



Development of Arabic Pocket Dictionary for Hajj and Umrah Based on Communication Needs in Places of Worship

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ENGLISH ABSTRACT

This study aims to develop an Arabic Pocket Dictionary for Hajj and Umrah to support pilgrims' communication during worship activities. The study used a modified 4D model consisting of the Define, Design, and Develop stages. Data were collected through questionnaires and interviews to identify pilgrims' language needs. Based on these needs, the researchers developed an A6-sized Arabic-Indonesian pocket dictionary containing thematic vocabulary and commonly used expressions for Hajj and Umrah activities. Expert validation showed a feasibility score of 94.06%, indicating that the dictionary is highly feasible as a communication and learning resource for pilgrims. However, this study did not examine the effectiveness of the dictionary in actual communication situations.

Keywords: Arabic pocket dictionary, Hajj and Umrah, Arabic learning media, communication needs

INDONESIAN ABSTRACT

Penelitian ini bertujuan untuk mengembangkan Kamus Saku Bahasa Arab untuk Haji dan Umrah guna mendukung kebutuhan komunikasi jamaah selama kegiatan ibadah. Penelitian ini menggunakan model pengembangan 4D yang dimodifikasi, meliputi tahap Define, Design, dan Develop. Data dikumpulkan melalui angket dan wawancara untuk mengidentifikasi kebutuhan bahasa jamaah. Berdasarkan kebutuhan tersebut, peneliti mengembangkan kamus saku bilingual Arab-Indonesia berukuran A6 yang memuat kosakata tematik dan ungkapan yang umum digunakan selama kegiatan haji dan umrah. Hasil validasi ahli menunjukkan skor kelayakan sebesar 94,06% yang berarti produk sangat layak digunakan sebagai sumber belajar dan komunikasi bagi jamaah. Namun, penelitian ini belum menguji efektivitas kamus dalam situasi komunikasi nyata.

Kata Kunci: Kamus Saku Bahasa Arab, Haji dan Umrah, Media Pembelajaran Bahasa Arab, Kebutuhan Komunikasi

Introduction

Language is an essential means of human interaction for conveying information, ideas, and daily needs. It plays an important role in facilitating communication and social interaction in everyday life (Sakdiah & Sihombing, 2023). Among the many languages used internationally, Arabic plays a significant role for Muslims, particularly in religious practices and communication during Hajj and Umrah. In the context of Hajj and Umrah, pilgrims frequently encounter Arabic in various practical situations, including understanding directions, using transportation services, accessing health services, following worship procedures, and interacting with officials and local communities (Abrar & Asriani, 2023). Therefore, a basic understanding of Arabic is important to support pilgrims' communication needs and help them navigate worship-related activities more effectively. Recent developments in Arabic language studies have increasingly integrated computational linguistics and large-scale corpora to support language analysis, preservation, and learning, indicating that Arabic is not only a sacred language but also a language actively studied through modern linguistic technologies (Belinkov et al., 2019). Based on these needs, the developed pocket dictionary focuses on thematic vocabulary and functional expressions commonly used in daily communication situations during Hajj and Umrah.

Each year, millions of Muslims from around the world travel to Makkah and Madinah to perform Hajj and Umrah. Indonesia, which consistently contributes one of the largest numbers of pilgrims worldwide, frequently encounters communication barriers related to limited Arabic proficiency. In practice, Arabic is widely used in various aspects of pilgrimage activities, including worship instructions, transportation services, public information, and interactions with local communities and officials.

Limited Arabic proficiency often creates difficulties for pilgrims, particularly when they need immediate assistance or information on public facilities, worship procedures, accommodation, transportation, or health services. These challenges may lead to confusion, discomfort, and reduced effectiveness in performing religious activities. Although digital translation applications are currently available, their use is not always practical, especially for elderly pilgrims or individuals with limited technological literacy. Therefore, accessible, user-friendly media are needed to assist pilgrims in meeting the linguistic and interactional demands of Hajj and Umrah.

To address these linguistic barriers, simple, practical, and context-based alternatives are required. One such solution is an Arabic pocket dictionary containing thematic vocabulary and functional expressions related to worship and daily interactional activities. Recent advances in Arabic lexicography and natural language processing have shown that dictionary systems are increasingly developed using computational approaches, including transformer-based models and structured dataset design, to improve accessibility and semantic understanding of language resources (Sibaeaa et al., 2024).

These developments indicate that dictionaries are no longer viewed merely as conventional language references, but also as practical linguistic tools designed to support effective interaction in specific contexts. Therefore, a dictionary serves as a linguistic resource that facilitates the understanding of word meanings and translation across languages, making it highly relevant for Hajj and Umrah pilgrims (Fitriya, 2020). The pocket dictionary format is compact, portable, and suitable for field use, especially for elderly pilgrims or users with limited technological familiarity. Previous studies have also demonstrated that portable vocabulary-learning media can improve language accessibility and support vocabulary acquisition in contextual learning environments, particularly for users who require flexible and user-friendly language resources outside formal classroom settings (Zakian et al., 2022). Previous studies also indicate that usability and user experience significantly influence the effectiveness of Arabic learning media, particularly in mobile and portable learning environments (Santoso & Fitriansyah, 2017).

Given this urgency, the present study focuses on developing an Arabic pocket dictionary for Hajj and Umrah, designed to address the interactional needs of pilgrims during worship activities. This study specifically examines the process of developing a pocket dictionary, including content design, prototype preparation, and expert validation of the final product. The study aims to produce a practical, user-friendly Arabic pocket dictionary that serves as a linguistic support tool for Hajj and Umrah pilgrims.

Previous studies on the development of Arabic dictionaries have focused on various aims and target users. For example, Azzikri and Zukhaira developed the M-Dictionary of Arabic Research Terms Digital-Based for Students to support academic writing and research activities (Azzikri & Zukhaira, 2019). Meanwhile, Widodo and

Jannah developed a mini Arabic-Indonesian vocabulary dictionary for Madrasah Aliyah students as a supporting learning medium (Widodo & Janah, 2022). These studies demonstrate that Arabic dictionary development has generally focused on academic and educational contexts and has produced valid and useful learning resources tailored to users' needs.

However, studies specifically addressing Arabic communication needs in the context of Hajj and Umrah remain relatively limited, particularly in the form of practical pocket dictionaries designed for pilgrims' daily interactions in the Holy Land. Most existing studies emphasize Arabic learning for classroom or general educational purposes rather than situational communication during pilgrimage activities. Therefore, this study contributes by developing a practical Arabic-Indonesian pocket dictionary containing thematic vocabulary, functional expressions, and communication-related sentences relevant to worship activities and everyday interactions encountered during Hajj and Umrah.

Methods

This study employed a Research and Development (R&D) design with a mixed-methods approach, combining qualitative and quantitative data. Qualitative data were obtained from interviews and open-ended questionnaire responses and analyzed using descriptive qualitative analysis, including data reduction, classification, and interpretation, to identify the communication needs of Hajj and Umrah pilgrims. Meanwhile, quantitative data were presented numerically and analyzed using descriptive statistics to determine the product's feasibility.

The product developed in this study is an Arabic pocket dictionary designed to support the communication needs of Hajj and Umrah pilgrims during worship activities and daily interactions in pilgrimage settings. This study employed a modified 4D development model consisting of three stages: Define (needs analysis), Design (prototype development), and Develop (product development and validation). The Disseminate stage, which is part of the original 4D framework, was not implemented in this study. Throughout the Define, Design, and Develop stages, the model was used to ensure the developed product aligned with users' communication needs and was suitable for practical use. Through these sequential stages, the 4D model ensures that the developed product is aligned with users' needs (Rahayu, 2025).



Figure 1. Stages of the 4D Development Model

Sources: (Maydiantoro, 2020)

In this study, the dissemination stage was not carried out because the Thiagarajan 4D development model was employed, which, upon reaching that stage, requires printing, propagation, and publication. Due to limited resources, time, and cost, this research only reached the development stage. Although it is still in development, the pocket dictionary already incorporates the principles of developmental research.

The participants in this study included Hajj and Umrah pilgrims, Hajj and Umrah guides, and Arabic lecturers who served as expert validators. The pilgrims were selected using purposive sampling based on their experience in performing Hajj or Umrah and their involvement in communication situations during pilgrimage activities, including elderly pilgrims. A total of 46 pilgrims aged between 20–60 years participated in this study. Hajj and Umrah guides were selected for their practical experience assisting pilgrims in the field. At the same time, Arabic lecturers were chosen for their expertise in the Arabic language and instructional material development. The product validation process involved three validators, consisting of material and design experts.

The needs analysis involved 46 pilgrims who completed questionnaires. At the same time, three participants took part in semi-structured interviews to provide more detailed information regarding communication difficulties encountered during Hajj and Umrah activities. The interviews explored participants' experiences, communication barriers, and vocabulary needs in situations such as asking for directions, using transportation, accessing health services, following worship procedures, and interacting

with officials. The questionnaire included items on the frequency of communication problems, required vocabulary themes, and participants' preferences regarding the dictionary's content and format.

Documentation was also used to strengthen the data through the analysis of guidebooks, prayer books, and previously published Arabic dictionaries related to Hajj and Umrah contexts. The product validation process involved material and design experts who evaluated the dictionary using a validation rubric covering vocabulary relevance, language accuracy, clarity of functional expressions, content organization, readability, visual appearance, and practicality of the pocket dictionary design. The quantitative data obtained from the validation process were analyzed using descriptive statistics based on percentages to determine the product's feasibility.

The product validation data were analyzed using descriptive statistical techniques, including percentage calculations, to determine the feasibility of the developed pocket dictionary. The validators assessed each item using a Likert scale based on several aspects, including vocabulary relevance, language accuracy, readability, content organization, visual appearance, and practicality of use. The feasibility percentage was calculated using the following formula:

Formula for Calculating Feasibility Percentage

$$\text{Percentage (\%)} = \frac{\text{Total Score Obtained}}{\text{Maximum Score}} \times 100\%$$

Explanation:

Total Score Obtained = The sum of all scores given by the validators for each assessment item.

Maximum Score = The highest possible score that could be achieved from all assessment items.

The total score is the sum of all validator scores for each assessment item. In contrast, the maximum score is the highest possible score achievable across all assessment items. The resulting percentage was then interpreted using predetermined feasibility criteria to categorize the product as very feasible, feasible, sufficiently feasible, or not feasible. The formula mentioned above is used to find out the validity

value of the media. The result is then used to find out the interval of determination of the level of validity shown in the following table:

Table 1. Criteria for Validity and Feasibility Interpretation

Percentage	Interpretation
81% - 100%	Highly Valid/Highly Feasible
61% - 80%	Valid/Feasible
41% - 60%	Fairly Valid/Moderately Feasible
21% - 40%	Less Valid/Less Feasible
0% - 20%	Invalid/Not Feasible

Source: Adapted from (Riduwan, 2022)

Result and Discussion

The data collected during the initial analysis stage were obtained through questionnaires, interviews, and the examination of relevant theoretical perspectives on interactional demands and language-learning media. The development of the Arabic pocket dictionary for Hajj and Umrah pilgrims was conducted through the Define, Design, and Develop stages of the 4D development model.

Analysis of the Communication Needs of Hajj and Umrah Pilgrims

The define stage aimed to identify user needs, determine product specifications, and map the communication challenges experienced during Hajj and Umrah activities (Sihombing et al., 2024). Needs analysis is a fundamental stage in Arabic language material development, as it helps identify the gap between learners' actual abilities and their communicative competencies (Nurjannah, 2018). The needs analysis involved 46 respondents, including prospective Umrah pilgrims, former Hajj and Umrah pilgrims, and several elderly participants with experience in pilgrimage activities. In addition, interviews were conducted with Hajj and Umrah guides and individuals involved in pilgrimage services to obtain broader insights into the communication situations commonly encountered in the field.

The questionnaire contained items related to participants' Arabic language proficiency, communication difficulties experienced during Hajj and Umrah, frequently needed vocabulary themes, and preferences regarding the content and format of the pocket dictionary. The interview sessions further explored communication barriers encountered in practical situations, including asking for directions, using transportation services, accessing health services,

following worship procedures, and interacting with officers and local communities.

The questionnaire results showed that most respondents' Arabic proficiency was categorized as low to moderate. Specifically, 15.2% of respondents reported being unable to speak Arabic at all, while 34.8% reported knowing only basic vocabulary. Meanwhile, 10.9% could pronounce simple expressions, 28.3% could understand basic conversations, and only 10.9% considered themselves fluent in Arabic. In this study, fluency refers to the ability to understand and use basic communicative Arabic expressions commonly encountered in daily interactions during Hajj and Umrah, rather than full proficiency in Modern Standard Arabic (MSA). These findings indicate that many pilgrims still face communication difficulties during pilgrimage activities, underscoring the need for practical Arabic communication support. This finding is consistent with Rosyda et al. (2019), who state that limited Arabic proficiency among pilgrims often creates communication barriers during worship activities (Rosyda et al., 2019).

The media analysis further demonstrated the urgency of developing a practical language-support tool for pilgrims. A total of 39.1% of respondents stated that they urgently required an Arabic pocket dictionary, while 37% indicated that such a resource was necessary during worship activities. Notably, none of the respondents considered the pocket dictionary unnecessary. These findings indicate a strong demand among pilgrims for accessible linguistic-support media. The interactional difficulties most frequently encountered by respondents included asking for directions, interacting with officers, communicating with fellow pilgrims, seeking medical assistance, and conducting shopping transactions. Therefore, a portable and user-friendly medium containing practical Arabic expressions was considered essential to support pilgrims' daily linguistic and social interactions.

The vocabulary analysis revealed that respondents prioritized situational expressions closely related to worship activities, particularly those used to request directions, seek assistance, and identify locations. This finding is consistent with Bocanegra-Valle's view, who emphasized that needs analysis plays a crucial role in designing language-learning materials that correspond to

users' actual communicative demands. (Bocanegra-Valle, 2025). Similar findings were reported by Normawati and Nugrahaeni, who argued that needs analysis is essential in developing language-learning materials because it helps identify learners' communicative competencies and learning expectations (Normawati & Nugrahaeni, 2023). Furthermore, the communication demands of pilgrims vary depending on the worship setting, particularly in highly interactive settings such as Al-Masjid an-Nabawi and Masjid al-Haram, where interactions with officers, local communities, and fellow pilgrims are frequent.

The media preference analysis showed that 56.5% of respondents preferred printed pocketbooks to digital applications (37%) because printed media were considered more practical and easier to use during worship activities. In addition, the A6 format was identified as the most preferred size by 47.8% of respondents due to its portability and convenience during pilgrimage activities. Respondents also expressed a preference for simple layouts and visual illustrations, indicating that readability and ease of use were primary considerations in selecting communication-support media. This finding is consistent with Jorge's view that effective visual design can facilitate the organization and comprehension of complex information (Jorge, 2023).

Overall, the findings demonstrate that pilgrims generally possess limited Arabic language proficiency while simultaneously facing substantial interactional demands during Hajj and Umrah activities. These conditions highlight the need to develop a practical, contextually relevant, and user-friendly Arabic pocket dictionary to support pilgrims' linguistic requirements across various worship settings.

The define stage was also strengthened through interviews with three participants who had direct experience in Hajj and Umrah activities, including former pilgrims, Hajj and Umrah guides, and individuals involved in pilgrimage services. These participants were selected purposively because they were considered capable of providing information related to communication situations commonly encountered by pilgrims in the field. The interview results showed that pilgrims' Arabic communication abilities varied significantly. However, the participants emphasized that mastery of basic communicative expressions was more important than achieving full fluency in Arabic.

These findings are consistent with Yenkimaleki and Van Heuven's argument that the ability to use basic expressions appropriately can provide more immediate practical benefits for language learners. Fluency involves not only speaking smoothly and quickly, but also the accurate use of grammar and vocabulary, which may be difficult for beginner learners (Yenkimaleki & van Heuven, 2024). The interviews further revealed that communication needs most frequently arise in situations such as asking for directions, locating public facilities, interacting with officers, and navigating the areas surrounding the Grand Mosque and the Prophet's Mosque, which are characterized by high pilgrim mobility.

Although several interview participants demonstrated relatively good Arabic proficiency, they emphasized that pocket dictionaries remained necessary, particularly for pilgrims without companions or prior Arabic language backgrounds. This finding supports the view of Martoyo et al., who argued that dictionaries serve as important media for expanding knowledge and practical understanding (Martoyo et al., 2018). In terms of presentation, respondents preferred a pocket dictionary that was concise, portable, systematically organized, and equipped with situational expressions and visual illustrations to facilitate comprehension.

Furthermore, although some participants suggested developing a digital version of the dictionary, the printed pocketbook format was considered more suitable for elderly pilgrims and users with limited familiarity with digital devices. This finding is consistent with the argument of Ferraz et al., who reported that many older adults tend to prefer printed media over digital formats because printed materials are perceived as more familiar, comfortable, and easier to read and handle (Ferraz et al., 2024).

Overall, the interview findings reinforce the questionnaire results, indicating that the development of an Arabic pocket dictionary tailored to pilgrims' linguistic and interactional requirements is a relevant, functional, and necessary support medium during Hajj and Umrah activities in Saudi Arabia. This finding is consistent with the study by Fariza et al., which concluded that an Arabic mini-dictionary can serve as an effective language-support aid for pilgrims in Saudi Arabia. (Fariza et al., 2025).

Prototype of the Arabic Pocket Dictionary for Hajj and Umrah

The Arabic Pocket Dictionary for Hajj and Umrah was developed based on the results of a needs analysis obtained through questionnaires and interviews with prospective users. This analysis was conducted to ensure that the dictionary content and design corresponded to the actual communication requirements of pilgrims during worship activities. This approach is consistent with the view of Costa et al., who emphasized that involving users throughout the development process, rather than only during the evaluation stage, is essential for producing materials that meet user needs and improve user satisfaction (Costa et al., 2015).

The dictionary prototype was designed using the Canva platform because it offers a wide range of ready-to-use templates that enable efficient, visually appealing media development. The availability of these templates enabled the creation of a systematic, user-friendly dictionary layout. This finding is supported by Ngoc and Nguyen, who argued that Canva offers diverse design templates for various projects, including presentations, posters, and infographics, thereby enabling users to create professional and effective visual products efficiently (Ngoc & Nguyen, 2025).

The thematic organization of the Arabic Pocket Dictionary for Hajj and Umrah was developed based on communication situations commonly encountered by pilgrims, such as asking for directions, requesting assistance, communicating with officers, and interacting in public places. This thematic arrangement was intended to provide functional and contextual vocabulary that could be directly applied during worship activities and daily interactions in the Holy Land. This approach is consistent with the communicative language-learning perspective proposed by Debarge, who emphasized the importance of language use in authentic communicative contexts (Debarge, 2019).

Cover Design of the Arabic Pocket Dictionary for Hajj and Umrah

The dictionary was designed as an A6-sized pocket book (11 cm × 8 cm) in portrait orientation, with a soft cover and book-style binding to ensure portability and ease of use during Hajj and Umrah activities. The dictionary consists of 89 pages, including the cover, usage instructions, thematic vocabulary lists, functional expressions, daily communication sentences, and

developer profiles. The compact size and practical design were intended to help pilgrims carry and use the dictionary conveniently during worship activities and daily interactions in the pilgrimage environment. This finding is supported by Narawati et al., who state that effective learning media should be practical, portable, and adapted to users' characteristics to optimize usability (Narawati et al., 2025).

The dictionary content was organized based on communication situations commonly experienced by pilgrims, such as asking for directions, using transportation, participating in worship activities, seeking health services, and communicating with officers. Each entry includes Arabic script, transliteration, Indonesian meaning, selected colloquial Arabic expressions (*'amiyah*), and examples of functional sentences used in daily communication. For example, the dictionary provides the expression “*Ayna al-hammam?*” (أين الحمام؟) meaning “*Di mana toilet?*” along with its colloquial variation “*Fīn al-hammām?*” (فين الحمام؟) to support practical communication in the field. This structure was designed to help pilgrims understand and use simple Arabic expressions effectively during Hajj and Umrah activities.

The front and back cover designs of the dictionary are crafted with a simple yet informative look, giving the product a distinct identity while capturing the user's interest. This aligns with the opinion of King et al., who suggest that incorporating interactive elements and ensuring visual designs are both aesthetically appealing and functionally effective can significantly enhance user comfort and interest (King et al., 2020). The following shows the front and back covers of the dictionary.



Figure 2. Front and Back Cover Design of the Dictionary

Chapter and Theme Organization

Chapter I contains thematic vocabulary related to transportation, places and buildings, worship activities in Masjid al-Haram and Al-Masjid an-Nabawi, Hajj and Umrah rituals, pilgrimage equipment, food and beverages, commercial activities, and public services. The thematic organization of vocabulary was intended to support contextual language use in situations commonly encountered by pilgrims during worship activities. This finding is in line with Tazhitova et al., who stated that language-learning materials based on users' needs are generally more relevant and effective for practical use (Tazhitova et al., 2025).

Chapter II presents functional expressions and situational sentences that can be directly used in various communication contexts during Hajj and Umrah activities. These expressions include asking for directions, interacting with officers and fellow pilgrims, and communicating during worship activities. This chapter also covers daily situations related to health services, shopping, accommodation, transportation, and ordering food.

Chapter III introduces *‘Āmiyah Arabic*, which refers to colloquial Arabic expressions commonly used in daily communication. The inclusion of these expressions was intended to help pilgrims understand the spoken language used in local social interactions. Each chapter was arranged systematically with clear thematic navigation to improve readability and ease of use. Examples of Chapter I pages containing expressions for asking directions and identifying locations are presented in the following figures.



Figure 3. Chapter Cover Page Design of the Dictionary

Dictionary Contents (Vocabulary and Sentence Presentation)

The dictionary content section presents thematic vocabulary equipped with Arabic script, transliteration, Indonesian translations, and selected '*amiyah* (colloquial Arabic) equivalents for specific expressions frequently used during Hajj and Umrah activities. The transliteration was included to help pilgrims who are not yet familiar with Arabic script pronounce the vocabulary more accurately. This aligns with Abd El-Wahab et al., who state that transliteration serves as a phonetic representation that supports correct pronunciation (El-Wahab et al., 2022).

The vocabulary items and functional expressions included in the dictionary were selected based on the results of the needs analysis, interview findings, commonly encountered communication situations during Hajj and Umrah, and references from existing Arabic dictionaries, guidebooks, and pilgrimage communication materials. The selected vocabulary primarily focuses on practical communication needs, such as asking for directions, transportation, accommodation, health services, worship procedures, and interactions with officers and local communities.

The colloquial Arabic (*'amiyah*) expressions used in the dictionary mainly refer to commonly used Saudi Arabic expressions frequently encountered by pilgrims in Mecca and Medina. These expressions were selected because pilgrims often interact with residents, officers, drivers, shopkeepers, and service providers who use spoken Arabic in daily communication rather than fully formal Modern Standard Arabic (MSA). However, the dictionary also includes standard Arabic vocabulary to support broader comprehension in religious and public contexts.

Vocabulary and functional sentences are presented systematically in table form to facilitate easier searching and understanding for users. The tables are organized based on themes and communication situations commonly encountered during Hajj and Umrah activities. Each entry includes Arabic vocabulary, transliteration, Indonesian meaning, and selected '*amiyah* expressions to support practical communication. The following section presents examples of Hajj and Umrah vocabulary entries contained in the developed pocket dictionary.

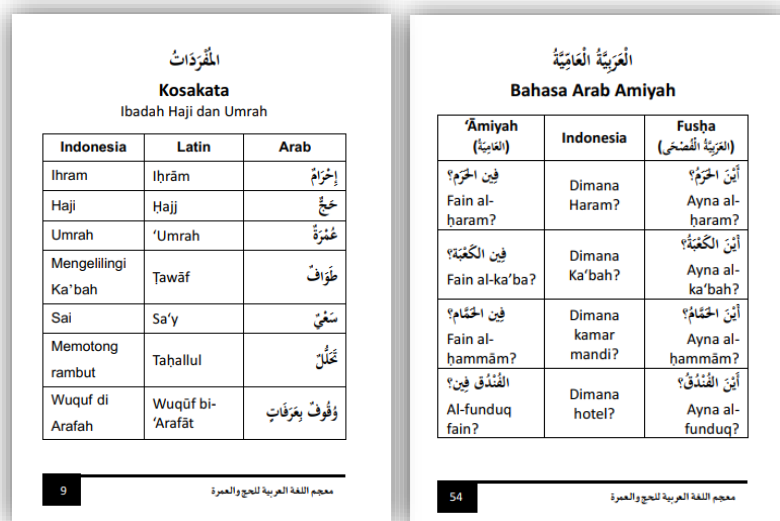


Figure 4. Vocabulary Page Design of the Dictionary

Results of Material and Design Expert Validation

The validation results of the Arabic Pocket Dictionary for Hajj and Umrah, conducted by material and design experts and prospective users, indicated that the developed product was highly feasible for use. Nevertheless, several recommendations were provided to improve both the content and design quality of the dictionary.

From a content perspective, the experts recommended adding vocabulary items and expressions more relevant to the communicative contexts commonly encountered by Indonesian pilgrims. They also suggested reorganizing the vocabulary entries alphabetically to facilitate easier navigation and vocabulary retrieval. In terms of design, the experts recommended laminating the cover and adopting a closed-cover model to improve the dictionary's durability and suitability for field conditions during Hajj and Umrah activities.

Prospective users also emphasized the importance of maintaining a compact, portable format, along with a more systematic content arrangement to improve usability and readability. Based on these recommendations, revisions were implemented across the product's content and visual design. These revisions included expanding the vocabulary, enhancing the visual layout, improving content organization, and strengthening the dictionary's physical durability. Several revisions made based on suggestions from material experts, design experts, and prospective users are presented in the following figures.



Figure 5. Revision of the Front Cover Designs

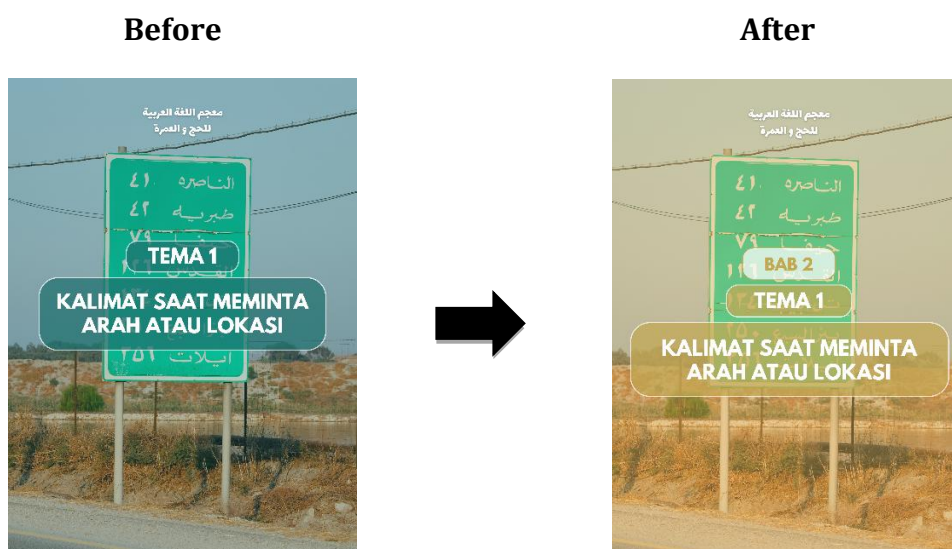


Figure 6. Revision of the Chapter Cover Page Designs

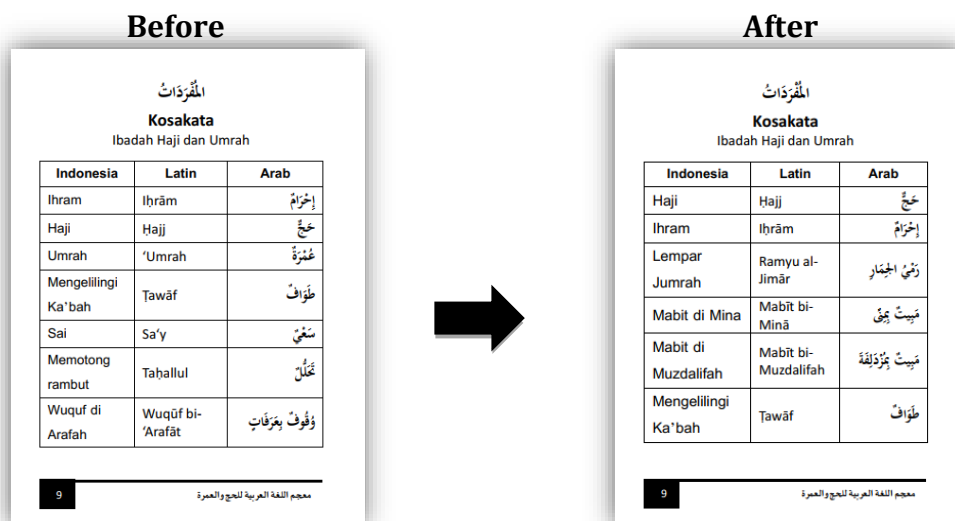


Figure 7. Revision of the Vocabulary Page Designs

The validation of the Arabic Pocket Dictionary for Hajj and Umrah involved two expert validators, consisting of one material and language expert and one design expert, as well as one user representative. The assessment instruments included several indicators covering content feasibility, language feasibility, presentation feasibility, visual appearance, usability, design integration, and the product's technical quality.

The material and language expert evaluated 14 indicators related to vocabulary relevance, communicative expressions, language accuracy, transliteration consistency, readability, and grammatical appropriateness. The material expert obtained a total score of 94.64%, while the user assessment reached 96.43%, resulting in an average of 95.54%, which was categorized as "highly feasible."

Meanwhile, the design expert assessed 17 indicators related to cover design, layout organization, typography, readability, color selection, portability, practicality, visual consistency, and technical production quality. The design expert assessment obtained a percentage score of 88.24%, while the user assessment reached 97.06%. The average percentage for the design validation was 92.65%, which was also categorized as "highly feasible."

Overall, the validation results indicate that the developed Arabic Pocket Dictionary for Hajj and Umrah achieved a combined average feasibility score of 94.06%, placing the product in the "highly feasible" category. The feedback provided by the validators and user representative contributed to improvements in vocabulary selection, layout organization, readability, usage instructions, and visual design. The high validation score shows that the dictionary content and design are considered appropriate to support pilgrims' communication needs during Hajj and Umrah activities. In addition, the integration of thematic vocabulary and practical expressions makes the dictionary more contextual and user-friendly for everyday communication. Although the product is considered highly feasible, broader field testing is still needed to examine its effectiveness in real communication situations during Hajj and Umrah activities. The following are the results of the recapitulation of the validation assessment of material experts, design experts, and users presented in the following table:

Table 2. Validation Results of the Arabic Pocket Dictionary for Hajj and Umrah

Validator	Assessed Aspects	Number of Items	Score Obtained	Maximum Score	Percentage	Category
Material & Language Expert	Vocabulary relevance, transliteration, readability, grammar	14	53	56	94.64%	Highly Feasible
User (Content Aspect)	Practicality and clarity of content	14	54	56	96.43%	Highly Feasible
Design Expert	Layout, typography, portability, visual design	17	60	68	88.24%	Highly Feasible
User (Design Aspect)	Readability and usability	17	66	68	97.06%	Highly Feasible
Average					94.06%	Highly Feasible

Based on the results presented in the table, the Arabic Pocket Dictionary for Hajj and Umrah obtained a score of 94.06 and was categorized as highly feasible for use. Constructive feedback and suggestions from material experts, design experts, and users contributed to improvements in the product's content, language, and visual appearance. Based on these feasibility results, the developed pocket dictionary can be considered a suitable supporting resource for Hajj and Umrah pilgrims. However, since this study was limited to the development and validation stages, further field testing is still needed to evaluate the effectiveness of the dictionary in actual communication situations during Hajj and Umrah activities.

Conclusion

Based on the research and product validation, it can be concluded that Hajj and Umrah pilgrims need practical, accessible Arabic communication support media to assist them in worship-related and daily communication situations. The developed Arabic Pocket Dictionary for Hajj and Umrah was found highly feasible based on expert and user validation results, as it provides thematic vocabulary, functional expressions, and practical communication support relevant to pilgrims' needs. In addition, the compact,

lightweight, and readable design makes the dictionary more accessible, particularly for elderly pilgrims. Previous studies in multimedia learning have also emphasized that the design and presentation of instructional media significantly influence users' learning experiences and accessibility, particularly in user-oriented educational resources (Cromley & Chen, 2025).

The findings also indicate that existing learning media tend to focus primarily on worship prayers and have not sufficiently addressed practical communication needs encountered during Hajj and Umrah activities. Therefore, this study contributes by developing a pocket dictionary that supports both basic Arabic learning and practical communication needs in pilgrimage contexts.

However, this study has several limitations. The research implemented only the Define, Design, and Develop stages of the modified 4D model, omitting the Disseminate stage. The number of interview participants and validators was also limited. Therefore, future studies are recommended to conduct wider field trials and evaluate the effectiveness of the dictionary in improving pilgrims' real communication experiences during Hajj and Umrah.

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