



MiniReview

Constructing and Guiding Elderly Education Curricula: A Perspective on Addressing Diverse Needs

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Abstract

Objective: This framework is designed to promote overall development and elevate the quality of elderly education.

Methods: This paper presents an empirical investigation that integrates theories of core literacy, hierarchy of needs, and embodied cognition to explore the significant challenges currently faced in elderly education curricula.

Results: The development of curricula for elderly education is essential for effectively conveying pedagogical concepts, goals, and strategies in this domain. It proposes targeted strategies for enhancement. The research indicates that curriculum objectives should be closely aligned with the real-life experiences of older adults, focusing on improving their capacity for social integration in various aspects of daily living.

Conclusion: To meet the diverse requirements of this population, a well - rounded curriculum should include foundational, specialized, and practical courses. Additionally, the implementation of these curricula should emphasize active, embodied participation, employing problem - solving and project - based approaches to boost engagement and learning effectiveness among the elderly.

Keywords: elderly curriculum education, perspective of diverse needs, curriculum construction, path guidance

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1 INTRODUCTION

As population aging emerges as a significant national challenge in China, this trend is accelerating rapidly, particularly exemplified by the phenomenon of “getting old before getting rich”^[1]. During the “14th Five -

Year Plan” period, projections indicate that the elderly population aged 60 and above will exceed 300 million, constituting over 20% of the total population. In light of this pressing issue, actively addressing population aging has been prioritized at the national strategic level, making

the development of elderly education a critical initiative to tackle this challenge^[2]. Elderly education serves as a vital mechanism for enhancing the quality of life, fostering social participation, and improving the psychological well-being of older adults. It is integral to the advancement of the “active aging” strategy^[3]. By facilitating the acquisition of new knowledge and skills, elderly education effectively supports the maintenance of cognitive abilities and physical health, while also enhancing social adaptability and overall life satisfaction^[4]. Currently, there are over 110,000 elderly education institutions across various levels in our country, including elderly universities and grassroots educational organizations, with more than 8 million elderly students enrolled^[5]. However, as the aging population continues to grow, the adequacy of educational offerings has emerged as a critical issue in the development of elderly services and education.

The curriculum stands as the cornerstone of elderly education service delivery, and its quality directly influences the effectiveness and evolution of educational programs. In the context of active aging, the learning needs of older adults have expanded significantly in both depth and breadth. This necessitates a comprehensive enhancement of curriculum objectives, content enrichment, innovative teaching methodologies, and strengthened implementation strategies. It is only through these initiatives that we can effectively elevate the overall quality of elderly education, address the diverse learning needs of older adults, and promote the sustainable and healthy development of educational opportunities for this demographic.

1.1 Literature Review

Elderly education is a fundamental component of both aging and educational initiatives, reflecting a human-centered educational philosophy and demonstrating society’s ongoing commitment to the continuous learning and holistic development of older adults^[6]. In 2021, the State Council of China formally incorporated elderly education into the lifelong education system, signifying a new phase in the evolution of this field. This integration underscores the critical role of elderly education in fostering the comprehensive development of older individuals and contributing to sustainable social progress. In the broader educational framework, the curriculum is essential, serving as the primary medium for instructional activities within educational institutions and acting as the key vehicle for attaining various educational objectives^[7]. In the context of elderly education, the curriculum encompasses teaching materials and content specifically tailored to the needs of older adults, aiming to address their learning requirements and facilitate physical health, psychological adaptation, and social integration. The curriculum functions both as a mechanism for older individuals to acquire new knowledge and skills and as a tangible representation of educational content. From a management standpoint, it not only serves

as a conduit for organizing teaching activities but also represents a fundamental strategy for achieving educational goals^[8]. The educational role of elderly institutions, combined with the proactive engagement of older learners, together shapes the value and demand for curricula in elderly education.

Despite progress, the development of elderly education curricula in China is encountering significant challenges. Research indicates that the sector grapples with issues such as low quality, inadequate levels of instruction, and limited access for beneficiary groups^[9]. The root causes of these problems can be traced to the lack of diversity among curriculum developers, insufficient standardization, and a failure to adopt a systematic approach. For instance, curriculum development often appears disorganized and overly autonomous, resulting in imbalances in course offerings, incoherent structures, insufficient depth of content, variable levels of teaching staff expertise, and inconsistent evaluation standards. These shortcomings not only undermine the social perception of the curriculum but also hinder the overall effectiveness of elderly education. Consequently, it is recommended to establish a collaborative governance framework for elderly education curricula to effectively address the critical challenges and focal points in curriculum construction and reform^[10].

Currently, the development and implementation of elderly education curricula lack standardized guidelines, leading various types of elderly institutions to establish courses arbitrarily based on their individual resources and circumstances^[11]. This results in inconsistent standards, fragmented structures, and significant content homogenization. Such disparities hinder the ability to adequately address the learning needs of older adults. Despite the apparent diversity in course offerings, the actual content and structural classifications often fall short of achieving desired outcomes. Research suggests that elderly education curricula should be dynamically adjusted to reflect varying demands over time^[12]. This entails ensuring that course content is practically relevant, that course objectives align with overarching educational goals, and that course settings facilitate active participation and effective learning for older adults. Additionally, it is crucial for course outcomes to correspond with established objectives, while maintaining a balance between the breadth and depth of content to cater to the diverse needs of the elderly^[13]. Specifically, elderly education curricula should encompass six key areas: moral and ethical values, scientific literacy, health and wellness, leisure and arts, economic knowledge, and life skills education, thereby addressing the comprehensive needs of older individuals. In the context of active aging, elderly education assumes an increasingly significant role. As the curriculum serves as the central element of elderly education, it becomes imperative to focus on its research and development. Effectively

designing and implementing scientifically grounded curricula, assessing participant satisfaction, and gaining a nuanced understanding of the learning needs of older adults are essential for achieving high - quality advancement in elderly education.

2 RESEARCH METHODS

This study focuses on Zhejiang Province as a case study to thoroughly investigate the current state of elderly education curriculum development. It proposes targeted strategies for promoting the standardization and scientific advancement of these curricula based on various theoretical frameworks. As of the end of 2022, the elderly population in Zhejiang Province reached 13.29 million, representing 20.2% of the total population, highlighting a significant aging challenge.

Over the years, Zhejiang Province has achieved comprehensive coverage of elderly educational institutions at the county level and above, which includes 89 county - level elderly education institutions, 101 open universities for older adults, and 103 television universities and their branches. Furthermore, 113 township adult cultural and technical schools have integrated elderly education programs, and over 10,000 village and community classrooms have been established, facilitating widespread access to physical teaching resources.

In this study, random sampling was employed to collect 507 course schedules from 55 elderly educational institutions, along with summaries of curriculum development efforts and 39 interview transcripts from educators. Utilizing attention theory, the qualitative data analysis software Nvivo 13.0 was applied to conduct cluster analysis on course titles, content, and organizational methods present in the course schedules. This approach enabled a quantitative assessment of the current objectives and implementation status of elderly education curricula.

3 CURRENT STATE OF ELDERLY EDUCATION CURRICULUM CONSTRUCTION

3.1 Curriculum Goals

Curriculum goals delineate the specific outcomes and intentions that course designers aim to achieve through the educational framework. They reflect the underlying values and objectives that guide the design of the curriculum^[14]. In China, the primary goal of elderly education is to uphold the right to elderly care; however, there is a notable lack of emphasis on its educational value. This study employed cluster analysis to examine 507 course schedules from elderly education programs, summarizing the core components of these curricula and creating a classification table for elderly education content (Table 1).

As illustrated in Table 1, the content of elderly education curricula in China encompasses various domains, including

leisure activities, cultural literacy, health and wellness, and life skills, effectively addressing the primary living needs of older adults. However, the design and implementation of current courses tend to prioritize enhancing the mental quality of life, while insufficiently addressing the future social literacy and essential competencies that older individuals should develop. This oversight may be rooted in traditional perceptions of the value of the elderly, narrow interpretations of human capital, and a focus on practical educational functions, resulting in significant gaps in fostering deeper qualities within elderly education^[15].

Presently, elderly education curricula often emphasize superficial needs related to entertainment, leisure, and health, failing to adequately explore and accommodate the diverse, personalized, and advanced requirements of older adults in contemporary society^[16]. Consequently, the educational offerings appear inadequate and are unable to effectively respond to the evolving demands placed on the elderly by modern society.

Therefore, there is an urgent need to re - evaluate and adjust the goals of elderly education curricula to enhance their educational attributes and facilitate the comprehensive and autonomous development of older adults in today's context. Future directions for elderly education should prioritize the promotion of core literacy among older learners, particularly by addressing the educational value, content framework, and structural organization of the curriculum. Courses should be systematically designed and tailored to the actual needs of the elderly, aiming for comprehensive enhancement and sustainable development in the field of elderly education.

3.2 Course Content

Course content encompasses the knowledge framework derived and structured from disciplinary insights, social experiences, or expert wisdom, all guided by specific educational principles and objectives. This includes various components such as concepts, principles, skills, methods, and values^[17]. As highlighted in the preceding review, the current development of elderly education courses in China encounters several challenges, including a lack of unified standards, content redundancy, overly simplistic classification, and insufficient collaboration and evaluation mechanisms. This study performed a statistical analysis of the titles of 507 elderly education courses, revealing that 289 courses exhibited issues of repetition, primarily identified through comparisons of course names that were either identical or closely similar. The results of the keyword cluster analysis of course content are presented in Table 2.

As indicated in Table 2, only 43.00% of the courses feature entirely unique content, highlighting a significant issue of repetition within the course offerings. This phenomenon

Table 1. Cluster Analysis of Elderly Education Curriculum Goals ($n=507$)

Serial No.	Category	Course Name	Frequency	Percentage (%)
①	Leisure Life	Music, Dance, Art Appreciation	164	32.35
②	Cultural Literacy	History and Humanities, Calligraphy Knowledge	150	29.59
③	Health and Wellness	Medical Knowledge, Nutrition, Dietary Health	107	21.10
④	Life Skills	Housekeeping Knowledge, Photography, Smartphone Usage	86	16.96

Table 2. Keyword Cluster Analysis of Elderly Course Content ($n=507$)

Serial No.	Category	Course Content	Frequency	Percentage (%)
①	Completely Repeated	All keywords content the same	20	3.94
②	Repeated	40%-80% of keywords content the same	269	53.06
③	Completely Unique	All keywords content different	218	43.00

primarily arises from the absence of unified and scientifically grounded standards for curriculum development. Consequently, various elderly education institutions exhibit considerable variability in how they organize course content, leading to marked and subjective differences in course offerings across institutions.

A prior study has noted that only a limited number of elderly educational institutions implement tiered course structures based on difficulty to address the advanced learning needs of older adults with prior educational experience^[18]. While some institutions attempt to categorize courses into “public courses, professional courses, and specialized courses”, these offerings remain a minority.

We contend that existing elderly education courses should not be a mere collection of disparate offerings but should constitute a cohesive curriculum grounded in the core literacy and developmental needs of older adults. An ideal elderly education curriculum system should not only address the current living needs of older individuals but also facilitate their lifelong comprehensive development. Course content must be aligned with the actual needs of the elderly to effectively achieve educational objectives. It is essential to prioritize the core literacy and developmental requirements of this demographic, thereby constructing a more systematic and scientifically sound course framework to enhance the overall quality of elderly education.

3.3 Course Implementation

In the current landscape of elderly education in China, many courses continue to employ a traditional model rooted in basic education, primarily focusing on knowledge transmission methods. This approach often adheres to a conventional “theoretical learning” framework, which inadequately addresses the importance of physical engagement and the integration of real - life experiences for older adults^[19]. As a result, this model tends to struggle in effectively stimulating interest in learning and sustaining motivation among older learners.

This study, drawing on embodied cognition theory,

positions the active participation of older individuals as a crucial metric for assessing the organization and implementation of elderly education courses. An analysis was conducted on the implementation methods of 507 elderly education courses, categorizing them based on the level of organizational participation. The courses were classified into three categories: “full participation”, “partial participation”, and “no participation” (Table 3).

As indicated in Table 3, the majority of elderly education courses continue to rely on the traditional “teacher - centered lecture, student passive listening” model. During implementation, there is minimal emphasis on practical engagement and interactive experiences. These courses primarily focus on the transmission of theoretical knowledge, resulting in notable deficiencies in hands - on and experiential learning opportunities. The organizational formats of these courses predominantly consist of classroom lectures, with infrequent incorporation of task - driven, discussion - oriented, or experiential methods that could enhance learning effectiveness. This approach diminishes the practical application value of elderly education courses, lacking adequate learning contexts and experiential opportunities. Consequently, this limitation restricts actual participation and hinders the comprehensive skill development of older adults.

4 PATHWAYS FOR CONSTRUCTING ELDERLY EDUCATION CURRICULA

This study, informed by empirical investigations and an analysis of course materials from 55 elderly education institutions, re - evaluates the goals, content, and implementation mechanisms of elderly education curricula. Based on these analyses, it presents optimization pathways and strategies for enhancing the construction of elderly education curricula.

4.1 Core Competencies

“Core competencies” refer to the essential abilities that individuals should develop to thrive in future societies, encompassing a holistic integration of knowledge, emotions, attitudes, and values. These competencies are

Table 3. Classification Analysis of Elderly Education Course Organization (n=507)

Serial No.	Category	Course Organization Implementation Form	Frequency	Percentage (%)
①	No Participation	Classroom teaching	335	66.08
②	Partial Participation	Combination of course teaching and practical experience	130	25.64
③	Full Participation	Focus on actual experience, course teaching as supplementary	42	8.28

critical for adapting to social changes^[20]. For older adults, core competencies particularly highlight the character traits and skills necessary for sustained personal development. This includes the comprehensive qualities required for lifelong learning and social engagement.

Elderly core competencies represent a dynamically evolving set of abilities that intertwine subjectivity, development, and social interaction. They are manifested through personal learning interests, cultural confidence, collaborative spirit, social responsibility, civic engagement, and overall well - being, encompassing both physical and mental health.

In the contemporary era, China's elderly education must transition from a traditional model centered on leisure activities to a more diversified, specialized, and systematic approach. This involves integrating elderly education with economic development, enhancing the social participation of older adults as valuable human resources, and strengthening grassroots governance capabilities. Furthermore, elderly education should promote the values of "truth, goodness, and beauty", fostering unity and leadership within communities.

To achieve the goals of core competencies for older adults, curriculum design must be closely aligned with their real - life experiences, addressing aspects such as clothing, nutrition, housing, and transportation. This redefinition of course objectives will facilitate their integration into modern society. Consequently, in this new developmental phase, elderly education should not only focus on the acquisition of knowledge and skills but also prioritize the cultivation of core competencies such as information literacy, health literacy, and social responsibility, thereby supporting the holistic and autonomous development of older individuals.

4.2 Addressing Hierarchical Needs

Informed by core competencies, the design of elderly education curricula should accommodate the diverse and individualized requirements of older adults. These educational needs can be fundamentally categorized into several levels, including the realization of life value, family service, social interaction, enhancement of quality of life, emotional enrichment, and the pursuit of new knowledge. Howard McClusky, acknowledged as the "Father of Elderly Education in America", developed the hierarchy of needs theory, which classifies the educational needs of older adults into five distinct levels: coping needs, expressive needs,

contributive needs, influence needs, and transcendence needs. This theoretical framework has garnered widespread recognition and application in numerous studies^[21,22].

To effectively address the needs of older adults, future course content should align with the hierarchy of needs theory. This study categorizes the needs of the elderly into three tiers: "foundational, specialized, and experiential", advocating for the establishment of a three - tiered elderly education curriculum system, as detailed in Table 4. This system consists of: 1) Foundational Education Courses: These courses aim to enhance older adults' independent thinking skills, moral literacy, and overall personal development; 2) Specialized Education Courses: These courses focus on imparting specialized theories, knowledge, and skills to meet the advanced learning needs of older individuals in specific domains; 3) Experiential Education Courses: These courses are designed to improve the social participation abilities of older adults through practical activities and experiential learning opportunities.

By adopting this structured approach to curriculum development, elderly education can more effectively respond to the varied and evolving needs of the older population.

4.3 Integration of Embodied Learning

This study identifies a primary factor contributing to low classroom participation in current elderly education courses: the inadequate consideration of the physical and mental characteristics of older adults. This oversight creates a disconnect between course content and the lived experiences of the elderly, ultimately failing to address their physical and psychological needs. Embodied cognition theory offers a new perspective for understanding this issue by redefining the interplay between body and mind^[23], and it suggests innovative research directions for both the theory and practice of elderly education.

According to embodied cognition theory^[24], "the body and mind are integrated and inseparable, and an individual's cognition arises from their body's perceptions and experiences of the external environment, influenced by physiological structure, physical activities, current physical condition, and sensory experiences". This theory argues that learning is an interactive process involving the body, mind, and environment, with the primary goal of education being to facilitate and enhance this interaction. Additionally, Knowles' adult education theory underscores

Table 4. Elderly Education Curriculum Content System Based on Hierarchical Needs Theory

Course Category	Course Connotation	Objective	Example Courses
General Courses	Basic Courses	Cultivate independent thinking and judgment abilities, enhance moral standards, and develop a well - rounded personality	Civic Ethics, Basic Knowledge
Professional Courses	Specialized Courses	Master professional knowledge and skills	History and Humanities
Practical Courses	Practical Activity Courses	Improve social participation abilities	Volunteer Service, Community Activities

the importance of the rich social experiences of older adults^[25], advocating for an educational approach that emphasizes life experiences and closely integrates learning with real - life contexts, thereby becoming a crucial factor in the sustainable development of elderly education.

Consequently, the design and implementation of elderly education courses should be grounded in embodied learning principles, using the physical experiences of older adults as a foundation for cognitive engagement. This approach should incorporate their life contexts to invigorate both their physical and mental activities. Specifically, it should enhance multi - sensory experiences based on everyday situations encountered by the elderly and organize course content in a manner that is task - driven, problem - oriented, and action - focused. Such an embodied design can facilitate a better integration of learning with real life, thereby enriching the learning experience and fostering a greater sense of participation among older adults.

5 CONCLUSION

Curriculum serves as the fundamental vehicle for advancing the practice of elderly education. Currently, the development of elderly education curricula in China encounters several significant challenges. This study advocates for a multifaceted approach that comprehensively addresses the value objectives, content structure, and implementation strategies of the curriculum to enhance overall quality.

Firstly, curriculum goals should be closely aligned with the real - life circumstances of older adults, primarily focusing on enhancing their capacity for social integration across various aspects of life. A comprehensive curriculum framework should be established that caters to the diverse needs of the elderly, incorporating foundational, specialized, and practical courses to ensure that content is both extensive and targeted.

In terms of curriculum design, an embodied cognition approach should be central, integrating the principles of embodied cognition theory while emphasizing problem - oriented and project - driven methodologies. Such an approach is likely to significantly enhance the participation of older adults in educational activities, thereby improving their learning outcomes and overall quality of life. Specifically, the curriculum should be tailored around the everyday scenarios faced by the elderly, prioritizing the enhancement of sensory

experiences, and employing task - oriented and practical strategies to ensure that the learning process is relevant to their actual needs.

Moreover, it is essential to focus on the systematic and scientific construction of elderly education curricula to prevent issues of content redundancy and homogenization. The curriculum should encompass not only the fundamental knowledge and skills necessary for older adults but also address their needs in areas such as social interaction and health management, thereby achieving a balance of diversity and depth in educational content.

Ultimately, this approach to optimizing curriculum goals, content, and implementation methods will facilitate the advancement of elderly education in China, driving it toward higher quality and effectiveness in improving the quality of life for older adults.

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Conflicts of Interest

The authors declared no conflict of interest.

Author Contribution

The author contributed to the manuscript and approved the final version alone.

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