral Games in Teaching and Learning Moral Education

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## ABSTRACT

*The Covid-19 pandemic has shifted teaching and learning from face-to-face to online platforms, requiring teachers to integrate interactive multimedia for effective delivery. This study examines students' readiness in using interactive multimedia and evaluates the effectiveness of e-Moral Games in teaching Moral Education. Using a qualitative approach, data were collected through interviews and library research. Seven teachers from four secondary schools in Perak, Penang, and Selangor participated in this study through purposive sampling. The findings indicate that e-Moral Games positively impact students' engagement and readiness, increasing their interest and comprehension. The interactive multimedia approach helps students stay focused and better understand moral concepts. Moreover, e-Moral Games are accessible and relevant, making them an effective tool for Moral Education. This study also highlights the benefits for teachers, as it enhances students' willingness to learn and improves instructional effectiveness. By incorporating diverse teaching methods, educators can create more engaging and meaningful learning experiences, ultimately fostering a more interactive and impactful learning environment.*

**Keywords:** *e-Moral Games, Learning Style, Interactive Multimedia, Teaching and Learning, Moral Education*

## ABSTRAK

Pandemi Covid-19 telah mengubah proses pembelajaran dari tatap muka menjadi platform daring, sehingga guru perlu mengintegrasikan multimedia interaktif untuk memastikan efektivitas pembelajaran. Studi ini meneliti kesiapan siswa dalam menggunakan multimedia interaktif serta mengevaluasi efektivitas e-Moral Games dalam pengajaran Pendidikan Moral. Dengan pendekatan kualitatif, data dikumpulkan melalui wawancara dan studi pustaka. Tujuh guru dari empat sekolah menengah di Perak, Penang, dan Selangor berpartisipasi dalam penelitian ini dengan teknik purposive sampling. Hasil penelitian menunjukkan bahwa e-Moral Games berdampak positif terhadap keterlibatan dan kesiapan siswa, meningkatkan minat serta pemahaman mereka terhadap materi. Pendekatan multimedia interaktif membantu siswa lebih fokus dan memahami konsep moral dengan lebih baik. Selain itu, e-Moral Games mudah diakses dan relevan, menjadikannya alat pembelajaran yang efektif dalam Pendidikan Moral. Studi ini juga menyoroti manfaat bagi para guru, karena dapat meningkatkan kemauan siswa untuk belajar dan memperbaiki efektivitas pengajaran. Dengan mengadopsi metode pembelajaran yang beragam, pendidik dapat menciptakan pengalaman belajar yang lebih menarik dan bermakna, sehingga membangun lingkungan pembelajaran yang lebih interaktif dan berdampak positif.

**Kata Kunci:** *e-Moral Games, Gaya Pembelajaran, Multimedia Interaktif, Pengajaran dan Pembelajaran, Pendidikan Moral*

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## INTRODUCTION

The primary objective of the Moral Education Curriculum in Malaysia, as well as in other countries worldwide, is to develop individuals who are virtuous, responsible, and possess integrity, enabling them to contribute to national and global harmony and stability. This subject serves as an essential platform for fostering unity and strengthening relationships among students from an early age (Nachiappan et al., 2017). The teaching and learning of Moral Education integrate intellectual, emotional, and behavioral dimensions within the classroom. These elements are fundamental in guiding students toward moral maturity, helping them to identify, comprehend, and exhibit ethical behavior (Balakrishnan, 2002). Moral Education plays a crucial role in shaping students' values, attitudes, and actions. The implementation of effective teaching strategies in Moral Education can greatly enhance students' learning experiences. Active student engagement fosters a more comprehensive, enjoyable, and meaningful educational journey, ultimately increasing motivation and deepening their understanding of moral principles. Additionally, when teachers effectively deliver lessons, they can inspire students to develop all aspects of morality, including moral reasoning, emotional sensitivity, and ethical actions, thereby promoting holistic moral development.

The Covid-19 pandemic has made face-to-face teaching and learning (T&L) impossible, necessitating a shift to online methods. However, teachers must ensure the implementation of active learning, an approach that involves students actively seeking diverse information and knowledge to be explored in the classroom (Hardini, 2017). Online active teaching and learning can be facilitated by various interactive multimedia elements. The use of interactive multimedia is an essential approach in the teaching and learning process of Moral Education. It is also a critical element that must be integrated into education, as it needs to adapt to the changes occurring in today's world. Interactive multimedia creates opportunities for teachers to tailor their teaching to students' needs, thereby enhancing their understanding. This is crucial for providing additional support or alternative approaches to achieving academic excellence. By understanding the positive impact of interactive multimedia in this context, educators and educational institutions can design and implement more effective learning strategies to meet students' needs.

This is very different from the past. According to (Chaiyo and Nokham, 2017), the education system in the past employed different teaching and learning methods that focused primarily on content or knowledge rather than learning experience. Students not only learned passively but also engaged in hands-on activities and pursued their own knowledge. Therefore, it is the teacher's role to adopt more engaging and interactive teaching styles to increase students'

enthusiasm and motivation to learn. Teachers also play a crucial role in providing structured guidance and being creative and innovative in supporting student learning, thereby stimulating students' thinking and motivating them to explore new concepts in the classroom. As stated by (Gad, Gavin, and John, 2018): "The importance of motivation as an educational outcome stems from its strong relationship to achievement and performance in a variety of domains".

Teaching using interactive multimedia can enhance students' motivation to learn while also improving their achievement across various targeted domains. Furthermore, the Covid-19 pandemic significantly disrupted the lives of it's citizens (Hawati & Jarud, 2020). This pandemic also posed challenges to Malaysia's education system and it's teachers. In response, the government mandated that educational institutions conduct online classes virtually. As the key facilitators of online learning, teachers must adopt diverse and appropriate teaching methods to ensure the effectiveness of online teaching and learning. Teachers are encouraged to integrate digital media technology as one of their instructional approaches.

Teachers must conduct online teaching and learning while incorporating various interactive multimedia elements. Several challenges arise in implementing the teaching and learning of Moral Education in schools. Some teachers still prefer conventional teaching methods over technology-based approaches due to their familiarity and ease of use (Siti & Nurfaradilla, 2020). In fact, teachers need to be creative in finding effective methods and approaches, including developing new teaching aids through transformation and reform (Mohd, 2019), as well as adopting teaching practices that nurture skills and enhance human capital development (Salsidu et al., 2018). Moral Education encompasses intellectual, affective, and behavioral aspects, guiding students to understand and recognize moral behavior.

Teaching methods should not be rigidly confined to specific approaches; instead, they should ensure that lesson content is engaging, accessible, and capable of preventing boredom and demotivation (Muhammad et al., 2013). The quality of T&L in Moral Education must be enhanced to inspire students' curiosity, encourage them to explore new knowledge, and apply moral values in real-life situations rather than merely for examination purposes. Innovative teaching materials can significantly enhance learning experience and contribute to greater student satisfaction.

(Balakrishnan, 2010) highlights various factors influencing the development of Moral Education and the role of different stakeholders in addressing challenges in teaching and learning. Teachers serve as facilitators, guiding students in understanding moral and ethical values. To ensure moral values are embraced by all students, teachers need to adopt an inclusive approach. More interactive methods, such as discussions, case studies, role-

playing, and community projects, help students grasp and internalize moral values more effectively. Teachers bear the responsibility of maintaining students' engagement and motivation by implementing various meaningful techniques and approaches in teaching and learning. Effective teaching strategies play a crucial role in enhancing students' ability to acquire the knowledge and skills they need (Balakrishnan & Claiborne, 2012). However, teachers often face challenges such as an overloaded curriculum and an examination-centered education system, which requires them to cover the syllabus and prepare students for exams within a limited timeframe (Rusdin & Ali, 2019). Traditional teaching methods tend to create a passive learning environment, where students receive information in a one-way manner from the teacher without active engagement (Bikri & Surat, 2022). As a result, students may lose interest and feel unmotivated to participate in teaching and learning sessions.

To address this issue, interactive multimedia-based teaching approaches and strategies play a vital role in stimulating students' interest in a subject and reshaping their perceptions of topics they previously found difficult. If teachers rely on limited strategies, techniques, methods, and approaches, it can lead to a decline in students' enthusiasm for learning. Moreover, the failure to integrate 21st-century skills into teaching prevents students from applying these essential skills in their learning process. A passive delivery of knowledge further restricts students' engagement in learning activities (Ibrahim et al., 2015). To equip students for future challenges, they must not only achieve academic excellence but also develop four key competencies: critical thinking, communication, collaboration, and creativity (Nizam & Taat, 2020). Therefore, knowledge and creativity in utilizing interactive multimedia are essential skills that all teachers must master. These competencies influence teaching practices and teachers' perceptions of the teaching and learning process (T&L). Without adequate knowledge and skills, teachers may perceive the use of interactive multimedia in T&L as challenging or difficult to implement.

The use of game-based applications that combine elements such as sound, text, images, visuals, audio, and animation to support student learning while creating an engaging and interactive learning environment is practicing in the world nowadays (Zhao, 2019). The incorporation of interactive multimedia not only enhances the educational process but also enables the monitoring of student progress through interactive exercises. Furthermore, it contributes to students' physical and mental development while fostering positive values. Through these activities, students can apply what they learn in their daily lives. These learning media applications allow students to participate interactively in classroom activities using mobile devices, thereby enriching their learning experience. These applications can be utilized by both teachers and students to enhance teacher-student interactions, as well as to boost student motivation and engagement in learning (Chaiyo & Nokham, 2017).

This article wants to answer the question: how effective are interactive multimedia-based e-Moral games in enhancing students' engagement and motivation in Moral Education? how do interactive multimedia-based e-Moral games influence students' critical thinking, communication, collaboration, and creativity in Moral Education? what challenges do teachers and students face in implementing interactive multimedia-based e-Moral games in Moral Education?

## **RESEARCH METHODS**

This study adopts a qualitative research design, utilizing interviews as the primary method for data collection. A qualitative approach was chosen as it allows for more accurate and contextually relevant information to be gathered in alignment with the study's objectives. The research instruments employed in this study include interviews and library research, selected based on the study's objectives. Both methods were used to collect and analyze field study data.

The study was conducted at four secondary schools located in Perak, Penang, and Selangor. A purposive sampling technique was employed to select the study sites, ensuring representation from both urban and rural schools. In qualitative research, the sample size is typically small, especially when the population shares similar demographic characteristics. In such cases, a small sample size is considered acceptable (Willis, 2008).

The research involved six Moral Education teachers as respondents to provide insights relevant to the research topic (refer to Table 1). In this study, qualitative data were analyzed using thematic analysis, following the approach proposed by (Braun and Clarke, 2006). There are no strict rules for determining relevant themes; however, the identified themes must align with their defining characteristics and significance in the context of the study. Align with that, thematic analysis is a method used to identify patterns or themes within qualitative data (Maguire & Delahunt, 2017).

**Table 1: Background of Respondents**

Numbers	Teacher Name	School Location
1	Aini	Perak
2	Syakir	Perak
3	Mira	Penang
4	Afiq	Penang
5	Diana	Selangor
6	Nurul	Selangor
Total	7 People	

## RESULT AND DISCUSSION

The e-Moral Games interactive learning tool is designed based on students' psychological development, tailored to their abilities and skill levels, and has the potential to positively impact both students and teachers (refer to figure 1). This initiative aims to enhance the quality of Moral Education instruction by fostering cognitive development and promoting the rapid and effective attainment of learning outcomes, aligning with the mastery of 21st-century skills. The development of e-Moral Games primarily utilizes computers and Microsoft PowerPoint, integrating elements such as text, graphics, animations, sound, and video. These components serve as stimuli to capture students' attention and interest in the subject matter. The use of Microsoft PowerPoint allows for the creation of engaging and relevant interactive games, which can be implemented seamlessly since they do not require an Internet connection and are easily accessible to students at any time.

Based on (Nurhayati, 2020), the application and use of game-based learning can be implemented at home using electronic devices such as laptops or smartphones. According to Mohamad (2020), the effectiveness of learning media applications as a medium for online classroom e-assessments during the COVID-19 pandemic demonstrated that students were more focused and disciplined when completing e-assessments compared to conventional assessment methods. As a result, teachers are encouraged to integrate learning media applications into their teaching, ensuring a two-way interaction between teachers and students. The incorporation of interactive multimedia provides significant cognitive stimulation and support, particularly for students with learning difficulties. This is because interactive multimedia can transform abstract concepts into real-life scenarios, making learning more tangible and relatable. Furthermore, it enhances

students' engagement with the subject matter, fostering curiosity and emotional connection to new knowledge. Ultimately, this leads to greater motivation and interest in learning (Gad, Gavin & John, 2018).



Figure 1. Interactive e-Moral Games  
 Source: Salleh et al., 2022

This interactive e-Moral games offer an innovative approach to teaching Moral Education by integrating multimedia elements such as visuals, sound, animation, and interactive storytelling. These games enhance student engagement, motivation, and moral reasoning by presenting real-life ethical dilemmas that encourage critical thinking and decision-making. Additionally, they support active learning and personalized education, allowing students to learn at their own pace while receiving instant feedback. This support by an explanation in the table 2 below:

Table 2: Objectives and Themes of the Study

Study Objective	Study Objective	Study Objective
Identify students' readiness to use interactive multimedia based on e-Moral Games in the teaching and learning of Moral Education.	Student readiness	1. Interest in learning 2. Attraction to the subject of Moral Education
Determine the effectiveness of using interactive multimedia based on e-Moral Games in the teaching and learning of Moral Education.	T&L effectiveness	1. Students are more focused 2. Easier understanding of the teaching topic

Based on the data analysis, there are two themes obtained in terms of students' willingness, namely:

a) Interest in learning

The findings of this study found that all respondents agreed that the use of interactive multimedia based on e-Moral Games in the Moral Education course can attract students' interest during the course. Based on the statements of all respondents:

*"Students are more interested and excited about learning compared to when I conduct regular activities." Mira/32*

*"They enjoy it when I incorporate online games while teaching Moral Education." - Diana/21*

*"Multimedia makes students more engaged in what I teach." -Nurul/40*

*"Students become more interested in learning and are less distracted during class." - Syakir/14*

*"It helps them stay awake and increases their interest in the subject." Afiq/30*

The responses from all participants clearly indicate that to maintain students' interest and focus in the classroom, teachers need to implement engaging strategies. The integration of interactive multimedia based on e-Moral Games in the teaching and learning of Moral Education has been found to increase students' interest, reduce distractions, and prevent drowsiness during



lessons. This is because teachers can create a fun and dynamic learning environment, which in turn helps achieve the intended learning outcomes. The challenge of low student engagement in class can be effectively addressed through creative teaching approaches, making students more engaged and interested in Moral Education lessons.

b) Attraction to the subject of education

Based on the findings of the study, the use of interactive multimedia based on e- Moral Games in Teaching and Learning Moral Education gives attraction to the subject of Moral Education. According to the respondents:

*"Moral Education is a challenging subject to spark students' interest, but with the presence of various colors and sounds in e-games, students become more engaged."- Diana / 44*

*"These games align with current trends, making them an attractive tool to encourage students' interest in learning Moral Education." -Mira/56*

*"This subject may seem easy, but students sometimes struggle with interest. Multimedia helps capture their attention." - Syakir/45*

*"The use of multimedia provides an alternative way for students to learn in an enjoyable manner, helping them stay focused during class." Nurul/52*

Based on the feedback above, it can be concluded that the use of interactive multimedia based on e-Moral Games enhances students' interest in Moral Education. Therefore, teachers should continuously be creative and committed to adopting new teaching strategies to address this issue. By doing so, academic performance in Moral Education can be improved while ensuring a more engaging learning experience for students.

1. Effectiveness of Multimedia Use

The second objective of this study is to examine the effectiveness of using interactive multimedia based on e-Moral Games in the teaching and learning of Moral Education. Two sub-themes emerged regarding its effectiveness: students become more focused and find it easier to understand the teaching topics.

a) Focus on learning

One of the key factors contributing to the effectiveness of teaching by interactive multimedia based on e-Moral Games in Moral Education is that students become more focused on learning. This is because when teachers incorporate engaging and interactive teaching tools, students are more attentive during lessons. The following statements from respondents support this finding:

*"This subject includes students from various ethnic backgrounds, so to maintain their focus, I need to adopt diverse teaching approaches. The use of games helps students pay attention to what I teach." - Afiq/71*

*"Students are more focused because of the videos and images." - Aini/52*

*"They are able to concentrate on the lesson and are less distracted during class." - Nurul/42*

*"They used to lack interest, but with multimedia-based games, students are now more attentive." -Mira/71*

*"With these multimedia learning activities, my students can stay focused on learning."- Diana/63*

b) Easy to understand the teaching topic

Based on the respondents' statements below, the effectiveness of teaching using interactive multimedia based on e-Moral Games in Moral Education lies in its ability to help students better understand the teaching topics:

*"This multimedia makes it easier for students to understand what is being taught." - Mira/98*

*"They easily grasp the topics I teach in class." - Afiq/82*

*"My students understand the lessons well and can answer the questions asked." - Aini/101*

*"E-games are effective in helping students understand and grasp the intended concepts."- Nurul/113*

*"Using multimedia makes it easier for students to understand, even though teachers have to be more creative in preparing teaching aids."-Syakir/98*

One of the key challenges for teachers during T&L is ensuring that students fully comprehend the lesson content. Teachers must present learning materials while considering students' diverse learning styles. The use of interactive multimedia can greatly facilitate class discussions in Moral Education, making it easier for students to engage with and understand the subject matter. This highlights the importance of Moral Education teachers adopting creative approaches to enhance students' learning experiences and improve overall comprehension.

These findings align with a study by (Mahat, 2020), which found that the effectiveness of Geography learning is influenced using teaching aids (BBM), such as multimedia and well-designed, engaging instructional materials. Furthermore, several other studies also support the notion that the integration of interactive multimedia in the teaching and learning process enhances learning effectiveness (Rusli, 2021; Salsidu, 2018).

The findings of this study provide important implications for educators by introducing e-Moral Games as dynamic and interactive teaching aids, capable of capturing students' attention and engagement. This study highlights the need for teachers to continuously improve and adapt their teaching approaches to enhance student learning experiences. From a pedagogical perspective, this study contributes to Moral Education pedagogy by emphasizing the importance of teacher creativity in instructional methods. By integrating interactive multimedia, teachers can effectively engage students, improve comprehension, and create a more stimulating learning environment. This, in turn, enables educators to achieve teaching and learning objectives more efficiently.

## **CONCLUSION**

This study providing insights that can enhance the quality of Moral Education in classrooms. It serves as a valuable guide and reference for other educators seeking to incorporate interactive multimedia in their teaching practices. Given the diverse types of interactive multimedia available, teachers can expand their creativity by incorporating visual learning strategies and game-based learning approaches. These innovations can significantly improve students' comprehension levels and foster greater engagement in the learning process.

However, despite the potential benefits, this study also faces several challenges and limitations that must be acknowledged. One of the primary challenges is the varying levels of digital literacy among teachers and students, which can affect the effective implementation of interactive multimedia in Moral Education. Teachers who lack sufficient technical knowledge and training may struggle to integrate these tools optimally, leading to inconsistent outcomes. Additionally, infrastructure limitations, such as inadequate access to digital devices, unstable internet connections, and insufficient technical support, may hinder the seamless adoption of multimedia-based learning, particularly in schools with limited resources.

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