



A Decade of Arabic Language Education Research in Indonesian Islamic Higher Education: A Bibliometric Mapping of Theses and Dissertations (2015–2024)

Tadzkiratul Maghfirah¹ ✉ UIN Alauddin Makassar, Indonesia¹

tadzkiratulmaghfirahameliah@gmail.com¹

Himayah² UIN Alauddin Makassar, Indonesia²

himayah@uin-alauddin.ac.id²

Hamka³ UIN Alauddin Makassar, Indonesia³

ilyashamka@gmail.com³



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Corresponding Author: ✉ Tadzkiratul Maghfirah

Article History	ABSTRACT
Received 25-09-2025 Accepted: 17-10-2025 Published: 24-12-2025	<p>Background: Research on Arabic language education at the postgraduate level in Indonesia remains fragmented and thematically repetitive, highlighting the need for systematic mapping.</p> <p>Purpose: This study aims to examine the development, thematic trends, and methodological patterns of Arabic language education research at the postgraduate level.</p> <p>Method: Using a descriptive bibliometric design, 113 postgraduate documents (104 master's theses and 9 doctoral dissertations) archived in the institutional repository of UIN Alauddin Makassar between 2015 and 2024 were analyzed through total sampling. Bibliometric analysis was conducted using VOSviewer to visualize keyword co-occurrence, density, and temporal trends.</p> <p>Results and Discussion: The findings reveal a significant increase in research productivity, particularly in 2023–2024, with dominant themes focusing on teaching methods, learning outcomes, and digital media integration. However, thematic diversity remains limited, indicating a tendency toward topic repetition.</p> <p>Conclusions and Implications: These findings support the development of institutional research roadmaps, mandatory methodology training for postgraduate students, and improved repository management to enhance research quality and innovation in Arabic language education.</p>
Keywords:	<i>Bibliometric Analysis; Arabic Language Education; Thesis; Dissertation; Research Trends.</i>
	ABSTRAK
	<p>Latar Belakang: Penelitian dalam bidang pendidikan bahasa Arab pada jenjang pascasarjana di Indonesia masih terbatas dan cenderung repetitif, sehingga diperlukan pemetaan sistematis terhadap tesis dan disertasi untuk mengidentifikasi celah tematik serta pola metodologis.</p> <p>Tujuan: Penelitian ini bertujuan untuk menganalisis secara kuantitatif perkembangan riset pada Program Studi Pendidikan Bahasa Arab UIN Alauddin Makassar periode 2015–2024.</p> <p>Metode: Dengan menggunakan desain deskriptif bibliometrik, penelitian ini mengkaji 113 dokumen (104 tesis dan 9 disertasi) melalui teknik total sampling. Data</p>

dikumpulkan dari repository institusi dan dianalisis menggunakan perangkat bibliometrik seperti Vosviewer untuk menilai frekuensi, visualisasi jejaring, dan tren tematik.

Hasil dan Pembahasan: Hasil penelitian menunjukkan peningkatan signifikan produktivitas publikasi, khususnya pada 2023–2024, dengan tema dominan seputar metode pembelajaran, hasil belajar, serta integrasi media digital.

Kesimpulan dan Implikasi: Temuan ini mengonfirmasi hipotesis adanya pertumbuhan produktivitas riset, namun variasi topik masih terbatas. Secara teoretis, penelitian ini memperkuat perspektif konstruktivisme dan motivasi, sedangkan secara praktis memberikan dasar bagi diversifikasi tema penelitian serta peningkatan visibilitas repository institusi.

Kata Kunci

Analisis Bibliometrik; Pendidikan Bahasa Arab; Riset Pascasarjana; Tesis; Disertasi; Tren Penelitian.



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INTRODUCTION

Arabic language education in Indonesia encompasses more than just linguistic skills; it also cultivates the Muslim communities' religious and cultural identity. As the language of the Qur'an, Arabic holds a special significance within Islamic education, recognized in both formal and informal institutions.[1] The imperative to strengthen Arabic language education is rising with the pressures of globalization and advancements in educational technology, which necessitate integrating language skills with digital innovations to enhance learning effectiveness. From a constructivist learning theory perspective, Arabic language acquisition demands active interaction among students, educators, and learning media to foster independent and collaborative meaning-making. Consequently, research in this domain must be systematically mapped to enable the assessment, critique, and scientific development of its contributions.[2], [3]

Conversely, academic motivation theory posits that students' intrinsic motivation significantly affects their success in learning, particularly in selecting and developing pertinent research topics.[4] Within higher education, theses and dissertations are regarded not merely as academic requirements but also as vital contributors to scientific advancement.[5] Consequently, bibliometric analysis of students' scholarly work is essential in uncovering patterns, trends, and future research directions. Such analysis not only aids academic programs in assessing their curricula but also allows students to identify more original and impactful research gaps.[6]

Previous studies have demonstrated that bibliometrics has been extensively employed to delineate research themes and directions across various disciplines. Masni (2020) adopted a bibliometric methodology to analyze the theses of PGSD students at Makassar State University, discovering a predominance of themes related to learning methods. However, the scope of topic variation remained limited.[7] Trysnawati's (2018) investigation into library science theses indicated a prevailing focus on library materials and library services; however, its limitation lay in the solely longitudinal approach without comparative analysis of research methodologies.[8]

Furthermore, Muntashir and Erida (2021) emphasized citation patterns in dissertations at UIN Imam Bonjol. They observed that the majority of referenced literature was outdated, which could potentially diminish the relevance of the research.[9] Research conducted by Farisha et al. (2022), analyzing trends in Arabic language education research within national journals, identified a predominant focus on classical literature and pedagogical topics, whereas modern linguistics received limited scholarly attention.[10] Additionally, Royani et al. (2023), in their mapping of PBA theses across various UINs, noted a prevalence of themes related to teaching materials utilizing the

R&D methodology. Nevertheless, a notable limitation of their study was the absence of more advanced statistical analyses.[11]

This review suggests that several research gaps still need to be addressed. First, most previous studies only describe thematic trends without linking them to the methodology's quality or the instruments' novelty.[12] Second, the research focus is still limited to a single institution or specific context, resulting in low generalizability of the findings.[13] Third, although there are citation analyses, most do not mention modern bibliometric analysis tools such as co-word analysis or topic modeling, even though these methods can enrich data interpretation.[14]

This gap is essential to fill because Arabic language education requires a comprehensive research map, not only in terms of the number of publications, but also in terms of methodological developments, theories used, and the socio-temporal relevance of the research. By utilizing a quantitative approach through bibliometrics, analysis can be carried out more objectively, systematically, and measurably, so that the results provide added value for both scientific development and educational practice in the field.[15]

While previous studies have mapped Arabic language education research thematically at national or journal levels, this study offers a distinct contribution. This research is the first bibliometric mapping in eastern Indonesia that integrates keyword density visualization, methodological distribution, and temporal trend analysis within a single analytical framework. By focusing on postgraduate theses and dissertations, this study provides empirical insights into the structural patterns of academic research production that have not been sufficiently addressed in earlier bibliometric studies.

The novelty of this research lies in its focus on mapping the theses and dissertations of students in the Arabic Language Education Master's and Doctoral Programs at UIN Alauddin Makassar during the period 2015–2024 using a quantitative bibliometric approach. Unlike previous studies, which generally only describe dominant topics, this study will reveal the interrelationships between variables such as research themes, methodologies, citation trends, and collaboration patterns. This analysis will be enriched using modern bibliometric software such as Vosviewer and Biblioshiny to visualize the research map more accurately.[16]

Furthermore, this research's context is distinctive as it investigates the scholarly works of students from a prominent Islamic institution in eastern Indonesia. Consequently, this study is pertinent to scholars of the Arabic language and enhances our comprehension of the dynamics of Islamic education at the national level. Through this mapping process, the research is anticipated to illustrate a more representative trajectory of scientific advancement, thereby fortifying the standing of UIN Alauddin Makassar within the realm of Arabic language education research across Indonesia.[17]

This study aims to quantitatively analyze trends in thesis and dissertation research conducted by Arabic Language Education students at UIN Alauddin Makassar from 2015 to 2024. The analysis covers the number of publications, dominant themes, research methodologies used, and scientific contributions produced. With this approach, the study is expected to provide a measurable empirical picture of the direction of Arabic language education research.

Furthermore, this study aims to investigate the relationship between research variables employing statistical methods, such as the correlation between research themes and methodologies, or the association between publication trends and scientific research focus. Therefore, the results describe phenomena and analyze relational patterns that can serve as a foundation for developing academic policies in study programs.

The specific objectives of this study are: first, to identify the quantitative development of the number of thesis and dissertation publications by PBA UIN Alauddin Makassar students during

the period 2015–2024; second, to map research theme trends and their relationship with the methodologies used; third, to analyze the types of literature most frequently cited to assess the relevance and recency of reference sources. Thus, the hypothesis tested is whether there are significant differences in research trends based on time period, topic, and methodological approach.

In addition, this study specifically seeks to examine the relationship between the selection of research topics and the direction of Arabic language learning theory development and assess the extent to which methodological variations contribute to the quality of research results. In this way, the study provides a descriptive mapping and a more in-depth inferential analysis, which can serve as a reference for the development of data-based academic policies.

LITERATURE REVIEW

The study of Arabic language education in Indonesia occupies a distinctive position because it addresses linguistic competence and incorporates religious, cultural, and social dimensions. As the language of the Qur'an, Arabic serves both as a spiritual medium and an academic discipline, particularly within Islamic universities.[18] In the current era of global knowledge production, research on Arabic language education is no longer confined to classroom practices; instead, it expands to thematic inquiries concerning pedagogy, curriculum development, and technology integration.[19] The growing number of theses and dissertations in this field indicates a rising awareness among universities regarding their contribution to scientific knowledge at the national and international levels. Bibliometric mapping is highly pertinent as it offers a systematic overview of research trends, directions, and impacts over a specified period.[20]

Conceptually, bibliometric analysis is a quantitative methodology for examining scientific publications using statistical and mathematical tools. This approach facilitates the identification of research productivity, citation impact, author collaboration networks, and thematic trends within a specific discipline.[21] As elucidated by Safrudin et al. (2024), bibliometric mapping visualizes the research landscape and uncovers concealed structures within the scientific community. This is essential for assessing academic performance and guiding future research directions. In Arabic language education, bibliometric investigations are particularly valuable for pinpointing under-explored themes, such as digital learning, sociolinguistic issues, or motivation in foreign language acquisition.[22]

Theoretically, this study is supported by constructivist learning theory, which emphasizes that learners actively construct knowledge through interaction with content, peers, and teachers.[23] Additionally, self-determination theory highlights how intrinsic motivation influences research topic selection, persistence, and the quality of outcomes achieved.[24] This perspective is particularly relevant when analyzing theses and dissertations, as each work reflects not only the academic competence but also the motivation and creativity of the researcher. Thus, bibliometric mapping in this context is more than just a descriptive exercise; it is a theoretical and practical tool for understanding the dynamics of Arabic language education scholarship.[25]

From a theoretical perspective, this study is grounded in constructivist learning theory and self-determination theory. Constructivism emphasizes learners' active role in constructing knowledge through interaction, reflection, and contextual engagement, which aligns with the dominance of method- and media-based research in Arabic language education. Meanwhile, self-determination theory explains how intrinsic motivation influences postgraduate students' selection of research topics, methodological preferences, and persistence in completing academic research. Integrating these theoretical perspectives allows bibliometric findings to be interpreted not merely as statistical trends, but as reflections of pedagogical orientation and academic motivation within postgraduate Arabic language education.

Existing bibliometric studies on Arabic language education reveal consistent patterns of thematic dominance, particularly in pedagogical methods and instructional materials. However, most studies remain descriptive and lack analytical depth in linking themes to methodological quality or theoretical frameworks. Moreover, few studies employ advanced visualization techniques such as density mapping or temporal overlays. This limitation underscores the need for a more integrative bibliometric approach that combines thematic, methodological, and temporal analyses, as undertaken in the present study.

Several prior investigations have demonstrated the application of bibliometric approaches to delineate research trends within the education domain. Masni (2020) examined undergraduate theses in basic education at Makassar State University and discovered that the predominant topics centered around learning methods, with limited variation in research themes.[7] Similarly, Trysnawati (2018) mapped these in library science and observed a predominance of subjects related to library materials and services; however, the study did not critically assess the diversity of methodologies employed. Both investigations underscore a standard limitation: descriptive mapping is absent from in-depth analytical interpretation.[8]

Other studies concentrate on citation analysis and descriptors. Muntashir and Erida (2018) examined dissertations at UIN Imam Bonjol. They reported that most of the references used were outdated, which could weaken the relevance of the research results.[9] These findings underscore the necessity of encouraging graduate students to employ more current sources. Conversely, Farisha et al. (2023) analyzed national Arabic-language education journals. They observed a surge in publications over the past decade, predominantly of classical Arabic literature and pedagogical studies, whereas modern linguistic issues or learner-centered approaches remain infrequently discussed.[10]

Recently, Royani et al. (2024) researched master's theses concerning Arabic language education at various Islamic universities in Indonesia. They identified a significant inclination towards developing instructional materials through research and development (R&D) methodologies, with minimal focus on theoretical or conceptual investigations.[11] This research demonstrates that methodological diversity remains limited despite advancements in Arabic language education research, particularly in applying statistical or computational techniques such as topic modeling or word cluster analysis. Overall, prior studies underscore the necessity for a more comprehensive bibliometric analysis that not only describes but also elucidates the fundamental structure of research output.[15]

In summary, the literature reveals three primary gaps. Firstly, most prior studies are descriptive and do not integrate bibliometric findings with broader educational theories. Secondly, research efforts are frequently confined to a single institution or journal, limiting the findings' generalizability. Thirdly, advanced bibliometric tools such as Vosviewer and Biblioshiny, which facilitate network visualization and trend analysis, remain infrequently utilized. It is crucial to address these deficiencies, as Arabic language education, a rapidly evolving discipline, necessitates a systematic framework for both scholars and practitioners.[26], [27]

Therefore, through a bibliometric review, this study aims to map theses and dissertations on Arabic language education at UIN Alauddin Makassar from 2015 to 2024. This study is expected to reveal dominant themes, methodological patterns, and citation structures while providing a theoretical basis for constructivist and motivational theories. Thus, this study expands on previous bibliometric studies and provides a deeper understanding of how Arabic language education research in Indonesia is connected to the global landscape of foreign language education.

METHOD

This study uses a descriptive quantitative design with a bibliometric approach. It aims to identify, measure, and map research trends in the theses and dissertations of Arabic Language Education students at UIN Alauddin Makassar from 2015 to 2024.[28] This design was chosen because it can present an objective picture of the distribution of themes, methodologies, and scientific developments without manipulating variables or testing causality. The bibliometric approach is relevant for evaluating scientific contributions and the direction of development of a discipline, as emphasized by Hosman et al. (2024), Total Link Strength (TLS) refers to the total number of co-occurrence connections a keyword has with other keywords within the network, indicating its relational intensity and centrality in the research map. who state that bibliometrics are effective for assessing research maps systematically and measurably.[29] Thus, this design aligns with the research characteristics that aim to analyze the Arabic language education research landscape comprehensively.

Based on the identified research gaps, future studies should prioritize (1) the development of Android-based and immersive digital applications for *maharah al-kitabah* using design-based research, (2) mixed-methods investigations integrating learning motivation and digital media effectiveness, and (3) evaluative studies focusing on authentic assessment and higher-order thinking skills (HOTS) in Arabic language learning contexts. These directions are more aligned with current pedagogical challenges and technological advancements in Islamic higher education.

The research location was set at the UIN Alauddin Makassar Repository, because this institution has many scientific works, is managed openly, and represents the integration of Islamic scholarship and modern science. The research population included all theses (104 titles) and dissertations (9 titles) of students in the Arabic Language Education Master's and Doctoral Programs for 2015–2024. Due to the relatively limited population size, a saturated sampling technique was used to analyze all documents. This strategy ensured full representation of the available data and reduced the risk of bias due to sample limitations, as recommended in studies with small populations.[30] Data were collected through documentation techniques by filtering documents according to inclusion criteria (type of work, year of publication, topic relevance, accessibility, and metadata completeness) and excluding irrelevant documents such as theses, journal articles, or works outside the PBA.[31]

The research instrument comprises bibliometric documentation sheets derived from general bibliometric analysis indicators, including titles, publication years, keywords, and research topics.[32] The collected data were analyzed using Mendeley software for reference management and Vosviewer to visualize topic networks and keyword correlation patterns. The analysis was carried out through Zipf's law evaluation and co-occurrence analysis to identify prevailing topic trends and relationships among variables.[33] The analysis results were presented as quantitative tables and visualization maps to facilitate interpretation. Additionally, the analysis process included validity testing via metadata verification and reliability testing through repeated document screening. This approach aligns with the latest guidelines on applying bibliometrics in educational research, which underscore the importance of instrument validity and the accuracy of analytical techniques.[34]

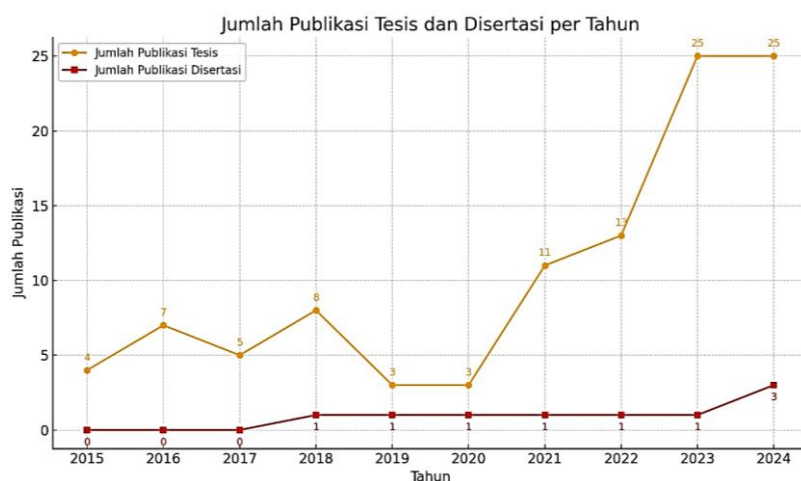
To ensure data validity and reliability, metadata verification was conducted independently by two reviewers to confirm document completeness, keyword accuracy, and publication year. Discrepancies were resolved through consensus discussion. Repeated screening was applied to ensure consistency of inclusion criteria. This procedure aligns with bibliometric methodological standards proposed by van Eck and Waltman (2010).

RESULT AND DISCUSSION

The Arabic Language Education Graduate Program at UIN Alauddin Makassar is among the premier academic programs within the Faculty of Tarbiyah and Teacher Training, consistently contributing to advancing scientific knowledge and the professionalism of educators and researchers specializing in the Arabic language. Since its establishment, the program has been dedicated to cultivating graduates with exceptional linguistic and pedagogical skills, who can conduct scientific research pertinent to contemporary needs, both locally and internationally. From 2015 to 2024, the program demonstrated significant improvements in the quality and quantity of scholarly publications, particularly theses and dissertations archived within the UIN Alauddin Makassar Repository, encompassing topics such as Arabic linguistics, pedagogical methodologies, curriculum development, instructional media, translation, as well as contemporary issues including the integration of technology in Arabic language education.

This development reflects the growth of academic culture in postgraduate environments, where students are encouraged to produce scientific works that meet educational standards and contribute to the theory and practice of Arabic language learning in Indonesia. The UIN Alauddin Makassar repository is an essential means of documenting, disseminating, and facilitating access to these scientific works so that the wider academic community can benefit from them, cite them, and develop further research from the works that have been produced. Therefore, it is necessary to examine the publication trends of theses and dissertations from 2015 to 2024 to see whether the publications of the UIN Alauddin Makassar Arabic Language Education Graduate Program have increased or decreased each year.

Based on data obtained from the UIN Alauddin Makassar Repository, researchers found the number of thesis and dissertation publications by Master's and Doctoral students in the Arabic Language Education Study Program for the period 2015–2024. The data was compiled through compilation and screening based on inclusion criteria to identify relevant information as the subject of research analysis. To provide a clearer picture of research developments, the thesis and dissertation publications were visualized in a graph showing the number for each year, as shown in the graph below:



Picture 1. Publication Chart of PBA Thesis and Dissertation UIN Alauddin Makassar 2015–2024

According to the graph above, there has been substantial growth in the number of theses and dissertations published by the Arabic Language Education Graduate Program at UIN Alauddin Makassar that have been uploaded to the repository between 2015 and 2024, totaling 104 theses

and nine dissertations. The number of thesis publications exhibits an upward trend, although accompanied by fluctuations, until 2020. 2015 there were four thesis publications, followed by fluctuations in subsequent years. The most significant increase occurred in 2023 and 2024, with twenty-five publications each, representing a considerable rise compared to previous periods.

The rise in thesis publications since 2021 can be attributed to several factors. First, students' awareness of the importance of scientific journals as a requirement for graduation and academic contribution has increased. Second, institutional support from campuses, such as scientific writing training, intensive mentoring, and open access repository policies, has also facilitated the acceleration of publications. Technological advancements and enhanced internet access have also supported student productivity in compiling and uploading scientific works.

Meanwhile, dissertation publications remain low. The first dissertation was published in 2018 with one publication, and there was no increase until 2023. It was only in 2024 that there was an increase to three dissertation publications, indicating the beginning of an uptick in interest or success in doctoral studies. The previous stagnation may have resulted from the complexity of doctoral research, limited time available to working students, and restricted resources and references. However, the rise observed in 2024 suggests that improvements are beginning to yield positive outcomes. Overall, these data demonstrate that the academic productivity of postgraduate students, particularly master's students, has shown positive development. However, dissertation publications still require additional focus to promote scientific contributions among doctoral program students. Based on the graph above, it can be further specified that the number of theses and dissertations excluded from analysis for 2015–2024 was 16 and 6 dissertations. This data pertains to publications that did not satisfy specific criteria for further study in accordance with research provisions; therefore, only publications that were relevant and met the inclusion criteria were incorporated into the primary analysis.

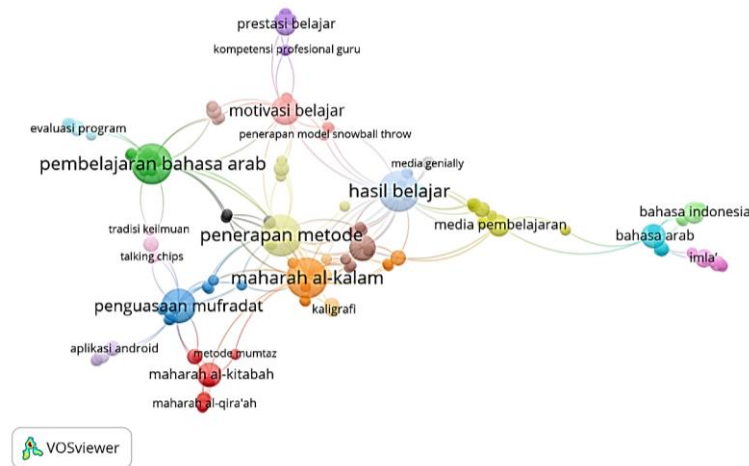
Despite its contributions, this study has several limitations. First, the analysis is confined to a single institution, which restricts broader generalization. Second, bibliometric analysis emphasizes frequency and connectivity of keywords without assessing the substantive quality of research content. Third, the limited number of doctoral dissertations constrains deeper comparative analysis at the doctoral level. These limitations are acknowledged to ensure analytical transparency and to guide future research directions.

The number of theses and dissertations completed at the institution where the research was conducted by the Arabic Language Education Department within the Postgraduate Program of UIN Alauddin Makassar from 2015 to 2024 indicates a trend of students selecting various institutions for their research. The predominant choice is junior high schools/MTs, accounting for 30.97%, followed by high schools/MA and Islamic boarding schools, each at 23.01%. Campuses constitute 13.27%, SDIT/MI accounts for 5.31%, and other institutions represent 4.42%. Based on these findings, the researchers recommend several strategic measures, including: enhancing academic support through workshops or seminars; conducting rigorous initial reviews of research titles and focuses; establishing a repository of research titles or thematic roadmaps to ensure topic relevance and prevent duplication; and encouraging repository managers to actively publish student works to promote transparency and facilitate academic citations.

The analysis yielded two data types: statistics and tables, delineating the quantity and distribution of thesis and dissertation topics. This data was represented visually through Network Visualization to illustrate the relationships between topics and to identify research patterns. The visualization indicates that, from 2015 to 2024, the research topics of postgraduate students in Arabic Language Education at UIN Alauddin Makassar comprised 21 clusters. These clusters encompass a diverse range of themes, including maharah al-lughah (writing, reading, speaking, listening), learning strategies and methodologies, technology-assisted media, curriculum

development, learning assessment, teacher competence, and the integration of digital applications such as WhatsApp, YouTube, virtual reality, and flipbooks. Several clusters also address motivation, interest in learning, translation, and the capability to read classical Islamic texts.

This mapping indicates that the predominant topics continue to emphasize Arabic language skills, learning approaches, and innovative media; however, there is also a discernible tendency towards thematic repetition. This observation is significant as evaluative material, guiding students to select more diverse and scientifically relevant topics. For additional details, please refer to the results from the subsequent VOSviewer.

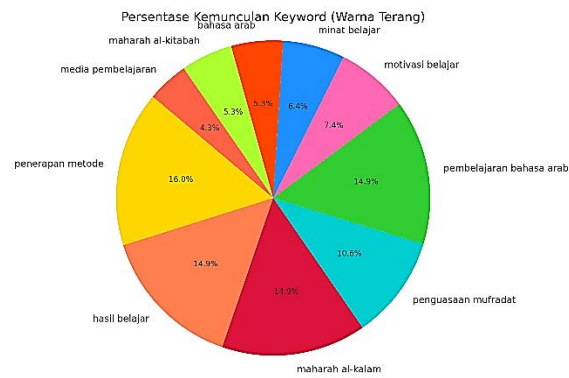


Picture 2. Keyword Network Map (Network Visualization)

Based on the results of the VOSviewer analysis presented above, it can be asserted that the thesis and dissertation research within the Arabic Language Education Postgraduate Program at UIN Alauddin Makassar from 2015 to 2024 is classified into 21 keyword clusters. Among these clusters, specific predominant themes are notably more prominent, such as the application of methodologies (15 occurrences, 44 connections), learning outcomes (14 occurrences, 39 connections), maharah al-kalam (14 occurrences, 34 connections), Arabic language acquisition (14 occurrences, 24 connections), and vocabulary mastery (10 occurrences, 25 connections). Additional significant themes include learning motivation, maharah al-kitabah, and qira'ah skills.

In addition, there is also a tendency for research to raise topics related to technology-based learning media, such as WhatsApp, YouTube, virtual reality, and flipbooks. Other issues, such as learning interest, teacher competence, program evaluation, and the ability to read classical Islamic texts, also appear, although not as strongly as the main themes. Thus, this VOSviewer map shows that the most significant focus of students is on language skills (maharah), the application of methods, and innovation in learning media, while other topics develop as supporting elements but with more limited intensity.

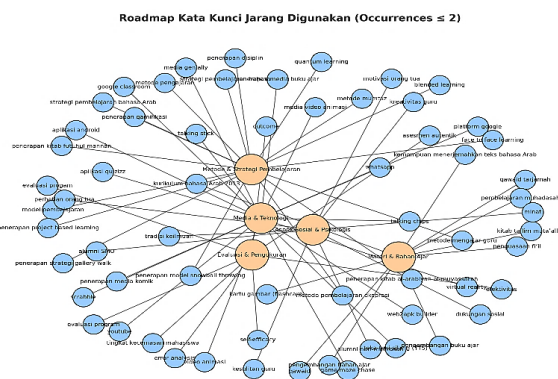
Based on the results of analyzing thesis and dissertation topics or keywords using the VOSviewer software above, it can be summarized that there are 214 keywords from 104 theses and nine dissertations in the 2015–2024 period. All of these keywords were then mapped, resulting in 21 main clusters. When viewed in Figure 2 above, the network visualization shows the relationship between research themes, where some keywords have a central position and are more strongly connected than others. This is confirmed by the visual analysis of the diagram after data tabulation, which presents details of the frequency of occurrences and total link strength of each keyword in the following diagram:



Picture 3. Keyword Occurrence Percentage Chart

Picture 3 illustrates the processing of keyword tables subsequent to analysis using Vosviewer software, employing the Network Visualization feature that delineates the connections or relationships among research themes, subjects, or keywords. The most frequently utilized keyword in the theses and dissertations of postgraduate students of Arabic Language Education at UIN Alauddin Makassar from 2015 to 2024 is "Application of methods," with 15 occurrences. This is depicted in the network visualization, which demonstrates the strength of the Total Links Strange link, amounting to 44 and representing 16.0% of the total. Following this, the keyword "learning outcomes" appears 14 times with 39 Total Links Strange, accounting for 14.9%. Similarly, "maharah al-kalam" is observed 14 times with 34 Total Links Strange (14.9%), "mastery of vocabulary" occurs 10 times with 25 Total Links Strange (10.6%), "pembelajaran Bahasa Arab" occurs 14 times with 24 Total Links Strange (14.9%), "motivasi belajar" appears 7 times with 19 Total Links Strange (7.4%), "minat belajar" appears 6 times with 17 Total Links Strange (6.4%), "Arabic language" occurs 5 times with 14 Total Links Strange (5.3%), "maharah al-Kitabah" is noted 5 times with 12 Total Links Strange (5.3%), and finally, "learning media" appears 4 times with 10 Total Links Strange (4.3%).

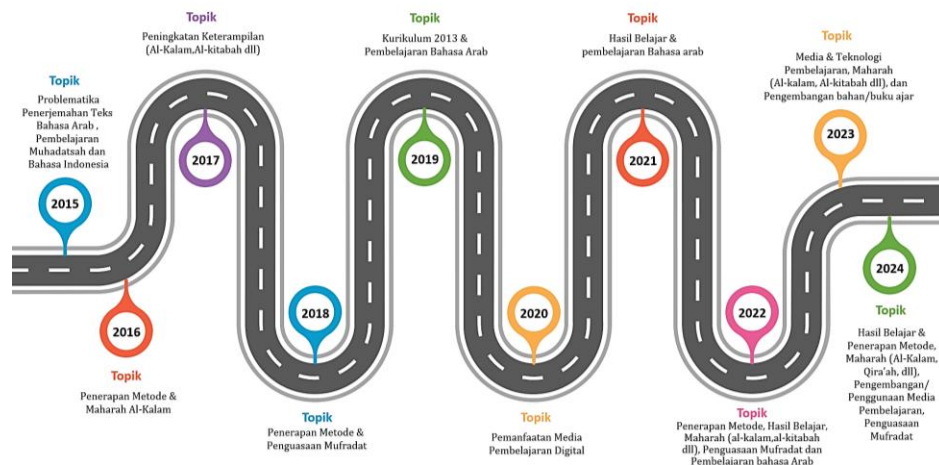
Thus, both the visual display on VOSviewer and the summary of this keyword table show that students in the Arabic Language Education master's program at UIN Alauddin Makassar have focused their research on method application, language skills (maharah), learning outcomes, and learning media innovation for the past decade. Meanwhile, keywords that are rarely used in thesis and dissertation research by graduate students of Arabic Language Education at UIN Alauddin Makassar from 2015 to 2024 can be seen in the following road map visualization:



Picture 4. Roadmap Keywords Rarely used

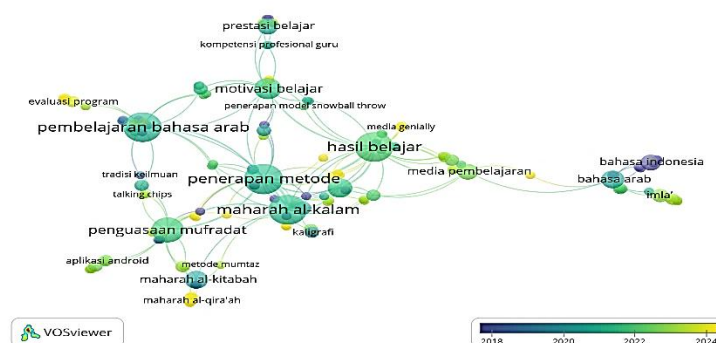
Based on Figure 4 above, the road map visualization not only illustrates rarely used keywords but also serves as a topic recommendation for other researchers, enabling the expansion of the field of study and providing numerous new references.

The function and purpose of a road map in bibliometric studies of rarely used topics is to map the research position, identify gaps or voids in studies, and provide strategic direction for further research development to be more focused and relevant. For more details, see the following road map of topic trends per year:



Picture 5. Road Map of Topical Trends by Year

As shown in Figure 5, this research road map serves as a strategic guide in directing scientific development in the field of Arabic Language Education, particularly in the Arabic Language Education Master's Program at UIN Alauddin Makassar. This road map describes research trends that have been carried out and identifies research gaps that are still open for exploration. Thus, the road map helps students and lecturers determine the direction of future research so that it is more focused, systematic, and in line with the needs of scientific development and contemporary educational challenges. In addition, the main objective of compiling this road map is to ensure the continuity of research from year to year to strengthen the academic contribution of the department, increase the relevance of research results to the needs of society and the world of education, seek new topics so that Arabic Language Education can develop further, and provide a basis for planning innovative, measurable, and effective research topics. This can be seen through the results of the analysis of the latest trends in research keywords in Arabic language education from the following VOSviewer analysis:



Picture 6. Latest Keyword Trend Map (Everlay Visualization)

Based on Figure 6 above, the latest trends in Vosviewer features can be seen from the overlay visualization. The overlay visualization map generated using Vosviewer software illustrates the

relationship between keywords used in research related to Arabic language learning within a specific period. The color of each point represents the average year of appearance of the keyword in the literature, where the color gradient from blue (older/earlier) to yellow (newer) indicates the temporal development of the keyword's use. The latest research trends are marked in bright yellow. For a clearer picture of the trends in keyword novelty from 2015 to 2024, the summary is as follows:

Table 1. Trends in Keyword Novelty from 2015 to 2024

Period	Focus	Keyword
2015–2019	Language skills, traditional methods, curriculum, simple media, and psychological aspects	Translating texts, ta'bir, muhadasah, qawaid, 2013 curriculum, LCD projectors, student anxiety, parental concern
2020–2023	Diversification of methods, advanced skills, digital media, motivation, and teacher competence	Writing, speech, reading, listening, vocabulary, Google Classroom, YouTube, flipbook, games, talking stick, blended learning, self-efficacy, teacher professionalism
2024	Program evaluation, innovative methods, interactive creative media	Program evaluation, authentic assessment, higher-order thinking skills, discovery learning, gamification, virtual reality, Genially, comics, TTS, spinning wheel, maharah al-qira'ah

Based on the results of keyword mapping through overlay visualization analysis, research topic trends from year to year throughout the 2015–2024 period can be seen. The bright yellow color on the map indicates the latest research trends in 2024, as shown in Table 1. This analysis also suggests a shift in the focus of Arabic language learning research, which is grouped into five main categories: learning methods and strategies, learning media, evaluation and curriculum, Arabic language skills, and psychological and non-academic factors.

At the beginning of the 2015–2019 period, research was still primarily related to conventional methods, such as gallery walks, muhadasah, and expression strategies in ta'bir learning. The primary focus was to measure the effectiveness of these traditional methods in improving students' language skills. Meanwhile, the media used was still simple, such as LCD projectors, with research support on the 2013 curriculum, qawaid, and student anxiety.

Entering 2020–2023, research developed rapidly in line with the demands of online learning during the pandemic. Various innovative methods, such as project-based learning, blended learning, matchmaking, and snowball throwing, were widely applied. Digital media became increasingly dominant, ranging from Google Classroom, YouTube, WhatsApp, to Android applications and animated media. This trend indicates a shift towards technology-based learning. In addition, research has also focused on developing teaching materials, evaluation using the CIPP model, and more diverse language skills such as maharah al-kalam, kitabah, qira'ah, and istima'. Psychological factors such as motivation, interest, learning achievement, and teacher competence continue to receive attention, but are more often combined with studies of methods or media.

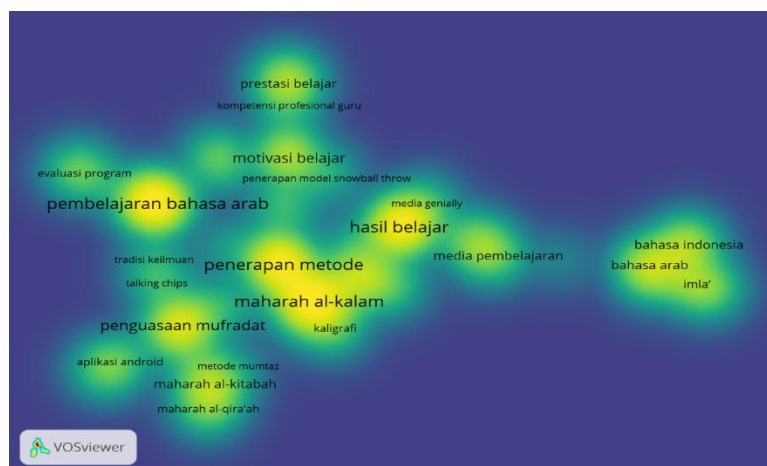
In 2024, research shows quite clear changes. The focus on creating new methods declined and shifted to integrating methods with media and learning evaluation. Advanced interactive media, such as virtual reality, Genially, spinning wheels, comics, and gamification, became major trends, indicating that media now function not only as a tool but also as a means of creating an immersive learning experience. More modern models have emerged in evaluation, such as countenance stake, authentic assessment, and HOTS-based assessment, emphasizing competency-based learning.

Research on language skills and psychological factors has begun to decline in number, as both are no longer single variables but are integrated into a broader and more holistic learning design.

Overall, the results of this analysis show a paradigm shift in research from conventional methods and skills in 2015–2019 to innovation in processes and digitization of learning in 2020–2023, and finally to the integration of processes, media, and interactive technology-based evaluation in 2024. This evolution illustrates that Arabic language learning research is increasingly moving towards adaptive, competency-based designs emphasizing creative and enjoyable learning experiences.

Based on the results of the previous VOSviewer analysis through network visualization, there appears to be a connection between keywords that form several research clusters in Arabic language learning. These findings mainly focus on Arabic language learning, method application, and learning outcomes interconnected with supporting keywords such as learning motivation, maharah al-kalam, and vocabulary mastery. This visualization helps to confirm the conceptual relationship between topics and how these keywords form a research network map.

Although overlay visualization analysis can illustrate the dynamics of changes in research topics from year to year, this approach does not fully reveal which keywords are most dominant and have strong connections within the overall research map. Therefore, further analysis in the form of density visualization is needed to display the density or frequency of keyword appearances, as can be seen in the following analysis results:



Picture 7. Keyword density in the study (Density Visualization)

Picture 7. This is a density visualization, where the relationships are displayed in color density that illustrates the frequency and intensity of connections between keywords. Bright yellow indicates dominant and frequently discussed keywords, while green to blue represents low-intensity keywords and more limited discussion. From this visualization, it can be seen that Arabic language learning, method application, and learning outcomes occupy a central position (bright yellow), so they can be said to be the core themes of the study. Other keywords, such as learning motivation, learning achievement, and maharah al-kalam, are of moderate intensity. In contrast, Android applications, calligraphy, imla', and maharah al-qira'ah appear in low-density areas (green blue).

Linking these two visualization results, it can be concluded that Arabic Language Education research still focuses strongly on developing methods and improving learning outcomes, while more specific topics such as learning technology, writing skills (maharah al-kitabah), or linguistic aspects (imla', integration of Indonesian language) actually open up an ample space for further exploration as research gaps. For detailed information on these specific topics that can open up greater exploration, please refer to the following table:

Table 2. Distribution of Keywords Based on Density and Research Gap

Keyword Category	Examples of Keywords	Density Level (Color Interpretation)	Interpretation	Research Opportunities (Research Gap)
Dominant / High Intensity	Arabic language learning, application of methods, and learning outcomes	Bright yellow	Appears very often and has broad connections to other topics	The topic has been extensively researched; opportunities lie in model/method innovation and integrating the latest technology.
Moderate	learning motivation, learning achievement, learning media, maharah al-kalam, vocabulary mastery	yellow-green	Appears quite often, serving as a significant supporting topic	It can be developed in comparative studies, the influence of innovative media, and the integration of skills.
Low / Specific	Android applications, Mumtaz method, calligraphy, spelling, maharah al-qira'ah, Indonesian language, and all keywords that rarely appear as listed on the network visualization road map	From green to blue	Rarely appears	There are great opportunities for in-depth exploration, especially related to technology integration, creative media, methods and strategies, social and psychological aspects, evaluation and measurement, and teaching materials and resources.

Based on Table 2 above, which maps the distribution of keywords based on their density and research gaps, the next step is to map the trends in the types of thesis and dissertation research commonly used by Arabic Language Education students that have been archived in the UIN Alauddin Makassar Repository from 2015 to 2024. For this purpose, the mapping of the types of research used by Arabic Language Education students, both theses and dissertations, can be seen in the following table:

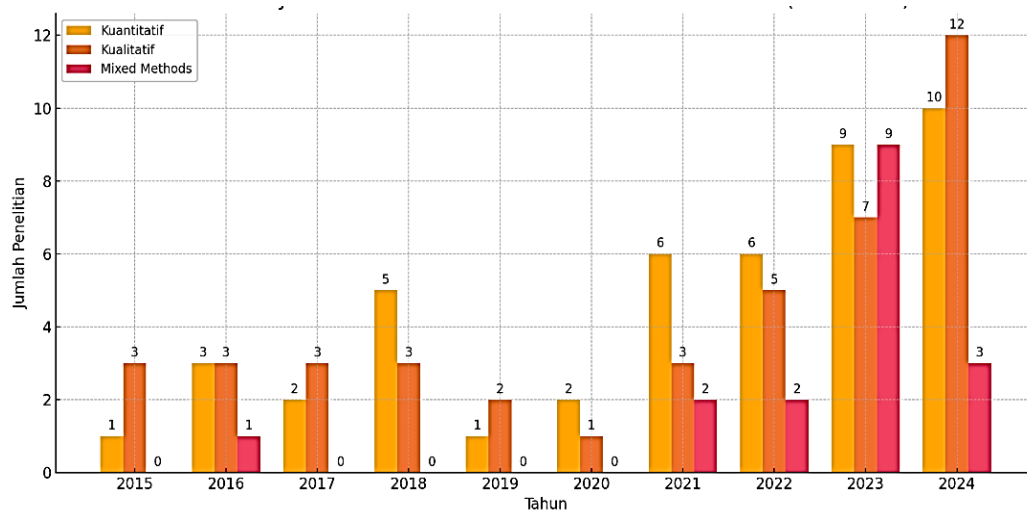
Table 3. Accumulation of Types of Research Theses by Arabic Language Education Students at UIN Alauddin Makassar (2015–2024)

Years	Quantitative	Qualitative	Mixed Methods	Total
2015	1	3	0	4
2016	3	3	1	7
2017	2	3	0	5
2018	5	3	0	8
2019	1	2	0	3
2020	2	1	0	3

2021	6	3	2	11
2022	6	5	2	13
2023	9	7	9	25
2024	10	12	3	25
Total	45	42	17	104

Table 4.7 shows that the development of thesis research types among Arabic Language Education students at UIN Alauddin Makassar from 2015 to 2024 shows varying trends. At the beginning of the period, the number of studies was still relatively small, whether quantitative, qualitative, or mixed methods. However, entering 2021 and beyond, there was a significant increase, especially in quantitative and qualitative research. Quantitative research was recorded as the most widely used type with a total of 45 works, followed by qualitative study with 42 works, and mixed methods with 17 works. This shows that students choose a single approach (quantitative or qualitative) rather than combining the two.

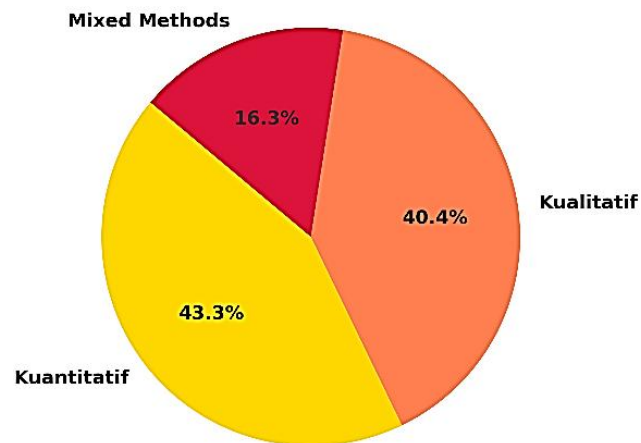
Specifically, in 2023 and 2024, there was a significant increase in the number of theses, namely 25 works each, indicating increased academic productivity and diversity in the methodologies used. This shows that students are increasingly open in choosing research methods according to the needs and relevance of the studied topics. To provide a clearer picture of the dynamics and trends in the increase in these types of research, the data in the following table will be visualized in a bar chart to make it easier for readers to compare every kind of research from year to year.



Picture 8. Distribution of Research Methods Used in PBA Theses (2015–2024)

Based on the distribution in the bar chart, it can be seen that the trend of research by Arabic Language Education students at UIN Alauddin Makassar for the period 2015–2024 has increased from year to year. Quantitative research has consistently dominated, especially in recent years, peaking in 2024 with 10 works. Qualitative research also shows significant development, with 12 works in 2024, making it the highest compared to other types of research. Meanwhile, research using mixed methods, although fewer in number, has continued to increase, especially in 2023 with 9 works.

This pattern illustrates that students are becoming more diverse in their choice of research approaches, although the largest trend remains in quantitative and qualitative research. The surge in the number of studies in 2023 and 2024 indicates a significant increase in academic productivity. To obtain a more proportional picture of the comparison of the overall types of research, it can be mapped as follows:



Picture 9. Percentage of Types of Research in PBA Student Theses (2015–2025)

The pie chart shows that quantitative research occupies the most significant portion with a percentage of 43.3%, indicating that almost half of the students prefer this approach because it is considered more measurable, systematic, and easier to analyze using statistical tools. Meanwhile, qualitative research is second with a percentage of 40.4%, which is only slightly behind quantitative research. This indicates that many students are also interested in exploring phenomena in depth through descriptive approaches and narrative analysis, reflecting a balance in using the two primary research methods. Research using mixed methods only contributed 16.3% of the total. Although the portion is relatively small, it is still essential because it shows that some students try to combine the advantages of quantitative and qualitative methods simultaneously, even though it requires more complex methodological skills. Overall, this distribution indicates that Arabic Language Education students at UIN Alauddin Makassar are flexible in choosing research methods, with a dominance of single approaches (quantitative or qualitative). However, some still dare to try a combined approach to obtain more comprehensive research results.

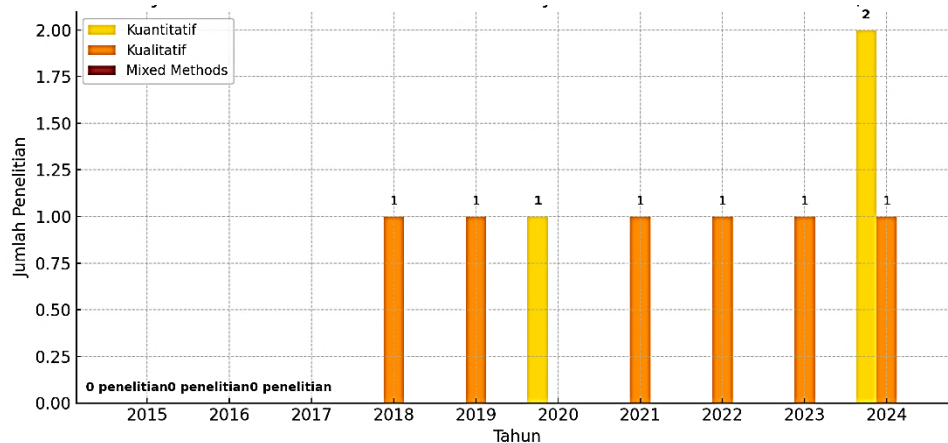
In addition to the types of thesis research at the master's program level, there is also a mapping related to the kinds of research at the doctoral level for Arabic language education postgraduate students. The results of the mapping of the types of dissertation research methods are as follows:

Years	Quantitative	Qualitative	Mixed Methods	Total
2015	0	0	0	0
2016	0	0	0	0
2017	0	0	0	0
2018	0	1	0	1
2019	0	1	0	1
2020	1	0	0	1
2021	0	1	0	1
2022	0	1	0	1
2023	0	1	0	1
2024	2	1	0	3
Total	3	6	0	9

Based on the table above, it can be observed that the spectrum of research methodologies employed in the dissertations of Arabic Language Education students at UIN Alauddin Makassar during the period 2015–2024 remains relatively limited in scope. Out of the nine dissertations documented, qualitative research predominates with six instances. This indicates a preference among students for qualitative approaches, as these are deemed more appropriate for an in-depth

and contextual exploration of language, cultural, and educational phenomena. Conversely, quantitative research is represented by only three works, fewer than those employing qualitative methods. Yet, it continues to play a vital role by offering measurable and objective insights through statistical analysis. Notably, the mixed methods approach has not been utilized during this timeframe, suggesting an opportunity for students to explore further integrating quantitative and qualitative strategies. Overall, it is evident that students predominantly opt for a single research methodology, with a marked preference for qualitative research. Nevertheless, including quantitative studies contributes to methodological diversity and enriches academic discourse.

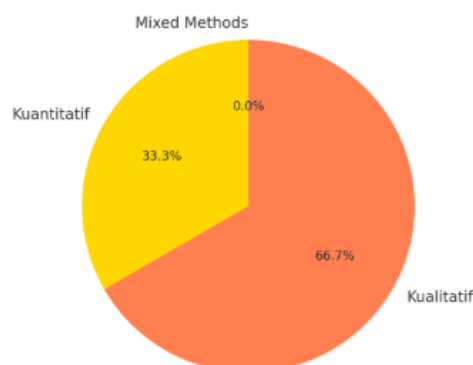
To provide a clearer picture of the comparison of the number of dissertations based on the type of research method from year to year, see the following bar chart:



Picture 10. Distribution of Research Methods Used in PBA Dissertations (2015–2024)

Based on the bar chart, it can be seen that dissertations by Arabic Language Education students at UIN Alauddin Makassar in 2015–2024 used qualitative methods more than other methods. Qualitative methods appear consistently almost every year from 2018 to 2024, with six dissertations. This indicates that students are more comfortable using qualitative approaches because they can explore linguistic and educational phenomena in depth in a real context. Meanwhile, quantitative methods were only used three times during that period, with a significant increase in 2024 when two dissertations simultaneously used this approach. Mixed methods have not been used, indicating that students' exploration of combining quantitative and qualitative approaches is still limited.

To make the distribution of these dissertation methods easier to understand proportionally by looking at the percentage of techniques used in writing dissertations, see the following pie chart:



Picture 11. Percentage of Dissertation Research Types of PBA Students (2015–2024)

Based on Figure 11, the pie chart shows that most dissertations by Arabic Language Education students at UIN Alauddin Makassar in 2015–2024 used qualitative methods, with a percentage of 66.7%. This indicates that most students prefer a qualitative approach because it can explore educational and linguistic phenomena in a more in-depth, contextual, and descriptive manner. Meanwhile, only 33.3% of the students use quantitative methods, which means there is still a group of students who rely on numerical data and statistical analysis to research educational issues. Mixed methods were not used, indicating that students have not explored the combination of these two approaches. These findings illustrate the tendency of students to be more comfortable using a single method, primarily qualitative, in writing scientific papers at the dissertation level.

The results of this study directly answer the research question posed, namely, how the research maps of theses and dissertations of postgraduate students in Arabic Language Education at UIN Alauddin Makassar in the period 2015–2024. The findings show that these dominate dissertations, with an increasing trend in 2023–2024, as well as a distribution of topics that focus on applying methods, learning outcomes, language skills (*maharah*), and innovative media. These results support the hypothesis that the research productivity of postgraduate students has experienced positive development in the last decade. However, the hypothesis regarding various themes has not been fully proven, as topics are still repeated. Thus, the findings of this study confirm quantitative growth but emphasize the need for strategies to improve the quality and diversification of research.[35], [36]

When linked to the theory used, this study's results align with the constructivist perspective that emphasizes the active role of students in constructing knowledge through research relevant to academic and social needs. The dominance of topics on applying methods and learning outcomes can reflect students' efforts to present contextual pedagogical solutions. In addition, findings on the trend of digitalization (2020–2023) and the integration of interactive media (2024) reinforce the argument of self-determination theory that students' intrinsic motivation develops as opportunities to explore technology-based innovations.[37] A comparison with previous studies shows consistency: Farisha et al. (2023) also found a dominance of pedagogical themes in Arabic language education research, while Royani et al. (2024) emphasized the limited variety of methodologies. However, unlike the research by Muntashir & Erida (2018), which revealed the dominance of outdated reference sources in dissertations, this study found a significant shift towards more current topics, especially those related to digital media.

A contextual interpretation of these results shows that internal and external factors influence students' choice of topics. Internal factors include students' motivation to complete their studies on time, the preferences of their supervisors, and limited methodological experience, which makes students choose “safe” topics such as the application of learning methods. External factors include campus policies related to open repositories, the demands of education globalization, and the acceleration of digital transformation due to the COVID-19 pandemic. This explains why the research trend has shifted towards digital media and competency-based evaluation in the 2020–2024. This phenomenon aligns with research findings in various contexts, confirming that the pandemic has accelerated technology adoption in higher education, including in foreign languages.[38]

However, this study has limitations that need to be noted. First, the analysis is limited to one institution, so generalization to the national context still needs further study. Second, using bibliometric methods only highlights the frequency and interconnection of keywords, while an in-depth analysis of content quality has not been carried out. Third, the relatively small number of dissertations means that the doctoral-level research map is unclear. Another challenge is the repetition of topics and the dominance of descriptive methodologies, which indicates the need to diversify analytical approaches. Theoretically, these findings enrich the study of the development of Arabic language research by adding a temporal dimension (trends 2015–2024), while practically

providing a basis for preparing a more varied thematic research roadmap. The policy implications are also clear, namely the need to strengthen academic regulations to encourage students to choose innovative and future-oriented research topics.[39]

This study's main contribution is providing quantitative and visual maps of Arabic language education research direction at one of Indonesia's leading Islamic universities. Theoretically, this study shows how bibliometrics can be used to link constructivist learning theory and motivation with empirical patterns of student research. Program administrators can use the results to evaluate the curriculum, design methodology workshops, and provide a more varied bank of research titles. From a policy perspective, this study recommends managing institutional repositories to support the optimal visibility and citation of student scientific works. Thus, this study not only answers academic questions but also makes a real contribution to developing theory, educational practice, and institutional policy.[40]

The limited focus on *maharah al-kitabah* reflects a persistent oral-skills bias in Arabic language education research. This imbalance has pedagogical implications, as academic writing competence is essential for higher education and scholarly communication. Addressing this gap requires targeted research development, including digital writing platforms and genre-based instructional models.

CONCLUSION AND IMPLICATIONS

This study successfully answered the research question by showing that the publication of Arabic Language Education theses and dissertations at UIN Alauddin Makassar in the 2015–2024 has increased significantly, especially in the last five years. Bibliometric mapping reveals the dominance of themes on applying methods, learning outcomes, language skills, and digital media integration, with a trend shifting from conventional approaches to technology-based innovations and authentic evaluation. The research hypothesis stating that there is growth in academic productivity and a trend towards theme diversification can be accepted. However, the variety of topics is still limited, so that research repetition is still found. The significance of these findings confirms that student research has contributed positively to scientific development, but requires more strategic direction to expand theme exploration.

Theoretically, this study reinforces the constructivism framework and motivation theory by confirming that students choose topics relevant to the social context and driven by academic motivation and institutional policies. Its practical contribution is evident in the recommendations for study program administrators to develop a research roadmap, strengthen methodological guidance, and develop a repository system to make student publications more visible and accessible globally. These results also have policy implications for improving postgraduate research standards, particularly encouraging mixed methods, exploring modern linguistic topics, and integrating learning media based on the latest technology.

In the future, these findings are relevant for enriching the Arabic language education literature while providing strategic direction for more innovative, varied, and practical research development. Further research is recommended to expand the context to other universities, use advanced bibliometric analysis methods such as topic modeling or structural equation modeling, and test the relationship between variables with a more complex inferential approach. For education practitioners, the results of this study recommend strengthening lecturer-student collaboration in research, optimizing the use of digital technology in learning, and increasing student academic capacity through continuous methodology training. Thus, this study not only presents a map of past and present research but also provides a solid foundation for developing Arabic language education science and practice in the future.

While the findings provide valuable insights into postgraduate research trends, they should be interpreted cautiously due to institutional scope limitations. Nevertheless, this study offers a foundational mapping that can inform future multi-institutional and mixed-methods investigations in Arabic language education.

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