Development of interactive learning media through 2D animated video in Indonesian language learning

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Article Info

ABSTRACT

The development and advancement of technology play a crucial role in various fields, including education. Learning media holds significant importance in the teaching and learning process. Furthermore, the use of learning media can also have positive psychological effects on students. As we know, first-grade students are still at a stage where it can be challenging for teachers to provide explanations that they can fully comprehend. One example is at MI Muhammadiyah Kalilandak, where many students still struggle with reading, especially in the first grade. Since fluent reading is essential, the use of learning media that can support these students is necessary, such as through 2D animated videos. With the inclusion of videos equipped with animation, text, and music, it is hoped that the students will be more motivated in their learning. Therefore, this research will focus on the creation of 2D animated videos to enhance the reading abilities of the students.

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Introduction

The development and advancement of technology play a crucial role in various fields, including education. One of these fields is Education, where the use of digital technology, such as interactive learning media, is significant (Anggraeni et al., 2021a).Learning media has a substantial impact on the teaching and learning process. It can motivate students, ignite their enthusiasm for learning, and capture their interest in the learning process. Moreover, the use of learning media can also have positive psychological effects on students. It can enhance students' understanding of the subject matter being presented. Additionally, educators (teachers) can utilize learning media as an effective communication tool with students, with the aim of achieving learning goals and facilitating students' comprehension of the material (Sofia et al., n.d.).

As we know, students in the first grade can be quite challenging for teachers to provide explanations that they can understand, especially in the context of learning to read, as is the case with MI Muhamadiyah Kalilandak. Many first-grade students at this school still struggle with learning to read. Reading is closely related to learning the Indonesian language because it is one of the four language components (reading, writing, speaking, listening) that students are expected to master (Satriadi, n.d.). Reading skills are highly influential for students (Kurniawan et al., n.d.).

Reading is the primary means for a child to cultivate their curiosity. Children with good reading skills typically excel in expressing their thoughts, feelings, and interactive actions within their environment. Reading skills are an initial recognition process that requires students to recognize uppercase and lowercase letters (Akbar et al., 2023).

Therefore, the development of children's reading skills in the learning process should receive serious attention from educators, especially teachers and parents or family members. To achieve this goal, a systematic effort is needed because reading is a more complex process compared to oral communication (Nisa & Lambung Mangkurat, n.d.). One effective method to achieve this goal is by implementing Interactive Educational Videos.

By using appropriate learning media that align with technological advancements, it is hoped that it can alleviate students' boredom and boost their enthusiasm during the learning process. Video media is a form of learning media that contains moving images along with sound (Media Pembelajaran, n.d.). Interactive videos are learning media that combine sound, motion, images, text, or graphics in an interactive manner to engage users with the learning material.

This learning media contains a wealth of knowledge and skills presented in a simple and engaging way, ensuring that students don't get easily bored during the learning process. The use of interactive video media is intended to stimulate the cognitive, affective, and psychomotor development of students, particularly in reading proficiency (Wibowo, 2020). The use of interactive videos as a learning medium cannot be separated from the fact that today's students are growing up in a rapidly evolving technological culture.

Many studies have also been conducted on various media used to support learning such as, The research conducted by (Ayu et al., 2022), titled "Animated Learning Video as a Supplementary Media in Teaching Recount Text," shows that animated learning videos can motivate students in their learning. The visually and aurally engaging animated learning videos make students enthusiastic about learning. This research is of a developmental nature and employs a modified ADDIE model, comprising the stages of analysis, design, development, and evaluation.

The research conducted by (Anggraeni et al., 2021b)"Development of Interactive Video-Based Learning Multimedia to Increase Elementary School Students' Interest in Learning," aims to create interactive video-based learning multimedia to capture the interest of elementary school students. The research method used is Research and Development (R&D), with the goal of producing interactive video-based multimedia for elementary school students and determining the quality of interactive multimedia based on expert feedback on media, content, and technical assessments.

The research conducted by (Walangadi & Putra Pratama, n.d.), titled "Improving Student Learning Understanding Using 2D Animation Video Media," employs a Classroom Action Research (CAR) approach, with the research subjects being 21 fifth-grade students. The research is conducted in cycles, each consisting of four phases: planning, action implementation, monitoring, evaluation, reflection, and analysis. Therefore, it can be concluded that 2D animation can support student learning effectively.

After conducting various literatures, it can be concluded that technology is very well used in the learning process, therefore researchers will conduct research aimed at making 2D animation videos to support the learning process, especially in learning to read. The video is made based on the results of interviews and observations that have been conducted previously at MI Muhamadiyah Kalilandak.

Method

The research flow used for this study can be extended and depicted in Figure 1, which illustrates the various stages of the research. The stages of the research depicted in Figure 1 can be explained as follows, Analysis Stage, This stage involves the design of learning media, setting learning objectives, and preparing the materials to be presented. Design and System Design Process, The design and system design process is based on the desired output, meaning that the process and inputs are evaluated after determining the desired outcomes. This can be observed in the interactive learning media system. Evaluation of Experiment Results and Testing, After conducting testing and experiments, differences in the results compared to the previous state become apparent. This provides insights into whether the utilization of learning media using Adobe Flash can effectively assist teachers in the teaching process and enhance students' learning outcomes.
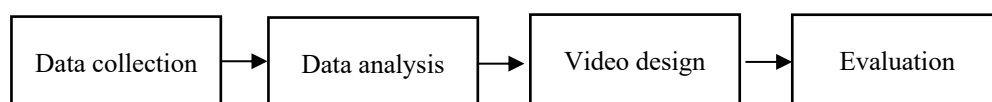

Figure 1. Research flow

Storyboard
A storyboard is a sequence of images or sketches used to illustrate the storyline, providing a visual representation of the video that will be produced or created (Elistiana & Baihaqi, 2023).

Table 1. Storyboard

Scan	Explanation
Opening	Introduction and explaining what will be learned in this learning video.
Content of video / material	Displays the letters A – Z, both upper and ower case letters, not only that, in the video there are examples of short letter spellings such as, B – U – D – I.
Closing	Review the material briefly and then give several instructions so that students are active in reading.

Coreldraw

CorelDRAW is graphic design software used to create various types of graphics, ranging from illustrations, logos, posters, brochures, to web designs (Pangarti & Yaswinda, 2023). This program is developed by a graphics software company called Corel Corporation. CorelDRAW provides a wide range of tools and features to facilitate the graphic design process. Users can create and edit various graphic objects, combine text with images, apply special effects, and much more. In this research, CorelDRAW is used for creating assets (Studi Pendidikan Seni Rupa Jurusan Seni Rupa Fakultas Bahasa dan Sen Universitas Negeri Medan Jl Willem Iskandar Pasar Medan Estate et al., n.d.).

Photoshop

Photoshop is image editing and manipulation software developed by Adobe Inc (Kristanti & Sujana, 2022). The program is widely used in various fields, including graphic design, photography, illustration, and multimedia production. Adobe Photoshop enables users to perform various image editing actions, including cropping, merging, manipulating, and altering the color and texture of images. Using tools like a pencil, brush, and various special effects, users can create and modify images with a high level of detail (Chusyairi et al., 2020). In this research, the author uses Photoshop to combine the assets that have been created (Adobe Photoshop Professional, n.d.).

Freepik

Freepik is a graphic resource platform that provides various types of graphic design content, including vectors, images, illustrations, and graphic templates (Damai et al., n.d.). This content can be used for design purposes such as creating posters, presentations, websites, social media, and more. Freepik offers a variety of design categories, allowing users to find content that suits their needs. The site provides both free content and premium subscription options that grant access to more choices and additional features. In this research, Freepik is used to search for some required icons (OLIVEIRA et al., 2021).

Results and Discussions

After all the required assets are collected, the result is a two-dimensional animated video for several minutes. After that, the video is equipped with various texts and music. For more details about the results of the two-dimensional animation video can be seen in the following images.

Figure 2. Scene Opening

Figure 3. Scene Opening

Figure 4. Scene explaining capital letters

Figure 5. Scene distinguishing between capital and lowercase letters

Figure 6. Scene spelling some words

Figure 7. The closing scene gives a mandate

After conducting observations and interviews, followed by the creation of an approximately five-minute animated video, it can be concluded that the use of interactive videos in the learning process can boost students' motivation. Furthermore, interactive video-based learning can alleviate students' feelings of boredom and laziness. In this study, the author successfully produced a video that meets the needs of MI Muhamadiyah Kalilandak, making this 2D animated video a valuable asset for the school. The primary objective of this video is to assist students in learning to read.

Conclusions

After conducting several stages of research on the creation of interactive learning media through 2D animation videos in Indonesian language instruction, it can be concluded that the production of animation videos used as learning media greatly assists teachers in conducting classroom instruction. Furthermore, the videos were created according to the initial plan required by MI Muhamadiyah Kalilandak, especially for first-grade students. In addition, this interactive learning media was developed by incorporating various elements such as images, videos, audio, text, and animations, which can enhance students' interest and enthusiasm for learning. For future research, further development can be considered to include more content in the video materials. For further research, it can add material content in the video and expand the scope in terms of respondents not only one school but applies to the public. In addition, it can be developed into three-dimensional animation and more assets are needed so that the video looks more attractive than this research.

References

Adobe Photoshop Professional. (n.d.).

Akbar, S., Salminawati, S., & Rakhmawati, F. (2023). Pengembangan media pembelajaran pai berbasis reels instagram untuk meningkatkan minat belajar siswa. *Jurnal EDUCATIO: Jurnal Pendidikan Indonesia*, *9*(2), 733. https://doi.org/10.29210/1202323204

Anggraeni, S. W., Alpian, Y., Prihamdani, D., & Winarsih, E. (2021a). Pengembangan Multimedia Pembelajaran Interaktif Berbasis Video untuk Meningkatkan Minat Belajar Siswa Sekolah Dasar. *Jurnal Basicedu*, *5*(6), 5313–5327. https://doi.org/10.31004/basicedu.v5i6.1636

Anggraeni, S. W., Alpian, Y., Prihamdani, D., & Winarsih, E. (2021b). Pengembangan Multimedia Pembelajaran Interaktif Berbasis Video untuk Meningkatkan Minat Belajar Siswa Sekolah Dasar. *Jurnal Basicedu*, *5*(6), 5313–5327. https://doi.org/10.31004/basicedu.v5i6.1636

Ayu, I. G., Bintang Permatasari, A., Ratminingsih, N. M., Putu, N., & Pratiwi, A. (2022). Animated Learning Video as a Supplementary Media in Teaching Recount Text. *Jurnal Pendidikan Bahasa Inggris Undiksha*, *10*(2), 119–127. https://doi.org/10.23887/jpbi.v10i2.48

Chusyairi, A., Konten, P., & Sabira, S. (2020). *Pelatihan Pembuatan Konten Pendidikan Pada YouTube Menggunakan Zoom Dan Editing Video Filmora* (Vol. 1, Issue 1). http://bit.ly/BiUWebinar20

Damai, A., Krissandi, S., Rishe, B. W., & Dewi, P. (n.d.). *Pembelajaran Bahasa Indonesia untuk SD (Pendekatan dan Teknis)*.

Elistiana, K. M., & Baihaqi, W. M. (2023). Perancangan Aplikasi Tebak Gambar Untuk Anak Tunarungu. *BIOS : Jurnal Teknologi Informasi Dan Rekayasa Komputer*, *4*(1), 11–17. https://doi.org/10.37148/bios.v4i1.56

Kristanti, N. N. D., & Sujana, I. W. (2022). Media Pembelajaran Interaktif Berbasis Pembelajaran Kontekstual Muatan IPS pada Materi Kenampakan Alam. *Jurnal Penelitian Dan Pengembangan Pendidikan*, *6*(2), 202–213. https://doi.org/10.23887/jppp.v6i2.46908

Kurniawan, C., Kusumaningrum, S. R., Lam, K.-F. T., & Surahman, E. (n.d.). *Improving Language Teaching and Learning Process with Dual Coding Theory Approaches.* http://journal.um.ac.id/index.php/jptpp/

Media Pembelajaran. (n.d.).

Nisa, H., & Lambung Mangkurat, U. (n.d.). *Pemanfaatan Coreldraw Untuk Menunjang Kreativitas Mahasiswa Dalam Kegiatan Pembelajaran Mandiri.*

Oliveira, A. L. De, Nascimento, A. L. R., Amaral, M. A. F. Do, & Gonçalves, S. M. C. (2021). Olhares e perspectivas: o tempo, a dor, a escola e a educação. In *Olhares e perspectivas: o tempo, a dor, a escola e a educação.* Editora Metrics. https://doi.org/10.46550/978-65-89700-85-2

Pangarti, W. M., & Yaswinda, Y. (2023). Pembelajaran Berbasis Multimedia untuk Meningkatkan Kemampuan Kognitif Anak Usia Dini. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, *7*(3), 2589–2599. https://doi.org/10.31004/obsesi.v7i3.4407

Satriadi, D. S. (n.d.). *Kelebihan Photoshop Dalam Pembuatan Ilustrasi Digital.*

Sofia, M., Sumarni, S., Atik, V., Sasanti, D., Arlesa, J., Fikri, F. A., & Husna Nabila, F. (n.d.). *Development of A Self-Assessment-Based Collaboration Assessment Instrument on Construction and Housing Planning.* http://journal.um.ac.id/index.php/jptpp/

Studi Pendidikan Seni Rupa Jurusan Seni Rupa Fakultas Bahasa dan Sen Universitas Negeri Medan Jl Willem Iskandar Pasar Medan Estate, P. V, Sei Tuan, P., & Deli Serdang, K. (n.d.). *Penerapan Wpap Dengan Corel Draw Pada Gantungan Kunci Berbahan Resin Di Kelompok Ukm Sumatera Utara Rilies Diorita Sihombing 1* , Fuad Erdansyah 2*.*

Walangadi, H., & Putra Pratama, W. (n.d.). *Meningkatkan Pemahaman Belajar Siswa Menggunakan Media Video Animasi 2D.* http://ejurnal.pps.ung.ac.id/index.php/AKSARA/index

Wibowo, D. R. (2020). Problematika Guru SD Dalam Pembelajaran IPS Jarak Jauh Di Masa Pandemi Covid-19. *Jurnal Pendidikan Dan Pembelajaran Dasar*, *7*(2), 183–192. http://ejournal.radenintan.ac.id/index.php/terampil/index