



EXPLORING THE NEED FOR ARABIC LANGUAGE LEARNING IN THE ELDERLY COMMUNITY THROUGH DIGITAL TECHNOLOGY

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Abstract

Learning is a lifelong obligation for every Muslim, continuing until the end of their life. The elderly phase is a crucial period for actualizing and developing one's potential, particularly in the spiritual and social dimensions. Arabic plays a vital role in the daily activities of Muslims, both for study and worship. This research aims to identify the needs of the elderly community for Arabic language learning through an information technology approach. The method employed is qualitative research, utilizing case studies of the elderly community in South Tangerang City and Serang City, Banten Province. Data were collected through semi-structured interviews with six informants who were community administrators, then analyzed descriptively using NVivo software as a CAQDAS tool. The study's findings reveal three main themes in learning Arabic for older people: learning strategies, motivation, and constraints. Learning strategies emphasize the importance of using adaptive Arabic, accessible technology, volunteer support, and materials tailored to the needs of older people. Community, spirituality, social connections, worship experiences, and a sense of usefulness drive the motivation of the elderly. The obstacles faced include time constraints, visual impairments, operational limitations, and cognitive challenges. The implications of the research necessitate the design of an elderly learning program that integrates ease of access to technology, the use of relevant language, and social support from volunteers and community members. Research contributions form a crucial foundation for developing inclusive and effective learning strategies for older people that leverage technology. This study examines the effectiveness of digital technology in elderly learning, as well as the specific role of motivational factors in influencing learning outcomes.

Keywords:

Arabic Learning; Information Technology; Elderly; Spirituality; Social

INTRODUCTION

Lifelong learning is a fundamental concept in Islamic education, which emphasizes that a Muslim is obliged to pursue knowledge until the end of his life, as stated in Surah Al Mujadilah verse 11 "O you who have believed, when it is said to you, "Give space in the assemblies," make room for it, and Allah will surely give you space. When it is



said, "Stand up," (you) stand up. Allah will certainly raise the believers among you and those who are given knowledge of some degree. Allah is Thorough in what you do" (Ministry of Religion, 2015).

The elderly phase is a critical period that provides an opportunity to actualize the spiritual dimension while strengthening social relationships. In this phase, spiritual well-being and social support are essential factors in enhancing the happiness and quality of life of the elderly (Ezati et al., 2023). Engaging in religious and spiritual practices helps the elderly navigate the challenges of aging and strengthens their social networks (Timmins et al., 2024). Meanwhile, spiritual counseling services have been shown to improve the mental health and social connectedness of the elderly (Ukpo et al., 2024). This opinion emphasizes that the elderly are not a natural or psychosocial problem but rather a matter of strengthening one's role and appreciation.

In the context of Muslims, mastery of Arabic is the primary key to deepening the understanding of religious knowledge and carrying out worship solemnly. Arabic is not only a language of worship but also a means of conveying knowledge that must be acquired as a form of spiritual achievement (Rusydi Amar, 2023). Spiritual motivation as a new approach to learning Arabic in Indonesia serves as a means of communicating knowledge and spiritual strengthening (Edidarmo & Fudhaili, 2023; Rashid Ridha et al., 2025). However, learning Arabic for the elderly presents numerous challenges that necessitate innovative learning methods and media tailored to their specific needs.

The dimension of spirituality plays a central role in the lives of the elderly, serving as a foundation for achieving inner peace and happiness in the final phase of their lives. Religious learning activities, particularly Arabic, which support the understanding of sacred texts, significantly contribute to strengthening the faith and belief of the elderly in Allah (Amir et al., 2022; Ilham et al., 2025). Spiritual education not only provides a profound meaning to life but also helps the elderly navigate various daily life challenges, including the fear of death and loneliness, thereby enabling them to develop mental and emotional resilience that positively impacts their overall well-being (Drianus, 2021; Akbar et al., 2023). Therefore, the need for learning Arabic for the elderly is not only cognitive but also spiritual, as it becomes an important medium for enriching the religious dimension and providing a strong foundation for happiness and inner peace.

Additionally, the social aspect is also an essential need in the learning of the elderly, as active social interaction can help reduce feelings of isolation and improve their quality of life (Yahya et al., 2024). Learning facilitated by information technology opens up a more expansive space for community participation and supports the social involvement of the elderly. Learning activities that integrate social, religious, and community aspects strengthen the social network of the elderly, enabling them to feel needed and valued in society (Haruns et al., 2023). Involvement in the educational community not only strengthens social identity but also fosters ongoing motivation and happiness. Therefore, learning Arabic for the elderly should be designed not only as an independent learning activity but also as a means of strengthening social relationships and optimizing the social role of the elderly.

In the digital context, the elderly community in Indonesia has become one of the most important demographic groups in terms of using communication technology. Data from the Central Statistics Agency (BPS) in 2023 shows that around 49.56% of the elderly in Indonesia have used gadgets, especially mobile phones. However, only a



small percentage have optimal access to the internet (BPS, 2023). This trend suggests that the elderly are potential users of technology-based gadgets, including those for learning Arabic. However, digital literacy constraints and the limited technological capabilities of the elderly also pose a risk of techno-stress and difficulties in adapting (Hill et al., 2015). Techno stress as a whole, including its impact on the elderly who have difficulty adapting to digital technology (Sanjeeva Kumar, 2024). Therefore, the right support is needed so that the elderly can use technology actively, effectively, and safely. These statistics underscore the urgency of research that examines the integration of information technology into Arabic language learning for the elderly, as well as the quality of learning.

The primary issue is the non-optimal Arabic language learning strategy for the elderly community, which typically employs conventional and face-to-face methods that overlook the cognitive, physical, and motivational limitations of the elderly (Palombi et al., 2025; Li et al., 2025). Additionally, the constraints of access to technology and the lack of social support also impact the effectiveness of learning Arabic for this elderly group (Alhussein et al., 2023). In the digital era, information technology presents significant opportunities to overcome these obstacles; however, the implementation of technology-based learning, particularly for the elderly, remains minimal and under-researched (Gunnes et al., 2024). This gap highlights the need for studies that integrate information technology with Arabic language learning needs explicitly tailored for the elderly.

Previous research has highlighted the significant role of Arabic language learning for students in schools and colleges, utilizing digital technology media such as videos, learning applications, and multimedia language labs (Firdausinnisa et al., 2024; Parikesit et al., 2025; Liza et al., 2021). However, the focus on the elderly is still very rare. Several studies have examined the motivation of the elderly in the context of religious learning in general (Ikhlās et al., 2024), as well as other research on technology learning for the elderly from social and psychological perspectives (Khuzaimah et al., 2023). Unfortunately, a comprehensive integration between Arabic language learning and the use of information technology for the elderly has not been found in any academic literature. This research gap presents opportunities for new studies using a case study approach to explore the elderly community's interaction with technology in Arabic language learning.

The novelty of this research lies in its approach, which combines information technology as an Arabic language learning medium tailored to the special needs of the elderly, while mapping the motivational factors and obstacles they experience in depth. This technological approach is not only oriented to hardware and software, but also to social support in the form of volunteers and communities that motivate the elderly to learn actively. This study also uses NVivo software as a qualitative analysis tool to provide a holistic picture of the learning needs of the elderly. Thus, this research is expected to make a significant contribution to the development of inclusive learning methods that can accommodate physical and cognitive limitations while maximizing the spiritual and social potential of the elderly.

The purpose of this research is to identify the need for Arabic language learning among the elderly community, utilizing information technology. In more detail, this study aims to: (1) examine effective Arabic language learning strategies for the elderly with information technology media; (2) uncover the motivations that encourage the



elderly to learn Arabic; and (3) understand the obstacles faced by the elderly in learning Arabic so that more targeted solutions can be designed.

The primary contribution of this study is to provide an empirical foundation for the development of effective and inclusive Arabic language learning strategies for the elderly, with information technology serving as the primary driver. This research is expected to assist education practitioners, developers of elderly learning programs, and policymakers in designing programs that are adaptive to the needs of the elderly, thereby enhancing the quality of their learning and sustaining the spiritual and social dimensions. In addition, these findings may pave the way for further research on the effectiveness of technological interventions in older learning and further examine the motivational factors that affect learning success in the context of the elderly.

RESEARCH METHOD

The method employed in this study is a qualitative approach with a case study strategy, focusing on the elderly community in South Tangerang City and Serang City, Banten Province. The qualitative approach was chosen because of its nature, which allows researchers to explore information in depth and comprehensively about the social phenomena, experiences, and needs of the elderly in information technology-based Arabic language learning (Creswell & Creswell, 2018). The case study provides a suitable framework for in-depth analysis of the real-life conditions experienced by the elderly community, as well as the supporting and inhibiting factors related to the learning process (Patnaik & Pandey, 2020). This approach aims to gain a comprehensive and detailed understanding of the research subject's circumstances and social context.

Data collection was conducted through semi-structured interviews with six informants, who were administrators of the elderly community, specifically the Serang City Elderly School and the Elderly and Pralansia Fitness of South Tangerang City. The selection of informants with the category of community administrators is carried out so that the data obtained not only represents individual experiences, but also reflects the needs and dynamics of learning that occurs at the group level. Semi-structured interviews enable researchers to ask open-ended yet directed questions, providing informants with the space to convey their perspectives and experiences in depth (Brounéus, 2011). This technique is effective for uncovering motivational factors, constraints, and expectations that may not be within reach through rigid or quantitative interview methods.

Furthermore, the data collected through interviews were analyzed descriptively using NVivo 14 software as a computer-assisted qualitative Data Analysis Software (CAQDAS) tool (Dalkin et al., 2021). NVivo facilitates the coding, categorization, and theme search process of interview transcripts, making data analysis more systematic and structured (Endah et al., 2020). Through this method, researchers can identify patterns, main themes, and relationships between concepts that appear in qualitative data, such as learning strategies, motivations, and obstacles faced by the elderly in Arabic language learning using information technology. Descriptive analysis, integrated with NVivo, facilitates the effective management of big data and minimizes interpretation bias.

This study also pays attention to the validity and reliability of data by triangulating

data through cross-confirmation between informants and re-examination of interview results (Chanda, 2022). Additionally, the researcher ensures that research ethics are adhered to by obtaining informed consent from each informant.

RESULTS AND DISCUSSION

The results of the research, visualized using a word cloud in the image, show the dominant keywords in the context of technology-based Arabic learning for the elderly. Words such as "elderly", "learning", "technology", "language", "arabic", "digital", "community", and "material" stand out prominently, indicating that the core of the problem lies in the need for Arabic language learning specifically for the elderly group, with the support of digital technology as the main element. As shown in Figure 1:



Figure 1. Word Cloud of Arabic Learning

From the analysis results, the research successfully identified the main challenges and needs of the elderly, including accessibility of digital device-based learning, adaptation of appropriate teaching materials, and the active involvement of the community. The words "easy", "mentoring", "material", and "support" repeatedly appear, indicating the importance of simplifying the content and the presence of volunteers or companions to help the learning process. The words "community" and "social" also emphasize the social dimension of learning, highlighting that group involvement and community motivation are highly influential in meeting the learning needs and enriching the spiritual experience of the elderly.

Thus, the results of the study confirm that Arabic language learning for the elderly must be adaptive, based on easily accessible technology, strengthened social support through the community, and provide contextual and relevant material for them. The integration of digital, social, and spiritual aspects is a crucial foundation for optimizing learning success and enhancing the quality of life for the elderly.

The results of the research visualized in the hierarchy diagram show that the learning needs of the elderly community are strongly influenced by three main themes:



learning strategies, motivation, and constraints. As in the following picture:

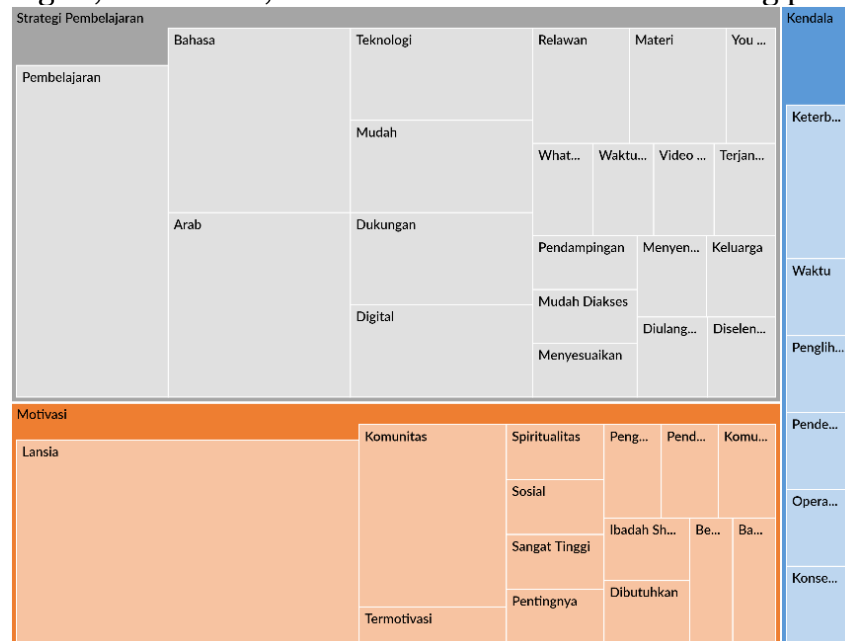


Figure 2. Arabic Learning Hierarchy Chart

In terms of learning strategies, the main findings include the importance of using simple language, utilizing easily accessible digital technology, support from volunteers, and materials tailored to the needs of the elderly. Social support, both from family and community, has also proven to be very helpful in the smooth learning process. The availability of learning materials in digital format and intensive mentoring are the keys to the success of elderly learning.

The motivation of the elderly to learn is influenced by community factors (togetherness), spirituality (the desire to engage in worship), social needs (feeling needed and appreciated), and the importance of engaging in meaningful activities in old age. This motivation is manifested in the form of active participation in the community and a desire to enhance spiritual and social well-being through learning Arabic.

On the other hand, the study also identified several significant obstacles, including time limitations, visual impairments, operational constraints, and cognitive aspects that decline with age. These obstacles require adaptive strategies, including simplification of materials, flexible learning times, and the use of user-friendly technology.

Overall, this study emphasizes that Arabic language learning for the elderly requires an integrative design, with an easily accessible digital approach, a supportive learning environment, and relevant and contextual materials according to the characteristics and needs of the elderly. Spiritual and social motivation is a crucial foundation for creating meaningful and sustainable learning experiences for them.

The results of the research, visualized in the word tree image, highlight the dynamics and structure of Arabic language learning needs for the elderly, particularly in relation to digital technology. Central to the findings is the concept of "learning", which is systematically connected to various important aspects that emerge from the



interviews and data analysis. As shown in the following picture:

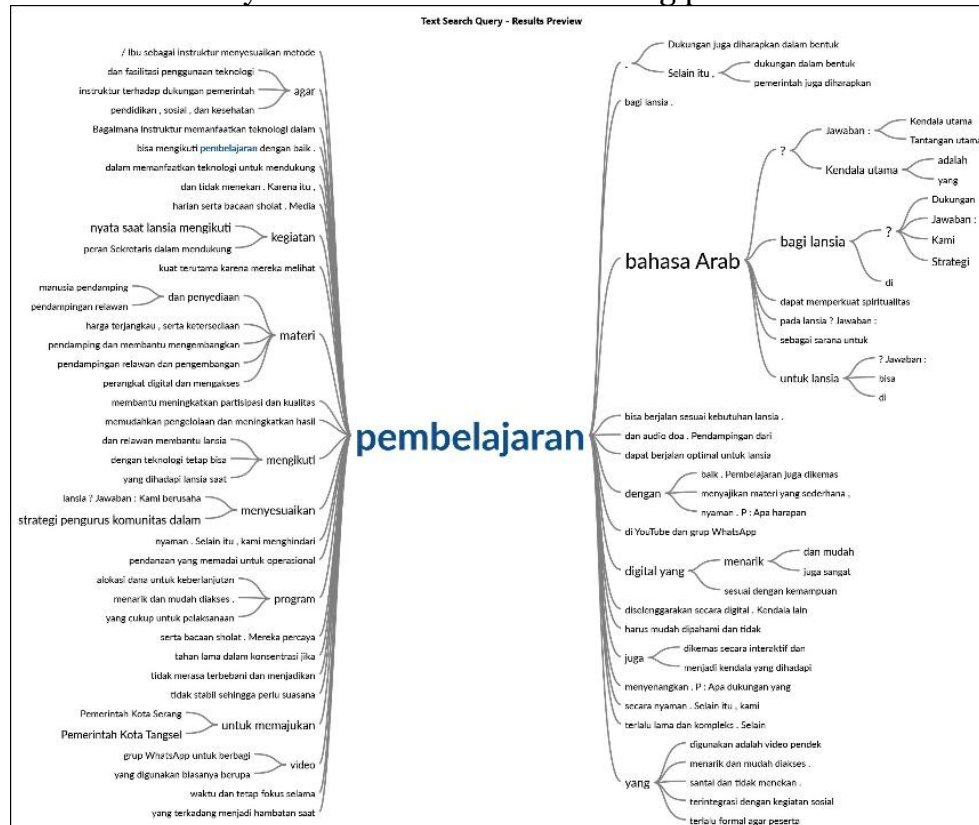


Figure 3. Arabic Learning Word Tree

From the path on the left side, it can be seen that the learning strategy is closely related to the adjustment of methods by instructors and the optimization of digital technology use to facilitate the learning process for the elderly. The active role of instructors and volunteers is the main driver, supported by local government and community policies that provide short videos, digital devices, and interactive media to make learning feel comfortable and accessible. Program adjustments and the provision of prayer reading materials, including short verses and engaging, relevant videos, are considered to help increase participation and enhance the quality of learning for the elderly.

On the right branch, the word tree indicates that learning Arabic for the elderly serves a dual function: as a means of enhancing spirituality while fostering social interaction. The main obstacles faced include a lack of digital experience, inadequate operational support, and challenges in understanding the material independently. However, learning that is packaged with digital formats, simple materials, and interactive audio-video can run optimally if supported by assistance from volunteers and families, so that the spiritual and social needs of the elderly are met holistically.

Overall, the study's results confirm that the success of learning Arabic for the elderly is significantly influenced by collaborative strategies, technological adaptation, relevant types of materials, and community and family support. Learning needs to be packaged in an attractive, easily accessible, and integrated manner, along with social activities, in order to build learning motivation and enhance the spirituality and quality



of life of the elderly.

This project map image illustrates the structure of the relationship between themes and subthemes, as derived from research on the needs of Arabic language learning for the elderly, utilizing information technology. Each node (circle) represents a key topic, concept, or factor found from interviews and data analysis, while the connecting lines indicate a direct relationship, interaction, or interconnection between the elements. As shown in the following picture:

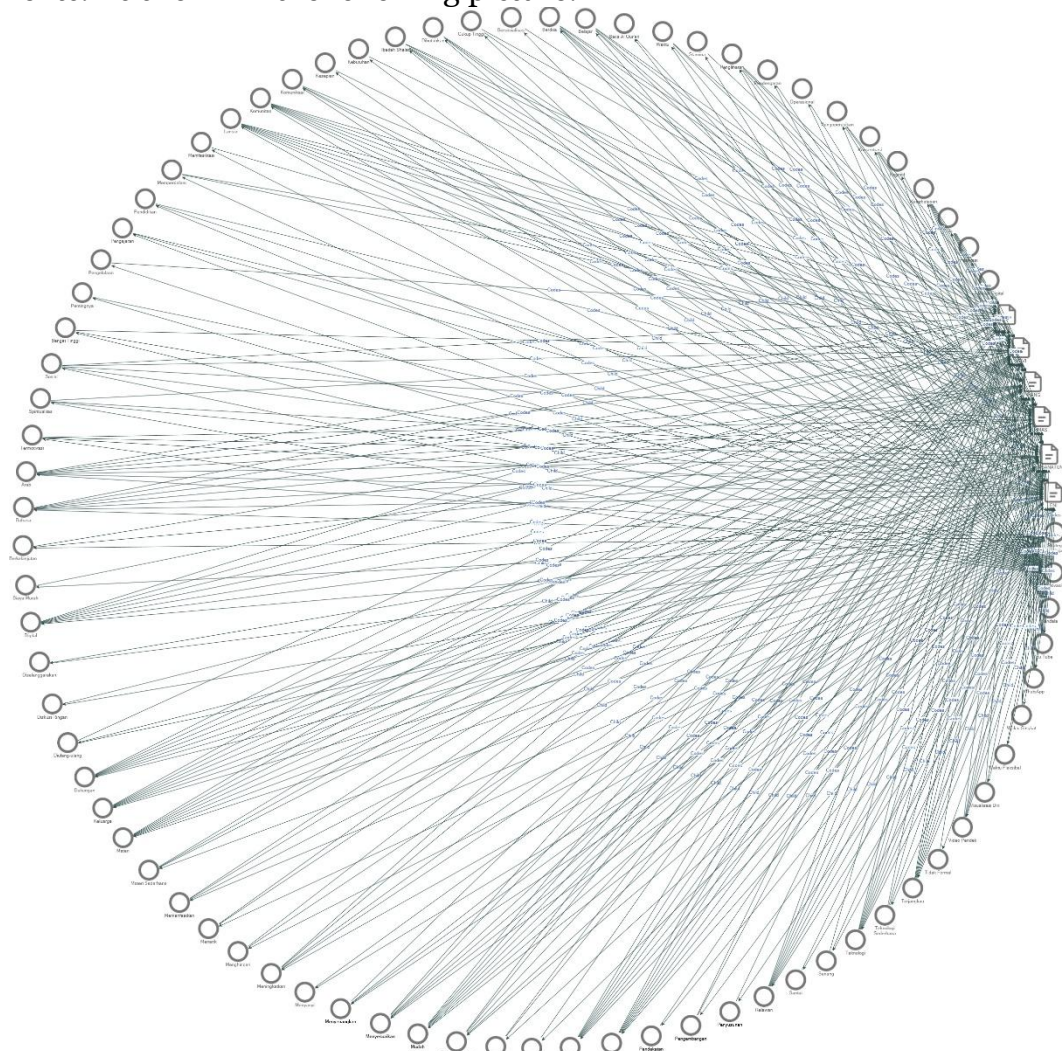


Figure 4. Arabic Language Learning Project Maps

The results of the study reveal the level of complexity in the needs of the elderly, which are interconnected, encompassing aspects such as learning strategies, materials, constraints, motivation, community, volunteer support, and digital technology. This map identifies that effective learning does not stand alone, but rather is systemic and requires synergy between many factors:

- a. Learning strategies such as the use of technology, simple materials, interactive videos, and accessible methods are closely linked to elements of community and volunteer support.



- b. The motivation of the elderly is influenced by social needs, spirituality, and a sense of belonging in the community, which in turn correlates with learning success.
- c. Learning barriers include physical limitations, time, digital literacy, and technological adaptation, which require special strategies to keep the learning process running optimally.
- d. Volunteer support and family assistance have been proven to strengthen the learning process, build enthusiasm, and maintain the commitment of the elderly to participate in learning.

The relationship structure in this project map confirms that technology-based Arabic language learning for the elderly is the result of a multidimensional work system, where digital innovation, social support, adaptive materials, and spiritual motivation are intertwined and form a holistic and sustainable learning ecosystem. These findings encourage policymakers and education practitioners to design learning programs that are integrated and responsive to all dimensions of the elderly's needs.

The project map image illustrates the complex interactions between various key components identified through a qualitative analysis of the learning needs of the elderly in relation to technology. Each circle on the map depicts topics such as strategy, materials, motivations, constraints, community support, volunteers, and digital aspects, which are interconnected by multiple paths.

The results show that effective learning for the elderly cannot stand alone, but requires strong synergy between various factors. Learning strategies must utilize easily accessible technology, present simple and interactive materials, and be supported by mentoring from volunteers and the community. Community involvement, spiritual motivation, and social support greatly influence learning success, especially since many seniors need a sense of support and value.

This map also emphasizes the importance of managing obstacles faced by the elderly, ranging from physical limitations and time constraints to mastering technology and adapting to digital media. A collaborative approach involving families and volunteers significantly contributes to the success of the learning process and enhances the motivation of the elderly. Therefore, the solutions proposed in this study require the integration of technology, adaptive materials, and comprehensive social support to create a learning ecosystem that empowers the elderly spiritually, socially, and cognitively.

Arabic Learning Strategies for the Elderly

Arabic learning strategies for the elderly necessitate a tailored approach that accommodates the physical and cognitive limitations of this age group. The use of simple language is key, ensuring the learning message is easy to understand and does not burden the participants. Research by Firdausinnisa et al. (2024) concludes that learning materials with straightforward and easy-to-understand language are highly beneficial for the elderly in maintaining concentration and enhancing their understanding of the subject. This approach is important because the level of mental and physical fitness in the elderly is often more vulnerable than that of younger age groups.

In addition to using simple language, the integration of digital technology is a



crucial element in the learning strategy for the elderly. The use of learning apps, interactive videos, and specially designed digital media can offer an engaging and accessible learning experience anywhere in Arabic language learning (Sa'adah, 2019; Parikesit et al., 2025). The media must be able to adapt to the sensory and motor abilities of the elderly so that they do not cause frustration or fatigue that worsens learning performance (Sari et al., 2024). Meta-studies have shown that presenting material in audiovisual form significantly improves the motivation and memory of elderly participants (Liza et al., 2021).

Social support, especially from the community and volunteers, is crucial for maintaining the continuity of the learning process for the elderly. Research by (2025) emphasizes the role of active mentoring in overcoming limited access and facilitating the use of digital technology. Learning communities not only provide psychological support but also foster an inclusive social environment and enhance motivation to learn in optimal conditions (Khuzaimah et al., 2023). This kind of assistance can bridge technical difficulties while providing the emotional boost needed by the elderly.

It is also important to adjust the time and intensity of learning to the physical and psychological tolerance of the elderly. Studies show that flexible study time and short session materials can help seniors manage stamina and focus on learning (Nafiati, 2021; Ahmad et al., 2022). The preparation of a curriculum tailored to the needs and abilities of the elderly, including the presentation of teaching materials that are relevant and contextually applicable, contributes to more effective learning outcomes and a more pleasant learning experience (Mohd Zaid et al., 2023).

Overall, an effective Arabic language learning strategy for the elderly requires a combination of simple language use, user-friendly digital technology, community and volunteer support, and adjustments to their physical and psychological needs in terms of time and materials. This holistic approach not only enhances the elderly's Arabic language skills but also fosters meaningful learning experiences and strengthens their social and spiritual aspects.

Motivation to Learn Arabic for the Elderly

Strong social and spiritual factors greatly influence the motivation to learn Arabic in the elderly. The elderly are in a phase of life that continues to seek spiritual meaning and meaningful social relationships as a source of happiness and inner peace. Research by Khuzaimah et al. shows that social and religious community support is very important in fostering the motivation and involvement of the elderly in learning. Seniors who feel socially connected through Arabic learning groups will show a higher commitment to the learning process.

Learning Arabic offers profound spiritual significance because it is closely tied to the understanding of the holy texts of the Qur'an and Islamic worship practices. Studies conducted by Akbar et al. emphasized that religious and Arabic language learning specifically strengthen the faith and beliefs of the elderly by improving their spiritual quality. This intrinsic motivation is the strongest driving force behind the elderly actively learning Arabic, particularly to enhance the quality of worship and deepen their spiritual appreciation.

Social motivation factors are also very crucial in the context of the elderly. Active participation in a learning community not only provides emotional support but also



forms an inclusive and supportive learning environment. Zhang (2023) observed that elderly individuals who feel a sense of belonging in the learning community are more likely to be motivated and have more meaningful learning experiences. Thus, a learning atmosphere that prioritizes social interaction and cooperation can increase the sustainability of learning.

In addition, the continuity of the learning process for the elderly is highly dependent on the availability of consistent social support, both from families, volunteers, and coaches. This support helps overcome the physical and cognitive limitations of the elderly that can hinder learning motivation. Research by Mohd Zaid et al. (2023) revealed that the social assistance system plays a key role in the success of Arabic language learning, especially for the elderly in adapting to digital learning media.

Overall, the integration of spiritual and social values in Arabic learning strategies for seniors will encourage strong and sustainable learning motivation. Learning models that support spiritual development and foster social communities for the elderly open up a wider space for active participation, enhanced learning effectiveness, and overall improvement in quality of life. This is supported by various studies that affirm the importance of harmonization between intrinsic motivation and social support in the context of elderly Arabic language learning.

Obstacles to Learning Arabic for the Elderly

Arabic language learning for the elderly faces various significant obstacles stemming from cognitive and physical limitations. Decreased memory and vision function are the main obstacles that the elderly often experience when participating in the learning process. A study by Palombi et al. (2025) demonstrates that cognitive decline can impair the elderly's ability to comprehend complex learning materials, suggesting that the material should be designed to be simpler and more easily digestible. The medical and psychological relationship between menopause and aging affects learning conditions, as revealed by Tong et al. (2021) and Hill et al. (2015), which highlights the importance of adjusting learning methods to match the physical and mental capacities of the elderly (Mathew & Schnall, 2023).

In addition to cognitive limitations, physical obstacles such as impaired vision, hearing, and reduced physical stamina pose serious challenges. This factor often makes it difficult for the elderly to follow digital facilities that require sensory acuity. According to studies by Mohd Zaid et al. (2023), this physical impairment requires learning interventions that utilize elderly-friendly technology, such as large screens and clear audio, to maximize material acceptance. In addition, limited learning time due to daily activities and the quick depletion of stamina demands time flexibility and learning activities that are not burdensome (Ahmad et al., 2022).

Low digital literacy adds to complications in technology-based Arabic language learning for the elderly. Seniors often struggle with using digital devices and learning applications, which can lead to resistance and discomfort—a phenomenon known as techno-stress. Several studies, including those by Choudhary and Bansal (2022) and Bertolazzi et al. (2024), confirm that low technological capabilities and a fear of mistakes are the main obstacles that must be overcome through intensive training and consistent mentoring. Educational institutions and communities should provide ongoing mentoring programs to reduce these barriers.



The lack of social support and mentoring is also a significant obstacle. Elderly people who learn Arabic without a companion tend to experience confusion and quickly lose focus. Research by Palombi et al. (2025) emphasizes the importance of the role of volunteers and families as both moral and technical supporters in learning, enabling the elderly to feel emotionally and practically supported. This social presence also fosters learning motivation and promotes consistent learning.

As a solution, customization of the material with simple language and user-friendly technology is highly recommended. The development of intuitive interactive learning apps and media helps overcome a variety of cognitive and physical barriers. A study (2024) shows that media that are easy to master and adapted to the needs of the elderly increase learning outcomes and participant satisfaction. The addition of flexible learning time and mentoring support optimizes the effectiveness of Arabic language learning, making the process inclusive and accessible to the elderly with various conditions.

CONCLUSION

This study revealed that Arabic language learning for the elderly community with an information technology-based focus is greatly influenced by three main aspects: learning strategies, motivation, and constraints. Adaptive learning strategies, utilizing simple language, relevant materials, and easily accessible technology, are key to success. Strong motivation of the elderly is influenced by community involvement, aspects of spirituality, and a sense of social connectedness. Physical constraints, time constraints, and digital literacy are obstacles that require contextual solutions and social support from volunteers and families. Overall, Arabic language learning for the elderly should be designed in a holistic and integrative manner, combining technology, materials, and social interaction to optimize the effectiveness and spiritual experience of the elderly.

This research has significant implications for the development of Arabic language learning programs, particularly for the elderly, in the digital era. The learning approach must be technology-based and supported by a collaborative social environment, including the vital role of the community and volunteers as active companions. Learning materials are recommended to be contextual, practical, and interactive, as they accommodate the cognitive and physical limitations of the elderly. Education and social policies need to encourage the development of inclusive digital learning facilities for the elderly, as well as provide training and technical support so that the rights and potential of the elderly in learning and worship are optimally fulfilled.

Further research is recommended to conduct longitudinal studies to assess the long-term effectiveness of technology use in learning Arabic among the elderly. Additionally, quantitative research can be conducted to statistically test the correlation between motivational factors and learning outcomes, thereby strengthening the empirical basis. The research also needs to examine various intervention models further that can overcome physical constraints and enhance digital literacy, including the development of elderly-friendly learning applications and the use of artificial intelligence as a virtual learning companion.



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