10.24235/ijas.v7i1.16539

Project-Based Learning Approach in Teaching Semantics: The Creation of Arabic Thematic Dictionaries

منهج التعلم القائم على المشروع في تعليم الدلالة: إعداد معاجم عربية موضوعية

Suci Ramadhanti Febriani[1*], Tafiati[2], Prayoga[3], Desriliwa Ade Mela[4]
[1,2] UIN Imam Bonjol Padang, Indonesia
[3,4] UIN Maulana Malik Ibrahim Malang, Indonesia

ABSTRACT

Purpose − This study aims to identify and analyze the implementation of project-based learning in teaching semantics through the creation of Arabic thematic dictionaries at UIN Imam Bonjol Padang. The research seeks to explore how this method contributes to enhancing students' vocabulary mastery, creativity, and contextual understanding of Arabic. **Design/methods/approach** – Using a qualitative case study approach, data were collected through interviews, observations, and documentation involving fifth-semester Arabic literature students. The data were analyzed using Miles and Huberman's interactive model, which includes data collection, reduction, presentation, and conclusion drawing. **Findings** – The findings reveal that creating thematic dictionaries using a project-based learning model improves students' semantic understanding, vocabulary acquisition, and creative thinking. Learners were able to construct meaning contextually, apply the theory of semantic fields, and demonstrate increased engagement and motivation. The project also fostered collaborative learning, critical thinking, and better learning outcomes, as evidenced by improved average scores post-intervention. **Research implications** – This study supports project-based learning as an effective pedagogical model in Arabic language instruction, particularly for semantic development. It offers practical insights for educators in higher education to integrate meaningful, contextual tasks that foster both linguistic and cognitive skills. Further research is recommended to quantitatively examine the broader impact of this model.

KEYWORDS: *Semantic Learning, Vocabulary, Thematic Dictionary*

الملخص

الغرض: تهدف هذه الدراسة إلى تحديد وتحليل تنفيذ التعلم القائم على المشروع في تعليم الدلالة من خلال إعداد معاجم عربية موضوعية في جامعة الإمام بونجول بادنغ. وتسعى الدراسة إلى استكشاف مدى إسهام هذا الأسلوب في تعزيز تحصيل الطلاب للمفردات، وتنمية الإبداع، وفهم اللغة العربية في سياقها. المنهجية: أُتُبع في هذه الدراسة منهج نوعي بطريقة دراسة الحالة، وجُمعت البيانات من خلال المقابلات والملاحظات والتوثيق بمشاركة

طلاب الأدب العربي في الفصل الدراسي الخامس. وتم تحليل البيانات باستخدام نموذج
مايلز وهوبرمان التفاعلي، الذي يشمل جمع البيانات، واختزالها، وعرضها، واستخلاص
النتائج: أظهرت النتائج أن إعداد المعاجم الموضوعية باستخدام نموذج التعلم القائم على
المشروع يُسهم في تحسين فهم الطلاب للدلالة، واكتسابهم للمفردات، وتنمية التفكير
الإبداعي. وقد تمكن الطلاب من بناء المعاني في سياقها، وتطبيق نظرية حقول المعنى،
وأظهروا تفاعلاً أكبر ودافعية متزايدة نحو التعلم. كما عزز المشروع التعلم التعاوني والتفكير
النقدي، ونتج عنه تحسن ملحوظ في الأداء الأكاديمي. الدلالات البحثية: تؤكد هذه
الدراسة فعالية نموذج التعلم القائم على المشروع كأسلوب تربوي في تعليم اللغة العربية، ولا
سيما في تطوير المهارات الدلالية. وتقدم الدراسة رؤى عملية للمدرسين في التعليم العالي
لدمج المهام السياقية الهادفة التي تنمّي المهارات اللغوية والمعرفية في آن واحد. وتوصي
الدراسة بإجراء أبحاث لاحقة لقياس الأثر الكمي لهذا النموذج على نطاق أوسع.

الكلمات المفتاحية: تعليم الدلالة، مفردات، معاجم عربية موضوعية

1. Introduction

The importance of Arabic language skills in higher education environments reflects recognition of the increasingly important role of this language in the global scenario. Arabic is not only a medium of communication, but also opens up access to a rich cultural and intellectual heritage.[1] In the midst of developments in international relations and globalization, Arabic language skills have become a significant added value, both in academic and professional contexts. Universities, as places for providing higher education, have the responsibility to provide quality education, including mastery of the Arabic language.

The challenge faced by these institutions is how to present Arabic language learning that is not only effective, but also contextual.[2] Mastery of grammar and sentence structure is only a small part of overall language ability.[3] Understanding the meaning of words and the ability to apply them in everyday contexts are aspects that are no less important. Therefore, the need for innovative and contextual learning strategies is recognized as a necessity to increase the effectiveness of the Arabic language learning process in higher education. In a multicultural and global higher

---

[1] Reem Abdelhadi et al., "Creative Interactions with Art Works: An Engaging Approach to Arabic Language-and-Culture Learning," *Innovation in Language Learning and Teaching* 0, no. 0 (2019): 1–17, https://doi.org/10.1080/17501229.2019.1579219.

[2] Sutaman Sutaman and Suci Ramadhanti Febriani, "Optimizing Arabic Speaking Skills Based On Integration Of Learning Theory Framework in Higher Education," *Arabiyat : Jurnal Pendidikan Bahasa Arab Dan Kebahasaaraban* 8, no. 1 (2021): 75–89, https://doi.org/http://dx.doi.org/10.15408/a.v8i1.20423.

[3] Taslim Batubara, H Asari, and F Riza, "Diaspora Orang Arab Di Kota Medan: Sejarah Dan Interaksi Sosial Komunitas Alawiyyin Pada Abad Ke-20," *Mukadimah* 4, no. 2 (2020): 119–128.

education context, effective learning of Arabic not only creates linguistic mastery, but also involves a deep understanding of the culture and context of use of the language.[4]

Project-based learning has received significant attention as an innovative approach in the world of education.[5] Involving students in substantial projects that cover various aspects of learning, this approach provides a more real and relevant context.[6] In the context of language learning, the use of project-based learning can stimulate student involvement, increase learning motivation, and provide a deeper understanding of the learning material. In the context of the Arabic language, this approach has the potential to develop students' Arabic language skills in higher education.

Semantic learning discusses aspects of understanding the meaning of words and their semantic relationships.[7] In the Arabic context, understanding semantics is the key to expanding vocabulary and applying it in different situations. Understanding the meaning of words in the context of a thematic dictionary gives students a strong foundation in using Arabic contextually.[8] Therefore, semantic learning is an important basis for improving students' Arabic language skills in higher education.

Creating a thematic dictionary is an effective means of applying semantic understanding in a practical context.[9] Thematic dictionaries focus on grouping words based on certain themes or topics, creating a coherent relationship between words and their meanings in a thematic context.[10] The process of creating a thematic dictionary involves in-depth semantic analysis, requiring students to understand the nuances of word meaning and organize them according to the specified thematic context. Thus, making a thematic dictionary is not only a creative learning project, but also a means of implementing semantic understanding in an Arabic language context.

---

[4] Fatwa Arifah, Emzir Emzir, and Sukron Kamil, "Cultural Values of Women and Marriage in Al-'Arabiyyah Bayna Yadaik and Al-Kitab Fi Ta'Allum Al-'Arabiyyah," *Arabi : Journal of Arabic Studies* 5, no. 1 (2020): 11, https://doi.org/10.24865/ajas.v5i1.180.

[5] Zikirova Nafosat et al., "Interactive Strategies and Methods of Education," *International Journal of Recent Technology and Engineering* 8, no. 4 (2019): 7667–70, https://doi.org/10.35940/ijrte.d5360.118419.

[6] Muhammad Yusuf, "Desain Pengembangan Kurikulum Bahasa Arab: Pendekatan Otak Kanan," *El-Tsaqafah : Jurnal Jurusan PBA* 18, no. 2 (2019): 147–60, https://doi.org/10.20414/tsaqafah.v18i2.1867.

[7] Tatsuya Nakata and Irina Elgort, "Effects of Spacing on Contextual Vocabulary Learning: Spacing Facilitates the Acquisition of Explicit, but Not Tacit, Vocabulary Knowledge," *Second Language Research* 37, no. 2 (2021): 233–60, https://doi.org/10.1177/0267658320927764.

[8] Naoual Nassiri, Abdelhak Lakhouaja, and Violetta Cavalli-Sforza, "Arabic Readability Assessment for Foreign Language Learners," *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)* 10859 LNCS (2018): 480–88, https://doi.org/10.1007/978-3-319-91947-8_49.

[9] Nakata and Elgort, "Effects of Spacing on Contextual Vocabulary Learning: Spacing Facilitates the Acquisition of Explicit, but Not Tacit, Vocabulary Knowledge."

[10] Indah Yasminum Suhanti, "Cultural Aspects of Disposable Diaper Waste and Sanitary Napkins in Indonesia," *Biokultur* 10, no. 1 (2021): 1, https://doi.org/10.20473/bk.v10i1.27409.

By presenting a project-based learning context, it is hoped that students will not only gain a better understanding of the structure of the Arabic language, but can also apply this knowledge in a broader thematic context.[11] Apart from that, it is also hoped that the thematic dictionary creation project can stimulate students' creativity in applying their semantic understanding.[12] Therefore, this research will include observations of the learning process, interviews with students, and analysis of the results of the thematic dictionary creation project to evaluate the impact of using project-based learning in the context of Arabic language learning in higher education.

Previous research highlights students' difficulties in understanding Arabic vocabulary, especially in the context of biological sciences. Possibly, previous research has identified the limitations of existing dictionaries in covering biological terms, resulting in barriers to student understanding. The solution implemented in the research may involve developing an Arabic science dictionary, with the aim of increasing students' vocabulary mastery in the field of biology. A research and development methodology was likely used, and the results reflected increased vocabulary comprehension, improved pronunciation, increased student motivation, and a higher level of curiosity about Arabic biology terms. Information from this previous research can provide a knowledge base and empirical support for further studies regarding the development of Arabic lexical resources and their impact on student learning in the field of science.[13]

Previous research has further investigated the role of Mu'jam Lughawiy as an important tool in learning Arabic, especially in overcoming students' obstacles in finding the meaning of words, grammar and the context of their use. The history of the development of Mu'jam Lughawiy as well as the composition and systematics of his writing may be the focus of this research. The research aims to identify the problems faced by students in Bima City when using Mu'jam Lughawiy in learning Arabic. Perhaps the results of this research will make a positive contribution to Arabic language educators, learners and practitioners by providing an initial understanding regarding students' obstacles in interacting with Mu'jam Lughawiy, so that it can be used as a reference for finding alternative solutions to various obstacles that arise in interacting with Mu'jam.

The next research is about the thematic dictionary 'Everyday life in organizations' in modern Islamic boarding schools using Indonesian-Arabic. Using qualitative research methods, researchers succeeded in collecting primary

---

[11] Ferit Kılıçkaya, "Learners' Perceptions of Collaborative Digital Graphic Writing Based on Semantic Mapping," *Computer Assisted Language Learning* 33, no. 1–2 (2020): 58–84, https://doi.org/10.1080/09588221.2018.1544912.

[12] Paul Deane et al., "Cognitive Models of Writing: Writing Proficiency As a Complex Integrated Skill," *ETS Research Report Series* 2008, no. 2 (2008): i–36, https://doi.org/10.1002/j.2333-8504.2008.tb02141.x.

[13] Nadwah Daud and Nadhilah Abdul Pisal, "Speaking Problems in Arabic as a Second Language," *GEMA Online Journal of Language Studies*, 2014, https://doi.org/10.17576/GEMA-2014-1401-08.

vocabulary data from the Ma'hadi dictionary and secondary data from various sources, including the Al-Munawwir and Hans Wehr dictionaries, as well as online and offline related texts. The process of translating and analyzing data contributes to the understanding and development of santri vocabulary related to organizational life in modern Islamic boarding schools. The validity of the translation is guaranteed through comparison with other dictionaries and online image searches. This conclusion provides valuable insight into the use of Thematic dictionaries in the context of modern Islamic boarding school education and can be a reference for improving Arabic language teaching methods in such environments.

From the three previous studies above, several conclusions can be drawn. First, in the first study, project-based learning using an Arabic thematic dictionary helped improve students' vocabulary mastery and creativity. Second, in the second research, project-based learning in making Arabic science dictionaries in Islamic boarding schools became a solution to overcome students' obstacles in understanding special terms such as in biology. Third, research on the thematic dictionary 'Everyday life in organizations' shows the relevance and need for thematic dictionaries in the context of teaching Arabic in modern Islamic boarding schools. In connection with further research which aims to identify project-based learning in making Arabic thematic dictionaries at UIN Imam Bonjol Padang, this research is expected to contribute to the development of contextual and innovative Arabic language learning methods in the tertiary environment, in line with previous research trends that shows the positive benefits of project-based learning and thematic dictionaries in improving Arabic language mastery.

This research aims to identify and analyze project-based learning in making Arabic thematic dictionaries at UIN Imam Bonjol Padang, with the hope of providing in-depth insight into the effectiveness of this method in improving students' mastery of Arabic. Meanwhile, this research is also intended to fill the knowledge gap in the academic literature or 'state of the art' regarding the use of project-based learning for the development of Arabic thematic dictionaries in the tertiary context. Thus, it is hoped that this research will make a significant contribution to the practical and theoretical understanding of Arabic language learning, opening up space for the development of more contextual and innovative teaching methods in higher education environments

2. Methods

This research uses a qualitative research design with a case study method. Data collection techniques include interviews, observation and documentation of project-based learning by creating an Arabic thematic dictionary at UIN Imam Bonjol Padang. Researchers interviewed students majoring Arabic literature students in 5th semester at UIN Imam Bonjol Padang. The observation function was to obtain information about project-based learning by creating an Arabic thematic dictionary

at UIN Imam Bonjol Padang. Documentation is used to obtain information about the product of Arabic thematic dictionary for students. On that basis, the analysis used the Milles and Hubberman technique with the following four stages are data collection, data classification, data presentation, and conclusions.

Figure 1 shows the steps in analyzing data. During the data collection phase, the researchers recorded the Arabic language learning process carried out online. After collecting data, researchers reduce the data by selecting and sorting data that supports the research. Then, the data is verified and conclusions.
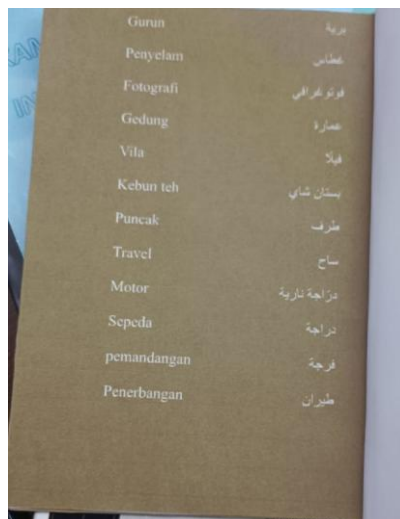
3. Results and Discussion

Implementation of Semantic Learning to create a Thematic Dictionary

Semantic learning in the Arabic Language and Literature department consists of 14 face-to-face meetings. Several materials related to the dictionary project, such as field of meaning, synonyms and antonyms, are closely related to increasing their vocabulary. Project-based assignments such as creating a thematic dictionary. Learners are divided into several groups to create thematic dictionaries such as dictionaries related to politics, economics, health, education and tourism. Some examples of thematic dictionary products that have been produced are as follows.
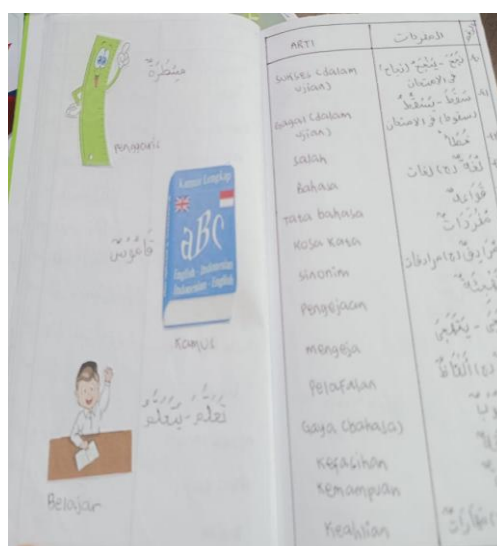

Figure 1. Thematic Dictionary

The content consists of a minimum of 100 vocabularies spread in the form of singular, plural, synonyms and antonyms as follows.

Figure 2. Vocabulary

The forms of dictionaries produced also vary, such as written dictionaries and printed dictionaries as follows.

Figure 3. Thematic Dictionary

In the picture above, researchers find learner creativity in finding interconnected fields of meaning. For example, the word "education" is closely related to teachers, students, and so on. This classification can help students understand the meaning of words and their use in context.

Learner Responses to the Use of Project Based Learning to Produce Thematic Dictionary Products

Analysis of learner responses or perceptions of project based learning to produce thematic dictionary products. Learners' perceptions of the use of project based learning to produce thematic dictionaries were distributed to 66 Arabic language learners, the respondents were consisting of three classes. The characteristics of project based learning are being faced with concrete problems, looking for solutions and working on projects in teams to overcome these problems.

Not in this case, students not only understand the material, but also develop skills in students, namely how students play a role in society. Skills that are developed include presentation skills, time management, research and education skills, group assessment and leadership skills as well as critical and creative thinking. As the following respondent stated:

In my opinion, studying semantics with a thematic dictionary further develops creativity in the process of recognizing the meaning of words, besides that we can be required to make dictionaries more interesting and I really like it. (informant 30, Ab.)

Apart from that, the concrete reason related to project-based learning to produce a thematic dictionary is that it is useful in developing the ability to understand the meaning of words.[14] This also illustrates that creative thinking skills are useful in improving life, making innovations, creating changes and improving systems as well as the ability to develop ideas so that detailed ideas are produced in the study of meaning, one of which is semantic learning. As the following respondent stated:

In my opinion, studying semantics with a thematic dictionary is a creative way to develop the ability to understand the meaning of words. By describing the meaning of words, you can improve students' visual data (Informant 4, Gpt)

Based on the statement above, Baer also stated that creative thinking can be seen in various things, such as habits of thinking, attitudes and skills in solving problems and also the ability to produce creative ideas (Fatah, 2023). The project carried out in the form of a thematic dictionary is more fun, because in this case they will create a dictionary with various creativity, and can increase interest in reading the dictionary, as one respondent responded below:

Learning by producing thematic dictionaries is very exciting because you can be creative and creative through thematic dictionaries, and it is more interesting to make them (Informant 6, Zam)

Based on the respondents' statements, it has a good impact on students' insight, because semantics is a lesson that makes someone more curious about the meaning of one word, because one word often has many meanings and depends on the concept of its use. as stated by the following respondent:

Can make it easier to increase insight by looking for accurate references in understanding the meaning of words (Informant 9th, Gt)

In the project lesson to produce this thematic dictionary with the aim of making it easy for students to accept the material and also to make it easier for someone to

---

[14] Rajab Esfandiari, "Cloze-Elide Test as an Alternative Test Method: Linking Personality Types to Test Method Performance," *Applied Research On English Language* 8, no. 1 (2019): 1–26, https://doi.org/10.22108/are.2018.113350.1373.

understand the meaning of a word, as semantics aims to make students understand the meaning, as stated by the following respondent:

Can make it easier for students to receive material because it is concise and clear and requires reading and identifying the meaning of words (Informant 2, Drp).

Based on the statement above, there are a series of attitudes and values that are developed from practical work. The practical learning function is one way of strengthening lecture theoretical concepts for students, and clarifying concepts directly by using tools, materials or natural events. And this attracted the attention of students as stated by one of the respondents below:

More project-based learning and direct practice in understanding the meaning of words so that it is not just theoretical but practical (Informant 45, Ka).

Based on the statement above, this has a positive impact and improves a person's attitude or actions in solving problems systematically. This process will certainly have a big influence on developing attitudes in solving existing problems and making them more careful in obtaining reference sources, and this project-based learning increases students' ability to habitually think.

Learning by making a thematic dictionary requires me to look for references from various trusted sources, identify words with the field theory of meaning. The application of project-based learning shows that this learning model makes students experience a meaningful learning process, namely learning that is developed from constructivism. Students are also given the opportunity to dig up information themselves from various sources directly and communicate the results to others, work in groups, provide ideas for others and various other activities.

The research results show the following value framework.
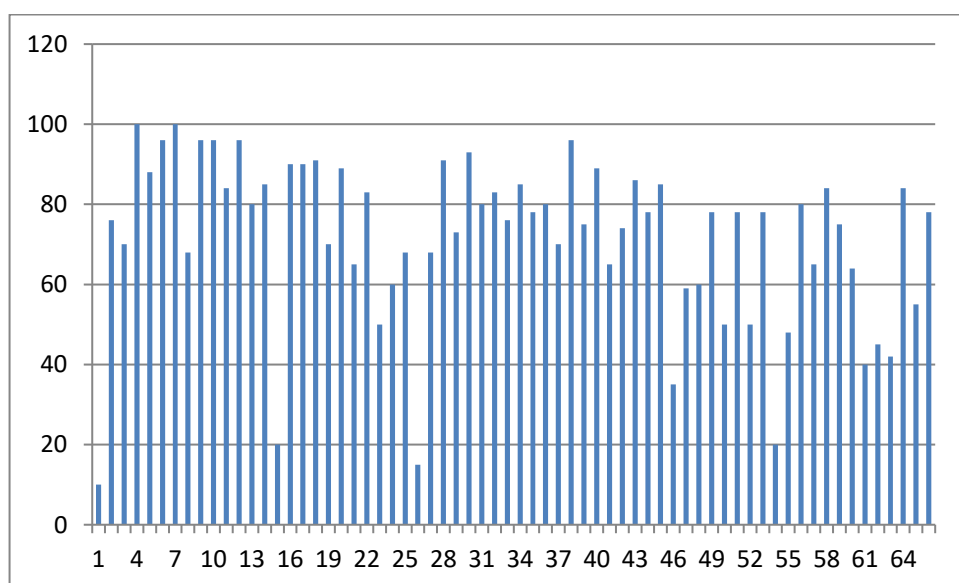
Based on the picture above, the average value shows 71.65 points. However, improvement is still needed to meet the minimum standard for learning success of 75. After the process of implementing dictionary-based learning, there was an increase in the average student learning outcome which reached 80.3. As a comparison, it can be seen in the following image.
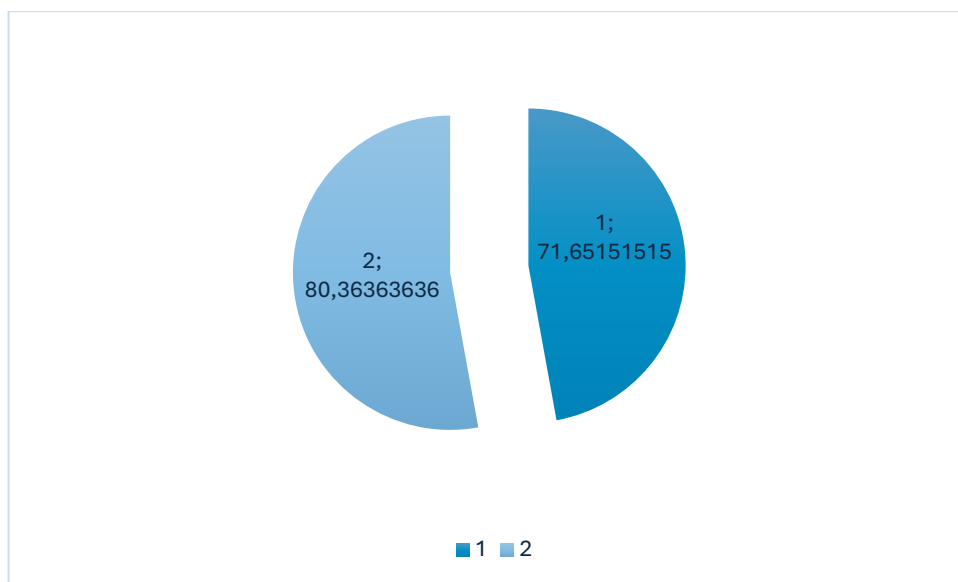
Based on the research results obtained, thematic learning through project-based learning to create Arabic thematic dictionaries is an alternative that can increase students' vocabulary and increase their creativity in creating learning products.[15] Apart from that, this is also an option that can be used as a way for students to recognize words and their meanings in a context.

The process of selecting this thematic dictionary is by looking at the content presented and linking responses from students. This thematic dictionary contributes to increasing student vocabulary and also increases student creativity in solving existing problems. Not only that, students can also look for references from various trusted sources which are useful in identifying new words or vocabulary using the field of meaning theory.

A dictionary is a tool to help understand a language[16], which is accompanied by a translation and is used to improve students' abilities in foreign languages as well as Arabic. UIN Imam Bonjol Padang students have applied this in their teaching and learning process in Arabic language courses. As we know, the aim of teaching Arabic is an educational process that is directed at encouraging, guiding and developing and

---

[15] Sofiatul Khotimah et al., "Analysis of Enterpreneurship Education Achievements Using The Project Based Learning (PjBL) Model in MBKM Curriculum," in … *Innovation and Social …*, 2021, 107–14, https://proceedings.ums.ac.id/index.php/iceiss/article/view/1063.

[16] Lia Sunarti, Ernawati Ernawati, and Marja'i Affan, "Aplikasi Kamus ViKA Sebagai Visualitator Kosakata Bahasa Arab Untuk Pembelajar Pemula," *LISANIA: Journal of Arabic Education and Literature* 1, no. 1 (2017): 37, https://doi.org/10.18326/lisania.v1i1.37-55.

nurturing students' Arabic language skills both actively and passively as well as fostering a positive attitude towards Arabic.

The use of learning media in the teaching and learning process is an effort to increase the effectiveness and quality of the learning process which can ultimately improve the quality of student learning outcomes. The use of learning media in the teaching and learning process has several benefits, such as first, teaching will attract more students' attention so that it can foster student learning motivation, second, teaching materials will be clearer so that students can understand and master the teaching objectives well, third, teaching methods will be more varied, The four students will have more interaction in learning activities because they not only listen to the teacher's explanation but also other activities such as observing, demonstrating and so on.[17]

The function of the thematic dictionary in learning Arabic is to help students understand the meaning of words and fields of meaning and also directly understand the practical meaning of words. This certainly improves their ability to think deeply and increases their creativity in carrying out the tasks given. During the process of working on this thematic dictionary, they were certainly able to increase their Arabic vocabulary in the form of synonyms, antonyms and were able to increase the learning value from before.

4. Conclusion

Semantic learning through a project-based learning model in the creation of Arabic thematic dictionaries at UIN Imam Bonjol Padang has proven to be an effective strategy for enhancing students' language competence. This approach enables students to engage more deeply with the meaning of words through practical tasks, such as constructing synonyms, antonyms, and applying the theory of semantic fields. The integration of thematic dictionaries in semantic instruction facilitates contextual understanding, stimulates creativity, and improves learning outcomes, as evidenced by the significant increase in post-project evaluation scores.

However, this study is limited by its scope, which focuses solely on a single institution and a relatively small sample of fifth-semester students. Additionally, the evaluation is primarily qualitative and does not include a controlled experimental design that could provide stronger evidence of causality. For future research, it is recommended to conduct broader quantitative studies across multiple institutions to assess the generalizability of these findings. Comparative studies using experimental and control groups may also offer more rigorous insights into the effectiveness of project-based learning in semantic acquisition. Furthermore, integrating digital tools or platforms in the creation of thematic dictionaries could be explored to assess their potential in enhancing student engagement and learning efficiency.

---

[17] Suci Ramadhanti Febriani and Anasruddin Anasruddin, "Technology for Four Skills Arabic in the Era Emergency of Covid-19 in Indonesia," *Ta'lim Al-'Arabiyyah: Jurnal Pendidikan Bahasa Arab & Kebahasaaraban* 4, no. 1 (2020): 1–11, https://doi.org/10.15575/jpba.v4i1.8221.

References

Abdelhadi, Reem, Luma Hameed, Fatima Khaled, and Jim Anderson. "Creative Interactions with Art Works: An Engaging Approach to Arabic Language-and-Culture Learning." *Innovation in Language Learning and Teaching* 0, no. 0 (2019): 1–17. https://doi.org/10.1080/17501229.2019.1579219.

Arifah, Fatwa, Emzir Emzir, and Sukron Kamil. "Cultural Values of Women and Marriage in Al-'Arabiyyah Bayna Yadaik and Al-Kitab Fi Ta'Allum Al-'Arabiyyah." *Arabi : Journal of Arabic Studies* 5, no. 1 (2020): 11. https://doi.org/10.24865/ajas.v5i1.180.

Batubara, Taslim, H Asari, and F Riza. "Diaspora Orang Arab Di Kota Medan: Sejarah Dan Interaksi Sosial Komunitas Alawiyyin Pada Abad Ke-20." *Mukadimah* 4, no. 2 (2020): 119–128.

Daud, Nadwah, and Nadhilah Abdul Pisal. "Speaking Problems in Arabic as a Second Language." *GEMA Online Journal of Language Studies*, 2014. https://doi.org/10.17576/GEMA-2014-1401-08.

Deane, Paul, Nora Odendahl, Thomas Quinlan, Mary Fowles, Cyndi Welsh, and Jennifer Bivens-Tatum. "Cognitive Models of Writing: Writing Proficiency As a Complex Integrated Skill." *ETS Research Report Series* 2008, no. 2 (2008): i–36. https://doi.org/10.1002/j.2333-8504.2008.tb02141.x.

Esfandiari, Rajab. "Cloze-Elide Test as an Alternative Test Method: Linking Personality Types to Test Method Performance." *Applied Research On English Language* 8, no. 1 (2019): 1–26. https://doi.org/10.22108/are.2018.113350.1373.

Febriani, Suci Ramadhanti, and Anasruddin Anasruddin. "Technology for Four Skills Arabic in the Era Emergency of Covid-19 in Indonesia." *Ta'lim Al-'Arabiyyah: Jurnal Pendidikan Bahasa Arab & Kebahasaaraban* 4, no. 1 (2020): 1–11. https://doi.org/10.15575/jpba.v4i1.8221.

Khotimah, Sofiatul, Dini Octoria, Siti Aenandari, Hadatul Aysi, and Universitas Sebelas Maret. "Analysis of Enterpreneurship Education Achievements Using The Project Based Learning (PjBL) Model in MBKM Curriculum." In … *Innovation and Social …*, 107–14, 2021. https://proceedings.ums.ac.id/index.php/iceiss/article/view/1063.

Kılıçkaya, Ferit. "Learners' Perceptions of Collaborative Digital Graphic Writing Based on Semantic Mapping." *Computer Assisted Language Learning* 33, no. 1–2 (2020): 58–84. https://doi.org/10.1080/09588221.2018.1544912.

Nafosat, Zikirova, Abdullayeva Nasiba, Nishanova Ozoda, and Djalilov Baktior. "Interactive Strategies and Methods of Education." *International Journal of Recent Technology and Engineering* 8, no. 4 (2019): 7667–70. https://doi.org/10.35940/ijrte.d5360.118419.

Nakata, Tatsuya, and Irina Elgort. "Effects of Spacing on Contextual Vocabulary Learning: Spacing Facilitates the Acquisition of Explicit, but Not Tacit, Vocabulary Knowledge." *Second Language Research* 37, no. 2 (2021): 233–60. https://doi.org/10.1177/0267658320927764.

Nassiri, Naoual, Abdelhak Lakhouaja, and Violetta Cavalli-Sforza. "Arabic Readability Assessment for Foreign Language Learners." *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)* 10859 LNCS (2018): 480–88. https://doi.org/10.1007/978-3-319-91947-8_49.

Suhanti, Indah Yasminum. "Cultural Aspects of Disposable Diaper Waste and Sanitary Napkins in Indonesia." *Biokultur* 10, no. 1 (2021): 1. https://doi.org/10.20473/bk.v10i1.27409.

Sunarti, Lia, Ernawati Ernawati, and Marja'i Affan. "Aplikasi Kamus ViKA Sebagai Visualitator Kosakata Bahasa Arab Untuk Pembelajar Pemula." *LISANIA: Journal of Arabic Education and Literature* 1, no. 1 (2017): 37. https://doi.org/10.18326/lisania.v1i1.37-55.

Sutaman, Sutaman, and Suci Ramadhanti Febriani. "Optimizing Arabic Speaking Skills Based On Integration Of Learning Theory Framework in Higher Education." *Arabiyat : Jurnal Pendidikan Bahasa Arab Dan Kebahasaaraban* 8, no. 1 (2021): 75–89. https://doi.org/http://dx.doi.org/10.15408/a.v8i1.20423.

Yusuf, Muhammad. "Desain Pengembangan Kurikulum Bahasa Arab: Pendekatan Otak Kanan." *El-Tsaqafah : Jurnal Jurusan PBA* 18, no. 2 (2019): 147–60. https://doi.org/10.20414/tsaqafah.v18i2.1867.