

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

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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 aims at empowering students to enhance collaboration, problem-solving, personal responsibility, self-reflection, ethics, leadership, and empathy. The novelty of this research is the importance of implementing project-based learning in learning that must be prepared by lecturers so that learning objectives are not only oriented towards student knowledge but also character building in each learning assignment. This model has to be implemented under the support of lecturers and educational institutions as well as continuous evaluation to assess its relevance and effectiveness. Through the development of this project-based learning model, educational institutions are ready for curriculum changes and students have good and positive characters to face global challenges.

### ABSTRAK

### Kata-kata kunci:

Karakter;  
Perguruan Tinggi;  
Pembelajaran Berbasis  
Proyek;  
Pengajaran.

**Pengembangan Model Pembelajaran Berbasis Proyek untuk Meningkatkan Karakter Mahasiswa pada Perguruan Tinggi.** Penelitian ini bertujuan untuk pengembangan model pembelajaran berbasis proyek yang terintegrasi dengan pembentukan karakter mahasiswa di perguruan tinggi. Melalui pendekatan ini diharapkan dapat mempersiapkan mahasiswa dengan keterampilan akademis dan karakter yang kuat untuk menghadapi tuntutan dunia nyata yang kompleks. Melalui tinjauan pustaka yang komprehensif, penelitian ini mengidentifikasi hubungan yang erat antara pembelajaran berbasis proyek dan pengembangan karakter mahasiswa. Model pembelajaran yang diusulkan mengintegrasikan elemen-elemen pembelajaran berbasis proyek dengan strategi pengembangan karakter yang terbukti efektif. Model ini dirancang untuk mendorong kolaborasi, pemecahan masalah, refleksi diri, dan tanggung jawab pribadi serta menumbuhkan etika, kepemimpinan, dan empati pada mahasiswa. Kebaruan penelitian ini adalah pentingnya penerapan pembelajaran berbasis proyek dalam pembelajaran yang harus dipersiapkan oleh dosen agar tujuan pembelajaran tidak hanya berorientasi pada pengetahuan mahasiswa tetapi juga pembentukan karakter dalam setiap tugas pembelajaran. Dalam menerapkan model ini dibutuhkan dukungan yang kuat dari dosen dan lembaga pendidikan dan evaluasi berkelanjutan untuk memastikan relevansi dan efektivitasnya. Melalui pengembangan model pembelajaran berbasis proyek ini, lembaga pendidikan siap menghadapi perubahan kurikulum, dan siswa memiliki karakter positif untuk menghadapi tantangan global.

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## Introduction

It is very important to teach character education in the younger generation. The younger generation is crucial for character education, especially at 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).

Character education has become a critical point in delineating the journey of students' potential development, 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). Character education projects and conventional learning emerge as two significant approaches playing roles in shaping students' characters. Through these projects, students actually experience direct one's and real challenges in order to increase values such as teamwork, leadership, and responsibility. At the same time, conventional learning, relying on knowledge transfer by traditional teaching and learning, is based on theory. The other approach makes a different contribution to the formation of students' characters than the first one, and this study intends to investigate in depth the impact and the advantages of each approach.

We can observe that the students' perspective on real world problems are altered by character education projects. However, these projects make it possible to go down the path of more contextual and relevant learning experiences that occur in daily life. Not only they get taught academic skills but the students also develop strong characters and good work ethics. Meanwhile, conventional learning remains a solid foundation, providing the necessary knowledge base to explore more complex concepts (Shpeizer, 2019). The combination of both creates a learning paradigm that integrates theory and practice, giving students a deeper understanding of the world around them. However, in examining the impact and advantages of each approach, it is acknowledged that there is no single approach suitable for all educational contexts. The success of implementing character education projects and conventional learning depends heavily on the context, educational goals, and student characteristics. Therefore, this research aims not only to identify positive impacts but also to understand the variability in the outcomes of character education and conventional learning, providing deeper insights for decision-makers in the field of education.

Education is the most basic thing and plays a very important role in the development of the scientific and character of each individual. The goal of national education is to ensure that education is truly able to form students who are not only intelligent individuals in intelligence, but also intelligent in attitudes and better characters. Education is never finished and will never

be finished being discussed. Through education, not only cognitive and psychomotor aspects are achieved and developed, but also positive changes in the affective domain. In reality, education in Indonesia now shows increasing academic achievement and competence, but on the other hand, there is a moral and ethical decadence of students, especially the character of mutual respect for others. Furthermore, the challenges of the future, society 5.0, demographic bonus, the golden generation of 2045, the nation's generation must have a strong and good character to face it. This is very appropriate to be prepared through education that is formulated in the context of 21st century learning by conceptualizing the 4 C's (Critical Thinking, Creative, Communicative, and Collaborative). Furthermore, what needs to be considered is also related to the attitude of mutual respect for all cultural differences that exist in each region, both local, national and international. Related to this, education in Indonesia tries to formulate it in a curriculum based on the Pancasila student profile. This is in line with the Pancasila Student Profile curriculum which emphasizes students' abilities not only on cognitive abilities but also on attitudes and characters that are in accordance with a person's identity as a citizen living in Indonesia and when becoming a global citizen (Alanur, S. N., Nawing, K., Septiwiharti, D., Syuaib, D., & Jamaludin, 2022). The benefits of successful learning will be felt when what is obtained from learning can be applied and implemented in the reality of life. This is one of the positive sides that underlies the project-based learning model. In this learning, students can think globally, but they must act locally (Think globally, act locally). This means that every person/student needs to learn anything, even seek wisdom from various experiences between other nations around the world, but knowledge about the experiences of other nations is used as knowledge and insight to form a good and strong identity. This learning can be done while empowering community life, while students can carry out the learning process better.

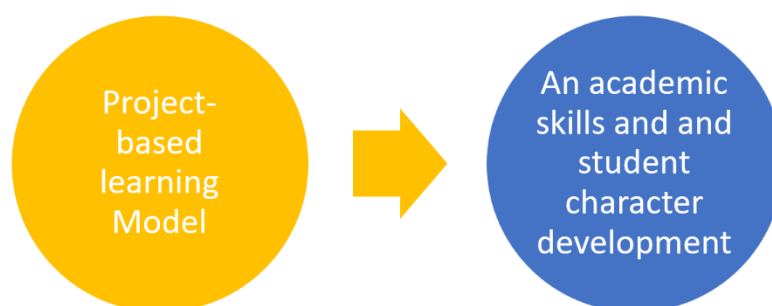
Technological advancements and globalization have fundamentally altered the landscape of work and the economy. Students are not only faced with the demand to possess specialized knowledge in their academic fields but also to have skills that can be applied in various contexts. Globalization is not the 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 (habitation) 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 project-based 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-centred 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. In teaching, an educator has to possess the appropriate learning strategy. There are students whose positive character can be shaped through project based learning by comprising some academic concepts that can be integrated in real life applications. Project based learning activities may be used to assign tasks and this will create initiative awareness character of a student (Liu et al., 2019).

Also, the project based learning teaches students skills that are highly sought after in today's job market. In addition, students have a chance to find out what interests and talents they have and to develop certain skills that are useful in pursuing their chosen career fields by taking up challenging projects. However, in terms of the time, various appropriate implementations of PjBL (Project-Based Learning) over the past have shown various evidence through systematic reviews or meta-analysis related to its background (Chen et al., 2021; Thomas, 2018). Despite that, there are challenges with implementing project based learning. It requires adequate resources too, including time, funds, back from the college faculty and administration. However, the lasting results of this method can be sizable for individual students and also higher education institutions by readying graduates that can argue against steadily heightening complexities regarding the work arena.

Although project based learning has been shown to improve students' mastery of academic content and technical skills, it is still needed to incorporate development of the character of the students in this approach. Technical knowledge is actually provided by higher education to the students and the society is filled with those people who possess good work ethics, strong leadership, critical thinking and the fact is that they empathize towards other people. In this gap, this research seeks to provide a project based learning model in order to increase students' character in higher education. Using this methodology is supposed to help students develop a more profound knowledge of the academic material and to have a chance to grow at a personal level that will make them ready to encounter work and society dilemmas with assurance and high integrity.



**Picture 1.** The influence of the project-based learning model on students' knowledge and character

## Method

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. There are 6 (six) steps 1) Identification of Needs and Research Objectives, 2) Literature Search, 3) Literature Selection and Evaluation, 4) Analysis and Synthesis of Literature, 5) Development of the Learning Model, and 6) Model Validation. With such a literature review approach, this research

is expected to develop an effective and innovative project-based learning model to uplift the students' character at the higher levels of education.

## Result and Discussion

The research using the literature review to develop a project based learning model to improve students' character in higher education is expected to have the following results. A comprehensive literature review of Project Based Learning in higher education has been done by this research, which has led to an in-depth understanding of the fundamentals, strategies and best practice of project based learning. Project based learning or PjBL (Project- Based Learning) is a teaching method which allows the learner to realize himself or herself and expand the horizontal dimensions (Shpeizer, 2019). Relevance to Project Based Learning, this research highlights the importance of project based learning in the character development of the students. Teachers act as important character educators since they are given the responsibility to embed some virtues in the intra and extracurricular, and some values in instructional praxis (Sukidin et al., 2022). With the findings of the literature review, this research has developed an integrated learning model in the form of a project based learning with students' character development in higher education. Stakeholders and educators emphasize the need for character education to be developed that is why many models developed to develop the affective domain some are: project based learning (Hariyanto et al., 2022; Karan, E. Brown, 2022).

Results and Practical Recommendations for Implementation and Further Development. This research also produces practical recommendations for the implementation of the developed learning model in the particular arena of higher education.

Significance of Research to Research and Educational Practice. It is hoped that this research will have a major effect on 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.

In data extraction, researchers carry out the basic steps in the research methods mentioned above so that the reliability and validity of the research are maintained.

Table 1. Research evaluation and validation

Steps	Explanation
Identification of Needs and Research Objectives;	During the first stage, the needs and research objectives are identified. In order to understand where we are now with respect to currently using project based learning in higher education while also developing the character of the students, researchers will thoroughly read and review existing literature. In this stage, clear and relevant research objectives will be established as well.
Literature Search;	The literature will then be systematically searched with academic databases as well as other sources of information. Then the articles will be identified which contain relevant keywords like 'project based learning', 'student character development' and 'higher education' so their information can be treated by the research.
Literature Selection and Evaluation;	An article will be screened if found and, if pre- set inclusion and exclusion criteria will be applied. Relevance to the research topic, methodological quality and publication freshness make up the criteria for inclusion. These articles will be critically evaluated and will be evaluated with regards to its particular relevance and quality specific information.
Analysis and Synthesis of Literature;	Patterns, trends, and key findings to project based learning and student's character development in higher education are identified by critically analyzing data and information from the literature. Synthesis of the information will be made up of the conclusions from which a new learning can be developed.
Development of the Learning Model;	Research will be based on the analysis of through literature to create a project based learning model to improve student's character in higher education. It contains the main elements including challenging project design, methods of character evaluation, mentoring strategies, integrated character development strategies.
Model Validation;	The developed model will be validated through consulting with the education experts and field practitioners and piloting if possible. Before wider implementation the model will be refined and improved using stakeholder feedback.

Researchers conduct reviews and analyzes of several relevant and recent previous research articles to find novelty as a reference to be discussed. After classifying and selecting relevant and new articles, the following articles are selected:

Table 2. Results of Literature Review

Title	Authors	Result
Pentingnya Pendidikan Karakter pada Generasi Milenial di Era Digital (The Importance of Character Education for the Millennial Generation in the Digital Era)	(Putri et al., 2023)	Character education is a process of applying moral and religious values to students through knowledge, and applying these values to oneself, family, friends, educators, and the surrounding environment as well as God Almighty.
Peran Pendidikan Karakter dalam Membentuk Sumber Daya Manusia yang Berkualitas (The Role of Character Education in Forming Quality Human Resources)	(Purwati & Faiz, 2023)	By having quality character education, we can create national progress and make individuals/students into people who are pious to God Almighty and have noble morals because the output of quality education is education that is able to produce good human resources for the progress of the nation.
Membangun Karakter Mahasiswa Indonesia melalui Pendidikan Karakter (Building Indonesian Students' Character through Character Education)	(Mohammad Rudiyanto & Ria Kasanova, 2023)	Through the lecturers' outstanding lessons in an academic setting, students will emulate the lecturers and look up to them as role models.
Efektivitas Strategi Pembelajaran Project Based Learning dalam Meningkatkan Kreativitas Siswa (Effectiveness of Project Based Learning Strategy in Increasing Student Creativity)	(Nugraha et al., 2023)	Group project work can promote creative ideas. This helps students build confidence in producing innovative work.
Pendidikan Karakter dan Dekadensi Moral Kaum Milenial (Character Education and Moral Decadence of Millennials)	(Casika, Ajeng; Lidia, Alen; Asbari, 2023)	Good character and morals are difficult achieved and maintained without have strong monotheism, because monotheism is very influential on behavior, attitudes, and Human thinking.

Through a 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 isn't just an academic research, but a true attempt to enrich the

quality of higher education by developing the students' character. It is hoped that, by integrating project based learning and character development, the proposed model will provide a great impact not only to the students' academic achievement, but also to their future personal, professional, and social lives. Preparing the generation of future to respond to very complex and ever dynamic challenges in an ever changing global world is important.

## Conclusion

This research shows that the integration of an integrated project based learning approach in college students with character development would be important for the students to accommodate the needs of the real world. This way, students become not only technically stronger in their academics but learn the moral ethics, social skills and foresight at a young age which would make them future successful. Through the development of this project-based learning model, educational institutions are ready to face curriculum changes and students have positive characteristics to face global challenges.

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