

## THE APPLICATION OF THE DISCOVERY LEARNING MODEL IN IMPROVING THE MASTERY OF ARABIC VOCABULARY

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### Abstrak

Penelitian ini bertujuan untuk meningkatkan penguasaan kosakata bahasa Arab siswa kelas VII SMP Islam Nusantara 1 Bangunrejo melalui penerapan model pembelajaran Discovery Learning. Penelitian ini menggunakan metode Penelitian Tindakan Kelas (PTK) dengan model Kemmis dan McTaggart yang dilaksanakan dalam dua siklus, masing-masing terdiri dari tahapan perencanaan, pelaksanaan tindakan, observasi, dan refleksi. Subjek penelitian berjumlah 34 siswa. Teknik pengumpulan data meliputi observasi, tes (pre-test dan post-test), dan dokumentasi. Hasil penelitian menunjukkan peningkatan penguasaan kosakata bahasa Arab yang signifikan setelah penerapan model Discovery Learning. Nilai rata-rata siswa meningkat dari 55,59 pada kondisi awal menjadi 61,03 pada siklus I dan 82,94 pada siklus II. Persentase kelengkapan belajar juga meningkat dari 26,47% pada kondisi awal menjadi 44,12% pada siklus I dan mencapai 88,24% pada siklus II. Penelitian ini memberikan kontribusi empiris bahwa model Discovery Learning efektif dalam meningkatkan penguasaan kosakata bahasa Arab, dan dapat digunakan sebagai alternatif strategi pembelajaran yang aktif, berpusat pada siswa, dan relevan di tingkat SMP. Selain meningkatkan penguasaan kosakata bahasa Arab, model Discovery Learning juga mampu meningkatkan keaktifan, motivasi, dan keterlibatan siswa dalam proses pembelajaran.

**Kata kunci:** Discovery Learning, kosakata bahasa Arab, penelitian tindakan kelas

### Abstract

This research aims to improve the mastery of Arabic vocabulary of grade VII students of SMP Islam Nusantara 1 Bangunrejo through the application of the Discovery Learning learning model. This study uses the Classroom Action Research (PTK) method with the Kemmis and McTaggart models which is carried out in two cycles, each consisting of the stages of planning, implementation of actions, observation, and reflection. The research subjects amounted to 34 students. Data collection techniques include observation, tests (pre-test and post-test), and documentation. The results showed a significant increase in Arabic vocabulary mastery after the application of the Discovery Learning model. The average score of students increased from 55.59 in the initial condition to 61.03 in the first cycle and 82.94 in the second cycle. The percentage of learning completeness also increased from 26.47% in the initial condition to 44.12% in the first cycle and reached 88.24% in the second cycle. This research provides an empirical contribution that the Discovery Learning model is effective in improving Arabic vocabulary mastery, and can be used as an alternative to active, student-centered, and relevant learning strategies at the junior high school level. In addition to increasing mastery of Arabic vocabulary, the Discovery Learning model is also able to increase the activeness, motivation, and involvement of students in the learning process.

**Keywords:** Discovery Learning, Arabic vocabulary, classroom action research

## Introduction

The 21st century is marked by the rapid development of information and communication technology (ICT) which has changed almost all joints of human life, including in the field of education. Globalization and the industrial revolution 4.0 require every individual to have the ability to think critically, creatively, communicatively, and collaboratively known as 4C skills in order to be able to adapt to such rapid changes *Collaboration* (Partnership for 21st Century Skills, 2019). In this context, the world of education is no longer enough to simply transfer knowledge (*transfer of knowledge*), but also to build life skills (*Life skills*) that are relevant to the demands of the times. 21st century learning demands a paradigm shift away from a teacher-centered approach (*Teacher-Centered Learning*) towards a learner-centered approach (*Student Centered Learning*) (Trilling & Fadel, 2009). This shift is the foundation for the creation of an active, independent, and meaningful learning process. In the midst of these changes, various countries, including Indonesia, continue to strive to reform their education systems to be able to produce human resources that are competitive, characterful, and able to face global challenges. However, education reform is not easy, because it involves many aspects ranging from curriculum, teacher quality, learning models, to infrastructure. Therefore, various innovations in learning strategies and models continue to be developed to answer the challenges of the 21st century, including in learning foreign languages such as Arabic.

Modern pedagogical literature emphasizes that the success of the learning process is largely determined by the selection of the right learning model. The learning model serves as a conceptual framework that describes the systematic procedure in organizing the learning experience to achieve a specific learning objective (Joyce & Calhoun, 2024). Among the various learning models relevant to the demands of the 21st century, *Discovery Learning* has received wide attention because of its ability to encourage students to actively discover knowledge through the process of exploration, observation, and drawing conclusions (Bruner, 1961). This model is rooted in the theory of constructivism, which believes that knowledge is built by students through interaction with their environment and learning experiences. Learning model *Discovery Learning* The discovery method allows students to build a more meaningful and lasting understanding compared to simply receiving information from the teacher (Hosnan, 2016). Empirical research in various fields of study shows that the application of *Discovery Learning* able to improve learning outcomes, critical thinking skills, and student activeness (Miasari et al., 2020). Thus, *Discovery Learning* It is considered one of the leading models that is able to realize student-centered learning, in line with the principles of 21st century learning.

In the context of learning Arabic in schools, vocabulary mastery (*Mufradat*) is a fundamental component that is the basis for the development of other language skills, whether listening, speaking, reading, and writing (Tarigan et al., 2015). Without adequate vocabulary mastery, students will experience serious obstacles in understanding and expressing ideas in Arabic. However, the reality on the ground shows that Arabic language learning, especially at SMP Islam Nusantara 1 Bangunrejo, still faces various challenges. Based on the results of initial observations conducted at SMP Islam Nusantara 1, it was found that the Arabic language learning process is still dominated by lecture and memorization methods. Teachers are still the center of learning (*teacher-centered*), while students tend to be passive, less daring to ask questions, and less actively involved in learning activities. This condition is exacerbated by the lack of use of innovative learning models that are able to encourage active participation of students. As a result, students' mastery of Arabic vocabulary is at a low level. Data *Pre-test* The researchers conducted showed that of the 34 students in grade VII, the average score only reached 55.59 with a classical completion percentage of 26.47%, far below the Minimum Completeness Criteria (KKM) set by the school, which is 75. A total of 25 students (73.53%) have not achieved learning completion. Low vocabulary mastery will have an impact on the overall low Arabic language skills of students.

Table 1  
Acquisition of Arabic Pre-Test Scores for Grade VII Students of SMP Islam Nusantara 1 Bangunrejo

Value Interval	Remarks	Number of Students	Percentage of Grades
0-75	Incomplete	25	73,53%
75-100	Conclusion	9	26,47%
Total		34	100%

Although the learning model *Discovery Learning* has been extensively researched in various contexts and subjects, there are still research gaps (*Research gap*) that needs to be filled. Previous research generally examine the effectiveness of the model *Discovery Learning* in improving learning outcomes in PKn subjects (Yuliani & Sirih, 2023), as reported by Miasari, Sumantri, and Renda focuses more on science and mathematics subjects, while studies on the application of *Discovery Learning* in learning Arabic, especially to improve vocabulary mastery, is still very limited. Some of the existing research tends to be conducted at the madrasah aliyah or university level, not many have targeted the junior high school level with the characteristics of students who are in a period of cognitive transition. This condition requires a learning strategy that is able to accommodate the needs of students in a more personal and meaningful way. Thus, empirical research is needed that

specifically tests the application of *Discovery Learning* in improving Arabic vocabulary mastery at the junior high school level.

Based on the identification of the problems that have been described, this study aims to apply the *Discovery Learning* learning model in improving the mastery of Arabic vocabulary of grade VII students of SMP Islam Nusantara 1 Bangunrejo. This study seeks to examine the extent to which the application of the *Discovery Learning model* with stimulus syntax, problem identification, data collection, data processing, proof, and conclusion drawing can improve student learning outcomes measured through an increase in average scores and the percentage of classical learning completeness. This research is designed as a Class Action Research (PTK) with the Kemmis and McTaggart models which are carried out in two cycles. Each cycle consists of the stages of planning, implementation of actions, observation, and reflection. The target of the success of this research is the achievement of classical learning completeness of 80% with a minimum score of 75 KKM, as well as the observation of an increase in the activeness and involvement of students in the learning process.

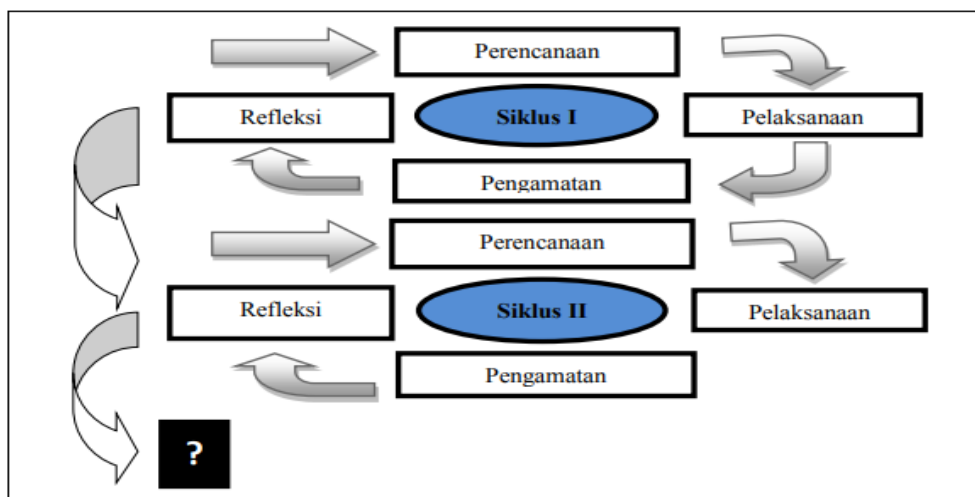
This research is expected to make a significant contribution, both theoretically and practically. This research can also be used as a material for further verification and development of Bruner's constructivist theory in the context of foreign language learning in Indonesia. Practically, the results of this research are beneficial for various parties. For Arabic teachers, this study provides an alternative learning model that is innovative and active for students to overcome the problem of low vocabulary mastery. For students, the application of *Discovery Learning* is expected to increase activeness and a more meaningful understanding of Arabic vocabulary. For schools, this research can be considered in formulating policies for developing teacher professionalism. For future researchers, this study can be used as a reference and starting point to develop similar research with a wider scope of material. Thus, this research not only answers concrete problems in the field, but also opens up space for Arabic language learning innovations that are more effective and relevant to the demands of the 21st century.

### **Research Methods**

This research uses the Classroom Action Research (PTK) method or *Classroom Action Research* (CAR). PTK was chosen because the main purpose of this research is to improve and improve the quality of Arabic learning processes and outcomes in the classroom, especially in vocabulary mastery (Supandi, 2025). The research design used is the Kemmis and McTaggart model which consists of four main components in each cycle, namely: planning (*Planning*), execution of actions (*Acting*), observation (*Observing*), and reflection (*Reflection*) (Albi Anggito, 2018). This research was carried out in two cycles, where each cycle consisted of two meetings. The reason for

choosing the two cycles is to see the development of gradual improvement in vocabulary mastery. Cycle I aims to implement the model *Discovery Learning* Initially, at the same time identify obstacles that arise in the field. The Cycle II is an improvement and improvement of the Cycle I based on the results of reflection.

Table 1  
Kemmis & Mc Taggart's Class Action Research Model (Halawa et al., 2025)



This research was carried out at SMP Islam Nusantara 1 Bangunrejo. The selection of this location was based on the results of initial observations that showed that Arabic learning in the school was still dominated by lecture and memorization methods, as well as the low learning outcomes of students in mastering Arabic vocabulary.

The subject of this study is grade VII students of SMP Islam Nusantara 1 Bangunrejo in the odd semester of the 2025/2026 school year which totals 34 people. The characteristics of the majority of participants have a general elementary education background with very minimal experience in learning Arabic, the initial Arabic language ability is relatively low with an average pre-test score of 55.59, and the level of motivation to learn Arabic is still lacking. The researcher acts as a teacher (*Practitioner Researcher*) who carry out learning actions in the classroom, while Arabic language teachers act as collaborators and observers during the learning process (Moleong, 2004).

The data collection technique in this study uses three main instruments, namely observation, learning outcome tests, and documentation. First, observations are carried out to observe the activities of teachers and students during the learning process. The instruments used were teacher activity observation sheets and student activity observation sheets. Observations are carried out by collaborating teachers at each meeting in Cycle I and Cycle II. The aspects observed include: activeness in asking and answering, participation in group discussions, the ability to work together, and completing LKPD tasks (Anwar, 2017).

Second, learning outcome tests are used to measure students' mastery of Arabic vocabulary before and after the action. The tests used consist of pre-test (initial test before action) and post-test (final test of each cycle). The pre-test is carried out once before entering Cycle I, while the post-test is carried out at the end of Cycle I and the end of Cycle II. The form of the test is multiple-choice questions of 10 questions and fill-in questions of 5 questions which are compiled based on the indicators of Arabic vocabulary learning achievement. The test questions have been validated by two experts, namely the supervisor and the Arabic subject teacher.

Third, documentation is used to strengthen the data obtained from observations and tests. The documents collected include: a list of students' names, pre-test and post-test scores and photos of learning activities. The data analysis in this study was carried out quantitatively and qualitatively. Quantitative data analysis is used to analyze the value of student learning outcomes (pre-test and post-test). The steps of quantitative data analysis include calculating the average grade of the class, calculating the percentage of classical learning completeness with formulas, comparing the results of the acquisition of grades between cycles.

The indicator of the success of the action is determined if there is an increase in the average score of students from cycle I to cycle II, the percentage of classical learning completeness reaches at least 80% with a KKM score of 75 (Ministry of Education, 2006). Qualitative data analysis was used to analyze the results of observations of teacher and student activities, as well as field notes. This analysis follows the Miles and Huberman model which consists of three stages: data reduction (*Data Reduction*), data presentation (*Data Display*), and drawing conclusions (*Conclusion Drawing/Verification*) (Miles & Huberman, 1994). Observation data were analyzed descriptively to see the tendency to increase student activity and participation from cycle I to cycle II.

This study pays attention to the ethical aspect of research. Before carrying out the research, the researcher first asked for permission officially from the Principal of SMP Islam Nusantara 1 Bangunrejo through a research permit from the Faculty of Tarbiyah and Teacher Training of UIN Raden Intan Lampung. All participants (students) were given an explanation of the purpose of the research and were willing to participate voluntarily. To ensure the validity of the data, this study uses triangulation techniques. The triangulation used is data source triangulation and triangulation method (Lexy J. Moleong, 2017). Source triangulation was carried out by comparing observation data from collaborating teachers, test result data, and documentation data. The triangulation method is carried out by comparing data obtained through observation, tests, and documentation to ensure the consistency of the findings. In addition, the researcher also conducted *a member check* by asking for

confirmation from the collaborating teacher regarding the observation results to ensure that there were no misinterpretations.

### Research Findings and Discussion

The results of this class action research show that the application of *the Discovery Learning* learning model has a significant positive influence on improving the mastery of Arabic vocabulary of grade VII students of SMP Islam Nusantara 1 Bangunrejo. These findings not only show an increase in average scores from 55.59 in the pre-cycle to 61.03 in the first cycle and 82.94 in the second cycle, as well as an increase in the percentage of classical completeness from 26.47% to 88.24%.

Table 2  
Acquisition of Arabic Post-Test Scores for Grade VII Students

	Beginning	Cycle 1	Cycle 2
Average Score	55,59	61,03	82,94
Number of Students Completed	9	15	30
Presentation Completeness	26.47%	44,12%	88,24%

The gradual increase in vocabulary mastery from cycle I to cycle II is how the *Discovery Learning* model actualizes Bruner's theory which emphasizes that learning will be more meaningful if students discover knowledge themselves through a process of exploration, experimentation, and reflection. In the context of this study, students are no longer objects who only listen to the teacher's explanations and memorize vocabulary, but turn into active subjects who observe, group, connect, and finally discover for themselves the meaning of the Arabic vocabulary learned.

This process of self-discovery causes the knowledge gained to become more inherent in the long-term memory of students. This is in line with Hosnan's (2016) statement that learning by discovering allows learners to build more meaningful and lasting understanding.

The increase that has not been maximized in the first cycle (average of 61.03 with 44.12% completeness) In the early stages of the implementation of *Discovery Learning*, students experience *culture shock* or academic culture shock. So far, they are used to *teacher-centered* learning, when suddenly asked to actively discover their own knowledge, many students experience confusion, lack confidence, and are not used to working together in group discussions.

The results of reflection in the first cycle identified three main obstacles to uneven student activity, lack of confidence in group discussions, and suboptimal management of learning time. *Discovery Learning* has the disadvantage of the risk of confusion or misconception when *scaffolding* or guiding questions are inadequate.

Improvements made in cycle II by optimizing the *Discovery Learning* syntax, increasing the intensity of teacher guidance, and providing wider opportunities for students to actively participate successfully overcome these obstacles. These findings reinforce the argument that *the guided discovery* variant is the most consistent form of *discovery learning* showing positive outcomes.

This study has some fundamental differences with previous studies on *Discovery Learning*. that use *Discovery Learning* to increase creativity and motivation to learn in PKn subjects, none of the studies specifically examine the application of *Discovery Learning* in Arabic language learning, let alone with a focus on the vocabulary mastery aspect (*mufradāt*). In fact, Arabic vocabulary is not enough to understand its meaning, but also requires mastery of phonological aspects (makhrāj and short length of reading), morphological (pattern of word changes or *sharaf*), and syntax (use in sentences according to *nahwu* rules). This research proves that *Discovery Learning* can be adapted to meet the demands of the complexity of learning Arabic vocabulary.

The achievement of classical completeness was 88.24% in cycle II which exceeded the set success indicators (80%). This figure shows that 30 out of 34 students managed to achieve a score above KKM 75. Indicates that *the Discovery Learning* model has succeeded in creating an inclusive learning environment where the majority of learners.

Figure 2  
Chart of Grade Improvement in Student Learning Outcomes



This success is also inseparable from the improvement of affective and psychomotor aspects. In observation, students show a more enthusiastic, confident, and active attitude during the learning process. Interaction between students in group discussions also runs more effectively. This is in line with the findings of Miasari, Sumantri, and Renda (2020) that *Discovery Learning* is able to increase student activity and involvement in learning.

Theoretically, these findings strengthen and expand the scope of Bruner's constructivist theory into the domain of Arabic language learning, particularly vocabulary mastery. This study shows that the principles of *Discovery Learning* stimulation, problem identification, data collection, data processing, proof, and generalization can be operationalized in the context of learning Arabic vocabulary with positive results.

Practically, these findings provide empirical evidence that Arabic teachers need not hesitate to abandon the methods of lectures and memorization that have been dominating so far. *Discovery Learning* has proven to be effective not only for science or math subjects, but also for language learning, including Arabic. With careful planning and adequate guidance, students can be invited to become active discoverers of the meaning and use of Arabic vocabulary.

Thus, this study not only answers the question of the effectiveness of *Discovery Learning* in improving Arabic vocabulary mastery, but also paves the way for future studies to explore the adaptation of this model to other linguistic aspects such as *nahwu* (grammar), *Sharaf* (morphology), or *kitābah* (writing skills).

## Conclusion

Application of learning models *Discovery Learning* in learning Arabic in grade VII of SMP Islam Nusantara 1 Bangunrejo has proven to be empirically effective. This effectiveness is not only reflected in the increase in average grades and classical completeness, but more fundamentally the change in the learning paradigm in students. Those who were originally passive, just listening and memorizing, transform into active learners who dare to observe, question, group, connect, and finally discover the meaning of Arabic vocabulary for themselves. This is the essence of meaningful learning that Bruner teaches: self-discovered knowledge will last longer and be easier to apply. The study also confirms that the *Discovery Learning* is not just a method of delivering material, but a holistic strategy that is able to touch three learning domains at once. In the cognitive realm, there is a significant increase in vocabulary mastery. In the affective realm, motivation, confidence, and courage to participate grow. In the psychomotor realm, there is an increase in pronunciation skills and using vocabulary in simple sentences. These findings provide an important message that learning Arabic does not always have to be synonymous with lectures, memorization, and punishment methods for those who forget. In contrast, Arabic can be taught in an interactive, fun, and student-centered way. To teachers, this study conveys the message that changing methods is not impossible or too risky. With careful planning, structured guidance (*Guided Discovery*), as well as continuous reflection, model *Discovery Learning* can be adapted even in classrooms with limited means. To the next researcher, the message to be left is that this model is still wide open to be explored in other

linguistic aspects such as *São Paulo*, *Sã*(grammar), *Sharaff*(morphology), or productive skills such as speaking and writing. Ultimately, improving vocabulary mastery is just one entrance. Other doors are still waiting to open.

### Bibliography

- Albi Anggito, J. S. (2018). *Qualitative research methodology*. Publisher Footprint CV. <https://books.google.co.id/books?id=59V8DwAAQBAJ>
- Anwar, C. (2017). *The most complete book of classical to contemporary educational theories*. IRCiSoD.
- Bruner, J. S. (1961). The act of discovery. *Harvard educational review*.
- Halawa, F., Gulo, M. J., Halawa, B., Sinaga, H. E., & Yunanda, F. (2025). Fintech Innovation: A Solution to Enhance the Sustainability of Micro, Small, and Medium Enterprises. *TYPE: Journal of Informatics*, 2(03), 28-41. <https://doi.org/10.70404/ketik.v2i03.147>
- Hosnan, H. (2016). Managing the Boss and the Empowerment of the Madrasah. *Kariman: Journal of Islamic Education*, 4(1), 137-156. <https://doi.org/10.52185/kariman.v4i1.66>
- Joyce, B., & Calhoun, E. (2024). *Models of teaching*. Routledge.
- Miasari, N. P., Sumantri, M., & Renda, N. T. (2020). The Influence of the Discovery Learning Model Assisted by the Surrounding Environment on Science Learning Outcomes. *Journal for Lesson and Learning Studies*, 3(2), 319-328. <https://doi.org/10.23887/jlls.v3i2.27452>
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. wise.
- Moleong, L. (2004). Lexy J Moleong, Qualitative Research Methodology. *Remaja Rosda Karya*.
- Supandi, D. (2025). *Educational Qualitative Research Methodology* (N. Nihayah, First ed., Vol. 1). Nihayatun Nihayah Education Foundation. [https://drive.google.com/file/d/1rzryEZaPcukhbOgkdokdu\\_kmsgWeKWQL/view](https://drive.google.com/file/d/1rzryEZaPcukhbOgkdokdu_kmsgWeKWQL/view)
- Tarigan, B., Sinarta, E., Guchi, H., & Marbun, P. (2015). Evaluation of the status of organic matter and soil physical properties (bulk density, texture, soil temperature) on coffee plantation land (*coffea sp.*) in several sub-districts of Dairi district. *Journal of Agroecotechnology, University of North Sumatra*, 3(1), 103124. <https://doi.org/10.32734/jaet.v3i1.9474>
- Trilling, B., & Fadel, C. (2009). *21st century skills: Learning for life in our times*. John Wiley & Sons.
- Yuliani, N., & Sirih, S. K. (2023). The Use of the Value Clarification Technique Model in Social Studies Lessons."