



Character Education Integrated Inquiry E-book: Alternative Media to Minimize Bullying of Fellow Students

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Abstract: At this time in the educational environment there is a lot of worrying behavior and acts of violence. One of the most frequent acts of violence is bullying behavior. Bullying often occurs caused by the character education students have. This study aims to develop an integrated inquiry e-book of character education to minimize bullying. This research is development research using a 4D development model. The technique of collecting bullying data is using a questionnaire instrument and an observation sheet. The data analysis technique used quantitative descriptive analysis. Based on the data obtained from the results of the analysis carried out, it can be concluded that the integrated inquiry e-book of character education can reduce bullying behavior in students. Most of the bullying behavior before being given treatment was in the moderate category. After being given treatment using an e-book, the perpetrator's awareness behavior can reduce/reduce intimidation. In addition, there is an increase in empathy from witnesses of bullying behavior so that it can emphasize bullying behavior. The character education integrated inquiry e-book that was developed is suitable for use in science learning and can reduce bullying among students. This is because the e-book has been facilitated with character education and actions that should not be done by students

Keywords: Bullying; Character education; E-books; Inquiry

Introduction

Bullying behavior in the world of education often occurs between teachers, students, school employees, and parents of students and it occurs at school locations (school bullying) (Charmaraman, et al., 2013). The action that occurs most often and is found is bullying between students and students (Sinkkonen, et al., 2014). This violence occurs at almost all levels of school including junior high school (SMP) students who are in the transition period from childhood to adolescence who are looking for their identity (Ramdani, et al., 2021). Actions are carried out in the form of verbal, rational as well as physical and if not handled comprehensively will have a negative impact and can cause a setback in structured education (Darmayanti, et al., 2019; Kartika, 2019).

Other reports also wrote that as many as 50% of them experienced bullying at school. Data from the Indonesian Child Protection Commission (KPAI) shows a trend of increasing cases from 2011 to 2018, where a total of 3,184 violence occurred in educational

institutions and 67% of them occurred in elementary schools.

Wulandari, et al (2022) said that the impact of bullying on students in general is that students who are initially active students then when they become victims of bullying tend to become passive students and become students who don't want to communicate with other people and friends because they feel unimportant. and shut up.

Based on the results of a field study carried out in several schools in the city of Mataram, 301 junior high school students showed that 4.31% or 13 students were in the very low category, 48.1% or 145 students were in the low category. These data can be interpreted that the level of skill in managing the emotions of junior high school students is in the low category, which means that many students have the potential to have a high tendency to bully. One indicator of bullying among fellow students is their low character (Ramdani, et al., 2022).

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Teachers help shape the character of students. This includes exemplary how the teacher behaves, the way the teacher speaks or conveys material, how the teacher tolerates, and how other related matters (Sewartini, 2017). Character education is an effort made to form good character values for someone, such as good morals, good behavior, and good association (Aswat, et al., 2022).

Character education is very closely related to moral education in forming human beings with dignity and morality (Yuyarti, 2018). Furthermore, Yuyarti (2018) states that among students moral damage is rife, they often show deviant behavior, ethics, morals, and law from mild to severe. One example is that at this time we often encounter acts of violence (bullying). This negative behavior shows the fragility of character in educational institutions in addition to unsupportive environmental conditions.

The use of android as a learning medium can be an alternative in learning. Learning using digital/android media can be done by providing digital teaching materials in the form of inquiry-based e-books (electronic books) integrated with character education. The purpose of this research is to develop an inquiry-based e-book integrated with appropriate, practical and effective character education to minimize acts of bullying and increase students' scientific literacy. The e-book developed in this study is an e-book that uses guided inquiry stages and is integrated with character values with features in the form of text, graphics, images, photos, audio, video and animation integrated using a computer.

Soimah (2018) states that the important thing about the use of media is its relation to the level of progress in educational technology. The higher the level of educational technology, the higher the media needed. So, students will be more stimulated and motivated to learn better, if the media used really supports the interests and desires of students and makes it easier for them to learn effectively and efficiently.

The importance of developing an integrated inquiry-based e-book for character education that benefits society and science and technology. Currently, Indonesian schools have facilities and infrastructure to support learning activities, but they have not been effectively researched and used as learning resources. This study aims to develop an integrated inquiry e-book of character education to minimize bullying.

Method

This research was conducted on a population of class X SMA Negeri in Mataram in the 2022/2023 academic year, which consisted of four classes. The number of students in each class is equal to 35 students.

The research was conducted using a Quasi-Experimental Pre-test Post-test Design using an experimental class and a control class. The experimental class conducts learning using an integrated inquiry e-book character education and the control class uses teaching materials sourced from student textbooks.

Data collection instruments used questionnaires and observation sheets. The questionnaire was developed as many as 30 closed answer type statements by expressing their agreement to the questionnaire statements by selecting the Sometimes Strongly agree, agree, disagree, and strongly disagree options for positive statements and vice versa for negative statements. Analysis of research data was carried out using the t test to see differences in treatment results. Testing is assisted by using the SPSS version 26 program.

Result and Discussion

The character education integrated inquiry e-book media was developed using Adobe Flash CS6. The results of an integrated inquiry-based E-book product for character education are made then packaged in an application and included in a learning Compact Disc (CD) as a product design to support the learning process. This multimedia was developed based on the flowcharts and storyboards that have been made.

Flowcharts are arranged as illustrations to simplify the process of creating interactive multimedia inquiry. At this stage, supporting materials are collected such as hosting and domains, images, making backgrounds, videos, sound effects, button icons, and learning animations related to odd semester science material for class VIII. This e-book media is also facilitated with character education, this aims to improve the character of each student. The better the character of students, the incidence of bullying among fellow students can be minimized. In addition to character education, the e-book media is also facilitated with an inquiry phase, indicators of scientific literacy, and actions that fellow students may not take. This aims to increase students' scientific literacy and reduce acts of bullying. The character education indicators used consist of 6 indicators, namely curiosity, initiative, persistence, adaptability, leadership, social and cultural sensitivity. The character indicators included in the e-book aim to minimize acts of bullying among fellow students.

According to Wijayanti and Uswatun (2019) instilling character education from elementary school age has a very important role, especially in efforts to combat bullying caused by many factors such as the influence of children's television viewing. The many negative impacts of bullying make character education indispensable for forming healthy character and morals in children (Hiliard, et al., 2014; Freeman, 2014). The test

questions designed in the e-book are in the form of an e-assessment.

The product resulting from this development research is an e-book application. This e-book product was created and designed by the researcher himself, with the aim that it can be used as a teacher's tool in conveying material and also as an independent learning resource that can be used at any time by students outside of school. Some displays of e-book media are presented in Figure 1-3.

collaboratively. Classroom learning activities are presented in Figure 4-5.



Figure 4. Learning using e-book media

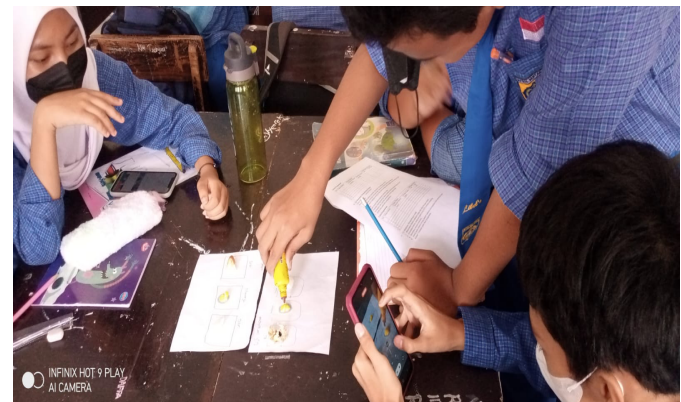


Figure 5. Collaborative and thorough practicum



Figure 1. Indicators of scientific literacy.

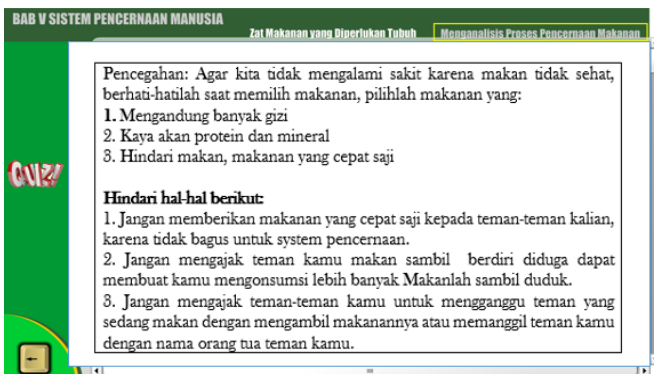


Figure 2. Examples of actions that students may not take.

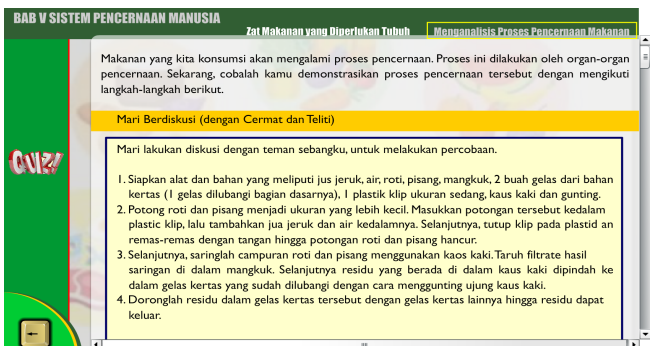


Figure 3. Practical activities integrated with character education.

Learning activities emphasize more on the activities of students in using problem-solving strategies for problems that are presented carefully and

Based on the results of the research, a summary of data on acts of bullying was obtained as shown in Table 1. Based on Table 1, the t-test significance value of 0.00 is smaller than the significance level (0.05). These findings imply that the use of character education integrated inquiry e-books has an effect on students' acts of bullying. One of the indicators affecting the reduction of bullying is the existence of character education that is integrated into e-book media. In the e-book media, information services are provided using video media about understanding bullying behavior, so that students can understand the content of bullying material better. Those who experience changes through the provision of information services using video media. Apart from that, the e-book is also facilitated with actions that fellow students may not take, as shown in Figure 2. In addition to minimizing acts of bullying, this e-book can also improve students' higher-order thinking skills, because it has also been facilitated with phases phase of the inquiry learning model.

When learning science in class using e-book media combined with inquiry models. Eggen and Kauchak (2016) stated several steps of inquiry learning in general, namely orientation, formulating problems, submitting

hypotheses, collecting data, testing hypotheses, and formulating conclusions. According to these steps, it aims to emphasize the importance of solving various problems that are displayed in the developed media (Ramdani, et al., 2021). Inquiry learning aims to provide a way for students to build intellectual skills (thinking

skills) with reflective thinking processes (Margunayasa, et al., 2019). According to Purnamasari, et al (2012) this inquiry learning strategy can increase student activity in learning because learning is centered on students not on teachers, in this learning students are not only as objects but students are also learning subjects.

Table 1. Results of the t-test for Acts of Bullying among Students

Variances		t-test for Equality of Means				
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Bullying	Equal variances assumed	1.328	40	.000	5.22595	3.93654
	Equal variances not assumed	1.392	36.432	.001	5.22595	3.75367

Inquiry learning is student-centered learning, the teacher is only a facilitator in organizing learning activities to discover concepts and theories learned through practicum (Ramdani & Artayasa, 2020). Based on research by Hasanah, et al (2017) and Fatmaryanti, et al (2017), stated that inquiry learning is more effective in communicating material through experimental learning, predictions, hypotheses, and data interpretation. Research from Varela and Costa (2015) states that inquiry learning is interactive learning between students and teachers that can achieve a higher level of understanding and develop skills and better reasoning. Maharani (2019) in her research also stated that the application of phET-based guided inquiry learning can improve student learning outcomes. Marhum (2019) also states that laboratory activity-based learning can improve student learning outcomes.

Learning using e-book media is very interesting and increases student motivation in learning, but there are obstacles that are found, namely at the initial meeting students still feel difficult in learning using the developed e-book media. This is because students are not used to learning using e-books. This is supported by the statement of Purnamasari, et al (2012) stating that the weakness of using flashcard media mentioned by the teacher is that not all students can quickly understand the use of the determination key. It can be seen that at the first meeting, students were not used to using the key of determination.

According to Wartono and Nilasari (2019) students are very enthusiastic about inquiry-based virtual learning because they find learning using media very interesting. Learning that is often carried out in schools is generally conventional or one-way (Ramdani, et al., 2020). Students believe that computer-based learning, including animation, computer simulations, and real experiments, helps them understand concepts more clearly. In addition, it stimulates a constant desire to learn (Chin, et al., 2015). When learning through the media, children are now actively seeking information, identifying problems, and solving them, not from the teacher.

Hadisaputra, et al (2019) believes that interactive multimedia is one of the media that can use gadgets in the form of digital applications, which supports the research findings that have been conducted. Digital applications contribute significantly to the application of didactic principles and the attainment of educational goals.

The teaching and learning process supported by multimedia can attract the attention and interest of students and can form the correct conception of creation. Students prefer to learn something facilitated by animation rather than facilitated by other representatives (Hwang, et al., 2016; Gunawan, et al., 2021). Theoretically, animation is more effective for describing dynamic movements or processes (Ismail, et al., 2016).

Conclusion

The use of character education integrated inquiry e-books can minimize acts of bullying among fellow students. This e-book can also be used as a learning resource for students, especially in grade 8 science learning.

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