

Coupling and Coordination of Community Education and Higher Education under the Lifelong Education Learning System

Yong Xiang^{1,a,*}, Kang Meng^{1,b}, Zeyou Chen^{1,c}

¹School of Civil Engineering, Architecture and Environment, Xihua University, Chengdu, Sichuan, China

^a0120010008@mail.xhu.edu.cn, ^bmengkangoffice@163.com, ^c0119940033@mail.xhu.edu.cn

*Corresponding author

Abstract: *There may be an imbalance in resource allocation between community education and higher education. This may lead to a lack of sufficient educational resources in certain communities, affecting their ability to provide lifelong learning resources. At the same time, universities may overly focus resources on traditional academic education and overlook the need for lifelong learning. Through in-depth research on the coupling and coordination between community education and higher education, the mutual relationship and complementary role of the two in lifelong learning were analyzed. The survey found that 45% of teachers and students had less understanding of community shared resources; 52% of community residents had less understanding of university shared resources, and the cooperation between universities and communities accounted for only 9%. It is necessary to strengthen cooperation between schools and communities, and provide a better platform for resource sharing and communication between both parties.*

Keywords: *Lifelong Learning System, Community Education, Higher Education, Uneven Resource Allocation, Coordination and Collaboration*

1. Introduction

In the current context of social change and knowledge economy, the importance of lifelong learning is becoming increasingly prominent. However, the coordination and collaboration between community education and higher education under the lifelong learning system urgently require in-depth research. The uneven distribution of resources may hinder certain communities from providing sufficient lifelong learning resources, while universities overly focus on traditional academic education and neglect the needs of other forms of learning, which is an urgent issue that needs to be addressed.

Previous research has mainly focused on the theoretical framework of lifelong learning and research at various educational levels, but there has been less attention to the coupling and coordination between community education and higher education. In previous studies, Pan Maoyuan believed that a profound understanding of the modern concept of lifelong education and promoting the coordinated development of education at all levels and categories is an important task of the contemporary education system [1]. Lan Lan observed that although China has undergone a relatively long period of exploration and experimentation in the field of lifelong education, and has established a certain foundation of rule of law, the overall rule of law pattern has not yet been formed. At present, China still faces some practical difficulties in lifelong education, including an incomplete legal system for lifelong education, constraints on the driving force of the rule of law, and incomplete formation of the concept of lifelong learning rights. These practical difficulties still require in-depth research and improvement to better promote the rule of law construction in lifelong education [2]. Scholars such as Ye Changsheng pointed out that the core of community education transformation lies in the transformation of teachers, and the key direction of transformation is to promote the sustained professional development of teachers. This is not only an inherent requirement for the particularity of community education teaching, but also determined by the complexity of the role of community education teachers. At the same time, this is also an urgent need for the professional development practice of teachers and the high-quality development of community education [3]. In Yan Guirong's view, she believed that if universities want to truly improve their educational management level, they should innovate traditional work models, comprehensively improve the quality of educational management, and provide students with better

educational services [4]. Zhang Min believed that actively promoting the development of community education is a key measure to implement the concept of lifelong education and build a learning society. Universities should be based on local conditions and strengthen the coordinated development with community education. This is not only the social responsibility that universities should fulfill, but also the necessary path to realize their contribution to society. Through close cooperation with community education, universities can better meet the society's demand for lifelong learning, promote the dissemination and sharing of knowledge, and help society build a more learning atmosphere environment. This attitude of actively participating in the development of community education is not only a necessary action for universities, but also a positive contribution to the sustainable development of society [5]. However, these methods often fail to fully consider the interrelationship between the two and the holistic nature of lifelong learning, resulting in certain problems in practical operation. This article delved into the coupling and coordination between community education and higher education [6], aiming to construct a more comprehensive theoretical framework to address the current research issues.

In Section 2, this article provided a detailed introduction to community education and higher education under lifelong learning, and in Section 3, a survey was conducted on the level of understanding of resource sharing among school students and community residents. Finally, a summary of the entire article was made [7].

2. Core Concepts and Directions

2.1 Lifelong Education

The concept of "lifelong learning" originated from the evolution of "lifelong education" [8]. From an official perspective, this concept was first formally proposed by Paul Langeland at the UNESCO International Conference for the Promotion of Adult Education in 1965 [9]. Since then, various countries have conducted a series of research and practice, gradually developing the concept of "lifelong education" and extending the concept of "lifelong learning". In 1976, UNESCO issued the "Advisory Letter on the Development of Adult Education", officially using "lifelong education" and "lifelong learning" as terms in the field of education [10]. The definition of "lifelong learning" literally refers to the learning that runs through a person's entire life. However, such an expression appears too simplistic, and various interpretations have emerged in the academic community. Although the expressions are different, the connotations are roughly similar, emphasizing the individual's learning rights, autonomy, and other aspects throughout their life cycle. The explanation proposed by the European Association for the Promotion of Lifelong Learning is considered the most authoritative, which states that "lifelong learning unleashes human potential through a continuously supportive process, inspiring and empowering people to acquire all the knowledge, values, skills, and understanding they need throughout their lives, and to confidently, creatively, and happily apply them in any task, situation, and environment" [11]. However, the academic community generally believes that the main difference between lifelong learning and lifelong education lies in their different perspectives. The former focuses more on the perspective provided by education, while the latter focuses more on the perspective of individual learners. Although from an educational perspective, this difference is essentially uniform [12].

The holistic theoretical framework of lifelong learning is expressed by the following mathematical formula:

$$L = \sum_{i=1}^n P_i \cdot C_i \quad (1)$$

Among them, L represents the wholeness of lifelong learning; P_i represents the contribution of community education and higher education at the i -th level; C_i represents the coordination at that level [13]. The construction of the entire theoretical framework achieves organic integration of community education and higher education through quantitative analysis of P_i and C_i .

In short, the goals of community education are in line with the concept of lifelong education, reflecting the dialectical unity between educational socialization and social education. The concept of lifelong education provides theoretical guidance for universities to participate in community education and is the ultimate goal of community education development. The participation of universities in community education is an important way to achieve lifelong education, which can provide high-level, rich content, and diverse forms of educational activities for community residents, meet their diverse

and personalized learning needs, and mobilize the enthusiasm and initiative of all community members to participate in community education, promoting the construction of a lifelong education system [14]. The specific relationship is detailed in Figure 1.

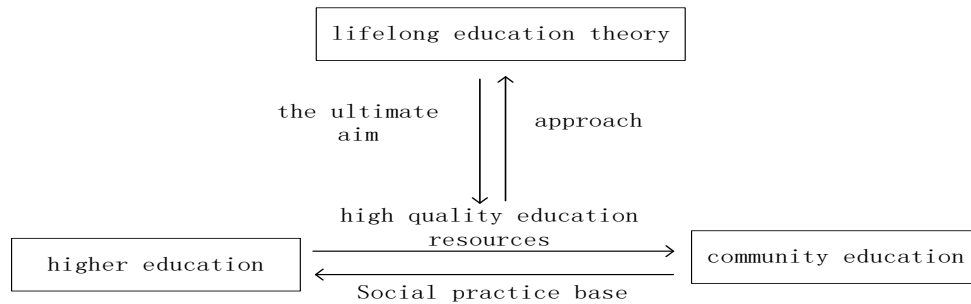


Figure 1: Theoretical relationship between higher education and community education under lifelong education

Based on the above analysis of the theory of lifelong education, the focus of this article is mainly to start from the theory of lifelong education, analyze the interaction between universities and communities, the role of universities in community education, and the specific process of universities participating in the operation of community education models, and make the models specific and clear through analysis. Afterwards, an in-depth analysis is conducted on the practical difficulties faced in the development process, and an optimization path for universities to participate in community education is proposed with the goal and value of achieving lifelong education.

2.1.1 Community Education

The term "community education" was first proposed by educator Dewey in the early 20th century [15]. He believed that schools are the embryonic form of society, and education should be oriented towards society and the community, thus forming the preliminary concept of community education. With the continuous development of practice, the connotation of community education has gradually been enriched and developed. Community education is a revision of the existing education system that focuses on vulnerable groups and aims to provide educational opportunities for everyone, thereby achieving a more fulfilling and beneficial life [16].

In other countries, there are some representative views that define community education. Nordic countries emphasize humanistic spirit and define community education as public education, with the goal of improving humanistic quality. The United States adheres to a pragmatic educational philosophy, positioning community education as providing informal educational services to the community. It is committed to establishing a systematic strategy between government, community, and schools, extending school classrooms to communities, linking knowledge with social life, and building a lifelong education system. Japan defines community education as social education, emphasizing organized educational activities for all members of society beyond formal school education.

Chinese scholars have emphasized the definition of community education as a new educational model, defining it as a form of "socialization of education, socialization of education, and integration of education and society" [17]. The Ministry of Education defines community education as "Utilizing various educational resources within a certain area, aimed at improving the overall quality and quality of life of all members of the community, serving regional economic construction and social development, is an educational activity. Community education is an important form of lifelong education and the foundation for establishing a learning society. It has the basic characteristics of being fully equipped, comprehensive, and full process." [18].

2.1.2 Higher Education

Higher education, also known as university education, is the highest level of higher education, usually referring to academic and professional education provided in universities or research institutions [19]. Universities have increasingly abundant educational resources, with complete teaching facilities such as libraries, multimedia classrooms, conference rooms, laboratories, training grounds, and sports halls. Higher education provides a wide range of subject and major choices, allowing students to choose suitable majors based on their interests and career goals. Higher education is closely related to scientific research, and many universities have strong research institutions and laboratories. Universities usually have a professional team of teachers, and high-quality teaching staff

is an important guarantee for universities to provide high-quality education. Universities are the center of academic research and knowledge dissemination, providing academic lectures, seminars and other activities to create a good academic atmosphere for students. Higher education emphasizes the cultivation of students' critical thinking, problem-solving abilities, and lifelong learning attitudes to adapt to changes in society and career development.

Overall, higher education is usually provided by professional teachers and educational institutions, emphasizing systematicity and professionalism. Community education places more emphasis on social practice and community participation, usually provided by community organizations, non-governmental organizations, or volunteers. Higher education plays a crucial role in shaping individual career development, talent cultivation, and social progress. The professional talents cultivated by universities not only have core competitiveness in various industries, but also play an important leading role in promoting social innovation and progress.

2.2 Theory of Uneven Resource Allocation

The integration of university education and community education essentially lies in meeting the diverse learning needs of different groups, which is not only a response to the needs of special groups, but also a response to all members of society. Through the theory of resource allocation, a resource imbalance index is introduced [20]:

$$R II = \frac{\sum_{j=1}^m R_{c,j}}{\sum_{k=1}^m R_{u,k}} \quad (2)$$

In the formula, $R_{c,j}$ represents the resource allocation of the j th community, and $R_{u,k}$ represents the resource allocation of the k th University. By calculating RII, the degree of resource imbalance can be quantified, providing theoretical guidance for deeper problem-solving.

The role of universities in the development of community education resources is mainly reflected in the following aspects: firstly, universities have the ability to cultivate professional education institutions and professional community education teams for community education. At present, community education faces the challenge of lacking experienced educators, and universities can provide a certain number of professional part-time teachers for community education while ensuring the normal progress of their own teaching and research. For example, college students themselves are a group with high quality, and after training, they can become qualified educators in community education. Secondly, universities have abundant educational and teaching resources, which can provide teaching venues and content for community education, thereby enriching the teaching experience. On the premise of ensuring normal teaching, universities can provide sports fields, libraries, and computer rooms, broadcasting halls and other venues to the community in a timely manner, providing opportunities for community residents to hold art festivals, art exhibitions, ball games, lectures and other activities. The cooperation between universities and communities not only compensates for the shortage of community education talents, but also enriches the learning and cultural life of community residents.

3. Survey of Shared Resources between Universities and Communities

The experiment conducted a questionnaire survey on students, teachers, and residents in the surrounding community of a certain university campus, and interviewed 100 teachers and students respectively. The following is the interview content.

3.1 Survey on the Degree of Community Resource Sharing

Table 1: The level of understanding of community shared resources among teachers and students

Understanding of surrounding resources		
Degree	Number	Proportion
Very familiar	2	2%
Relatively familiar	8	8%
Same as	24	24%
Less understanding	45	45%
Ignorant	21	21%
Total	100	100%

In order to understand the level of understanding of the surrounding community among students, 100 survey questionnaires were distributed to school teachers and students. Table 1 shows whether school teachers and students are aware of the existing shared resources in the community. Figure 2 shows the proportion of open shared resources in the surrounding communities of the school.

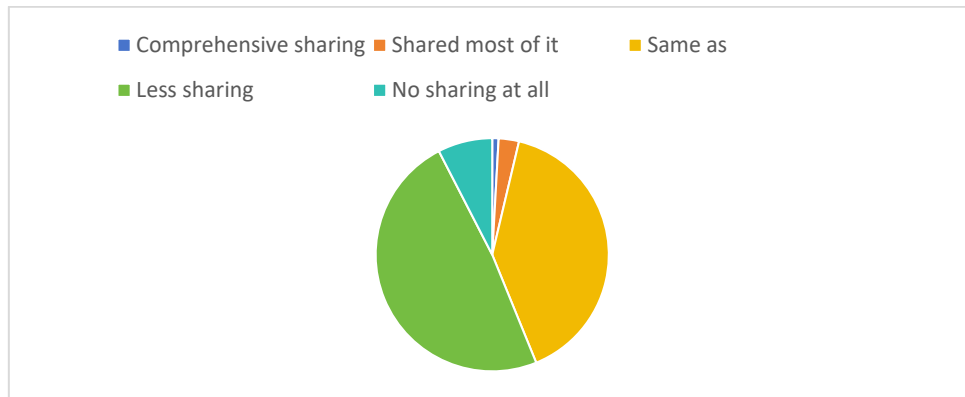


Figure 2: The proportion of community shared resources

According to the data in Table 1 and Figure 2, teachers and students had relatively insufficient understanding of the resources in the surrounding community of their university, and there was also a certain lack of resource sharing. About 45% of teachers and students had limited knowledge about the surrounding community resources, while around 21% of teachers and students had no knowledge about them. About 24% of teachers and students had a general understanding of community resources; only 8% had a relatively good understanding, and 2% had a complete understanding. On the other hand, the sharing of resources in communities around universities was also not ideal, with 48.59% of communities sharing very little and 7.57% of communities not sharing at all. 40.14% of the university surrounding communities had a moderate degree of shared resources; 2.82% shared the majority of resources, and only 0.88% fully shared them. In summary, college students have insufficient understanding of surrounding community resources and relatively limited opportunities for sharing. This indicates that people need to have a better understanding of the society outside of campus, and the surrounding communities also need to increase opportunities for resource sharing, providing a wider platform for college students.

3.2 Survey on the Degree of Sharing of University Resources

In order to understand the level of understanding among community residents about university shared resources, 100 questionnaire surveys were conducted in the surrounding communities of the school. Table 2 shows whether community residents are aware of the existing shared resources of universities. Figure 3 shows the proportion of open shared resources in schools.

Table 2: Residents' level of understanding of university shared resources

Understanding of surrounding resources		
Degree	Number	Proportion
Very familiar	1	1%
Relatively familiar	12	12%
Same as	18	18%
Less understanding	52	52%
Ignorant	17	17%
Total	100	100%

According to the data in Table 2 and Figure 3, there is a certain lack of understanding among community residents about university resources, and the sharing of these resources also needs to be improved. About 52% of residents had limited knowledge about the resources available in universities, and 17% of people even had no knowledge about them. 18% of community residents had a moderate level of understanding, while 12% had a relatively better understanding. Only about 1% of residents had a complete understanding of these resources. On the other hand, there were also some shortcomings in the sharing of university resources, with approximately 28% of residents believing that there was less sharing and 13% believing that there was no sharing at all. 43% of residents had a moderate degree of sharing of shareable resources in universities; 15% shared the majority of resources, and only 1% fully shared resources. From the above data, it can be seen that community residents have

little understanding of the shared resources owned by universities, and the sharing of university resources is relatively limited. Therefore, it is necessary for university campuses to open up more shared resources and organize students to promote them, in order to encourage community residents to share these resources more widely.

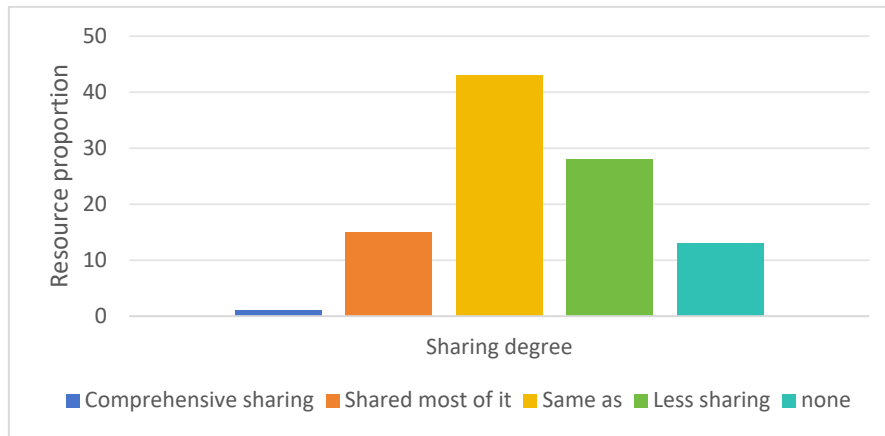


Figure 3: The proportion of shared resources among universities

3.3 Current Situation of Cooperation between Higher Education and Community Education

A survey was conducted to gain a deeper understanding of the cooperation between universities and surrounding communities. The results are shown in Figure 4:

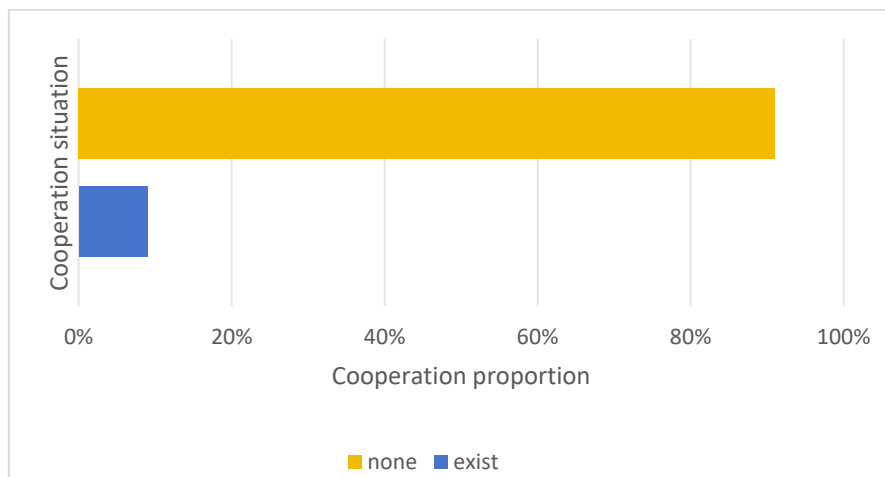


Figure 4: Collaboration between communities and universities

According to the data in Figure 4, the current situation of cooperation and interaction between universities and surrounding communities is not ideal. The proportion of cooperative interaction was significantly uneven, with 91% of universities and surrounding communities having no cooperative interaction, while only 9% had cooperative interaction. This indicates that the degree of cooperation between universities and surrounding communities is relatively low. In terms of improvement, emphasis can be placed on strengthening communication channels between universities and surrounding communities, such as establishing more effective cooperation platforms. Communities can provide rich social practice opportunities for university students, while universities can provide lifelong learning resources for community residents. By establishing closer cooperative relationships, it is possible to promote resource sharing between both parties and achieve common development goals.

4. Conclusions

At present, universities are facing many problems in participating in community education: there are the following problems between universities and community education resources: insufficient complementarity, lack of long-term cooperation mechanisms; single participation form and narrow

participation scope; the government's overall planning is insufficient, and educational theory lags behind practice. The main reasons for the problem of university participation in community education are three aspects. Firstly, the government's public support system is not sound; the community education legal system is lacking; the guarantee system is not sound, and the government's investment is insufficient. Secondly, there are limitations to the openness of university resources. Thirdly, the community is limited by human and financial resources, resulting in insufficient service and openness. To solve the problem of college participation in community education, it is necessary to start from the following aspects. It is necessary to establish a government support system for universities to participate in community education, improve the policy system for universities to participate in community education, build a resource sharing mechanism between universities and communities, and improve the guarantee mechanism for universities to participate in community education. It is necessary to enhance the ability of universities to participate in community education, adopt a "going out" approach to provide services for community education adopt a "bringing in" approach, fully utilize university resources to carry out community education, and establish an assessment and evaluation system for university participation in community education. It is necessary to establish a positive interaction mechanism between higher education institutions and community education, as well as a funding support system for universities to participate in community education, and establish a two-way practice and education training base for communities and universities. These measures aim to promote effective cooperation between universities and community education, solve problems, and promote the comprehensive development of community education.

Acknowledgement

This work was supported by Chengdu Philosophy and Social Science Key Research Base - Chengdu Social Governance and Lifelong Education Base Project: Research on the Path of Lifelong Learning Education System under the "University+Community" Model in the New Era (NO: 2023JDZJ05)

References

- [1] Pan Maoyuan. *The connotative value and practical exploration of modern lifelong education*. *Cross Strait Lifelong Education*, 2022, 25 (1): 1-6.
- [2] Lan Lan. *The practical difficulties and action strategies of modernizing the rule of law in Chinese style lifelong education*. *Research on Modern Distance Education*, 2023, 35 (4): 31-38.
- [3] Ye Changsheng, Wu Yuke, Li Jiacheng. *Reflection on the Sustainable Professional Development of Community Education Teachers in Educational Reform*. *Education and Career*, 2023, 1 (Part 9): 79-85.
- [4] Yan Guirong. *Optimization measures for higher education management in the era of big data*. *Education Research*, 2022, 5 (4): 140-142.
- [5] Zhang Min. *Research on the Path of Collaborative Development between Higher Education and Community Education*. *Journal of Jiangxi Electric Power Vocational and Technical College*, 2023, 36 (4): 133-135.
- [6] Krücken G. *Multiple competitions in higher education: a conceptual approach*. *Innovation*, 2021, 23(2): 163-181.
- [7] Chankseliani M, McCowan T. *Higher education and the sustainable development goals*. *Higher Education*, 2021, 81(1): 1-8.
- [8] Kudithipudi D, Aguilar-Simon M, Babb J, et al. *Biological underpinnings for lifelong learning machines*. *Nature Machine Intelligence*, 2022, 4(3): 196-210.
- [9] Lv Xingyu. *Paul Langlang's Theory of Lifelong Education and Its Inspiration for the Establishment of China's Lifelong Education System*. *Journal of Adult Education College, Hubei University*, 2007, 25 (3): 16-19.
- [10] Krist A H, Davidson K W, Mangione C M, et al. *Interventions for tobacco smoking cessation in adults, including pregnant persons: US Preventive Services Task Force recommendation statement*. *Jama*, 2021, 325(3): 265-279.
- [11] Brown M, Mhichil M N G, Beirne E, et al. *The Global Micro-Credential Landscape: Charting a New Credential Ecology for Lifelong Learning*. *Journal of Learning for Development*, 2021, 8(2): 228-254.
- [12] Blaschke L M. *The dynamic mix of heutagogy and technology: Preparing learners for lifelong learning*. *British Journal of Educational Technology*, 2021, 52(4): 1629-1645.

- [13] Avoseh M B M. *Proverbs as theoretical frameworks for lifelong learning in indigenous African education. Adult Education Quarterly*, 2013, 63(3): 236-250.
- [14] Xudayberdiyev Z Y, Juraev M M. *Theoretical analysis of the continuity model of computer science and information technology in the system of professional education. European Scholar Journal*, 2021, 2(10): 61-64.
- [15] Ping Yang. *Research on Promoting the Development of Community Education in the New Era. Educational Science Development*, 2021, 3 (10): 23-24
- [16] Wingate M S, Perry E C, Campbell P H, et al. *Identifying and protecting vulnerable populations in public health emergencies: addressing gaps in education and training. Public Health Reports*, 2007, 122(3): 422-426.
- [17] Muskaj B, Musaraj J, Cilento M. *European Union between the Right of Education and Social Integration. Journal of Educational and Social Research*, 2022, 12(4): 78-85.
- [18] Gallagher S E, Savage T. *Challenge-based learning in higher education: an exploratory literature review. Teaching in Higher Education*, 2023, 28(6): 1135-1157.
- [19] Ouyang F, Zheng L, Jiao P. *Artificial intelligence in online higher education: A systematic review of empirical research from 2011 to 2020. Education and Information Technologies*, 2022, 27(6): 7893-7925.
- [20] Zhang C, Dang S, Shihada B, et al. *On telecommunication service imbalance and infrastructure resource deployment. IEEE Wireless Communications Letters*, 2021, 10(10): 2125-2129.