

APPLICATION OF PROJECT-BASED LEARNING MODEL IN BASIC LEVEL ARABIC MORPHOLOGY INSTRUCTION

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Abstract: This study aims to improve students' understanding of Arabic morphology (sharf) at the basic level through the implementation of Project-Based Learning (PBL). Many students struggle with morphological analysis due to monotonous and less applicable teaching methods. PBL offers a contextual, collaborative, and problem-based learning environment aligned with constructivist principles. Using Classroom Action Research (CAR) with two cycles, the study involved second-semester students of the Arabic Language Education program. Data were collected through observation, tests, and interviews, and analyzed using descriptive qualitative and quantitative methods. In Cycle I, students worked in groups to analyze root words and patterns from short Arabic texts, producing an average score increase from 61.7 (pre-test) to 75.6 (post-test I). In Cycle II, with enhanced digital tools and clearer guidelines, the average score rose to 84.2, marking a total improvement of 22.5 points from the pre-test. The findings indicate that PBL effectively enhances students' morphological analysis skills, fosters active and cooperative learning, and provides a more engaging learning experience compared to conventional approaches.

Keywords: Project-Based Learning, Arabic Morphology, Language Instruction, Basic Education.

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Introduction

Arabic instruction at the basic level frequently encounters difficulties in building students' morphological analysis (sharf) skills. Many students struggle to understand word structure and transformations due to monotonous and inapplicable teaching methods. One innovative approach that can be implemented is Project-Based Learning (PBL), which provides contextual, collaborative, and problem-based learning experiences. PBL is a student-centered method. In this process, learners face real-world problems that serve as the primary learning source. Thus, they are encouraged to analyze situations, find solutions, and develop critical thinking skills.

Nariman and Chrispeels (2016:2) state that PBL is a method that places students at the center of learning, aligned with the constructivist concept. Similarly, Huang and Foreign (2012:122) argue that PBL encourages students to apply critical thinking through problem simulations to analyze and solve complex and realistic problems. Yew and Goh (2016:75) add that PBL is a pedagogical approach enabling active learning through direct engagement in problem-solving. Students develop problem-solving skills in a cooperative learning environment, fostering independent

learning habits. In PBL, presented problems are often open-ended or lack clear solutions. Students are challenged to analyze deeply, identify core issues, and devise solutions either individually or in groups.

Fogarty (1990:2) explains that PBL is built around real-world, unstructured, unclear, and unidentified problems, creating confusing situations with various interrelated issues. It encourages active exploration and problem formulation, leading to appropriate solutions and conclusions. According to Graaff (2003:1), PBL uses real-life issues as the primary learning source. These problems align with the lesson material and relate to daily life, helping students build understanding and develop life concepts such as values, rights, and resource use. Ajai, Imoko, and Emmanuel (2013:132) explain that PBL is an instructional strategy grounded in constructivism, where learners connect concrete experiences with prior knowledge through collaboration and reflection. Kodariyati & Astuti (2016) state that PBL enhances students' understanding and thinking skills by encouraging systematic thinking and real-world analysis. Arends (2010) also emphasizes that PBL mirrors real-life situations to promote critical thinking. Taşoglu & Bakaç (2010:2410) note that PBL connects school learning to everyday life and supports creative thinking, problem-solving, academic achievement, and scientific process

understanding. Levin (2001:6) and Arends (2010:326) both describe PBL as learner-centered and based on real-world problem situations. PBL is rooted in constructivism, where learning is viewed as knowledge construction, autonomy, collaboration, and contextually based. Rusman (2012:231) outlines the key characteristics of PBL: Understanding the environment is gained through interaction, Problems function as stimuli and references for learning and goal achievement, Problems create motivation and drive learners to seek solutions to reduce discomfort, Learning results from the integration of experience and reflection, CoRecent studies also highlight that PBL has a significant impact on second language acquisition by promoting authentic language use and learner autonomy. Thomas (2000) asserts that PBL creates meaningful contexts that increase student motivation and retention of linguistic structures. Similarly, Bell (2010) emphasizes that PBL enhances 21st-century skills such as collaboration, communication, and creativity, which are essential in language learning. In the context of Arabic language instruction, Al-Hadithy (2016) reports that project-oriented tasks improve learners' engagement with morphological and syntactic rules, making abstract concepts more tangible. Moreover, Kokotsaki, Menzies, and Wiggins (2016) argue that PBL not only supports cognitive development but also fosters positive attitudes toward lifelong learning. operation among students is critical for optimal learning outcomes.

Research Method

Implementation of the PBL Model in Basic Arabic Morphology Instruction

The implementation of the Project-Based Learning (PBL) model in basic Arabic morphology instruction was carried out in two cycles involving second-semester students of the Arabic Language Education program. The learning activities were designed to connect theoretical morphological concepts with authentic language use. In this process, students were divided into small collaborative groups, each assigned a project to analyze Arabic word morphology from authentic sources, such as Quranic verses and hadiths. The group tasks included:

1. **Identifying root words (*jidzr*) and morphological patterns (*wazn*).**
2. **Creating word transformation tables** to illustrate derivations and inflections.
3. **Developing project outputs** in either digital (e.g., slides, infographics) or manual formats (e.g., charts, posters).
4. **Presenting findings** before peers for discussion and feedback.

Lecturers acted as facilitators, providing continuous guidance, clarifying instructions, supplying resources, and conducting assessments. The PBL cycles followed the standard CAR stages: planning, project implementation, observation, and reflection.

The observed learning outcomes in this phase indicated that PBL:

- Encouraged **active and collaborative learning** through peer discussion and task sharing.
- Increased **student participation** in class discussions and field data collection.
- Strengthened **contextual understanding** of Arabic word structure by linking morphology to real-life texts.

This aligns with Yew & Goh (2016), who noted that PBL fosters problem-solving in cooperative environments, and with Arends (2010), who emphasized its capacity to promote critical and analytical thinking in realistic contexts.

Improvement of Students' Understanding of Arabic Morphology

The improvement in students' understanding was measured through pre-tests and post-tests in each cycle.

Cycle I consisted of three sessions focusing on *fi'il tsulāthī mujarrad* (basic trilateral verb forms). Students analyzed root words and patterns from short Arabic texts and presented their findings.

Table 1. Learning Outcomes in Cycle I

Test Type	Average Score	Description
Pre-Test	61.7	Before PBL implementation
Post-Test I	75.6	After Cycle I
Increase	+13.9 pts	Improvement from pre-test

While improvement was evident, reflections indicated some challenges:

- Several students were unfamiliar with group collaboration dynamics.
- Morphological analysis remained limited to basic verb forms.
- Integration of technology in learning was minimal.

Cycle II addressed these issues by:

- Providing **clearer project guidelines** with step-by-step instructions.
- Introducing **digital tools** such as *Wordwall* and the *Al-Ma'ani Dictionary*.

Increasing **lecturer facilitation intensity** during group work. In this cycle, students engaged in projects analyzing both verb and noun morphology from Quranic verses, incorporating diagrams and digital presentations.

Table 2. Learning Outcomes in Cycle II

Test Type	Average Score	Description
Pre-Test	61.7	Before PBL
Post-Test I	75.6	After Cycle I
Post-Test II	84.2	After Cycle II
Cycle I → II	+8.6 pts	Improvement from Post-Test I
Total Gain	+22.5 pts	Improvement from Pre-Test to Post-II

Interpretation:

The total improvement of **22.5 points** from pre-test (61.7) to post-test II (84.2) indicates that PBL was effective in:

- Helping students accurately identify **root words and morphological patterns**.
- Enhancing their **analytical ability** in tracking word form changes.

- Providing **meaningful, enjoyable, and contextually relevant learning experiences.**

Most students reported in interviews that the PBL approach was easier to understand compared to conventional teacher-centered methods, as it combined analysis with real texts and collaborative problem-solving. This is consistent with findings by Taşoğlu & Bakaç (2010) that PBL improves academic performance, creativity, and scientific process skills.

Discussion in Theoretical Context

The findings of this study reinforce the principles of constructivism, as outlined by Rusman (2012), where learning occurs through interaction, problem-solving, and reflective integration of new knowledge. By engaging with authentic materials, students did not merely memorize morphological rules but applied them to real linguistic contexts. Furthermore, the integration of digital tools in Cycle II reflected the modern trend in language education towards technology-enhanced learning (Levin, 2001), making morphological analysis more accessible, interactive, and engaging. The findings of this study resonate with broader research in language education. Blumenfeld et al. (1991) demonstrated that PBL enables students to integrate knowledge across disciplines while strengthening problem-solving abilities. This aligns with the observed improvement in students' morphological analysis skills in this study. Furthermore, integrating technology in Cycle II supports the argument of Dooly (2008), who stresses that technology-mediated PBL creates interactive environments that enhance both linguistic competence and learner confidence. Thus, the combination of PBL and digital tools appears particularly effective for Arabic morphology instruction.

Conclusion

The implementation of the Project-Based Learning (PBL) model has proven to be an effective pedagogical strategy for improving students' mastery of basic Arabic morphology. By engaging in authentic, collaborative projects such as analyzing lexical roots and morphological patterns from Qur'anic verses and hadiths, students became more active participants in their learning process. The approach fostered deeper contextual understanding, enhanced analytical skills, and made learning more meaningful and enjoyable. Quantitatively, students' performance improved significantly, with an overall gain of 22.5 points from pre-test to the final post-test. Initial challenges—such as unfamiliarity with group work and limited use of technology—were successfully addressed in the second cycle through clearer guidelines, integration of digital tools, and increased facilitation. These findings suggest that PBL is a highly adaptable and impactful approach for Arabic language instruction at the basic level, with strong potential for application across other linguistic and educational contexts.

References

1. Ajai, J. T., Imoko, B. I., & Emmanuel, A. (2013): Comparative Effectiveness of Problem-Based Learning (PBL) and Conventional Teaching Methods on Students' Academic Achievement in Mathematics"
2. Arends, R. I. (2010): "Learning to Teach" (9th Edition), Penerbit: McGraw-Hill Education.
3. Fogarty, R. (1990): "Problem-Based Learning and Other Curriculum Models for the Multiple Intelligences Classroom", Penerbit: IRI/Skylight Publishing, Inc.
4. Graaff, E. de, & Kolmos, A. (2003): "Characteristics of Problem-Based Learning".
5. Huang, B., & Foreign, W. (2012): "Problem-Based Learning in English Language Education in China".
6. Kodariyati, K., & Astuti, W. (2016): "Penerapan Model Problem Based Learning untuk Meningkatkan Pemahaman Konsep dan Keterampilan Berpikir Kritis Siswa".
7. Levin, B. (2001): "Every Child, Every School: Success for All". Penerbit: Teachers College Press.
8. Nariman, N., & Chrispeels, J. (2016): "Penerapan Pembelajaran Berbasis Masalah dalam Meningkatkan Keterampilan Berpikir Kritis Siswa"
9. Taşoğlu, A. K., & Bakaç, M. (2010): "The Effects of Problem-Based Learning and Traditional Teaching Methods on Students' Academic Achievements, Conceptual Developments and Scientific Process Skills According to Their Graduated High School Types"
10. Yew, E. H. J., & Goh, K. (2016): "Problem-Based Learning: An Overview of its Process and Impact on Learning"
11. Thomas, J. W. (2000). *A Review of Research on Project-Based Learning*. San Rafael, CA: Autodesk Foundation.
12. Bell, S. (2010). Project-Based Learning for the 21st Century: Skills for the Future. *The Clearing House*.
13. Al-Hadithy, A. (2016). Project-Based Tasks in Teaching Arabic as a Foreign Language. *Journal of Language Teaching and Research*.
14. Kokotsaki, D., Menzies, V., & Wiggins, A. (2016). Project-based learning: A review of the literature. *Improving Schools*.
15. 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*
16. Dooly, M. (2008). *Telecollaborative Language Learning: A Guidebook to Moderating Intercultural Collaboration Online*. Bern: Peter Lang.

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