

Innovative Education: Integrating Artificial Intelligent Animation in English in the Implementation of the Independent Curriculum at SMAN Banyuwangi

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A B S T R A C T

The implementation of the Independent Curriculum in Indonesia creates a learning environment that is dynamic and responsive to technological developments. The research aims to improve the quality of English learning at SMAN Banyuwangi through the integration of Artificial Intelligence (AI) animations. By utilizing this innovative technology, it is hoped that it can create a more interesting and effective learning experience for students. This research applies descriptive qualitative methods. Data sources involve the Deputy Principal, teachers and students, with data collection through interviews, observations and analysis of related documents. Interviews provide direct views, observations understand daily practices, and document analysis supports understanding of the Merdeka Curriculum policy. Qualitative analysis uses a thematic analysis approach to identify patterns, themes and relationships from interview data, observations and documents. The results show increased material absorption, leveraging an innovative AI animation approach to improve understanding of difficult concepts visually and increase student engagement, creating a dynamic and collaborative learning environment. Overall, the integration of AI technology, especially English animation, makes a significant contribution to the learning experience at SMAN Banyuwangi.

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Introduction

The implementation of the Independent Curriculum in Indonesia creates a learning environment that is dynamic and responsive to technological developments. Flexibility in learning design is the main key, allowing schools to adapt teaching methods to the latest developments. One of the innovative aspects introduced is the integration of artificial intelligence (AI), especially through English language animation. The use of AI, especially in the form of English language animation, is considered an effective solution for improving students' understanding of subject matter (Hanila, & Alghaffaru, 2023). Animations provide attractive visualizations and can explain complex concepts in a way that is easier for students to understand. This approach is in accordance with the spirit of the Independent Curriculum which emphasizes contextual learning, where material is taught by paying attention to the context of students' daily lives. The integration of AI and English language animations not only improves student understanding but also supports the development of 21st century skills. Students will become familiar with advanced technology and learn to adapt to continuous developments. Thus, the application of AI in the curriculum creates graduates who are ready to face the demands of the modern world (Paramansyah, 2020).

The learning theory underlying the use of artificial intelligence (AI) in the form of animation in the context of this research emphasizes recognition of the diversity of student learning styles. The understanding that each student has a different way of

understanding and absorbing information is the basis of this theory. The use of AI in the form of animation is directed at meeting students' visual and auditory needs, creating variations in the presentation of material that can be adapted to individual learning preferences (Sahnir, & Yatim, 2023). This theory underscores the ability of artificial intelligence to provide personalized feedback. By using AI, the system can dynamically adjust the learning approach according to each student's individual level of understanding (Waliulu, et al, 2023). As such, this theory reflects a personalized approach to learning, where learning experiences are designed to understand and meet the unique needs of each student. This personalized approach is in line with the vision of the Merdeka Curriculum, which focuses on understanding and responding to students' individual needs. By integrating AI and English animation, learning can be adapted to each student's learning style and level of understanding, supporting the achievement of curriculum goals that focus on developing skills and understanding concepts holistically (Dasmo, 2022); (Pustikayasa, et al, 2023).

Previous research has consistently highlighted the positive benefits of using artificial intelligence (AI) in learning contexts. Numerous studies have found that the implementation of AI can significantly increase students' motivation, their engagement in the learning process, and their understanding of the concepts being taught. In the context of research at SMAN Banyuwangi, the integration of AI animation in English is expected to be an effective means of providing these benefits to students (Farid, 2023). By leveraging the power of AI animation, learning can become more interesting and relevant for students, increasing their level of participation and interest in learning material. Apart from that, this integration is also in line with the objectives of the Merdeka Curriculum which prioritizes responsiveness and relevance in creating a learning environment that suits students' needs and development in this digital era. Thus, the implementation of AI animation in English at SMAN Banyuwangi is expected to make a positive contribution to achieving the goals of the Independent Curriculum in improving the quality of learning at the school (Rahman, et al, 2021).

A number of benefits, challenges that can arise cannot be ignored. Some of these challenges involve critical aspects such as teacher training, technology access, and evaluating the effectiveness of AI use. Teacher training is an important aspect in ensuring that educators have an adequate understanding of AI technology and how to integrate it into the learning process (Batusalu, & Kambira, 2023). Apart from that, access to technology needs to be considered so that all students and teachers can use it without any gaps. Evaluation of the effectiveness of the use of AI is essential to ensure that this implementation meets learning objectives and has a positive impact on student achievement. Therefore, this research not only focuses on technology implementation, but also actively engages in the development of adequate strategies to overcome these obstacles. An inclusive approach in implementing the Independent Curriculum is also a focus, considering the importance of ensuring that this innovation is accessible and provides benefits to all levels of the educational community.

Research Method

This research adopts a qualitative research method with descriptive research type. A descriptive approach is used to describe in detail and systematically the implementation of Innovative Education, especially the integration of Artificial Intelligence (AI) animations in English, in the Implementation of the Independent Curriculum at SMAN Banyuwangi. Qualitative research methods provide space to

understand the context, dynamics and perceptions of the actors involved (Abdulah, et al, 2018).

The research data sources came from the Deputy Principal, teachers and students at SMAN Banyuwangi. Data collection was carried out through in-depth interviews, observation and analysis of documents related to the implementation of Innovative Education. In-depth interviews were used to gain direct views from stakeholders, while observations provided insight into daily practices in the learning environment. Document analysis supports researchers in understanding the policies and guidelines that are the basis for implementing the Independent Curriculum (Artapati, & Budiningsih, 2017).

In analyzing qualitative data, this research uses a thematic analysis approach. Thematic analysis allows researchers to identify patterns, themes, and relationships that emerge from interview, observation, and document data. The results of this analysis provide a deep understanding of the effectiveness of integrating English-language AI animation in supporting the Merdeka Curriculum. In addition, this technique facilitates the preparation of findings that can make a significant contribution to educational practices at SMAN Banyuwangi (Rifa'i, 2023).

Result and Discussion

Increased Material Absorption Capacity

Research shows that the use of Artificial Intelligence (AI) animations in English in implementing the Merdeka Curriculum at SMAN Banyuwangi can increase students' absorption of material. AI animation provides an innovative approach that motivates students to be more active in learning, improving understanding of difficult concepts visually.

This research highlights the positive impact of using English-language Artificial Intelligence (AI) animations in the context of implementing the Merdeka Curriculum at Banyuwangi Senior High Schools (SMAN). One of the main findings is an increase in students' absorption of material. By utilizing AI technology, learning becomes more interesting and interactive. AI animation provides an innovative approach that not only presents information conventionally but also motivates students to be actively involved in the learning process.

AI animation has the advantage of providing a visual representation of complex concepts. In the context of the Merdeka Curriculum, where the learning approach is more open and focuses on skill development and deep understanding, the use of AI can help students overcome the obstacles of difficult concepts in a more intuitive way. Visualization through animation helps students understand abstractions and strengthens their understanding visually, improving the quality of learning.

Additionally, the innovative approach through AI animation provides an additional boost to student engagement in learning. Students become more active, ask questions, and participate more proactively in class discussions. This not only increases interaction between students and the material, but also creates a more dynamic and collaborative learning environment.

Thus, the results of this research provide an important contribution to understanding how the integration of AI technology, especially English language animation, can enrich the learning experience in implementing the Merdeka Curriculum at SMAN Banyuwangi (Prasetyo, et al, 2020).

Student Interaction and Involvement

This research reveals that the application of Artificial Intelligence (AI) animation in learning has a positive impact on interactions between students and learning materials. The integration of AI animation goes beyond providing information to students, but also creates opportunities for better engagement. Students become more active in the learning process, gaining a deeper understanding of the concepts being taught.

With AI animation, the connection between theory and practical application is further strengthened. Visualization of abstract concepts through animation helps students relate theory to real-world situations, making it easier for them to understand and remember the information learned. This has the potential to improve students' memory and their ability to apply knowledge in real contexts.

Additionally, research highlights increased active participation of students in the classroom. AI animations create a more engaging and challenging learning environment, encouraging students to ask questions, discuss and collaborate. As a result, the classroom atmosphere becomes more dynamic and learning becomes more effective because it involves students directly in the process of acquiring knowledge.

Overall, the integration of AI animation not only provides a visual dimension to learning material, but also enriches students' learning experiences through more active interaction and practical application of the concepts taught (Kusum, et al, 2023).

Improved English Language Skills

In the context of English learning, the innovative integration of English-language artificial intelligence (AI) in the Merdeka Curriculum brings significant benefits to the development of students' language skills. The use of AI in the form of animation not only presents learning material in an interesting way, but also provides authentic speech models and realistic communicative situations. As a result, students can experience substantial improvements in their English speaking and comprehension skills.

English AI animations act as tools that support interactive learning, providing examples of pronunciation of words, phrases and sentences with correct accent and intonation. Through the use of this technology, students have the opportunity to engage in simulated real English dialogues and interactions, creating an immersive learning experience. Authentic speech models and communicative situations presented by AI animations help students improve their language skills by building confidence in speaking and understanding everyday communication contexts.

In addition, the use of English-language AI can also stimulate students' interest in language learning. AI animations can be designed to create interesting and relevant scenarios to students' daily lives, making the learning process more interesting and enjoyable. Thus, the use of this technology not only focuses on developing language skills, but also on building intrinsic motivation to learn English.

With the AI animation in English in the Merdeka Curriculum, English learning at SMAN Banyuwangi becomes more dynamic and responsive to student needs. This illustrates how innovation in learning technology can have a positive impact on students' understanding and mastery of English, in line with the aim of the Merdeka Curriculum to provide relevant and adaptive education (Jenita, et al, 2023).

Implementation Challenges

Even though research shows positive results regarding the use of Artificial Intelligence (AI) animation in implementing the Independent Curriculum at SMAN

Banyuwangi, there are a number of implementation challenges that need to be overcome. One of the main challenges is resource availability. Implementing AI technology requires adequate infrastructure, including hardware and software that supports the use of AI animation in the learning process. The success of this integration is highly dependent on adequate investment in technology and educational facilities.

Another challenge revealed in this research is the lack of training received by teachers. The use of Artificial Intelligence (AI) animation in the learning process requires special understanding and skills on the part of educators. Adequate training is crucial to ensure that teachers can optimize the potential of AI animation to improve the quality of their teaching. In this context, training is not limited to familiarity with AI technology, but also involves a deep understanding of how to integrate the technology into existing teaching methods.

Effective training needs to cover aspects such as how to structure learning materials that suit AI animation features, managing classroom interactions with the technology, and evaluating its impact on student understanding. Teachers need to thoroughly understand how this technology can have a positive impact on student learning and enrich existing teaching methods. Therefore, training must be designed in such a way that it provides a thorough understanding and practical skills that can be applied in a classroom environment.

Lack of training can be a serious obstacle in implementing AI animation in learning. Therefore, investment in teacher training needs to be an integral part of the strategy for implementing this technology in educational settings. Only with a solid understanding and appropriate skills can teachers effectively integrate AI animation into their teaching methods, thereby achieving the desired positive impact on student learning.

To overcome these challenges, special attention needs to be paid to the sustainability and effectiveness of the use of AI animation. Resources must be allocated wisely, both to meet technology needs and teacher training. This implementation also requires ongoing support from the school and local government to ensure that the Independent Curriculum with the integration of AI animation can run optimally and provide maximum benefits for the learning process at SMAN Banyuwangi (Nadzirah, et al, 2023).

Conclusion

This research explores in detail the positive impact of using English-language Artificial Intelligence (AI) animations in the context of the Merdeka Curriculum at SMAN Banyuwangi. The main findings of this research include increasing the absorption of material by students through implementing an innovative approach using AI animation. The use of this technology proves its effectiveness in improving understanding of complex concepts visually, enriching students' learning experience.

The superiority of AI animated visual representations is key in supporting the open learning approach that is the focus of the Merdeka Curriculum. AI animation not only facilitates the conventional transfer of information, but also provides a visual dimension that makes it easier for students to overcome difficult concepts. Deep understanding becomes more achievable through the use of AI animation, creating a strong foundation for skill development and understanding.

In addition, this innovative approach not only has an impact on increasing material absorption, but also enriches student engagement. The use of AI animation creates a dynamic and collaborative learning environment. Students become more

active, ask questions, discuss and participate proactively in the learning process. More intense interaction between students and the material contributes positively to their learning experience. Overall, the integration of AI technology, especially through English language animation, at SMAN Banyuwangi, marks a positive development in students' understanding, engagement and learning experience. This significant contribution emphasizes the importance of AI technology as a supporting tool in the implementation of the Independent Curriculum, illustrating that innovation in education can have a substantial positive impact.

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