

A Study on the Impact of Family and Community Support on Improving Digital Literacy among Mongolian Elderly

MeiLi Bao^{1*} Baigalmaa Chultem² and Javzandulam Batsaikhan³

¹School of Educational Studies, Mongolian National University of Education, Mongolian

²Mongolian National University of Education, Mongolian

³Child Development Studies Department Chair, Mongolian National University of Education, Mongolia

Email: baomeili86@163.com

How to cite this paper: Bao, M. L., Chultem, B., & Batsaikhan, J. (2026). A study on the impact of family and community support on improving digital literacy among Mongolian elderly. *International Journal of Educational Development*, 3(2), 60–69. ISSN Print: 3104-4263, ISSN Online: 3104-4271.

<https://doi.org/10.63313/IJED.9070>

Published: 2026-05-21

Copyright © 2026 by author(s) and Erytis Publishing Limited.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Abstract

With the rapid development of digital technology, the elderly face a significant digital divide in their social lives. Due to the unique geographical distribution, cultural habits, education levels, and resource accessibility of the Mongolian elderly, improving their digital literacy faces even more complex challenges. This study, focusing on family and community support, systematically analyzes the current status and existing problems of digital literacy among the Mongolian elderly, including factors such as technological cognitive barriers, psychological barriers, resource limitations, and the influence of cultural habits. By examining the influencing mechanisms of family support, community support, and their synergistic effects, multi-level improvement strategies are proposed: at the family level, guidance and companionship, psychological support, and intergenerational communication are emphasized; at the community level, systematic training, infrastructure construction, volunteer guidance, and cultural activities are prioritized; and at the policy and social level, institutional guarantees, the development of age-friendly products, and the construction of family-community collaborative mechanisms are proposed. The results show that collaborative support from families and communities can effectively improve the digital skills, life participation, and social belonging of the Mongolian elderly, providing theoretical basis and practical reference for policy formulation, community service optimization, and family education practices. It also offers feasible pathways to narrow the digital divide among the elderly in ethnic minority areas.

Keywords

Mongolian Elderly; Digital Literacy; Family Support; Community Support; Digital Divide

1. Introduction

With the rapid development of digital technology, new-generation information

technologies such as the internet, mobile payment, smartphones, big data, and artificial intelligence have profoundly integrated into all aspects of people's daily lives, social governance, public services, and cultural entertainment. The trends of digitalization, networking, and intelligentization in social life are increasingly evident, and people's production, learning, and social behaviors are increasingly reliant on digital tools. However, the elderly face a significant "digital divide" in this transition, manifested in insufficient understanding of digital technology, lack of operational skills, low willingness to use it, and limited opportunities to participate in digital life. This digital divide not only affects the convenience of life for the elderly but may also weaken their sense of social participation, identity, and well-being, and even exacerbate social isolation and intergenerational gaps.

This problem is particularly prominent for elderly Mongolians. Most elderly Mongolians live in cities and remote rural areas, their lifestyles are centered on traditional pastoral activities and family, their cultural habits and language use differ from mainstream society, and their overall education level is relatively low. These factors collectively restrict their ability to understand and apply digital technology. At the same time, due to geographical location, economic conditions, and uneven distribution of information resources, the Mongolian community has relatively limited access to digital learning opportunities, making the improvement of digital literacy face even more complex challenges.

Against this backdrop, families and communities, as vital support systems for the lives of the elderly, play an irreplaceable role in enhancing their digital literacy. At the family level, the companionship, guidance, and encouragement from children or other relatives can help the elderly overcome psychological barriers, increase their motivation to learn, and provide them with necessary equipment and resources. At the community level, community education and training, public service facilities, volunteer guidance, and digital cultural activities all create spaces for the elderly to learn and practice digital skills. Collaborative support from families and communities can not only alleviate the digital divide among Mongolian elderly but also enhance their ability to participate in social life and strengthen their sense of self-efficacy and social belonging.

This study aims to systematically explore the mechanisms by which family and community support improves the digital literacy of Mongolian elderly, analyze influencing factors and their effects, and provide a national perspective to supplement theoretical research on digital literacy. Furthermore, the research results have significant reference value for policymakers, community managers, and family education practitioners, providing a scientific basis for developing targeted digital education strategies for the elderly, optimizing the allocation of community digital service resources, and improving family support structures, thereby promoting more equal, convenient, and active social participation for Mongolian elderly in the digital society.

2. Analysis of the Current Status of Digital Literacy among the Elderly Mongolian Population

2.1. Basic Demographic Characteristics Analysis

The elderly Mongolian population exhibits significant differences in age, gender, education level, place of residence, and economic status. Generally, the survey respondents are concentrated between 60 and 80 years old, with a larger proportion aged 60-69, and a gradual decrease in those over 70. Gender distribution is relatively balanced, but women are slightly less proactive in using digital technology than men. Regarding education level, most elderly people have only received primary or junior high school education, with a minority having a high school diploma or higher, which directly affects their information comprehension and digital skills. In terms of place of residence, there is a significant difference in digital access opportunities between urban and rural elderly: urban elderly have easier access to the internet and smart devices, while elderly people in remote rural areas have relatively low digital participation rates due to limitations in infrastructure and information resources. Furthermore, differences in economic status also affect the elderly's ability to purchase digital devices and their frequency of internet use; elderly people from wealthier families have easier access to learning resources and practical opportunities.

2.2 Current Status of Digital Literacy

Regarding digital skills, Mongolian elderly people are generally able to perform basic operations such as making phone calls and sending text messages, but they show significant deficiencies in advanced smartphone applications. For example, most elderly people experience difficulties and learning obstacles in areas such as online payments, online shopping, social media use, and online government services. Overall participation in daily digital life is low, with rural elderly people engaging in even fewer digital activities, while urban elderly people are relatively more active in entertainment and social applications. Significant differences exist in digital literacy among different demographic groups: highly educated, younger elderly people, and those from families with better economic conditions have relatively higher digital literacy levels; while older elderly people with lower levels of education and limited economic resources generally have lower digital literacy. Overall, Mongolian elderly people still have certain deficiencies in digital technology awareness, operational proficiency, information acquisition ability, and frequency of daily application.

2.3. Major Problems

Mongolian elderly face multiple obstacles in improving their digital literacy. First, there is a significant barrier to technological cognition. Due to the complexity of operating smart devices and the large amount of information they contain, some elderly people find it difficult to quickly master their use, easily making operational errors or abandoning their use altogether. Second, psychological barriers are also prominent, including fear and resistance to new technologies, as well as concerns

about information leakage due to errors. Third, resource limitations are a significant factor restricting digital literacy: a lack of systematic learning opportunities and insufficient guidance from family members or the community deprive the elderly of opportunities for practice and feedback, thus affecting learning outcomes. Finally, cultural habits also have a certain restrictive effect on digital behavior. The traditional lifestyle of Mongolian elderly is mainly based on pastoralism, family activities, and face-to-face social interaction. The use of digital tools has not yet become a habit, and the demand for and application scenarios for digital learning are limited, which to some extent restricts the improvement of digital literacy. In summary, the interaction of technological, psychological, resource, and cultural factors makes improving the digital literacy of Mongolian elderly a complex challenge.

3. Analysis of the Impact of Family and Community Support on Digital Literacy

3.1. The Role of Family Support

As the most direct social support system for the elderly, the family has a significant impact on improving the digital literacy of Mongolian seniors. First, the guidance and companionship of family members in the elderly's digital learning play a crucial role. Patient explanations, demonstrations, and real-time tutoring from children or younger generations can help the elderly overcome operational difficulties, improve learning efficiency, and provide a sense of psychological security when trying new functions. Second, the family's economic conditions directly affect the elderly's learning opportunities in terms of purchasing digital devices and internet access. Families with better economic conditions can provide the elderly with necessary tools such as smartphones, tablets, and stable internet access, enabling them to participate in digital life more smoothly. Third, encouragement and recognition from family members also help improve the elderly's psychological adaptability. When family members positively evaluate and affirm the elderly's efforts in trying digital operations, the elderly develop self-efficacy, enhancing their interest and confidence in new technologies. Case studies of different family models reveal that seniors in nuclear families who receive frequent companionship and guidance from their children show significantly faster improvement in digital literacy than those living alone or dependent on their spouses; multigenerational families also promote the comprehensive improvement of seniors' digital skills through collective learning and mutual assistance.

3.2. The Role of Community Support

As an important venue for social activities among the elderly, community support plays a crucial role in improving digital literacy. Abundant community educational resources, such as universities for the elderly, digital training courses, and volunteer

tutoring services, provide systematic and professional learning channels for seniors, enabling them to master digital skills in a collective environment. The community environment also influences seniors' digital participation, including the availability of comprehensive digital public service facilities, convenient internet access, and comfortable activity spaces, all of which enhance their enthusiasm for participating in digital activities. Furthermore, the community's cultural atmosphere subtly influences the formation of learning motivation and behavioral habits. A community culture that respects seniors' learning wishes and advocates for mutual learning models can stimulate their enthusiasm for participation, creating a virtuous cycle of spontaneous learning and sharing. Case studies show that in some communities, seniors who actively participate in digital skills training courses and practical activities demonstrate significantly higher levels of digital literacy than those lacking community support. These seniors not only master basic skills but also proactively use digital tools in daily life, including social interactions, shopping, and government services.

3.3. Synergistic Effect of Family and Community Support

Family and community support complement and reinforce each other, jointly promoting the digital literacy of Mongolian elderly. Families provide daily learning companionship and psychological encouragement, while communities offer systematic training, practical opportunities, and a social interaction environment. When the two are effectively combined, the elderly acquire digital skills faster, participate more frequently, and experience stronger psychological adaptability and self-efficacy. Different support combinations have varying effects on digital literacy: elderly individuals with ample family support but limited community resources see steady skill improvement but lack opportunities for group interaction and practice; those with comprehensive community support but insufficient family guidance may participate in training and activities but face difficulties in daily application and sustained use; while the elderly population receiving dual support from both family and community sees the most significant improvement in digital literacy, mastering skills and applying them to daily life, creating a virtuous cycle. In conclusion, the synergistic effect of family and community is crucial for addressing the multiple obstacles faced by Mongolian elderly in the digital society and improving their digital participation and skill application abilities.

4. Strategies and Suggestions for Improving Digital Literacy among Mongolian Elderly

4.1. Family-Level Strategies

The family plays a fundamental and crucial role in improving the digital literacy of Mongolian elderly, thus requiring systematic and targeted strategies. First, family members should actively participate in the elderly's digital learning, providing

continuous guidance and companionship. Children or younger generations can help the elderly master the basic operations of smart devices and online services through demonstrations, step-by-step explanations, and answering questions. They can also develop personalized learning plans based on the elderly's learning progress, such as learning one function or operation each day, gradually increasing the elderly's proficiency and confidence.

Simultaneously, family members should create a positive and tolerant learning atmosphere, providing the elderly with a quiet and comfortable learning space, reducing external distractions, and enabling them to concentrate on practical operations. Psychological support and encouragement are also crucial in family digital education. When trying new technologies, the elderly may experience anxiety, worry about making mistakes, or information leakage. Family members can help the elderly gradually build self-efficacy and enhance their learning interest and initiative through patient encouragement, positive feedback, and joint operation.

Furthermore, intergenerational communication and knowledge sharing are effective ways to improve the digital literacy of the elderly. Family members can help seniors learn and reinforce digital skills through hands-on activities such as online events, video calls, social interactions, and online shopping. This fosters emotional connection with younger generations and enhances seniors' sense of social participation and identity. For example, younger generations can guide seniors in using payment tools to purchase daily necessities or watching health or entertainment content on video platforms, enabling them to apply digital skills in daily life and achieve "learning by doing."

Families can also increase seniors' interest and participation by organizing small-scale family learning activities, such as family digital skills competitions and online group interactions, making digital learning more engaging and relevant to daily life. In long-term companionship, families should focus on cultivating seniors' self-learning awareness, gradually guiding them to complete routine tasks independently, and encouraging them to share their learning experiences with relatives, friends, or neighbors, thus creating a positive cycle that enhances both digital literacy and social interaction.

In summary, family support encompasses not only operational guidance but also psychological companionship, creating a learning environment, intergenerational interaction, and practical application. Through multi-dimensional and multi-layered strategies, it can effectively help Mongolian elderly overcome their fear and resistance to digital technology, improve their digital skills, and ultimately enhance their quality of life and social participation.

4.2. Community-Level Strategies

Community support, as an important supplement to family support, plays an irreplaceable role in improving the digital literacy of Mongolian elderly. Communities

should strive to provide a systematic and sustainable digital learning environment for the elderly, enabling them to gradually master digital skills under safe and convenient conditions. Firstly, communities can regularly conduct digital training courses for the elderly. Course content should cover common scenarios for the elderly, such as basic smartphone operations, online payments, online government services, social media use, and health information inquiries. A gradual and phased teaching approach should be adopted to meet the different needs of the elderly. For example, beginner courses can teach basic operations and commonly used functions, while advanced courses can guide the elderly in online shopping, remote medical appointments, or participation in online community activities. Courses should emphasize the integration of theory and practice, using hands-on exercises, case demonstrations, and interactive Q&A to enhance learning effectiveness.

Secondly, communities should actively improve digital infrastructure to provide convenient learning and practice opportunities for seniors. This includes improving public Wi-Fi coverage, establishing community digital service centers, providing easy-to-use terminal devices (such as tablets and touchscreen all-in-ones), and setting up dedicated technical consultation windows to help seniors solve problems encountered during use. Communities can establish "digital stations" or "digital workshops for seniors," allowing them to practice anytime and receive immediate guidance from volunteers or staff.

Furthermore, establishing a volunteer mentoring network is a crucial community support strategy. Communities can organize mentoring teams composed of young volunteers, university students, or seniors with digital skills. Through one-on-one or group mentoring, a mutual learning mechanism can be formed, lowering the learning threshold for seniors and increasing their interest and effectiveness in practice. Volunteer mentoring not only solves technical problems but also psychologically encourages seniors to try new technologies and develop long-term learning habits.

Communities can also stimulate seniors' initiative in using digital technologies by organizing a variety of digital cultural activities, fun competitions, and practical projects. For example, organizing activities such as "Digital Photography Competitions," "Online Community Story Sharing," and "Digital Life Skills Challenges" allows seniors to learn and apply digital tools through entertainment and social interaction, thereby enhancing their digital life skills and sense of community participation. By combining digital learning with community cultural life, seniors can not only master skills but also experience the convenience and enjoyment brought by digital technology in practice, achieving a dual improvement in digital literacy and social participation.

In summary, multi-dimensional support at the community level includes not only training courses and infrastructure construction but also volunteer tutoring, mutual assistance mechanisms, and cultural activities. By creating a convenient, interactive, fun, and sustainable learning environment, the digital skills of Mongolian seniors can

be effectively improved, providing a strong supplement to family digital education.

4.3. Policy and Social Recommendations

At the macro level, the government and social organizations should actively formulate and promote policies related to digital education for seniors, providing institutional guarantees and long-term development support for Mongolian seniors. Firstly, the government can establish special funds to support the construction of community digital education projects, including training professional instructors, equipping them with user-friendly hardware, and improving learning venues and network infrastructure to ensure that seniors participate in digital learning in a safe and convenient environment. Simultaneously, local governments should collaborate with universities and research institutions to conduct digital skills research and curriculum development for the elderly, forming a systematic and scientific training system to provide more professional and effective learning content for Mongolian seniors.

Secondly, enterprises and social forces should be encouraged to actively develop digital products and services suitable for the elderly. Specific measures include optimizing application interfaces to make operation processes simple and intuitive, with clear and easy-to-understand icons; designing functions that closely align with the daily needs of the elderly, such as convenient payment, health management, and social entertainment; and providing localized language options, accommodating both Mongolian and Chinese bilingual environments to reduce the impact of language barriers on learning and use. Through age-friendly technology and localized services, the convenience, security, and comfort of using digital products for the elderly can be significantly improved, thereby increasing their participation and usage frequency.

Finally, a long-term cooperation mechanism between families and communities should be promoted, organically combining daily family guidance with community training, volunteer services, and public resources to establish a continuous and traceable support system. Specifically, a three-pronged model of "family-community-policy" can be adopted, where families provide daily companionship and guidance, communities provide systematic training and practical opportunities, and policies guarantee resource investment and institutional support. By establishing information feedback and tracking evaluation mechanisms, difficulties and needs encountered by the elderly during the learning process can be identified in a timely manner, allowing for adjustments to training content and guidance strategies, thus achieving precise and dynamic support.

Through policy guidance, participation of social forces, and collaboration between families and communities, a multi-level, multi-channel comprehensive support system can be formed, creating a favorable environment for improving the digital literacy of Mongolian elderly. This macro-strategy not only helps narrow the digital divide but also promotes the elderly's better integration into the digital society,

improving their convenience, social participation, and sense of well-being. Simultaneously, it provides valuable practical experience for digital education and social governance in ethnic minority areas.

5. Conclusion

This study systematically analyzed the current status of digital literacy among elderly Mongolians and its influencing factors, focusing on the role and mechanism of family and community support in improving digital literacy. The study found that elderly Mongolians generally have deficiencies in digital technology cognition, operational proficiency, information acquisition ability, and daily application frequency, mainly constrained by technological barriers, psychological barriers, resource limitations, and traditional cultural habits. Family support plays a fundamental role in providing operational guidance, psychological companionship, resource support, and intergenerational communication, helping the elderly build self-confidence and learning motivation. Community support provides systematic and sustainable learning and practice opportunities for the elderly through training courses, infrastructure construction, volunteer guidance, and digital cultural activities. The synergistic effect of family and community support can complement each other, enabling the elderly to master digital skills faster, participate more actively, and apply these skills in their daily lives, thereby effectively bridging the digital divide.

Based on the research findings, this study proposes a multi-level enhancement strategy: families should focus on guidance and companionship, create a learning atmosphere, and encourage intergenerational interaction; communities should provide systematic training, improve infrastructure, establish mutual learning mechanisms, and carry out digital cultural activities; governments and social organizations should formulate supportive policies, promote the development of age-friendly digital products, and foster a long-term collaborative mechanism between families and communities. Overall, the combined effect of family, community, and policy support creates a favorable environment for improving the digital literacy of Mongolian elderly, not only enhancing their convenience in life and social participation but also providing valuable practical experience for digital education and social governance in ethnic minority areas.

Future research can further explore differences in digital literacy among the elderly across regions and ethnic groups, analyze the impact of technological innovation on digital participation behavior, and evaluate the long-term effectiveness of digital education interventions, providing a reference for developing more precise and sustainable digital education strategies.

References

- [1] Wei, J. R. (2023). Social support research on the digital divide among older adults. *Aging Research*, 10, 1333.
- [2] Li, H. Y., & Sun, L. L. (2024). Digital application and life satisfaction of young-old adults:

- The mediating effect of community participation. *Journal of Shanghai University of International Business and Economics*, 5, 113 – 124.
- [3] Ren, X. P. (2024). Research on the digital divide between urban and rural elderly groups under digital rural development. *Aging Research*, 11, 85.
 - [4] Luo, Y. Y. (2025). Practical dilemmas and governance strategies of rural smart elderly care under the background of digital rural development. *Aging Research*, 12, 277.
 - [5] Tong, T. T. (2025). Practices and implications for improving digital literacy among older adults in Australia from a social support perspective: A case study of the Be Connected program. *Continue Education Research*, 8.
 - [6] Jiang, Y. Y., Wen, Y., & Chen, R. Community home-based elderly care and digital consumption of elderly families. *Journal of Guizhou University of Finance and Economics*, 43(6), 63.
 - [7] Jia, L. C., Zhong, X. F., Li, M. L., & He, C. F. (2025). Status and influencing factors of digital health literacy among older adults in urban communities of Hefei. *Journal of Nanjing Medical University (Social Sciences)*, 25(2).