

DEVELOPING A CIVIC CROWDFUNDING PLATFORM FOR PANCASILA EDUCATION TO ENHANCE CIVIC ENGAGEMENT TO SUPPORT SUSTAINABLE DEVELOPMENT GOALS (SDGS)

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Abstract

This study developed a civic crowdfunding platform as an instructional innovation in Pancasila Education to strengthen student civic engagement. A design-based research approach combined needs analysis, iterative design, expert validation, implementation, and reflection with teachers and secondary students across multiple schools. The resulting platform aligns learning with social practice through dashboards for students, teachers, and communities, enabling project planning, volunteering, campaign management, digital credentialing, and evidence-based reflection. Expert review indicated strong feasibility across usability, security, navigation, accessibility, and feature stability. Integrating crowdfunding into citizenship learning fosters authentic participation because learners connect national values with real community problems, collaborate with partners, practice deliberation, and observe tangible social outcomes. The platform advances digital citizenship, expands participation opportunities, supports internalization of Pancasila values, and offers a scalable, privacy-by-design model for project-based civic learning in Indonesian schools. It also informs teacher professional development and future learning analytics research directions. This study adds new information for supporting sustainable development goals (SDGs).

Keywords: Civic crowdfunding, Civic engagement, Pancasila education, Pancasila learning, SDGs.

1. Introduction

Civic engagement is an important aspect [1]. However, currently, the level of civic engagement in society has not been optimally realized [2]. Civic engagement is the participation of citizens to realize a democratic and equitable society, which involves students as part of the process [3-5]. In line with the objectives of Pancasila Education, namely instilling values, culture, and shaping the character, morals, and ethics of citizens [6-10], which continues to experience updates in methods and materials according to the times [11]. The civic crowdfunding platform (CIVICITA) can reflect civic engagement in line with the values of Pancasila and the character of the Indonesian nation [5].

Table 1 presents prior studies that highlight the integration of civic crowdfunding within Pancasila Education, offering insights into participatory and digital citizenship practices in educational contexts. Civic engagement is widely acknowledged as a critical component in nurturing democratic values and social equity. However, its actualization in society remains suboptimal, particularly among youth populations [2]. Civic engagement entails the active participation of citizens (especially students) in contributing to democratic processes and addressing public issues [3-5]. In the Indonesian context, Pancasila Education serves as a vital platform for instilling civic values, moral integrity, and cultural identity [6-10]. In response to the evolving digital era, this subject continues to undergo pedagogical reform, including content updates and methodological innovations [7].

One emerging approach is civic crowdfunding, a participatory model that bridges theoretical citizenship education with real-world impact by encouraging collaboration, digital communication, and grassroots action. As a digital practice, civic crowdfunding aligns with Pancasila values by fostering social solidarity, volunteerism, and collective responsibility [5]. Despite its potential, civic crowdfunding remains underutilized in formal education, and digital civic engagement tools are often inaccessible to students, creating a gap between values taught and actions practiced. This research identifies that student, though willing to contribute socially, lack structured technological platforms to channel their initiatives and reflect civic responsibility in tangible ways [12, 13].

Table 1. Literature review of civic crowdfunding.

No.	Title	Ref.
1	Understanding civic crowdfunding as a mechanism for leveraging civic engagement and urban innovation	[14]
2	Civic crowdfunding research: Challenges, opportunities, and future agenda. <i>New Media and Society</i>	[15]
3	<i>Crowdfunding: A New Media and Society</i> special issue	[16]
4	A person-centered view of citizen participation in civic crowdfunding platforms: A mixed-methods study of civic backers	[17]
5	At the juncture of funding, policy, and technology: how promising is match-funding of arts and culture through crowdfunding platforms?	[18]

To address this challenge, this study employed a design-based research (DBR) approach to create and validate a civic crowdfunding digital platform integrated into the Pancasila Education curriculum. The platform is designed not only as a

pedagogical tool but also as a civic laboratory that enables students, teachers, and communities to collaborate in socially impactful projects. The novelty of this study lies in three aspects: the integration of crowdfunding-based civic learning into formal education, the use of a participatory e-platform to enhance student civic engagement, and the inclusion of social communities as co-actors in the learning ecosystem. This research contributes to civic education by offering a science technology-driven, values-based model that empowers youth participation, strengthens democratic values, and scales through digital infrastructure. This study adds new information for supporting sustainable development goals (SDGs).

2. Literature Review

Figure 1 illustrates the conceptual framework of civic crowdfunding as a rapidly evolving digital innovation that facilitates public participation in addressing social needs [19]. By enabling collaborative fundraising and campaign initiatives, crowdfunding empowers the public (including educational communities) to engage directly in projects that generate social impact [20]. Within educational contexts, this approach offers students a practical medium for embodying civic values while responding to real-world societal challenges.

Civic engagement itself is defined as a deliberative process involving collaboration, critical reflection, and voluntary action by citizens in initiatives that generate public benefit. It encompasses inclusive decision-making and collective action that require thoughtful, holistic planning [21, 22]. In this framework, every citizen becomes an agent of empowerment who actively contributes to the welfare of society [23, 24].

Pancasila Education occupies a central role in cultivating these civic competencies by fostering students' capacity to meaningfully participate in political and social life [10, 25]. Through structured instruction in values, morality, and national identity, it serves as a mechanism for instilling civic dispositions and critical awareness. The integration of civic engagement within Pancasila Education not only bridges normative ideals with practical experience but also anchors pedagogical efforts in participatory, value-driven citizenship [26].

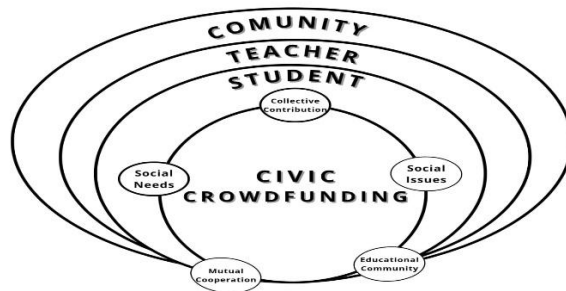


Fig. 1. Visualization of the civic crowdfunding concept.

3. Research Method

This study employed a design-based research (DBR) methodology, a cyclical and iterative approach that bridges educational theory with real-world classroom application. Detailed information regarding this method is explained elsewhere [27].

The research was conducted in collaboration with six high schools: SMAN 25 Bandung, SMA Alfa Century, SMAN 1 Karawang, SMAN 4 Karawang, SMAN 1 Purwakarta, and Al-Muhajirin Full Day High School. Participants included both teachers and students who were actively involved in the co-design and testing of a digital learning intervention aimed at fostering civic engagement through Pancasila Education. The DBR process consisted of four interconnected phases [28, 29]: (1) Needs Analysis, to explore students' perceptions, technological readiness, and civic awareness gaps (2) Platform Design and Prototyping, where user interface principles and civic technology components were integrated to support learning goals (3) Expert Validation, involving pedagogical and media experts who evaluated the prototype's usability, accessibility, data security, and content alignment and (4) Refinement and Limited Field Implementation, in which feedback was applied to enhance system architecture, volunteer features, and student engagement mechanisms.

4. Results and Discussion

Figure 2 illustrates the structure and workflow of the developed civic crowdfunding platform, designed to facilitate collaboration among students, teachers, and community members in project-based learning rooted in Pancasila Education. The platform supports experiential, transformative, and reflective learning, which together foster civic agency, ethical awareness, and collective responsibility in addressing social issues [30]. Through its digital environment, learners are encouraged to move beyond classroom knowledge and contribute to tangible civic action.

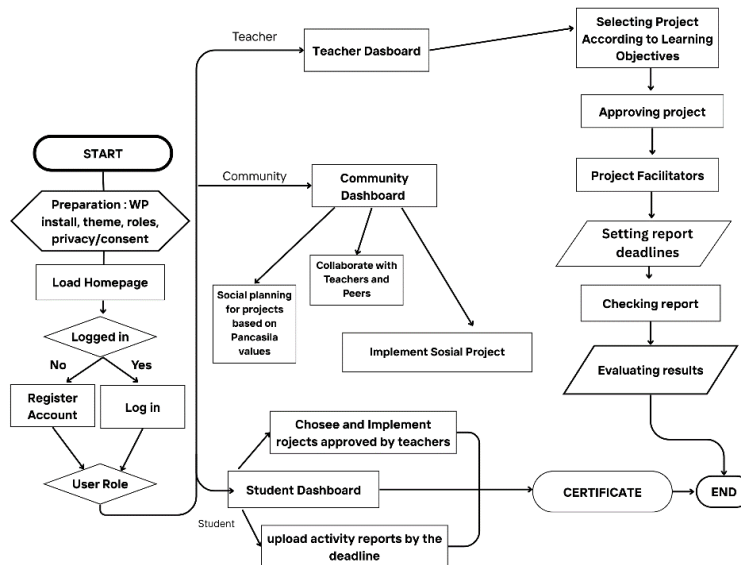


Fig. 2. Structure workflow of the civic crowdfunding platform.

Figure 3 presents the interface layout of the platform across four user groups. Figure 3(a) shows the main dashboard where all stakeholders (students, teachers, and community partners) can access the system. Figure 3(b) features the student dashboard, which includes project planning tools, report submission modules, and

access to digital certificates. Feedback from students indicates that while Pancasila Education introduces foundational values, they require meaningful application through flexible, secure, and informative digital tools [31]. These insights guided the platform design, ensuring relevance to learners' experiences and civic contexts [32, 33]. Figure 3(c) displays the community dashboard, which monitors student involvement and tracks the progress of supported projects. Lastly, Figure 3(d) presents the teacher dashboard, allowing educators to manage class groups, review student submissions, and issue completion credentials.

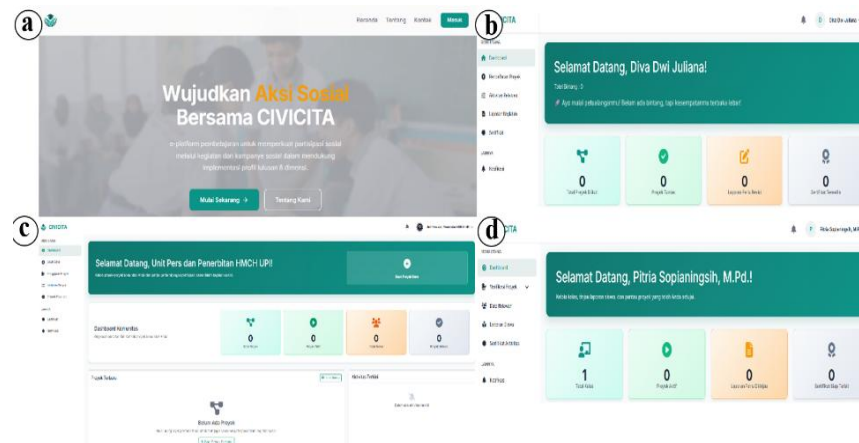


Fig. 3. Dashboards: (a) main, (b) student, (c) community, (d) teacher.

To ensure quality and functionality, expert validation was conducted focusing on five technical and pedagogical indicators: interface design, navigability, data security, feature functionality, and platform stability [34]. Two domain experts evaluated each aspect using a five-point Likert scale. The validation process also applied the Gregory Index to assess inter-rater agreement [35]. Results indicated that the platform scored between 4.0 and 4.5 across most indicators, placing it within the "good" category. However, the volunteer activity module was noted as an area needing refinement to strengthen authentic student engagement.

The Gregory Index value reached 0.8, signifying high consistency between evaluators [36]. Media expert validation further confirmed the platform's excellence, with several dimensions (such as interface clarity, intuitive navigation, and social campaign features) receiving perfect scores (5.0). These evaluations suggest the platform meets essential standards for digital learning tools in secondary education and demonstrates strong alignment with project-based civic learning models. Additionally, it upholds accessibility, privacy, and functional stability, meeting the ethical and technological criteria expected of civic education platforms [37, 38].

Overall, the platform is positioned as a strategic innovation that transforms conventional Pancasila Education into an inclusive, interactive, and participatory experience. Connecting learners with community partners through secure digital channels enhances civic competencies while fostering democratic culture and technological fluency in educational settings [39, 40].

5. Conclusions

This study designed and validated a civic crowdfunding platform as a pedagogical innovation in Pancasila Education to enhance student civic engagement. Using the Design-Based Research approach, the development process integrated user needs, expert feedback, and technological principles. Validation results confirmed the platform's feasibility for educational use. The platform supports meaningful digital participation, strengthens students' understanding of civic responsibility, and facilitates the internalization of Pancasila values through authentic, project-based experiences that link learning to social realities.

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