Transforming Catechesis with Multimedia: Enhancing Quality and Engagement in Religious Education

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ABSTRACT: Religious teachings are an urgent part of education to shape one's character and morals. In the digital era, multimedia is utilized as an effective tool to enhance the quality of teaching and make learning more engaging. This article aims to discuss the implementation of multimedia as a teaching aid in religious teaching in the digital age. The research method used is literature study by collecting data from relevant and up-to-date literature. Through a literature study, the author introduces the concept of multimedia and its benefits in teaching religious. In the context of multimedia in religious education, researchers employ content analysis to examine and interpret the content of multimedia materials used in teaching. This analysis involve identifying recurring themes, analyzing the alignment of multimedia content with religious teachings, and evaluating the effectiveness of multimedia elements (e.g., visuals, audio, interactivity) in conveying religious concepts. The results indicate that multimedia can enhance the teacher teaching process and improve the learning experience for participants. However, the use of multimedia in catechesis also presents challenges, such as technical issues and excessive usage. The author suggests a selective and thoughtful approach when utilizing multimedia in catechesis. This article is helpful for religious educators and catechists in understanding the significance of multimedia use in religious education in the digital age and implementing it effectively. In conclusion, this article emphasizes the imperative role of spiritual teachings in education for shaping individuals' character and morals, underscoring the significance of prudently integrating multimedia technology within religious learning.

Keywords: Assistive devices, Catecheses, Digital era, Multimedia.

INTRODUCTION

The ever-evolving wave of digital technology has changed how we learn and teach (LePort, 2020; Silva, 2019). Digital technology is an essential part of the world of education today (Hashim, 2018). It has brought new forms of communication that are different from before. Multimedia technology has become a means of communication that can enrich and expand students' understanding of the material taught (Abdulrahaman et al., 2020a). Addressing the media field and improving teachers' digital skills at all levels of education, including higher education, is crucial today (Chmielewski, 2020). However, there is still a reluctance to utilize multimedia in teaching due to a sense of security in traditional teaching methods (Musa, 2019a). One of the most debated topics related to social media in higher education is using social media to increase student engagement in learning, as stated by Aziz (2022). Electronic learning is one of the learning methods considered a balance point and responsive to dynamic technological developments (Siregar et al., 2022). Education, especially religious education, is not only a matter of teaching knowledge but also the strengthening of religious and ideological doctrines. Certain ideologies or spiritual understandings the teacher receives inside and outside the school will come into the school. The teachers include the constellation of religious ideas in the public sphere in the school environment (Hayadin et al., 2019). For this reason, learning methods using electronic media are needed for teachers and students in this modern era.

Acordinng to Azka (2023), The usage of social media platforms in Indonesia is remarkably widespread. It is projected that around 170 million people in Indonesia will actively participate in social media by the year 2020. Some previous research (Abdulrahaman et al., 2020b; Karakostantaki & Stavrianos, 2021; Pertiwi et al., 2023; Ronzhina et al., 2021) has affirmed the importance of multimedia technology and educational applications as teaching or learning tools. Several studies have explored the impact of multimedia on the education system (Assaree & Al-Khalidi, 2021; Cebrián-de-la-Serna et al., 2021; Karakostantaki & Stavrianos, 2021) conducted an empirical investigation into the effectiveness of multimedia tools in education and found significant improvement in student engagement and understanding.

Although several previous studies have highlighted the importance of multimedia technology in education and shown significant improvements in student engagement and understanding, there is still a void regarding the application of multimedia technology, especially in religious education (catecheses). Previous research has generally focused on general education and has not explicitly explored how multimedia technologies can be effectively applied in the context of spiritual learning. Therefore, there is an opportunity to fill this gap by investigating in greater depth how multimedia technology can change catechesis methods or religious education and their impact on the quality of learning and student engagement in this context.

For this reason, the following research questions will be discussed.

1. How does the integration of multimedia enhance the quality of teaching in religious education?
2. What are the selected multimedia tools commonly used in digital catechesis, and what are their specific benefits and limitations?
3. What is the effectiveness of the teaching process when multimedia aids are utilized in religious education?

4. What are the different forms of catechesis implementation that incorporate multimedia, and how do they impact student learning outcomes?
5. What are the challenges faced in implementing multimedia in the classroom for religious education, and what strategies can be employed to overcome these challenges effectively?

The main objective of this research is to explore how multimedia can be used as an effective teaching tool in religious education, especially in the digital age. The study aims to provide practical recommendations and guidelines for educators to integrate multimedia into their religious instruction. By examining current practices and analyzing different approaches to multimedia implementation, the research seeks to identify strategies that can improve teaching and learning experiences in religious education. Ultimately, the goal is to contribute to the advancement of religious education by offering practical insights and evidence-based recommendations for using multimedia resources effectively in the digital age.

Using multimedia in the teaching and learning process has been proven to impact the education system positively. Therefore, it is essential to integrate multimedia devices into the education system to give students practical experience in most areas of learning. Prospective religious teachers or catechists are invited to perform the digital conversion, which refers to changes in thoughts and attitudes facing the digital era and involves understanding and applying digital technology in religious education (Widiatna, 2020).

This article explores the potential use of multimedia in teaching and catechesis from a pastoral perspective (Widodo, 2022a). By integrating multimedia tools into catechesis, religious teachers and catechists can enhance the presentation of Church teaching and facilitate a more profound experience of encountering God's presence through various media (Sunarko, 2021). Drawing upon pastoral frameworks and principles, this will examine the theological implication of multimedia in catechesis and its contribution to the new form of evangelization. It will also describe various types of multimedia that can be effectively used in catechesis, discussing theological significance and impact on learner's spiritual formation.

Multimedia allows religious educators to present material in a more visual, audio, and interactive manner. By using images, videos, animations, and sound, educators can illustrate the concept of religion in a clearer and more engaging way. This can increase students' understanding of religious teachings and help them relate these concepts to everyday life (Arono, 2014). The use of multimedia can increase student involvement in religious learning (Nduka & McGuire, 2017a). Interesting and interactive visualizations can motivate students to be actively involved in the learning process. For example, the use of videos, simulations, or interactive games can make religious learning more fun and challenging for students, thereby increasing their interest and motivation in learning religious teachings.

With multimedia, religious educators can design student-centered learning (Amonius et al., 2021)(Sultana, 2022). Students can choose their own learning rhythm, repeat material easily, and access multimedia content outside of class. This allows educators to meet the individual needs of students and facilitates personalized and adaptive learning. Multimedia can provide an enriching learning experience, featuring a variety of diverse media and resources. In addition, the use of multimedia can facilitate collaboration and discussion between students, create an interactive

learning environment and support group-based learning. Integrating multimedia in religious education also helps students develop digital skills necessary in today's digital age. In using multimedia tools (Abdulrahaman et al., 2020a), students will learn to search, evaluate, and use information wisely, as well as develop an understanding of digital ethics in a religious context.

METHOD

This research method uses literature studies. Researchers collect, examine, and analyze multimedia-related literature as a teaching aid in religious education. Literature reviews are obtained from various sources such as books, journals, articles, papers, and Church documents related to teaching religion, multimedia, and information technology. Data analysis is done by reading, studying, and identifying relevant information from the literature. After that, the information is grouped by specific themes and analyzed descriptively. In the realm of multimedia in religious education, researchers utilize content analysis to scrutinize and decipher the content of multimedia materials employed in instructional practices. This analytical process encompasses the identification of recurring themes, assessment of how well the multimedia content aligns with religious teachings, and appraisal of the efficacy of multimedia elements (such as visuals, audio, and interactivity) in effectively conveying religious concepts.

RESULT AND DISCUSSION

Multimedia enhance the quality of teaching in religious education.

Multimedia is an audiovisual presentation media that uses text, audio, and visuals at the same time (Nunuk Suryani, Achmad Setiawan, 2018). Multimedia is a means of communication and a tool to convey information (Riyanto, 2010) Multimedia in teaching and catechesis can increase student engagement, help understand religious concepts better, and deepen their spiritual experience. Several studies related to the use of multimedia in religious education support this argument, as well as examples of multimedia in teaching and catechesis that have been successfully applied in several religious-educational institutions.

Multimedia can also be a tool used to improve student character (Nur et al., 2020). For this reason, catechesis needs to enrich the content provided with multimedia, with the help of appropriate images, music, and commentary, display the subject, as well as be able to describe certain scenes and accompanying emotions (Wang et al., 2022). Multimedia makes it easier for students to understand and use content to achieve didactic goals, as it can stimulate certain mental activities, provide and help with important information, and combine didactic task requirements with the individual characteristics of the learner (Arono, 2014).

Multimedia, as a means of catechesis, must be accessible to the recipient and aesthetically pleasing, and its selection must refer to the perception of catechesis participants. Therefore, reporters are invited to measure the results of their preaching and formulate preaching tips in the era of modern technology in the context of effective communication strategies for messages and media

(Jonathans, 2010a). Media cannot be too difficult, not too naïve, not too complicated, too primitive, and too low aesthetic. The function of multimedia in catechesis is to overcome the limitations of the experience of catechesis participants, be able to transcend spatial boundaries, allow direct interaction between catechesis participants and their environment, produce uniform observations, embed correct, concrete, and realistic basic concepts (Amonius et al., 2021).

Religious teachers are called authentic communicators if they adaptively and competently operate conventional and contemporary media (Jonathans, 2010b). The images, sounds, multimedia means, and catechist words integrated into the activity are to realize the overarching purpose of catechesis, which is to meet Jesus (Dewan Kepausan Untuk Promosi Evangelisasi Baru (terj.), 2022). Religious teachers must be able to utilize information technology and computers to transmit teaching materials or catechesis activities within schools, churches, and communities.

Religious teachers should learn the basic principles of selection and use of teaching aids in catechesis, which help in practical pedagogical activities (Nduka & McGuire, 2017b). Here are some principles of using audiovisual aids: 1) Identify the cognitive abilities of student or catechesis participants and the knowledge they have gained so far and adapt the aids to teaching goals. 2) Think about the functions they perform during the lesson process; watch, listen to, or read what is proposed to students or catechesis participants at the appropriate time. 3) Take care of the aesthetics of the props and their substantive correctness, prepare the room for the one conducive to participants, test in advance and prepare the necessary equipment, and check whether the means used have engaged catechesis participants and attracted their attention.

Utilizing multimedia in religious teaching is expected to provide better results in the educational process, making the topics discussed more exciting and accessible to assimilate. Multimedia learning allows greater interest and curiosity, stimulates imagination, and encourages active participation. The information transferred in this way is remembered more quickly and permanently (Abdulrahaman et al., 2020b).

Although multimedia can be very effective in helping audiences understand religious concepts, it is essential to have the ability to use multimedia wisely. After using multimedia, it is vital to evaluate its effectiveness. Evaluate the audience, gathering feedback on how receptive they are to multimedia and whether it helps them understand religious concepts better. This evaluation can help the teacher to improve their future multimedia use and effectiveness of teaching. Lastly, be sure to use multimedia professionally. Use the right technology and equipment to present multimedia clearly and without distractions. Poorly presented multimedia can reduce the effectiveness of conveying a religious message.

Selected multimedia tools in digital catechesis

In the digital age, catechesis sees faith formation and faith education as a form of initiation into the Christian life. Teaching not only transmits knowledge but also seeks to create more opportunities for fruitful encounters and relationships between the faithful, considering the qualities of human beings, culture, and the world today (Silva, 2019). Widodo (Widodo, 2022) stated that the Internet and social media had become catechesis media to spread the good news in new ways and styles with more interactive tools. The Internet and social media build

communication and interaction relationships between other people without being limited by distance and time. The Internet and social networks became a means of meeting and developing rational discourses of struggle in which everyone could convey different attitudes, ideologies, and perspectives. The Internet and digital media facilitate access to information.

Tablel 1. Multimedia tools in digital catechesis

Multimedia tools	Functions in catechesis
Film	Films can be used in education to impart knowledge, complement classroom learning, and increase student engagement and motivation toward specific subjects (Matt, 2020). Movies can heighten emotions and prepare a foundation for conveying concepts, serving as an emotional memory for developing attitudes and values (Blasco et al., 2015). Films can depict e religious concepts (Arifuddin, 2017), display essential stories or events, and provide demonstrations or examples interestingly and effectively.
Multimedia presentation	Multimedia presentations are contemporary media images, words, and sometimes sounds. It can be displayed on a computer screen and through wall screen panels. When preparing a presentation, the teacher or catechist "must consider the general shape of the visual layer: colors, letters, the size of graphic elements, the background and the elements used to distinguish information: arrows, points, a contrast to display aesthetic value. Explanation through presentation can take a direction from general to specific or vice versa. The teacher or catechist needs to explain the purpose and content before starting each presentation. On the other hand, when catechesis participants watch a presentation, they must pay attention to the details of the images or text fragments necessary to achieve the didactic goal.
	The diversity of stimuli and language codes conveyed through multimedia presentations supports the development of participants' activities. Multimedia learning and teaching concepts adapt mental and emotional attention. Multilateral teaching is a learning approach that focuses on many aspects or dimensions of education, such as social, cultural, psychological, and environmental. The teacher or catechist should help participants notice the relationships among the various elements of the presentation. Multimedia catechesis material becomes more lively so that the message conveyed to catechesis subjects becomes easier to understand because it is packaged in a new form according to the times (Komsos Manado, 2017)
Slide	Slides are didactic tools that have high cognitive and educative value. Slides arouse interest, stimulate the perception of ideas, provide experience, and thus develop mental activity (Kiat et al., 2020). Slides are usually in large format and viewed in a darkened room, conducive to concentration and attention. On the other hand, the size of the slides on the screen allows many people to see them. The didactic effectiveness of the slides can be enhanced by synchronizing them with appropriate music and commentary, thus helping to evoke the right mood

	and leading catechesis participants to become interested in the topic. When using slides in categories, logical steps, color harmony, and formal unity of content, color, and environment must be maintained.
Computer	Computers help acquire world knowledge and form various theoretical and practical skills in teaching. All this is because computer programs have many possibilities: combining learning with action, the use of simulation and didactic games, and now also working together with interactive boards (Rachmadtullah et al., 2018). Using computers during catechesis, such as multimedia catechization and teaching games for children, contributes significantly to catechesis (Rahmat, 2015).
	Computers connected to the Internet network allow students to access information widely. On the other hand, in various online forums, participants can exchange opinions or conduct discussions in discussion groups and chats, which can then become the subject of a debate, verification, and construction of knowledge, as well as various forms of its presentation during lessons (Yao et al., 2021). As a modern teaching aid, computers are crucial in providing students or catechesis participants with knowledge of theoretical and practical matters. It allows the collection, processing, and creation of information, allowing access to large amounts of data. It conveys information and develops skills through symbols, words, images, and lines (Manurung & Panggabean, 2020).
	Using computers, catechesis participants can develop many different skills and abilities, namely manual dexterity, the concentration of attention, visual-hand-auditory coordination, logical thinking skills, making decisions and choices, creative problem solving, activity planning, using various sources of information and evaluating one's work (Lewis, 2018). For teachers, computers become an aid that facilitates the transfer of modern didactic content, although they can never replace the classical process of learners acquiring knowledge and skills (Musa, 2019b).

The effectiveness of the teaching process in the use of multimedia aids

To increase the efficiency and attractiveness of teaching activities, teacher must use various teaching aids. Even though the core curriculum for general education requires that learners must have skills in the practical use of the knowledge acquired to prepare them better to work in the conditions of the contemporary world (Jacobs, 2010). But in today's world, the technical facilities used, namely radio, television, tape recorders, and video recorders, are no longer adequate. Therefore, one teaching task is: "Searching, organizing and using information from various sources, as well as the ability to use electronic information carriers and other technical tools specific to modern civilization" (Budiyono, 2020)

Using multimedia as a modern auxiliary tool corresponds to the latest achievements in pedagogy and developmental psychology and becomes a contemporary teaching model. In this context, the following functions of didactic aids appear. Give support in creating problem situations, forming motivations and attitudes, assistance in changing and improving reality, and thus in developing a

whole person who not only listens and reads but is also emotionally involved, creates new content, knows it for himself and makes others criticized (McKnight et al., 2016).

The activities of catechists and props must be in harmony with each other. This harmony becomes the basis of good cooperation between teachers and catechesis participants for better motivation in teaching and educating, knowing God and getting closer to Him, and opening up to others (Tukenova et al., 2019a). Using multimedia didactic aids in the educational process enhances the teaching effect (Praheto et al., 2020), sparking much interest and supporting the activities of catechesis participants. In other words, multimedia can bring religious messages into everyday life.

An essential requirement to improve teaching effectiveness is the selection of appropriate tools adapted to the age and ability of catechesis participants. Therefore, experience and proper knowledge are crucial, allowing the catechist who uses multimedia didactic means to find the exact relationship between what is shown in the presentation and what he says himself (Tukenova et al., 2019b).

Modern teaching can be done through podcasts, email, *Facebook, Twitter, TikTok, YouTube*, and other new media sources. Multimedia will fulfill Pope Benedict's call to use these new technologies to continue the Church's work of evangelization among young people (Nduka & McGuire, 2017b).

Different Forms of Catechesis Implementation

Implementing catechesis by utilizing multimedia can be realized on various occasions (Iswarahadi, 2013).

Tablel 2. Different types of multimedia that can be used in catechesis

Various Multimedia	Catechesis Implementation
Audio.	Audio can be used to accompany visual presentations or as background audio to increase the effectiveness of catechesis because humans can more easily process audiovisual information than just through writing or images alone. The human brain is more responsive to audiovisual stimuli, which can help improve memory and comprehension. Our brains integrate information across sensory modalities to generate perceptual experiences and form memories (Cohen & Parra, 2016). Audio can enrich the learning experience by adding an element of emotion to the learning process so that audio can also be used to read sacred texts, tell stories, or explain points of faith.
Picture.	A Picture is one form of media often used in catechesis as a tool. Images can be used as illustrations in catechesis materials to help understand a topic or provide visual understanding. Images can also help students to gain visual experience in understanding religious teachings. Images can also be used to prepare practical activities, such as making posters or cards related to teaching materials (Stanz, 2018). The use of images can help catechesis participants to understand abstract concepts, as well as clarify their understanding of certain concepts.
Video.	Video can help catechesis participants understand the material better and be presented in different formats, such as short or long videos, animations,

	documentary videos, or interactive videos. Videos can be shared easily on social media or other digital platforms, allowing catechesis material to be accessible to a broader audience and expanding the catechesis's reach. Using video in catechesis can help engage learners and make the material more engaging and memorable. Guru atau catechists can use videos to show examples related to the lesson or to illustrate critical points. Video can also be used to record catechists or narrators delivering material, capture firsthand experiences or reconstruct essential events, or use animated videos to help explain more complex concepts (Botsford, 2015). Learning animation videos will be more attractive to use in learning to improve children's listening skills if packaged in the form of animation (Ariani & Ujianti, 2021).
Animation.	Animation can serve as an effective alternative medium in catechesis, aiding the visualization of concepts, illustrations, and events in the Bible, as well as the explanation of complex doctrines. By utilizing animation in catechesis, churches and religious communities can achieve broader goals and enhance understanding of spiritual teachings (Anderson, 2021a; Paprocki, 2019).
Application.	Application software can be used on various electronic devices such as smartphones, tablets, or laptops. Applications can be an exciting and effective means of preparing and enriching catechesis materials. Applications in catechesis can be e-books, interactive games, or learning videos (Anderson, 2021b; Blogger, 2019)
	The use of applications software in catechesis has some drawbacks. First, using the application requires internet access and electronic devices to reduce the participation of students who do not have these devices. Second, using applications in catechesis requires technological skills, which can confuse students or teachers who are less familiar with the technology. In addition, keep in mind that the use of applications is only one of many technologies that can be used in catechesis and is not the only solution to improve the quality of learning.
Games.	Games can be a fun means to hone the ability of students or catechesis participants to understand and apply catechesis material. Games can be quizzes or puzzles related to catechesis material. A study by Dadi (2019) confirmed that using applications in catechesis is one alternative media that can help develop psychomotor aspects of catechesis participants.

Based on the table above, nowadays, anyone can easily access multimedia with applications connected to the internet network. Many applications can be accessed for preaching or catechesis purposes in Indonesia. Some of them are: 1) WhatsApp (Firmanto, 2021) - A popular instant messaging application in Indonesia. 2) Telegram – Another instant messaging app popular in Indonesia. Telegram has more exclusive features than WhatsApp, such as groups with a more prominent member capacity and channels many people can access. 3) Instagram- A social media platform that allows users to share photos and videos. 4) Facebook is another social media platform that is very popular in Indonesia. Many preaching or catechesis groups use Facebook to create pages or groups that are accessible to many people. 5) Zoom is a video-conferencing

application allowing users to hold online meetings. Zoom has been very popular in Indonesia since the COVID-19 pandemic, and many churches or catechesis institutions are using Zoom to hold meetings, classes, or other activities online. 6) Google Meet is another video-conferencing application that is also popular in Indonesia. 7) YouTube is a video-sharing platform that allows users to upload and watch videos. 8) TikTok is a social media platform that allows users to create short videos. Although not as popular as WhatsApp, Telegram, or Instagram, TikTok can be an exciting option for sharing messages or information related to preaching or catechesis.

Challenges and How to Overcome the Problem of Implementing Multimedia in Classroom

Musa (Musa, 2019b) mentioned various challenges in multimedia applications in catechesis. 1) Technology limitations. Some regions may have limited access to technology and the Internet, making multimedia in catechesis difficult or even impossible. 2) Risk of lack of personal interaction. Reliance on multimedia can lead to a lack of personal interaction between the speaker and audience, reducing familiarity and intimacy in catechesis messages. 3) The use of multimedia can also be at risk of technical errors, such as hardware or software failure, thus interrupting or even stopping the presentation of catechesis.

Despite the many challenges, there are many ways to overcome problems in multimedia applications in catechesis: 1) Expand technical skills. Teachers and catechists need to expand their technical skills in multimedia to overcome the risk of technical errors. 2) Pay attention to the balance between technology and personal interaction. Teachers and catechists need to pay attention to the balance between the use of technology and personal interaction in catechesis messages to maintain familiarity and intimacy. 3) Using alternative media: If there are technological limitations, teachers and catechists can use alternative media that are still effective in conveying catechesis messages, such as books, brochures, or enrichment cards.

CONCLUSION

Based on the information provided above, it can be concluded that incorporating multimedia as a teaching aid in catechesis during the digital era offers several advantages. Firstly, multimedia has the potential to enhance students' interest and motivation in learning by presenting materials in a more engaging and interactive manner. Secondly, multimedia can improve students' comprehension and retention of the material as visual images, sounds, and videos can provide clarity and enrich their overall learning experiences.

The results of this study contribute to the development of theory and understanding regarding the implementation of multimedia in teaching during the digital age. Additionally, this research aids in developing curricula and effective teaching strategies that utilize multimedia in religious education. Practically, the study's findings offer guidelines for teachers to implement multimedia as a teaching aid in the digital era. Furthermore, the research outcomes assist in decision-making and policy development concerning the use of multimedia in education during the digital era. Therefore, it is

recommended that the development and enhancement of multimedia in catechesis teaching continue to ensure superior educational benefits and facilitate enhanced learning experiences.

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