## Cogent Education Development of a Project-Based Learning Model to Improve Student Character in Higher Education --Manuscript Draft--

Full Title:	Development of a Project-Based Learning Model to Improve Student Character in Higher Education	
Manuscript Number:	COGENTEDU-2024-1097	
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Abstract:	This research proposes developing an integrated project-based learning model with student character development in higher education. This approach aims to prepare students with both academic skills and strong character to face the complex demands of the real world. Through a comprehensive literature review, this research identifies a close relationship between project-based learning and student character development. The proposed learning model integrates elements of project-based learning with proven effective character development strategies. This model is designed to encourage collaboration, problem-solving, self-reflection, and personal responsibility while fostering ethics, leadership, and empathy in students. Through this research, it is hoped that higher education institutions can create a learning environment that supports the holistic growth of students, not only in knowledge mastery but also in character formation. Implementing this model requires strong support from lecturers and educational institutions and continuous evaluation to ensure its relevance and effectiveness.	

#### **Development of a Project-Based Learning Model**

#### to Improve Student Character in Higher Education

This research proposes developing an integrated project-based learning model with student character development in higher education. This approach aims to prepare students with both academic skills and strong character to face the complex demands of the real world. Through a comprehensive literature review, this research identifies a close relationship between project-based learning and student character development. The proposed learning model integrates elements of project-based learning with proven effective character development strategies. This model is designed to encourage collaboration, problem-solving, self-reflection, and personal responsibility while fostering ethics, leadership, and empathy in students. Through this research, it is hoped that higher education institutions can create a learning environment that supports the holistic growth of students, not only in knowledge mastery but also in character formation. Implementing this model requires strong support from lecturers and educational institutions and continuous evaluation to ensure its relevance and effectiveness.

Keywords: Project-Based Learning; Student Character; Teaching; Higher Education

Subject classification codes: include these here if the journal requires them

#### Introduction

Character education is very important to be instilled in the younger generation. Character education is very important for the younger generation, especially when they enter the school level (Ningsih et al., 2021). Character education has become a critical point in delineating students' potential development journey, permeating every dimension of their lives. Despite the continuous enhancement of academic exposure, the serious attention to moral values and ethics is increasingly recognized as an integral part of holistic education. In this context, the understanding that students are not merely recipients of knowledge but also agents of social change reinforces the urgency of character education (Maros et al., 2023). Higher education is crucial in shaping individuals to be competitive in an increasingly global and complex world. Nowadays, students are expected not only to master academic knowledge but also to develop strong character and adequate social skills. Character education is closely related to morality. A country will be dignified and have good morality if the young generation, especially its students, have good character and moral values (Suciati et al., 2023).

Technological advancements and globalization have fundamentally altered the landscape of work and the economy. Students are not only faced with the demand to possess specialized knowledge in their academic fields but also to have skills that can be applied in various contexts. Globalization is not the cause of life's problems, including in education. However, students' character must be maintained in the face of globalization because it will somehow be affected (Innerarity & Kymlicka, 2003). Character education is an effort to build good habits (habituation) in students. Students' character and personality can be built, shaped, and improved in school. This is because students are the future assets of the nation, so they must have good character and identity (Mahmud et al., 2023). In addition to academic and practical skills, higher education needs to pay sufficient attention to developing students' character. Overall, higher education should be more than just absorbing academic knowledge. With this holistic and diverse educational approach, students will be ready to confidently face future challenges and achieve their full potential in an increasingly complex global society.

In an era where the demand for broad skills from college graduates is increasing, innovative and effective learning approaches have become highly important. One approach that has garnered interest from academics and education practitioners is projectbased learning. Project-based learning allows students to learn in a more engaged and contextual manner. They not only learn about concepts theoretically but also have to apply them in real-life situations. Practical student-centered pedagogical strategies can demonstrate the effectiveness of learning in training students in sustainability, such as service learning, project-based learning, and challenge-based learning (Busquets et al., 2021). Through these projects, students learn to tackle complex problems, collaborate with fellow students, and produce beneficial products or solutions. This creates a deep and meaningful learning experience that can prepare students for success in their careers in the real world. Student characters can be formed with various learning models. An educator must have the right learning strategy in teaching. Project-based learning can shape the positive character of students who can integrate academic concepts with practical applications in real life. Assigning tasks in the form of project-based learning activities can shape students' initiative awareness character (Liu et al., 2019).

Furthermore, project-based learning also helps students develop highly sought-after skills in today's job market. By engaging in demanding projects, students also have the opportunity to identify their interests and talents and hone specific skills relevant to their chosen career fields. The various implementations of PBL over the past time, with several systematic reviews or meta-analyses showing various evidence about the history of PBL, various conceptions of PBL, student characteristics, and its positive role in higher education (Chen et al., 2021; Thomas, 2018). However, the implementation of project-based learning is not without challenges. Adequate resources are required, including funding, time, and support from college faculty and administration. Nevertheless, the long-term benefits of this approach can be significant for individual students and higher education institutions in preparing graduates who are ready to compete in an increasingly complex job market.

However, while project-based learning has proven effective in enhancing mastery of academic content and technical skills, there is still an unmet need to integrate the development of students' character into this approach. Higher education is responsible for providing technical knowledge to students and shaping individuals who possess good work ethics, strong leadership, critical thinking abilities, and empathy towards others. This research aims to address this gap by developing a project-based learning model to enhance students' character in higher education. Through this approach, students are expected to gain a deeper understanding of academic material and experience significant personal growth, thereby being prepared to face challenges in the workplace and society with confidence and high integrity.

#### **Research Method**

A systematic literature review provides a "road map" that aims to identify, select, explore, guide, provide knowledge and descriptions, and analyze and evaluate something. (Ahmad & Junaini, 2020; Eggers et al., 2021; Koehorst et al., 2021; Lämsä et al., 2021; Suciati et al., 2023) The following is the research method using a literature review for the development of a project-based learning model to enhance students' character in higher education (Sugiyono, 2018):

No	Steps	Explanation	
1	Identification of Needs and Research Objectives	The initial stage involves identifying the needs and research objectives. Researchers will comprehensively review existing literature to understand the current state of project-based learning and student character development in higher education. Clear and relevant research objectives will also be established in this stage.	
2	Literature Search	Researchers will systematically search for literature using academic databases and other sources of information. Relevant keywords such as "project-based learning," "student character development," and "higher education" will be used to identify articles relevant to this research.	
3	Literature Selection and Evaluation	Articles found will be screened based on pre-established inclusion and exclusion criteria. Inclusion criteria may include relevance to the research topic, methodological quality, and publication freshness. Articles meeting these criteria will be critically evaluated to extract relevant and quality information.	
4	Analysis and Synthesis of Literature	Data and information from the literature will be critically analyzed to identify patterns, trends, and key findings related to project-based learning and student character development in higher education. The information found will be synthesized into conclusions that can form the basis for developing a new learning model.	
5	Development of the Learning Model	Based on a thorough literature analysis, researchers will develop a project-based learning model designed to enhance students' character in higher education. This model will include key elements such as challenging project design, character evaluation methods, mentoring strategies, and integrated character development strategies.	
6	Model Validation	The developed model will be validated through consultation with education experts and field practitioners and possibly through piloting. Stakeholder feedback will be used to refine and improve the model before wider implementation.	

Using this literature review method, this research is expected to produce an effective and innovative project-based learning model to strengthen students' character in higher education.

#### **Results and Discussion**

Here are the expected results from the research using the literature review method for developing a project-based learning model to enhance students' character in higher education:

- 1. In-Depth Understanding of Project-Based Learning: Through a comprehensive literature review, this research has yielded an in-depth understanding of the principles, strategies, and best practices in project-based learning in the context of higher education. Project-based learning (PBL) is a learner-centered teaching method that enables learners to develop themselves and broaden their horizons in relevant ways (Shpeizer, 2019).
- 2. Identification of Links between Project-Based Learning and Character Development: This research has identified strong links between project-based learning and the development of students' character. Teachers play an important role in character education as they are tasked with integrating certain virtues into intra- and extracurricular areas and incorporating certain values into instructional praxis (Sukidin et al., 2022).
- 3. Development of an Integrated Learning Model: Based on the findings from the literature review, this research has successfully developed a project-based learning model integrated with the development of students' character in higher education. Character education needs to be highly emphasized by stakeholders and educators to be developed; therefore, many models have been created to develop the affective domain, including project-based learning.(Hariyanto et al., 2022; Karan, E. Brown, 2022)
- 4. Recommendations for Implementation and Further Development: The results of this research also provide practical recommendations for implementing the developed learning model in the context of higher education. Contribution to Research and Educational Practice: This research is expected to significantly contribute to research and educational practice in student character development.

Thus, the results of this research using the literature review method are expected to provide valuable guidance for higher education institutions in integrating student character development into project-based learning, creating graduates who are not only academically qualified but also possess strong character and are ready to face future challenges. Amidst the dynamic changes in educational demands, the issue of character development among college students has become increasingly prominent. Higher education is expected to focus not only on normatively handling academic knowledge but also on having to think about and play an active role in shaping the personalities of its students who have integrity, leadership, empathy, and strong social skills (Chen et al., 2021). In addressing these challenges, innovative and effective learning approaches

become crucial. One approach that has garnered attention is project-based learning, which offers a deep and integrated learning experience with real-world situations.

The explanation of project-based learning in higher education courses is designed to improve students' skill level and character (Liu et al., 2019). Within it, they gain a deeper understanding of academic material and develop critical thinking, creativity, and communication skills necessary in a complex work environment. However, it is important to consider holistic character development when developing highly competitive individuals.

In this context, this research proposes developing a project-based learning model integrated with character development in college students. The impact of project-based learning activities on student achievement and character is compared between quantitative and qualitative to explore how the introduction will affect learning performance, need for cognition, motivational beliefs, creative self-efficacy, perception of learning, and teamwork(Kumar, 2021). Thus, the goal of this research is not only to create intellectually smart graduates but also morally and socially upright ones.

Through a thorough literature review, this research identifies a close relationship between project-based learning and character development among students in a good way. The character education process should involve various stakeholders who help students develop socially positively (Development et al., 2015). Students can experience significant personal growth during the learning process. However, developing an integrated learning model is not an easy task. This research will develop an innovative learning model and provide practical guidance for its implementation in higher education environments. This model will be refined through consultation with education experts and field practitioners to ensure its relevance, effectiveness, and sustainability.

Thus, this research is not just an academic contribution but also a real effort to enhance the quality of higher education by strengthening students' character. By integrating project-based learning with character development, it is hoped that the proposed model will bring significant positive impacts not only on students' academic achievements but also on their future personal, professional, and social lives. This is crucial in preparing the future generation to face complex challenges in an ever-changing global society.

#### Conclusion

This research demonstrates that developing an integrated project-based learning model with character development in college students is an important step in preparing students to meet the complex demands of the real world. Through this approach, students not only enhance their academic mastery but also develop moral values, social skills, and leadership necessary for success in the future.

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Development of a Project-Based Learning Model to Improve Student Character in Higher Education

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We have not yet received a response from you, possibly because the original invitation went astray. Please could you let us know within the next 4 days if you are able to carry out this review to help us ensure timely peer review for the author. If you accept, the review deadline will be 14 days from the date of accepting this invitation.

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This research proposes developing an integrated project-based learning model with student character development in higher education. This approach aims to prepare students with both academic skills and strong character to face the complex demands of the real world. Through a comprehensive literature review, this research identifies a close relationship between project-based learning and student character development. The proposed learning model integrates elements of project-based learning with proven effective character development strategies. This model is designed to encourage collaboration, problem-solving, self-reflection, and personal responsibility while fostering ethics, leadership, and empathy in students. Through this research, it is hoped that higher education institutions can create a learning environment that supports the holistic growth of students, not only in knowledge mastery but also in character formation. Implementing this model requires strong support

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