

Empowering Lifelong Learning through Higher Education in China: Innovations and Challenges

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Abstract

In response to the forces of globalization, the knowledge-based economy, and the rapid development of information technology, UNESCO has issued a series of documents on the role of education in social development and put forward the concepts of lifelong education and lifelong learning. The processes of globalization and digitization have resulted in the formation of unprecedentedly close ties between individuals across the globe. However, these developments have also contributed to an increase in turbulence, complexity, uncertainty, and ambiguity within the global environment. In this context, education, especially higher education, should consider how to facilitate how to enhance learners' lifelong learning abilities to adapt to rapid changes. This paper presents an analysis of the theoretical literature and empirical studies on China's higher education empowering lifelong learning in CNKI (the biggest database in China). It also examines the challenges China faces in empowering lifelong learning through higher education and explores effective ways for higher education to empower lifelong learning. This study finds that higher education plays a pivotal role in facilitating lifelong learning. However, it is not yet a comprehensive "education for all" for all those who could benefit from lifelong education. The attention to minority or underrepresented groups is constrained.

Keywords

Lifelong learning, lifelong education, higher education, empower, innovation

Introduction

In a rapidly evolving world, emerging economic, technological, environmental and social changes have demonstrated the need for not only intellectual competence, but also the ability to adapt to change, to the unknown and to sustain lifelong learning. UNESCO as an

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international organization has a significant role and contribution in promoting lifelong learning around the world (Akther, 2020). It has promoted the concept of lifelong education and lifelong learning through a series of documents such as "Learning to Be-the World of Education Today and Tomorrow" and "Reimagining Our Future Together: A New Social Contract for Education", and has implemented concrete measures to help governments and regions promote education reform and development. Over the past half century, from the concept of lifelong education that "emphasizes the will of the state and focuses on the responsibility of the government" to lifelong learning that "focuses on the freedom and independent choice of individuals" (Wu Zunmin et al., 2024), governments of different countries have made efforts to promote lifelong learning through "top-down planning, investment, and encouragement" to promote the development of lifelong education, and to push "education to revolutionize the status quo and adapt to the new needs of human and social development" (Zhang Minxuan and Bian Cui, 2022), which makes the freedom and independent choice of lifelong learning become a reality.

As stated in the UNESCO publication "Making Lifelong Learning a Reality: A Handbook", the implementation of lifelong learning strategies must be adapted to the specific context of each country, as they are characterized by country-specific features. Nevertheless, there are certain common factors that must be considered when developing a strategy for lifelong learning, including policy perspectives, priorities and target groups, goals and targets, planned interventions and stakeholder involvement. Of these factors, formal education is typically the primary focus of planners and policymakers (UIL, 2022). While lifelong learning encompasses a multitude of forms and settings beyond formal education sector, it is nevertheless evident that the latter plays a pivotal role in promoting lifelong learning. Higher education as the essential part of formal education takes the responsibility of cultivating talent, advancing knowledge, providing social services, and cherishing cultural heritage. It is a crucial contributor to the development of a comprehensive lifelong learning system and a learning society. Higher education represents the "link in the chain" of the lifelong learning education system, and it should be better integrated into the system (Peng Jun and Xu Zhimi, 2024). This paper focuses on the efforts of higher education to advance the concept and practice of lifelong learning, the innovations and the challenges.

The Characteristics of Lifelong Learning

In 1972, UNESCO proposed "lifelong education" in the Faure report (republished in 2013), stating that "education should be a continuous process, and success and failure in education should not be fixed at a particular point in time" (Faure, 1972). It emphasizes the process of continuous learning, growth and development of individuals throughout their lives, breaking the boundaries of traditional concepts of education and emphasizing the continuity and openness of education (Sun Ziqi and Tian Shiquan, 2022). The life course of an individual is no longer divided into distinct periods of preparation and action, but rather is characterized by learning throughout an individual's lifespan. This new perspective acknowledges that learning occurs not only in formal educational and training environments but also in a multitude of other settings and through diverse channels.

According to the Faure report (1972), lifelong learning has five essential elements: "1. all age groups; 2. all levels of education; 3. all learning modalities; 4. all learning spheres and space; and 5. a variety of purposes". This means that people of all ages (children, young people, adults and elder people etc.) through the whole lifespan have access to learning opportunities in all settings (schools, families, communities, workplaces, etc.) by various learning modalities, including formal, non-formal and informal learning, to meet their learning needs and develop their personal capacities.

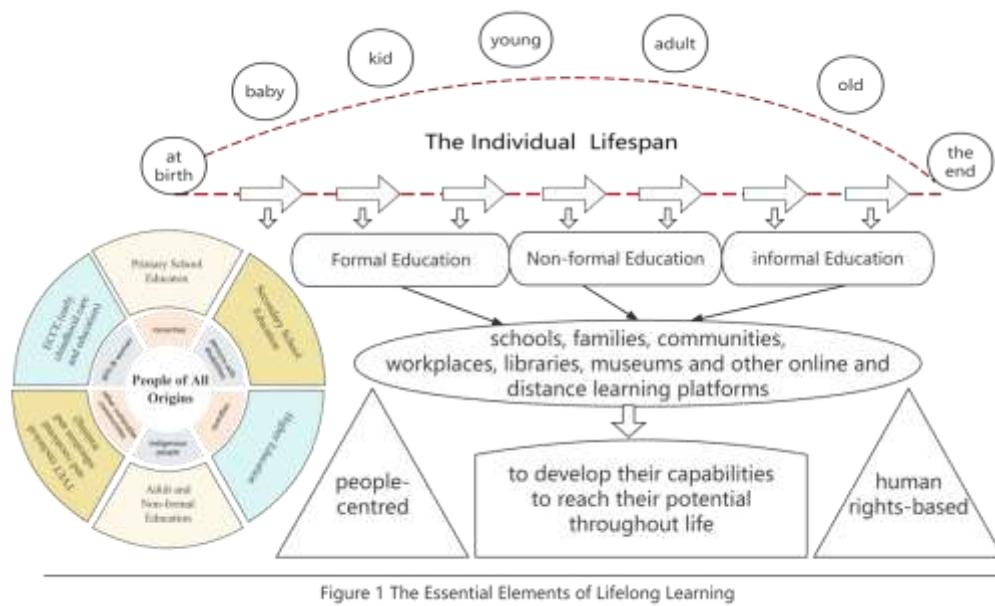


Figure 1. demonstrates the essential elements of lifelong learning
Resource:by the author

Conditions for Promoting Lifelong learning

Lifelong learning, through the whole lifespan, encompasses a variety of stages and levels of education, and requires specific learning environments and learning resources to facilitate it effectively. It is therefore essential that the formulation of lifelong learning policies requires the joint consultation of multiple stakeholders and active inputs from the state, localities, communities, community groups, civil society organizations and learners to create a "comprehensive and shared vision of lifelong learning" (UIL, 2022).

The design of lifelong learning policies is a complex process that requires consideration of a wide range of target groups. These include not only children, youth, adults and the elderly, but also migrants, women and ethnic minorities, who are to be regarded as special groups. Then, the promotion of lifelong learning should be diversified, with formal and non-formal education playing an important role, and informal learning, such as community and family education, should also be an important part of lifelong learning. Furthermore, the design of lifelong

learning should focus on solving social issues such as unemployment, global citizenship, promotion of democracy, peace, economic, health and environmental education, information literacy, literacy etc, and on how to enhance and reshape individuals' competencies, and cultivate their capacity to adapt to change. Ultimately, the advancement of lifelong learning necessitates policy support. Regardless of whether it is "top-down" (i.e., "government-led"), "self-help" (i.e., "bottom-up" or "autonomous self-help"), or "community-based," lifelong learning exhibits certain commonalities with regard to legal safeguards, financial inputs, and the fundamental structure of the educational institution (Gao Liping, 2024).

The role of higher education in promoting lifelong learning

School education, as the formal education in promoting lifelong learning, has its unique advantageous position, which can stimulate learners' interest and cultivate their lifelong learning ability, and can also expand its educational scope and promote the construction of a learning society by supporting family education and community education. In China, compared with basic education and secondary education, higher education plays a variety of important roles in promoting community education and family education and in building a modernized lifelong learning system for all due to its "social service function" (Tang Xu et al., 2024).

1. Providing theoretical support for lifelong learning

The construction of a learning society can't be separated from scientific theoretical guidance, and it is the important responsibility of colleges and universities to conduct research on the lifelong learning society itself. Most colleges and universities have specialized educational research institutes with a large number of experts and scholars, whose research on lifelong learning has more broader and deeper than that of other institutes, so that they can better explain the concept of lifelong learning, identify the real social problems that need to be solved by lifelong learning, and provide theoretical guidance for the formulation and implementation of policies on the building of a learning society, and lead the ideological trend of lifelong learning.

2. Providing resource platforms for lifelong learning

Higher education institutions can facilitate lifelong learning by making their public facilities, such as libraries and gymnasiums, accessible to the public. With the advantage of its high-level teachers, higher education institutions can provide teachers at all levels with opportunities to participate in training and learning, enhance their understanding of the concept of lifelong learning, and help promote lifelong education. In addition, colleges and universities may collaborate with other forms of education to develop specialized curricula with innovative features that can also meet the real life needs (Chen Lu, 2024), such as using the advantages of their own nursing profession to set up pregnancy and infant guidance rooms, elderly rehabilitation and care centers, consultation centers for chronic diseases such as hypertension and diabetes, and health service stations, etc. Higher education can also provide support for the formation of synergies between teaching and learning, promoting the integration of various forms of education, including school, family and social education, also the integration of vocational education, higher education and continuing education.

3. Providing technical support for lifelong learning

The future education will be characterized by the comprehensive integration of digital technology into the education and teaching process and as well as the profound application of digital technology and education (Zhan Liang and Dong Hongxing, 2024). Higher education should make use of their own information technology and resource capabilities to enhance the accessibility of online and distance education. This can be achieved by developing high-quality online education platforms, such as MOOCs and SPOOCs, to create a comprehensive learning ecosystem that enables learners to access diverse educational resources at their convenience, regardless of the time and place constraints. In that case, individuals who are unable to engage in conventional classroom instruction, such as working professionals, housewives, and rural residents, can have the opportunity to gain knowledge and enhance their skills (Wang Meng, 2024). Meanwhile, higher education should take on the responsibility of improving people's digital literacy, providing effective support for personalized learning, lifelong learning, enlarging the scope of quality educational resources and modernizing education (Long Jiangyan and Zhang Hongbing, 2024).

Methodology

This paper employs an inductive analysis on the articles of the China Knowledge Network (CNKI) database on the theme of "lifelong learning and education." Excel will be used to categorize these articles to identify the challenges and effective ways of higher education empowering lifelong learning.

The literature search and process was conducted in accordance with the following criteria:

Time frame: Papers published in 2024 were selected to ensure the timeliness and relevance of the research data.

Thematic relevance: The literature focuses on the theme of "Lifelong Learning and Education," encompassing the theoretical, policy-related, practical, and technological aspects of lifelong learning.

Types of literature: Priority is given to academic journal articles, conference papers and research reports, with non-academic articles and review papers excluded.

Language Requirements: Only literature in Chinese is included in order to ensure an accurate grasp of the current state of higher education in China.

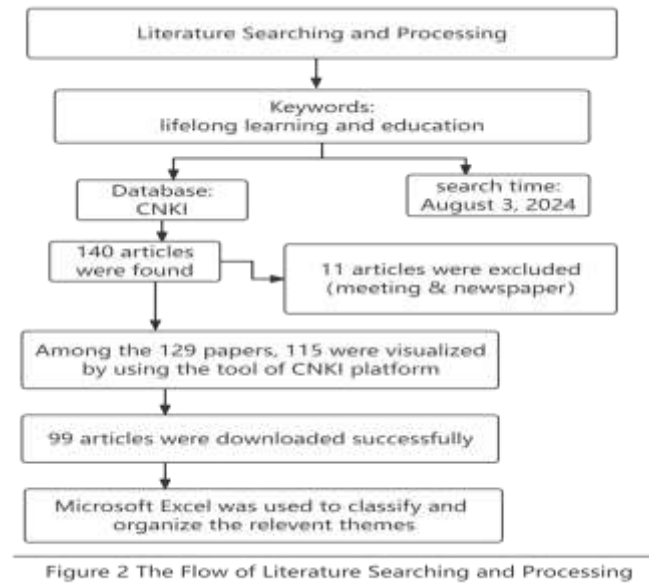


Figure 2. shows the flow of literature searching and processing of this study
Resource: by the author

The downloaded documents were classified and sorted by means of Microsoft Excel in accordance with the following criteria:

Research topics: The literature is categorized into such classifications as "policy and theoretical discussions", "practical cases", and "technical applications" to facilitate detailed analysis of different topics.

Research objects: The literature is divided into "higher education", "policy making", "students and teachers", "education for the elderly", "adult education", and "community education" based on the research objects, so as to understand the research results from diverse perspectives.

Results and Discussion

Through keyword analysis and topic categorization, this study found that the downloaded articles on lifelong learning and education-related articles in 2024 were relatively more concentrated with research direction and research topics, and the research subjects were mostly students, older people or adults, which did not refer to a specific group. The details are as follows.

Keywords are a concise representation of an article's central theme and a concentrated reflection of research hotspots (Xiao Haiyan, 2021). As illustrated in Figure 3, key area of research on higher education and lifelong learning in China are primarily concentrated on lifelong education, continuing education, vocational education, senior education, community education, the education system, lifelong education concepts, empowerment, digital transformation, credit banking, higher education, and other related aspects. Figure 3 presents the keyword co-occurrence graph, depicting keywords with a word frequency exceeding 8.

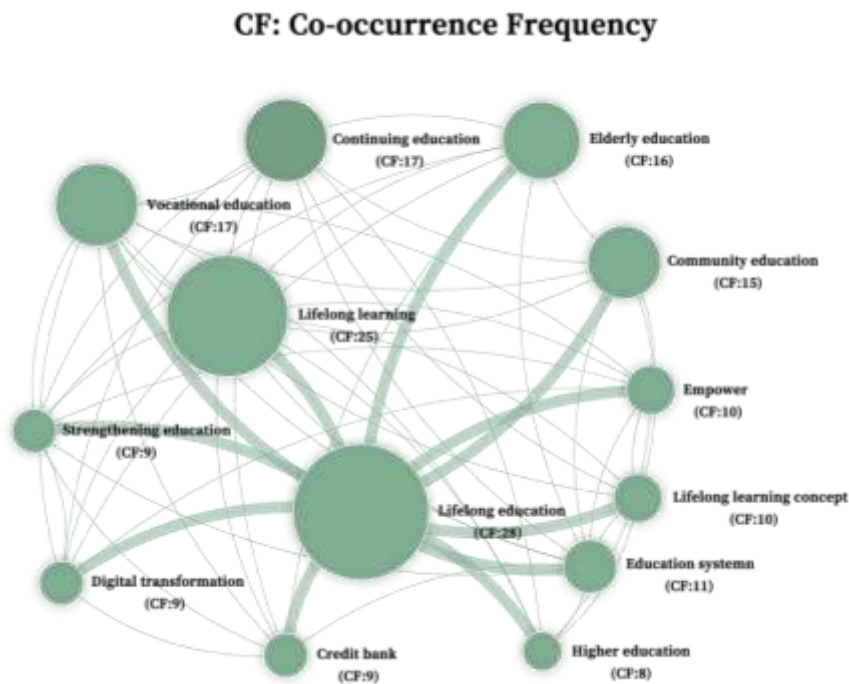


Figure 3. The Keyword Co-occurrence Graph
Resource: by CNKI

As the visualization chart is constructed in Chinese, for the purpose of presenting the data more clearly and facilitating subsequent analysis, the keywords and values in Figure 3 are replicated in Table 1.

Table 1. The Co-occurrence Frequency of the Keyword

Keywords	Co-occurrence Frequency
Lifelong education	28
Lifelong learning	25
Continuing education	17
Vocational education	17
Elderly education	16
Community education	15
Education system	11
Lifelong learning concept	10
Empower	10
Digital transformation	9
Credit bank	9
Strengthening education	9
Higher education	8

Resource: by the author

It is notable that the term 'higher education' occurs on eight occasions, which is less

frequent than the terms 'continuing education' (occurring on 17 occasions) and 'vocational education' (17 times). This may be due to the fact that some of the papers employ more specific keywords, such as "school", "private higher education" and "higher continuing education". For example, The article of Huang Xiaoqiang (2024) "Analysis and Discussion on the Reform and Transformation Pathway of Higher Continuing Education under the New Situation" employs the keywords "higher continuing education", "reform and transformation" and "lifelong learning".

This thesis employs Microsoft Excel to categorize the downloaded documents into themes, with the results presented in Table 2. The research themes identified include lifelong education systems, education reform, path studies, lifelong learning for all, professional settings, teaching reform, talent cultivation systems, teaching modes, continuing education, and others. Among these, approximately 40 papers address theoretical frameworks related to education systems, education reform, and path studies, representing approximately 40% of the total number of papers analyzed.

Table 2. Categorization of research themes and objects

Research themes	Frequency	Detailed Research object
Adult Education	13	adult
Elderly Education	10	elder
Theoretical framework	25	policy
Community Education	16	community
School Education	35	(seen as blow)
Total	99	
School Education	20	classroom teaching
	15	policies (12 on vocational)
	5	teachers' professional development
	4	students' perspective
	1	librarian

Resource:by the author

In terms of educational level, higher education plays a significant role. As seen from Table 2, a total of 20 articles address various aspects of teaching reform, teaching mode, talent cultivation and other teaching practices. Of these, 18 are at the higher education level, one is on early childhood education and another is on secondary education. With regard to theoretical research, 15 articles address the subject of the vocational education system. In analyzing these articles, it can be concluded that the term "vocational education" in this context refers to school-based education, encompassing the cultivation of technical expertise, as well as on-the-job training and non-academic education for members of society (Guan Songtao, 2024). Vocational education represents the nexus between school-based and continuing education, and thus the author proposes its classification as a form of higher education.

Regarding to the research topics, these papers focus mainly on students and elder people. This study analyses articles on "open education", "community education", "continuing

education", "adult education" etc, and finds that these articles have explained the content of education, such as craft training, non-genetic inheritance, health popularization and scientific literacy, but there is no clear description of who will be benefit from these courses, and no attention is paid to minority or underrepresented groups.

The above findings indicate that higher education, including vocational education and training, plays a key role in promoting lifelong learning policies and building a learning society. Higher education provides framework support and ideological guidance at the theoretical level, innovates teaching reforms in practice, and plays a leading role in digital empowerment. However, although higher education covers all age groups, from early childhood to adolescence, from adults to the elderly, there is a lack of attention to specific groups such as women, ethnic minorities and immigrants in terms of the groups to be educated for lifelong learning.

1. Higher education plays a crucial role in cultivating high-quality talents in the lifelong education system (Sun Ziqi and Tian Shiquan, 2024). Higher education has unique advantages in terms of education level, education content and education mode, such as more advanced teaching resources, more advanced hardware facilities and richer scientific research power, which enable higher education to cultivate high-quality talents with innovative spirit and practical ability. Through the provision of diversified learning modes and curricula, the innovation of teaching content, the reform of the evaluation mechanism, the introduction of credit interaction and the recognition of non-degree certificates, higher education are striving to promote learners' learning, and fulfill their different learning needs.

2. Higher education is pivotal in the advancement of academic, open education and community education. The establishment of lifelong learning organizational structures, higher education not only can provide educational programs and training, enhance curriculum development, promote community participation, and also support and guide the research, support, dissemination of lifelong learning knowledge (Peng Jun and Xu Zhimi, 2024), facilitate the advancement of lifelong learning. The interconnection of different learning forms, including school, society, and family, has provided an abundant source for the modernization of Chinese-style education for sustainable development (Zhang Jing et al., 2024). Furthermore, the interconnection between school education, vocational education, adult academic education, and education for the elderly, which serves different age levels within the education system, has made lifelong learning a reality.

3. Higher education is increasingly utilizing digital technologies to enhance accessibility to education, encourage innovation in teaching methodologies and optimize the learning experience. Innovative educational activities, including online lectures, MOOCs, seminars and mobile learning, are employed to construct large-scale smart education platforms that facilitate the customization of personalized learning programmes to suit learners' needs and provide access to learning content at any time and from any location. Digital and online technologies offer learners from underrepresented groups flexible learning opportunities and support the advancement of lifelong learning activities (Wu Xing and Zhang Qian, 2024).

4. Vocational education, as part of higher education, plays a crucial role in promoting lifelong learning. New technologies, big data, artificial intelligence and other digital changes have made more flexible vocational education a necessary complement to academic education (Wu Zhe and Yu Tianyi, 2024). Through the integration of digital technologies and orientation to market demand and learners' needs, learners can conveniently access relevant learning resources that meet the needs of industries and jobs (Gao Yuying, 2024). This will enhance learners' ability to improve their cultural and digital literacy, improve their ability to develop sustainably, and improve the modernized system of lifelong learning for all.

Conclusion

In the current knowledge-based economy, lifelong learning plays an essential role in enhancing personal development and social advancement. The promotion of lifelong learning necessitates a multilevel approach, whereby society as a whole is engaged in creating a learning environment that is conducive to such pursuits. It is imperative that the government assumes a proactive role in the formulation of policies that foster lifelong learning. This may entail the implementation of tax incentives, learning subsidies, and the establishment of public learning platforms with the objective of reducing the financial burden of learning and enhancing its accessibility (Huang Xiaoqiang, 2024). Additionally, the creation of a credit system bank could facilitate a more expansive array of lifelong learning avenues for members of society, thereby providing a robust institutional foundation for the advancement of lifelong learning for all. The objective of school education, particularly higher education, should be to cultivate people's higher-order cognitive skills, sociobehavioral skills and lifelong learning abilities. This would fulfil the nurturing function of education for the construction of a learning society. Furthermore, more research should focus on how to increase opportunities for minorities and under-represented groups, which would become the main driving force for lifelong learning activities (Peng Jun and Xu Zhimi, 2024), also on how to promote educational equity and make use of digital technology to further promote lifelong learning for all. Thus, systematic review, content analysis or case study could be explored in future studies.

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