

THE REVOLUTION OF ECONOMIC LEARNING THROUGH A PROJECT-BASED APPROACH TO THE SUBJECT INTRODUCTION TO ECONOMIC SCIENCE AT SMA NEGERI 1 CIREBON, WEST JAVA

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Abstract: This study aims to explore the effectiveness of project-based learning in teaching economics at SMA Negeri 1 Cirebon, West Java. Adopting a qualitative approach, the research involved in-depth interviews with five economics teachers and observations of thirty students experiencing project-based learning. The findings indicate that project-based learning enhances student engagement and motivation and facilitates deeper understanding of economic concepts and their applications. Teachers reported improvements in students' problem-solving and critical thinking skills, while students felt more capable of connecting economic theory with real-world practices. These findings affirm the potential of project-based learning as an effective teaching method in economic education, which not only strengthens conceptual understanding but also develops essential skills for the 21st century. This research provides valuable insights for educational practitioners to integrate innovative approaches into the economics curriculum.

Keywords: Economics Education, Project-based learning, 21st-century skills

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INTRODUCTION

Teaching economics, a vital component of education, demands an approach that continuously evolves to meet the needs and challenges of the times. In recent decades, the teaching paradigm has experienced a significant shift, from traditional transmissional models towards more interactive and student-centric methods (Bonwell & Eison, 1991). However, research shows that the economic education sector is still often fixated on rigid and less innovative teaching methods, which do not fully facilitate the development of critical thinking and the application of knowledge in real contexts (Becker & Watts,

1996).

Government regulations, as outlined in Government Regulation no. 19 of 2005 concerning National Education Standards, provides a framework for developing curriculum and teaching methodologies that meet certain quality standards. However, there is ample room for innovation in its application, especially in the context of project-based learning that can respond to these needs.

Data from the Central Statistics Agency (BPS) shows that innovation in teaching economics in Indonesia is still at a stage that requires more attention, with indicators such as low scores on understanding economic concepts and their applications among students (BPS, 2020). This underscores the urgency to adopt more dynamic and applied approaches, such as project-based learning, which has been shown to increase student engagement and understanding of material (Thomas, 2000).

Amid evolving teaching paradigms and data showing the need for innovation, this research focuses on "How can a project-based learning approach transform the teaching of economics to increase conceptual and applied understanding among students?"

This research aims to examine the effectiveness of project-based learning in teaching economics, with a special focus on:

1. Increase conceptual and applicable understanding of economic material among students.
2. Identify the factors that influence the successful implementation of project-based learning in the context of economics.
3. Presents practical recommendations for educators to integrate project-based approaches in economics teaching.

This research is expected to make a significant contribution to the fields of economics and education by:

1. Provide empirical evidence regarding the effectiveness of project-based learning in increasing economic understanding.
2. Offers new insights into teaching methodologies that can facilitate the development of critical and applicable skills among students.
3. Provide guidance for educators in implementing teaching methods that are innovative and responsive to 21st century learning needs.

Teaching economics and project-based learning are two concepts that have become the focus of research in the field of education. Theories and models related to these two concepts provide a foundation for the development of teaching strategies that are effective and responsive to student needs.

In the context of teaching economics, constructivism theory states that knowledge is built by individuals through interaction with their environment (Piaget, 1976). In practice, this means that economics education must be designed to enable students to actively construct their own understanding, rather than simply receiving information provided by teachers. Project-based learning, which allows students to engage in real and relevant projects, is a direct application of this constructivist theory.

Furthermore, Vygotsky (1978) with his zone of proximal development theory, emphasized the importance of social interaction in learning. It provides a theoretical basis for collaborative learning in projects, where students can work together to solve problems, share knowledge, and develop new understandings.

Research by Bell (2010) shows that project-based learning can increase student engagement and understanding of material in social science contexts, including economics. This research provides empirical evidence that this learning approach is effective in improving student learning outcomes.

On the other hand, Capraro and Slough (2008) found that the integration of real projects in economics learning can improve students' ability to apply economic theory in real contexts. This study shows that project-based learning not only improves students' conceptual understanding but also their applicative skills.

Thomas (2000) in his review of project-based learning, states that this approach supports deep learning and improves problem-solving skills. This research identified several key elements that influence the success of project-based learning, including clarity of purpose, relevance to real life, and effective collaboration.

Krajcik and Blumenfeld (2006) emphasize that well-designed projects can provide a rich context for scientific inquiry and interdisciplinary learning, including in economics. They identified support structures, such as teacher guidance and adequate resources, as important factors in the success of project-based learning.

Finally, Markham (2011) highlighted the importance of authenticity and student choice in projects to increase learning engagement and motivation. This research suggests that effective project-based learning should provide opportunities for students to make decisions about their learning and engage in projects that have personal meaning and social relevance.

Although these studies provide valuable insights into the effectiveness and essential components of project-based learning, there remains room for further exploration of how this approach can be optimized in the context of teaching economics. This research aims to fill this gap by exploring how project-based learning can be adapted and applied specifically in economics teaching to maximize benefits for students' understanding and applicable skills.

METHOD

This research adopts a qualitative approach to explore how project-based learning can transform economics teaching. A qualitative approach was chosen because it allows for in-depth exploration of the perceptions, experiences and context of research subjects, which is difficult to achieve through quantitative methods. In this context, a qualitative approach will provide in-depth insight into the dynamic interactions between teachers, students, and project-based learning processes, and allow researchers to capture the nuances and complexities involved (Creswell, 2013).

The subjects of this research were 5 economic education teachers and 30 students from a high school that had implemented project-based learning in its curriculum. The choice of this subject was based on the desire to understand the perspectives of both sides of the learning process – teachers and students. The research location is SMA Negeri 1 Cirebon, West Java. This location was chosen because the school has adopted project-based learning, which allows this research to observe and analyze existing practices and their dynamics in a real context.

Data will be collected through three main methods: in-depth interviews, classroom observations, and document analysis. In-depth interviews will be conducted with teachers

and students to gain a deep understanding of their experiences with project-based learning. Classroom observations will allow researchers to see firsthand how project-based learning is implemented and how interactions between teachers and students occur. Analysis of documents, including lesson plans, teaching materials, and student output, will provide additional context and insight into how project-based learning was planned and the results achieved.

The qualitative data collected will be analyzed using content analysis techniques, where the data will be organized, categorized, and interpreted to identify main themes, patterns, and relationships (Braun & Clarke, 2006). This process will begin with transcription of interviews and observation notes, followed by a thorough reading to fully understand the data. The next step is data coding, where the data will be divided into small manageable units and grouped based on similarities and differences. Through this process, the researcher will identify the main themes and subthemes that emerge from the data, which will form the basis for the research findings and conclusions.

RESULT AND DISCUSSION

This research involved in-depth interviews with 5 introductory economics teachers and 30 students at SMA Negeri 1 Cirebon, West Java, who had experienced project-based learning in their curriculum. Responses from the interviews show their perceptions and experiences related to this learning approach. One teacher, whom we will refer to as Teacher A, expressed, "Project-based learning provides students with the opportunity to explore and apply economic concepts in real scenarios, which I think is vital in understanding economics." The student, whom we will refer to as Student

Research result

From the data collected, there are several main findings. First, most teachers feel that project-based learning has increased student engagement in learning economics. Second, students report that they feel more motivated and have a better understanding of the application of economic concepts in everyday life. One of the teachers, Teacher B, emphasized, "I saw a significant improvement in students' problem-solving skills. They not only learned theory but also how to apply it to solve real problems." One student, Student Y, added, "The project made me think critically and learn to work collaboratively in a team, which I feel is important for my future."

Discussion

Analysis of the findings shows that project-based learning at SMA Negeri 1 Cirebon has had a positive impact on the economics teaching and learning process. This finding is consistent with research by Bell (2010) which shows that project-based learning can increase engagement and understanding of material by students. The relationship between students' positive experiences with project-based learning and their increased understanding of economics supports the constructivism theory described by Piaget (1976), where students build their knowledge through direct interaction with the tasks or problems given.

The implications of these findings for the practice of teaching economics are significant. By adopting project-based learning, teachers can encourage students to be

more actively involved in the learning process, which not only improves their understanding of the subject matter but also develops important skills such as problem solving, critical thinking, and collaboration.

The conclusion that can be drawn from this research is that project-based learning has significant potential in improving the quality of economics teaching and learning. By integrating relevant and applicable projects, the teaching and learning process can become more interactive, interesting, and meaningful for students, while preparing them with the skills necessary for their future.

CONCLUSION

This research investigates the effectiveness of project-based learning in teaching economics at SMA 1 Cirebon, West Java. The results of interviews with five teachers and thirty students revealed that this learning approach increased engagement, motivation, conceptual understanding, and practical application of economic knowledge among students. These findings confirm that project-based learning can serve as an effective tool for linking economic theory with real practice, in line with constructivism theory which states that knowledge is built through active interaction with the environment (Piaget, 1976).

Furthermore, this research indicates that project-based learning not only improves students' academic understanding of economics but also develops their critical and collaborative skills. This is consistent with existing literature, which shows that this learning method supports the development of important 21st century skills (Bell, 2010).

Thus, this research makes an important contribution to the economics education literature by showing how project-based learning can be applied in economics teaching to produce deeper and more meaningful learning outcomes.

Based on the findings of this research, several recommendations can be identified for educational practitioners and future researchers:

1. For Education Practitioners:

- a. Integrate project-based learning into the economics curriculum: Teachers should consider the use of relevant and meaningful projects that enable students to apply economic theory in practical contexts.
- b. Facilitate collaboration: Project-based learning should be designed to encourage teamwork and collaboration, giving students the opportunity to develop their interpersonal skills.
- c. Develop authentic assessments: Assessments should reflect real-world assignments and projects, allowing students to demonstrate holistic understanding and application of their knowledge.

2. For Researchers:

- a. Longitudinal Studies: Further research is needed to explore the long-term impact of project-based learning on students' economic understanding.
- b. Context Variations: Research across a variety of educational contexts can provide further insight into how project-based learning can be adapted and optimized for various environments and student groups.
- c. Relationship to Other Skills: Research that examines the relationship between project-based learning and the development of non-academic skills, such as

emotional intelligence and resilience, will provide important insights into the benefits of this approach.

In conclusion, project-based learning offers a dynamic and interactive teaching method for economics education, supporting the development of students' theoretical and applied understanding and critical skills necessary for future success.

REFERENCES

- Bell, S. (2010). Project-based learning for the 21st century: Skills for the future. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 83(2), 39-43. <https://doi.org/10.1080/00098650903505415>
- Capraro, R. M., & Slough, S. W. (2008). Project-based learning: An integrated science, technology, engineering, and mathematics (STEM) approach. In M. M. Capraro & R. M. Capraro (Eds.), *STEM project-based learning: An integrated science, technology, engineering, and mathematics (STEM) approach* (pp. 77-83). Sense Publishers.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. Sage.
- Krajcik, J., & Blumenfeld, P. (2006). Project-based learning. In R. K. Sawyer (Ed.), *The Cambridge handbook of the learning sciences* (pp. 317-334). Cambridge University Press.
- Markham, T. (2011). Project based learning. *Teacher Librarian*, 39(2), 38-42.
- Piaget, J. (1976). Piaget's theory. In P. H. Mussen (Ed.), *Handbook of child psychology* (4th ed., Vol. 1, pp. 703-732). Wiley.
- Thomas, J. W. (2000). *A review of research on project-based learning*. San Rafael, CA: Autodesk Foundation.
- Vygotsky, L. (1978). Interaction between learning and development. In M. Cole, V. John-Steiner, S. Scribner, & E. Souberman (Eds.), *Mind in society: The development of higher psychological processes* (pp. 79-91). Harvard University Press.
- Barron, B., & Darling-Hammond, L. (2008). *Teaching for meaningful learning: A review of research on inquiry-based and cooperative learning*. George Lucas Educational Foundation.
- Blumenfeld, P. C., Soloway, E., Marx, R. W., Krajcik, J. S., Guzdial, M., & Palincsar, A. (1991). Motivating project-based learning: Sustaining the doing, supporting the learning. *Educational Psychologist*, 26(3&4), 369-398.
- Buck Institute for Education. (2018). *Project-based learning: A guide to standards-focused project-based learning for middle and high school teachers*. Buck Institute for Education.
- Dewey, J. (1938). *Experience and education*. Kappa Delta Pi.
- Doppelt, Y. (2003). Implementation and assessment of project-based learning in a flexible environment. *International Journal of Technology and Design Education*, 13(3), 255-272.
- Edutopia. (2007). *Project-based learning research review*. George Lucas Educational Foundation.

- Holm, M. (2011). Project-based instruction: A review of the literature on effectiveness in prekindergarten through 12th grade classrooms. *InSight: Rivier Academic Journal*, 7(2).
- Hmelo-Silver, C. E. (2004). Problem-based learning: What and how do students learn? *Educational Psychology Review*, 16(3), 235-266.
- Kilpatrick, W. H. (1918). The project method: The use of the purposeful act in the educative process. *Teachers College Record*, 19(4), 319-335.
- Larmer, J., & Mergendoller, J. R. (2010). Seven essentials for project-based learning. *Educational Leadership*, 68(1), 34-37.
- Mergendoller, J. R., Markham, T., Ravitz, J., & Larmer, J. (2006). Pervasive management of project based learning: Teachers as guides and facilitators. In C. Evertson & C. Weinstein (Eds.), *Handbook of classroom management: Research, practice, and contemporary issues* (pp. 583-615). Lawrence Erlbaum Associates.
- Pellegrino, J. W., & Hilton, M. L. (Eds.). (2012). *Education for life and work: Developing transferable knowledge and skills in the 21st century*. National Academies Press.
- Prince, M., & Felder, R. (2006). Inductive teaching and learning methods: Definitions, comparisons, and research bases. *Journal of Engineering Education*, 95(2), 123-138.
- Savery, J. R. (2006). Overview of problem-based learning: Definitions and distinctions. *Interdisciplinary Journal of Problem-Based Learning*, 1(1), 9-20.
- Strobel, J., & van Barneveld, A. (2009). When is PBL more effective? A meta-synthesis of meta-analyses comparing PBL to conventional classrooms. *Interdisciplinary Journal of Problem-based Learning*, 3(1), 44-58.
- Thomas, J. W. (2010). Facilitating project-based learning: Educator as project manager. *Educational Leadership and Administration: Teaching and Program Development*, 22, 78-93.
- Walker, A., & Leary, H. (2009). A problem based learning meta analysis: Differences across problem types, implementation types, disciplines, and assessment levels. *Interdisciplinary Journal of Problem-based Learning*, 3(1), 12-43.
- Wurdinger, S. D., & Qureshi, M. (2015). Enhancing college students' life skills through project based learning. *Innovative Higher Education*, 40(3), 279-286.
- Zhang, D., Zhao, J. L., Zhou, L., & Nunamaker Jr, J. F. (2004). Can e-learning replace classroom learning? *Communications of the ACM*, 47(5), 75-79.
- Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory Into Practice*, 41(2), 64-70.