

WEBSITE CREATION AS A LEARNING RESOURCE FOR MORAL INTELLIGENCE

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Abstract

This study aimed to design a website-based learning resource that strengthens high school students' moral intelligence. We used a design-based research approach comprising needs analysis, flow and interface design, prototype development, expert validation, and pilot use. The prototype operated reliably; students could search and filter materials, read e-books with summaries, bookmarks, a reading mode, and captions, or watch videos, while teachers curated and published content through a portal. Findings show the platform integrates e-books, videos, quizzes, and a teacher content manager to support structured access and guided learning. Learning improved because books cultivate moral reasoning and videos model real-life situations, so the multimedia combination sustains engagement and clarifies values. As a result, students experience easier access and more meaningful study, teachers prepare materials aligned to indicators of integrity, empathy, responsibility, and self-control, schools maintain an updatable repository, and assessment links personalize recommendations that direct learners to relevant content for sustained growth.

Keywords: Design-based research, E-book, Learning resources, Moral intelligence, Smart citizen.

1. Introduction

Moral intelligence plays a central role in education as it correlates strongly with academic engagement and the development of responsible citizenship [1]. In the digital age, this dimension faces serious challenges, including exposure to hoaxes, harmful content, and cyberbullying. These issues demand proactive efforts from educators and parents to guide children in navigating technology ethically and responsibly [2]. Digital platforms that combine technology and value-based education are therefore urgently needed to address these moral and educational gaps.

One strategic response is the development of the Smart Citizen website, a digital learning platform designed to foster moral intelligence. It supports the cultivation of ethical awareness and social responsibility through curated learning resources tailored to four key moral indicators: integrity, empathy, responsibility, and self-control. The Smart Citizen website serves not only as a medium of instruction but also as a structured repository that integrates educational content with user-centred features for students and teachers alike. Table 1 illustrates several existing studies that support the effectiveness of digital applications and interactive websites in improving students' moral understanding and character development. These references validate the potential of the Smart Citizen platform as a relevant innovation in the moral education landscape [3-7].

This study aims to design a website as a learning resource that organizes moral intelligence content for high school students in the form of e-books and videos categorized by moral indicators. The study uses the design-based research (DBR) method in five phases: needs analysis, flow and interface design, prototype development, expert validation, and pilot testing. The novelty of this research lies in three key elements: (i) the integration of e-books and videos to promote moral reasoning and present real-life examples, (ii) the inclusion of a content management system (CMS) enabling teachers to independently curate and publish content, and (iii) an assessment feature that connects student performance to personalized content recommendations.

Table 1. Preview research.

No.	Title	Ref.
1.	Android-based Moral Intelligence Information System (SICEMOR) Application Development	[3]
2.	<i>Telaah Kecerdasan Moral Remaja Melalui Moral Competency Inventory (Studi Pada Pelajar Di Bali): A study of adolescent moral intelligence through the moral competency inventory (A study of students in bali)</i>	[4]
3.	Strengthening The Moral Awareness of Elementary School Students With E-Learning Innovation through the Moraledu Interactive Website	[5]
4.	The Influence of Internet Environment Health on College Pupils' Ideological and Moral Education and Its Promotion	[6]
5.	Web-based interactive media model for character building education	[7]

2. Literature Review

Figure 1 explains the flow of the website-based learning process that connects teachers and students through digital learning resources such as moral intelligence e-books and educational videos. This website functions as an interactive hub: teachers provide learning materials, and students access them independently. The integration of digital content facilitates a dynamic learning process, fostering moral development through both structured access and multimedia delivery.

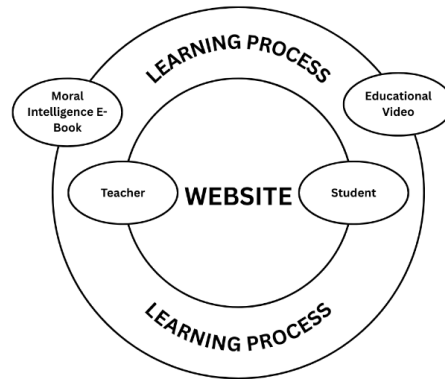


Fig. 1. Visualization of the website concept.

A website is essentially a collection of digital pages containing information in various formats accessible via the internet [8]. In the educational context, it serves as a medium for communication, instruction, promotion, and information delivery [9, 10]. Compared to traditional methods, websites offer greater flexibility and interactivity, enabling efficient learning that transcends physical and temporal boundaries [7, 11, 12]. Designed as a web-based information system, educational platforms can be customized to meet user needs. This ensures fast, accurate, and accessible data management while enhancing educators' ability to design learning experiences relevant to students' digital environments [13-16].

Moral intelligence refers to the ability to apply universal ethical values (such as integrity, compassion, forgiveness, and responsibility) in both personal and social decision-making. It provides individuals with a compass for navigating ethical ambiguity while maintaining personal integrity, making it particularly relevant in today's complex digital society. As the synthesis of moral knowledge, emotion, and behaviour, moral intelligence must be cultivated through educational interventions that respond to digital-era challenges, including value erosion, cyberbullying, and misinformation [17]. Developing this intelligence through appropriate media and pedagogical strategies becomes essential for preparing students to be ethically aware and socially responsible digital citizens.

3. Method

This study employed the DBR method to address complex educational challenges through iterative design and empirical testing. DBR is well-suited for developing practical solutions while simultaneously generating theoretical insights about the

designed product's effectiveness and usability. The research procedure consisted of five main stages:

- (i) Needs analysis to identify student and teacher requirements in moral education;
- (ii) Flow and interface design to map user pathways and build a user-friendly platform structure;
- (iii) Prototype development of the website containing digital library features for moral intelligence;
- (iv) Expert validation to assess the functionality, relevance, and design quality of the prototype; and
- (v) Pilot testing involving real users to evaluate system performance and collect feedback for refinement.

The result of this process was a functional digital platform in the form of a website-based library specifically designed to enhance students' moral intelligence. It integrated categorized e-books and videos according to core moral indicators, supporting structured access and meaningful learning experiences for both students and teachers.

4. Results and Discussion

Figure 2 illustrates the system flow of the Smart Citizen website, starting from installation preparation through to user access. Upon visiting the platform, users without an account must first register, while returning users can proceed directly to log in. The system automatically differentiates user roles as either students or teachers. Students are directed to the Student Dashboard, where they can search, filter, and select learning materials such as e-books or educational videos. Meanwhile, teachers are directed to the Teacher Dashboard to upload, curate, and publish learning content to the library. This operational structure highlights the role of teachers as active content providers and students as flexible users of moral learning resources.

Figure 3 displays the visual interface of the Smart Citizen platform, designed to serve as a learning medium for moral intelligence. In Fig. 3(a), the homepage is shown with a clean and informative layout that introduces the platform's purpose and identity. Figure 3(b) presents the main features of the application, including the Moral Intelligence E-Book, Moral Intelligence Education Book, the Educational Video, the Infographic, and the Moral Intelligence Question Bank (allowing students to easily navigate resources based on their learning needs). Figure 3(c) showcases a sample e-book page, highlighting Pancasila education content designed to enhance students' moral reasoning through deep reading. Lastly, Fig. 3(d) features a moral intelligence video packaged with animations and text that make abstract values more tangible and applicable in real-life contexts.

The research findings reveal that websites combining e-books, videos, and quizzes as moral learning resources significantly improve students' learning motivation, interest, and outcomes [18]. Videos, in particular, are powerful in capturing attention and enhancing the delivery of information in engaging formats [19]. Simultaneously, e-books provide accessible, flexible content for independent digital learning. This multimodal combination enhances students' access to value-rich content, stimulates learning engagement, and deepens moral understanding.

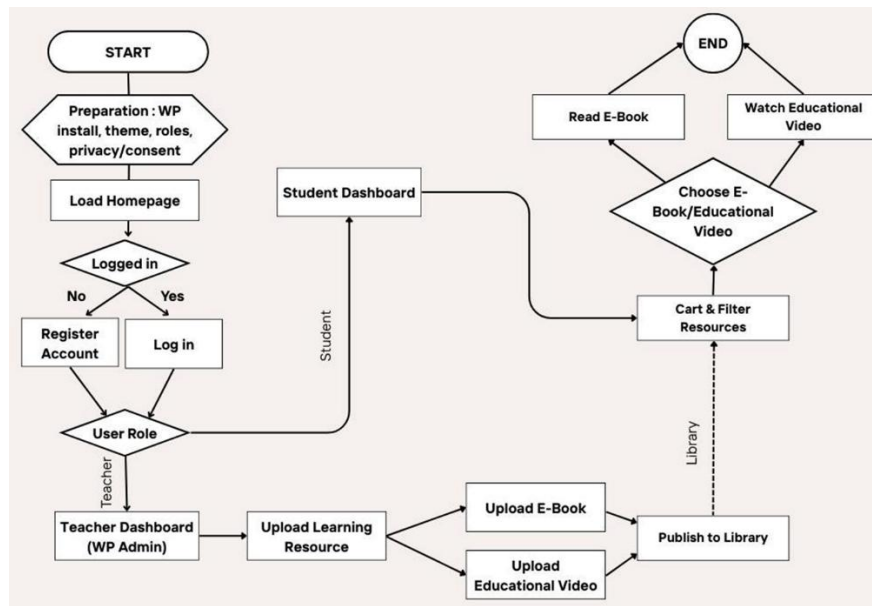


Fig. 2. System flow of smart citizen.

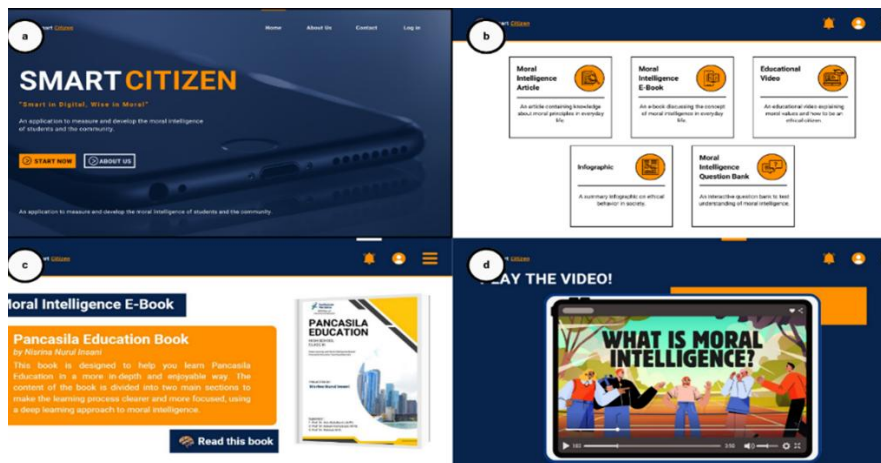


Fig. 3. Website interface for moral intelligence learning resources: (a) homepage, (b) features, (c) moral intelligence e-book, (d) educational video.

These outcomes align with existing research supporting the role of website-based platforms in moral education. For instance, Dewi reported that the use of Pancasila-themed learning websites enhanced student motivation by 84%, while Benny highlighted the Religious Moderation 360 platform as an innovative tool that supports interfaith tolerance [7, 18]. At the high school level, the Akidah platform was found to improve enthusiasm and academic performance [20-22]. In elementary schools, the Toseurba media was assessed to have high appropriateness (97.95%) and effectively instilled tolerance values [23-27]. Collectively, these findings affirm that digital learning platforms (when carefully designed) can play a transformative role in shaping students' moral intelligence from an early age.

5. Conclusions

This study developed a website-based learning resource to enhance high school students' moral intelligence using design-based research. The resulting Smart Citizen platform was rated highly for functionality, relevance, and usability. Its integration of e-books, videos, and quizzes effectively improved student motivation and moral understanding. The Teacher CMS further supported content management by educators. While the platform centres on indicators such as integrity, empathy, responsibility, and self-control, future development should expand content scope and features to accommodate broader educational needs.

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