DEVELOPMENT OF A DIGITAL-BASED DEMOCRATIC EDUCATION MODEL TO STRENGTHEN POLITICAL TOLERANCE IN STUDENTS

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Abstract: The urgency of this research lies in the increasing political polarization among the younger generation, especially students, caused by the misuse of digital media as a space for political discussion. The purpose of this research is to analyze and develop an effective digital-based democracy education model to strengthen students' political tolerance in the digital era. The method used is research and development (R&D) design with quantitative and qualitative approaches. This research includes needs analysis, model development, expert validation, limited trials, and extensive implementation. The results show that: Democracy education in higher education has strong support from universities, including the rector, with 87% of respondents stating the importance of strengthening democracy education. Lecturers also play an active role in providing understanding to students through learning that instills the values of social justice, inclusivity, respect, and tolerance. This was positively received by 88% of students. In addition, interaction between students from various regions, cultures, and tribes encourages the growth of mutual respect and peaceful coexistence in the campus environment. As many as 90% of students show a strong attitude of political tolerance as a result of the educational process. The conclusion is that democratic education received high support from universities (87%) and was positively accepted by students (88%). Lecturers play a role in forming a tolerant character through the value of diversity. Interaction between students strengthens the attitude of political tolerance (90%) in the campus environment.

Keywords: Democracy Education; Digitization; Political Tolerance.

INTRODUCTION

Education is the main foundation for the development of a nation. As a social instrument, education plays a role not only in the transfer of knowledge, but also in the formation of individual character and behavior (Nørgård, 2022). In the context of nation building, education is the key to creating an intelligent, civilized, and democratic society. Therefore, education must be adapted to the demands of the times, including technological developments and social dynamics that continue to change (Phaisamran, 2024). In this era of globalization, education faces new challenges. The development of information and communication technology has changed the way of learning and teaching. Access to information is no longer limited to traditional classrooms, but can be widely accessed through the internet and various other digital media (Biney, 2021). This creates new opportunities and challenges in the world of education, especially in the field of political and civic learning.

Technology has become an integral part of daily life, including in the field of education. The use of digital technology allows learning to be more flexible, interactive, and accessible to more people (Phaisamran, 2024). On the other hand, technology also carries the risk of abuse, especially in highly political discussion spaces, such as on social media. The misuse of digital technology can affect the mindset of people, including students, related to politics and democratic values. One of the phenomena that arises due to the misuse of digital technology is political polarization (Magjuka, 2023a). The younger generation, especially college students, have become very vulnerable to information that can unilaterally shape public opinion. This political polarization often worsens relationships between individuals and leads to social conflict (Markus, 2023). Therefore, it is important to develop an education model that can overcome this problem, one of which is through digital-based democratic education.

Democracy education in higher education is very important in the midst of the challenges of political polarization (Porras-Hernández, 2023). Students as the next generation of the nation must have a strong understanding of the values of democracy, social justice, and tolerance. Democracy education provided in higher education is expected to form a critical, inclusive, and respectful attitude among students. Political tolerance is one of the important values in democracy that needs to be instilled in students (Markus, 2023). Political tolerance is not only limited to respecting differences of opinion, but also the ability to engage in constructive dialogue despite sharp differences in ideology or political views. In this context, digital-based democracy education can be an effective means to strengthen political tolerance among students (DiGiacomo, 2024)

Social media is one of the main spaces for the younger generation, including students, to interact and discuss. Unfortunately, many social media users are trapped in ideological polarization and the formation of filter bubbles that hinder open views on differences (Henseruk, 2024). Therefore, there is a need to make efforts to utilize social media as an effective means of democracy education, in a positive and inclusive way (Topping, 2023). Digital-based democracy education is an approach that integrates digital technology in the democratic learning process (Magjuka, 2023b). This approach is expected to be able to reach students in various regions in a more interactive and interesting way. In addition, digital-based education also provides opportunities for students to better understand the political dynamics that occur in society more broadly and deeply. To develop effective democracy education, it is

necessary to conduct research and develop models that are in accordance with the needs of students in the digital era (Hochschild, 2022). This model must be able to accommodate the development of information technology, as well as utilize various digital platforms to create engaging and effective learning. Thus, students can gain a deep understanding of democratic values and political tolerance.

Research and Development (R&D) in Democracy Education This research uses research and development (R&D) design to develop a digital-based democracy education model (Yasar-Akyar, 2022). This method involves various stages, ranging from needs analysis, model development, expert validation, to limited trials and extensive implementation (Espinosa, 2023). This process is expected to produce a model that is not only effective but also well accepted by students. Needs analysis is a very important first stage in the development of a digital-based democratic education model. At this stage, identification of the needs and problems faced by students related to democracy education is carried out. The results of this needs analysis will be the basis for designing an education model that is more in line with the characteristics of students in the digital era (Sayari, 2023).

Once the model is developed, the next step is to validate it by experts in the field of education and democracy. This validation is important to ensure that the developed model is truly effective in addressing the identified problems. Expert validation can also provide useful input for model refinement before it is implemented in trials. Limited trials are an important stage in measuring the effectiveness of the models that have been developed. At this stage, the model will be tested on a number of students to see the extent to which the model can be accepted and applied in the context of learning in college. Widespread implementation will be carried out once the model proves effective in limited trials. Digital-based democracy education requires support from various parties, including universities (Ruiz, 2021). Rectors and lecturers as part of the management of education in universities must give full attention and support to the development and implementation of this model. Strong support from the university will go a long way in increasing the effectiveness of democracy education and political tolerance among students. Digital-based democracy education is expected to be an effective solution to overcome political polarization among students (Sâmihăian, 2023). With the existence of a technology-based educational model, it is hoped that students can gain a better understanding of democratic values and political tolerance. Through this research, it is hoped that a young generation can be created who are not only academically intelligent, but also wise in responding to differences of opinion and ideology in community life.

METHOD

The research method used in this study is the Research and Development (R&D) method combined with the development of the ADDIE model (Scott, 2020). The first stage in R&D is needs analysis, which focuses on identifying the problems faced by the audience, i.e. students, related to the understanding of democracy and political tolerance. At this stage, the researcher analyzes the needs of students, learning goals, and other supporting factors. After that, the design stage begins with designing learning objectives, relevant content, and teaching strategies using digital technology, in accordance with the principles of democratic education. At this stage, planning is also carried out on how the evaluation will be carried out.

After the design is completed, the development stage is carried out to create the digital-based learning materials that have been designed. The ADDIE model was then continued with implementation, where the developed material was tested limited to a group of students to test its effectiveness. In the final stage, an evaluation is carried out to assess whether the learning objectives are achieved and how the learning materials can be improved. This evaluation process provides invaluable input for the refinement of the model, which can then be implemented more widely in various universities to achieve the goal of strengthening political tolerance among students.

RESULTS AND DISCUSSION
Analysis

In the analysis stage of this study, we start by identifying the need for digital-based democracy learning among students. This analysis was carried out through surveys and interviews with students from various universities to understand the extent to which they understand the values of democracy and political tolerance. We also assessed how students use digital media to discuss politics, as well as identify the main challenges they face in understanding these topics. From the results of this analysis, we found that many students still have a limited understanding of democracy and political tolerance, as well as difficulties in distinguishing valid information from biased information or hoaxes spread on social media. In addition, most students show an interest in learning through interactive and accessible digital platforms, so the need to create a learning model that integrates digital technology is very important.

From the results of this analysis, we also identify that there is still a gap in students' understanding of the importance of the values of political tolerance, which can trigger polarization among them. Therefore, the main goal of this study is to develop a digital-based democracy education model that can increase students' understanding and awareness of the importance of political tolerance. We also found that teaching that is more based on social interaction and digital media can motivate students to be more actively involved in learning. The results of this analysis stage provide a solid basis for designing learning models that suit the needs of students in the digital age, as well as for planning the content and methods that will be used in the next design stage.

Question	Respondents Who Agree (%)	Respondents Who Disagree (%)
Understanding of democratic values	45	55
Understanding of political tolerance	52	48
Use of digital media for political discussion	78	22
Difficulty distinguishing valid information	61	39
Interest in digital-based learning	83	17

The need for interactive learning	70	30

The table shows the results of a survey conducted to analyze students' understanding of democracy, political tolerance, and their interest in digital-based learning. Most respondents (78%) stated that they use digital media for political discussions, but more than half of respondents (61%) find it difficult to distinguish valid information from biased information. Understanding of democratic values and political tolerance is still low, with only 45% and 52% of respondents agreeing that they have a sufficient understanding of both topics. Meanwhile, the majority of respondents (83%) are interested in digital-based learning and 70% feel the need for interactive learning. These findings indicate that there is a significant need to develop learning models that utilize digital technology, which is not only interactive but can also improve students' understanding of democracy and political tolerance.
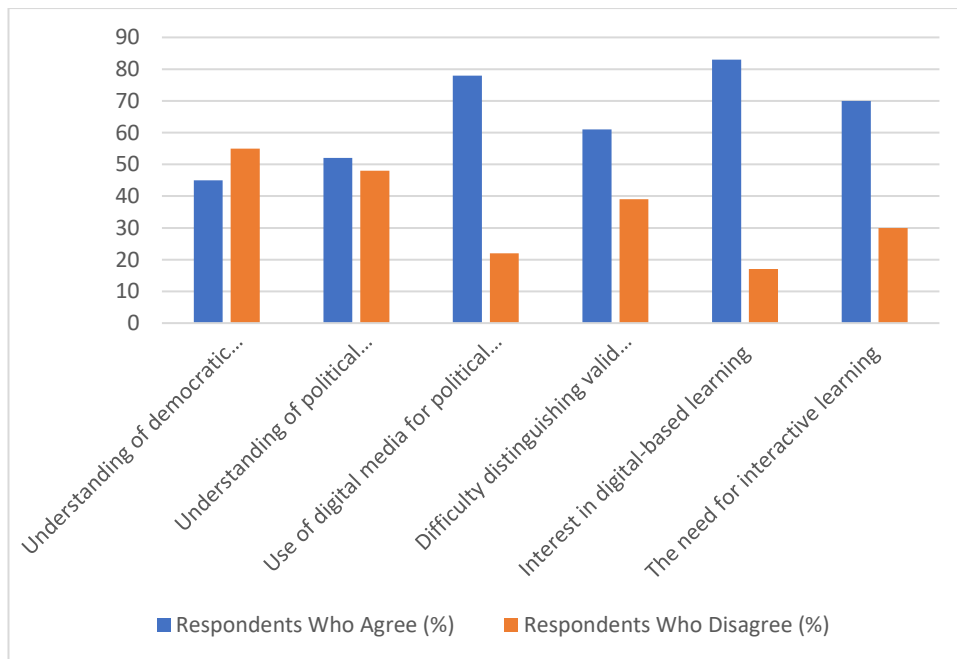
This bar chart shows the results of a survey that compares the percentage of respondents who agree and disagree on various aspects related to digital-based democracy education. The graph covers several categories, namely: understanding of democratic values, understanding of political tolerance, the use of digital media for political discussion, difficulties in distinguishing valid information, interest in digital-based learning, and the need for interactive learning.

Blue represents respondents who agree, while orange indicates respondents who disagree. The results showed that the majority of respondents agreed with a better understanding of democratic values and political tolerance, as well as more students showing interest in digital-based learning. However, there are some challenges related to difficulties in distinguishing valid information, with 60% of respondents expressing such difficulties. In addition, there is also a

demand to improve interactive learning to make it more engaging and can improve overall student understanding. This graph provides a clear picture of how students respond to the applied learning model.

Design

At the design stage in the development of a digital-based democracy education model, the first step is to design specific and measurable learning objectives. This goal should describe the results to be achieved after students participate in the learning, such as increased understanding of democratic values and political tolerance. This design also involves the determination of the material to be studied, which includes the basic concepts of democracy, the principles of political tolerance, and the impact of the use of social media in political life. This material is tailored to the student's audience and is structured in a format that is easy to understand and relevant to their needs.

Figure 1 . Model development design Digital-Based Democracy Education

Furthermore, at the design stage, the teaching strategy and learning method to be used are also determined. Digital-based learning needs to integrate interactive and engaging technology, such as learning videos, interactive quizzes, online discussions, and online forums that allow students to interact directly with the material as well as fellow participants. In designing learning materials, it is important to consider the affordability and flexibility factors of technology so that students from various backgrounds can access it easily. The use of appropriate technology will make it easier for students to understand the concepts conveyed.

In addition, this design includes planning an evaluation that will be carried out to measure the effectiveness of learning. Evaluations should be designed to measure students' understanding of democratic values and political tolerance, as well as how well they can apply that knowledge in constructive political discussions. This includes formative assessments, such as quizzes and online assignments, as well as summative assessments conducted at the end of learning to assess the achievement of learning objectives. The design of this evaluation aims to ensure that the developed model can provide optimal results in strengthening students' understanding of democracy and political tolerance.

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At the development stage, the digital-based democracy education model that has been designed began to be created and produced. This process involves creating a variety of digital learning materials, such as videos, modules, interactive quizzes, and online discussion forums. All content is designed to capture students' attention and facilitate a deeper understanding of democracy and political tolerance. In addition, the learning platform used is also adjusted so that it can be easily accessed by students from various technological backgrounds. This development aims to ensure that all existing materials meet the quality standards that have been determined in the design stage.

After the material is developed, the next step is to conduct expert validation tests to ensure that the educational model developed is in accordance with the goals to be achieved and meets the desired quality standards. Three experts are involved in this validation process: media experts, material experts, and linguists.

1. **Media Member**

   Media experts are tasked with assessing the quality of media use in digital learning. They evaluate whether the technology used (such as videos, discussion platforms, and interactive quizzes) is effective in capturing students' attention and conveying the learning message. Media expert validation ensures that learning materials are delivered in a way that is engaging and acceptable to a wider audience, as well as that the platforms used are easily accessible and used by students.

2. **Material Expert**

   Subject matter experts are responsible for assessing the appropriateness and depth of the content taught in the learning model. They evaluated whether the material on democracy, political tolerance, and social media use had been properly and in-depth enough. Subject matter experts also ensure that the information conveyed is relevant to the needs of students and in accordance with the latest developments in the field.

3. **Linguist**

   Linguists are in charge of examining aspects of language in learning materials. They ensure that the language used is easy for students to understand and not confusing. Linguists also assess whether the language used in the material is in accordance with the rules of good and correct language, as well as whether the language style chosen is appropriate for the student audience, so that the message conveyed is clear and effective.

The results of these expert validation tests provide feedback that is critical to the refinement of the model. If deficiencies are found or things that need to be improved, the materials and other elements will be improved to better conform to the desired standards before proceeding to the limited trial stage.

Implementation

In the implementation stage, the digital-based democracy education model that has been developed and validated began to be implemented in three different universities to test its

effectiveness in the context of real learning. This implementation was carried out with the aim of seeing the extent to which the model can be accepted and applied by students in various backgrounds and characteristics of universities. The universities involved were selected based on the diversity of student characteristics and different geographical locations, to ensure that the model can be adapted in a variety of educational contexts.

In each university, this digital-based learning model is introduced to students through a pre-prepared online learning platform. Students are given access to learning materials, which include interactive videos, articles, and quizzes designed to enhance their understanding of democratic values and political tolerance. This learning is also complemented by an online discussion forum that allows students to interact with fellow participants, discuss, and share views on topics related to democracy and political tolerance. The lecturers who teach the courses involved were also given training on how to use the platform and manage interactions in online discussions.

During the implementation phase, researchers conduct periodic monitoring and evaluation to identify obstacles that may arise in the learning process and collect feedback from students and lecturers. This feedback is used to make improvements directly, both in the technical aspects of the platform and in the learning content. In addition, the researchers also conducted interview sessions and surveys to assess the extent to which students benefited from this learning, as well as whether there was an improvement in their understanding of democracy and political tolerance. The implementation at these three universities is expected to provide a more comprehensive picture of the success of the model in a broader and more diverse context.

Evaluation

The results of interviews during the implementation phase at three universities showed that the digital-based democracy education model succeeded in improving students' understanding of democracy and political tolerance. Students feel more engaged in political discussions through online discussion forums that allow them to share their views with classmates from a variety of backgrounds. However, some students faced technical obstacles, such as internet connection problems and limited face-to-face interaction with lecturers. Overall, this model is considered effective, but there are suggestions to improve interactivity and add more applicable material to deepen students' understanding of democratic values in real-life contexts.
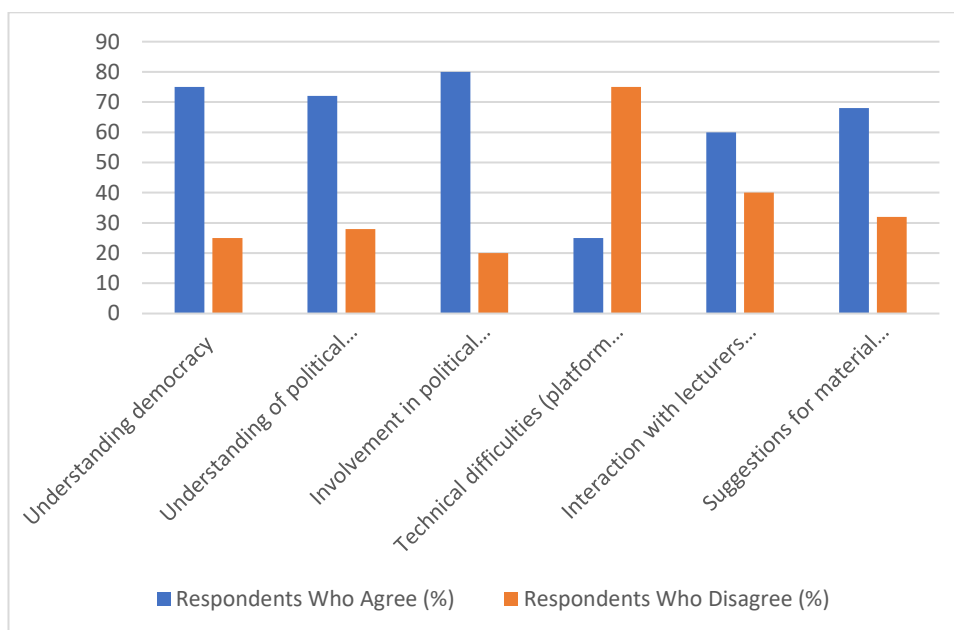
Student Survey Results on the Effectiveness of Digital-Based Democracy Education Model

Question	Respondents Who Agree (%)	Respondents Who Disagree (%)
Understanding democracy	75	25
Understanding of political tolerance	72	28
Involvement in political discussions	80	20
Technical difficulties (platform access)	25	75
Interaction with lecturers (online learning)	60	40

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Suggestions for material improvements	68	32

The results table of the implementation phase survey results showed that most students (75%) felt their understanding of democracy had improved, with 72% also feeling more understanding of political tolerance. The majority of students (80%) feel more involved in political discussions through digital-based learning. However, 25% of respondents experienced technical difficulties in accessing the platform, and 40% felt that interaction with lecturers through online learning was less than optimal. Meanwhile, 68% of students gave suggestions for improving the material to be more applicable and in-depth. These results indicate that while this model is effective, there is still room for improvement in terms of technical and learning interactions.

This bar chart illustrates the results of a survey conducted to evaluate the effectiveness of the digital-based democracy education model implemented in three universities. This graph shows a comparison between the percentage of respondents who agreed and who disagreed on some aspects related to this learning. On the vertical axis, the percentage of respondents can be seen, while on the horizontal axis there are several categories that are assessed, namely: understanding of democracy, understanding of political tolerance, involvement in political discussions, technical difficulties in accessing the platform, interaction with lecturers in online learning, and suggestions for material improvement. Blue indicates respondents who agree with each statement, while orange indicates respondents who disagree.

The results showed that most respondents felt there was an improvement in their understanding of democracy and political tolerance, as well as feeling more engaged in political

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discussions through digital platforms. However, there are several obstacles, such as technical difficulties in accessing the platform conveyed by 25% of respondents, and also the need to improve interaction with lecturers felt by 40% of respondents. Most respondents (68%) also gave suggestions to make learning materials more applicable and interactive. These results show that while this model is successful, there are several aspects that need to be improved to optimize the learning experience.

Manuscript Layout

The research manuscript guide includes a basic structure that includes a title that describes the core of the research, an abstract that summarizes the objectives, methods, results, and conclusions, and relevant keywords. The introduction explains the background, objectives, and importance of the research, followed by a literature review that connects theory and previous research. The research methodology outlines the approaches used, data collection techniques, and analysis procedures. The results and discussion section presents the main findings and interpretation of the data, while the conclusion summarizes the results of the research and provides recommendations. Finally, the bibliography lists the references used, and the appendices contain additional instruments or data that support the research. This structure ensures that manuscripts are organized systematically and easily understood.

CONCLUSION

The conclusion of this study shows that the digital-based democracy education model has succeeded in improving students' understanding of democracy and political tolerance. Most students reported that they felt more engaged in political discussions after participating in this learning, especially through online discussion forums that allowed them to interact with students from a variety of backgrounds. This digital-based learning also gives students the flexibility to access materials anytime and anywhere, which increases their overall engagement. This shows that technology can be an effective tool to introduce and strengthen democratic values among students.

However, while this model has proven to be effective, there are still some challenges that need to be overcome. One of them is the technical difficulties faced by some students in accessing the learning platform, which can hinder their learning process. In addition, the lack of direct interaction with lecturers is an obstacle for students who need more intensive guidance in understanding the material. Feedback from students also shows that learning materials need to be more interactive and applicative, with more case studies or real-life examples that can be linked to students' daily experiences. By improving technical aspects and improving the quality of the material, this educational model can be more optimal in achieving the goal of strengthening political tolerance and understanding of democracy among students.

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