

Part 1

Strategic Development

Chapter One

Everyone Is Soft Power and Co-creating Shanghai City's Sustainable Development:

Reflection on the Main Achievements and Experience of
Shanghai Winning the UNESCO 2021 Learning City Award

Shanghai Municipal Education Commission

Abstract: Building a learning city is a new strategy after lifelong learning for all adopts the regional implementation approach, which means to ensure the right to education by localizing lifelong learning and promoting inclusive learning for all ages. After the first International Conference on Learning Cities (ICLC) in 2013, the idea of learning cities has become increasingly popular and its connotation has gradually deepened. Promoting the sustainable development of the urban economy and society has become a new goal and task. To better promote and support the development of learning cities at the global level, UNESCO set up the Global Learning City Award for the first time in 2015 to recognize the outstanding contributions of member cities in promoting education and lifelong learning systems. Shanghai is the award-winning city of the fourth UNESCO Global Learning City Award (2021). Behind this honor is Shanghai's profound accumulation of more than 20 years of learning city construction. At this moment, conducting a systematic review not only helps Shanghai learn from its own experience but also serves as a new opportunity to promote its learning city construction further to contribute to the sustainable development of Shanghai more effectively.

Keywords: Global Learning City Award; learning city; sustainable development; lifelong learning for all

I. The Basic Situation for Shanghai's Winning the UNESCO 2021 Learning City Award

In the mid-1990s, the concept of “educating cities” appeared. After the European Union set the initiative of the Year of Lifelong Learning, construction activities of learning cities in some countries gradually developed. For example, the Ministry of Education and Human Resources of the Republic of Korea promoted the construction of lifelong learning cities. Some cities in the UK organized a domestic network of learning cities. In China's Shanghai, Beijing, etc., they started to construct learning cities. Cape Town in South Africa developed a learning Cape Town framework. Aman, the capital of Jordan, started the Learning Cities project. In this new wave of learning city construction, UNESCO has actively played an advocacy and coordinating role, taking the learning city as the basic measure of the national lifelong learning strategy and the embodiment of the learning society.

In 2012, the UNESCO Institute for Lifelong Learning (UIL) established the Global Network of Learning Cities (GNLC) and suggested that an international conference be held every two years. In 2013, the first International Conference on Learning Cities (ICLC) was held in Beijing, China. After that, the second (2015), the third (2017) and the fourth (2019) ICLCs were held in Mexico City (Mexico), Cork (Ireland) and Medellin (Columbia), respectively. The series of important meeting outcomes and action guidelines issued at these international conferences inspired and assisted the construction of learning cities worldwide. In 2015, the GNLC began to accept membership applications to promote network exchanges between member cities. By now, the GNLC has attracted 294 membership cities from 76 countries. It was this year that the GNLC organized the first review of the Global Learning City Award. Thirty-eight cities won this honor in the first three sessions in 2015, 2017 and 2019.

On October 27 – 29, 2021, the fifth ICLC was held in Yeosu, South Korea, and the 4th session UNESCO Learning City Award was issued. Shanghai entered the final competition after delivering the application to the Chinese National Commission of UNESCO. Through careful assessment by the independent review experts panel, organized by UNESCO, Shanghai, with its cautious preparation and solid work foundation, won

the 2021 Learning City Award (See Fig. 1 – 1) with other 9 cities ¹ .



Fig. 1 – 1 Certificate of Shanghai Learning City Award

Chen Qun, deputy mayor of Shanghai, said in his award speech: UNESCO presented the Learning City Award to Shanghai, which means an affirmation and encouragement for the city's continuous construction of a learning society and lifelong education system that “everyone can learn anywhere and anytime” over the years. Lifelong learning has fully integrated into the daily lives of citizens and the citizens in Shanghai are fond of learning and have enthusiasm for learning. The municipal government emphasizes the construction of a learning city. Learning has become a characteristic of Shanghai, an important support for promoting quality development, creating high-quality life and achieving efficient governance of the city. Learning is activating Shanghai City's sustainable development.

II. The Great Significance of Shanghai's Winning the UNESCO 2021 Learning City Award

Shanghai is a forerunner in constructing a learning city in China. In 2013, Shanghai

¹ They are: Windham (Australia) , Damietta (Egypt) , Clermont-Ferrand (France) , Dublin (Ireland) , Ulsan (South Korea) , Wehochengo (Mexico) , Alwakla (Qatar) , Byblos (Saudi Arabia) , and Belfast (the UK) .

became one of the member cities of the National Alliance for the Construction of Learning Cities, actively participating in the theoretical research and undertaking the commissioned project “Research on the Objectives, Promotion Policies, and Guarantee Elements of the Construction of Learning Cities with Chinese Characteristics” established by the Alliance. In 2016, Shanghai hosted the annual conference of the Alliance, connecting domestic alliance cities to promote the construction of a learning city jointly. In 2019, the Ministry of Education organized the monitoring and cooperation work for eight major learning cities; Shanghai completed a research report and provided local support and experience for the national learning city monitoring work. The UNESCO 2021 Learning City Award signifies that the influence of Shanghai’s learning city construction has risen to a new level and entered a new stage of development. Its significance is mainly embodied in the following three aspects:

D) Embodying Shanghai’s international competitive strength of lifelong education and learning city

Participating in the competition for the UNESCO Learning City Award means comparing member cities worldwide. The reason why Shanghai successfully won the award indicates that it has considerable international competitive strength in constructing a learning city. As David Atchoarena, director of the UIL, said, Shanghai has made outstanding progress in providing lifelong learning opportunities for citizens. In a rapidly changing world, all citizens have the chance to constantly develop themselves and contribute to solving local and global challenges.

Professor Li Jiacheng, executive vice president of the Shanghai Municipal Institute for Lifelong Education (SMILE), led the team to participate in the application and communication of this award throughout the entire process. In his view, the recognition of Shanghai by the international jury includes at least three unique connotations. Firstly, Shanghai has focused on local and global challenges. The construction of a learning city is an international topic. In the process of promotion it, Shanghai attaches great importance to integration with sustainable development strategies and has issued community-level education for sustainable development (ESD) action plans, which improves the ESD competency of citizens. Secondly, Shanghai has focused on lifelong education for all. As a mega-city with a population of 24.8 million, Shanghai showcases the inclusiveness of lifelong education to all citizens, as well as the development of

courage and responsibility in the city. Thirdly, Shanghai has been keeping up with the rapidly changing world situation. With significant changes occurring in the world, Shanghai rapidly explores various measures of networked services, mobilizing grassroots participation and digital transformation, and continues to provide lifelong learning support and services for every citizen. It can be seen that ensuring lifelong learning opportunities for every citizen, actively pursuing high-quality development of learning and seeking localization solutions for global strategies have added important chips to Shanghai's award-winning.

II) Providing a new important opportunity for the internationalization of lifelong education in Shanghai

Promoting the internationalization of lifelong education is not only an essential requirement for the country's educational opening up, but also a new pursuit for developing lifelong education in Shanghai. Winning the UNESCO Learning City Award helps Shanghai better leverage its role as a member city in the GNLC, obtain more opportunities to participate in the construction of the GNLC, and seek international cooperation for lifelong education on a larger scale and higher platform.

In 2019, after Shanghai joined the GNLC, leaders of the Shanghai Municipal Education Commission (SMEC) delivered a keynote speech on Shanghai's experience in building a learning city at the fourth ICLC. This sparked international attention on how a mega-city can integrate and coordinate multiple forces to promote the construction of a learning city. Subsequently, Shanghai was engaged in drafting the important outcome of the conference, the *Medellin Manifesto*, and served as the coordinating city for ESD in the 2021 – 2023 action framework of the UNESCO GNLC. In just two years, Shanghai has successfully opened a channel to participate in international lifelong education and learning city exchanges by joining the network. After winning the 2021 Learning City Award, Shanghai continues to follow the theme of ESD. It constantly improves its international participation through interaction and learning between global cities. Additionally it assists the UIL in doing an excellent job in follow-up international coordination. This will undoubtedly bring new opportunities for the internationalization of lifelong education in Shanghai.

III) Proofing the coordinated development of Shanghai's urban economy, society, culture and education

Accelerating the construction of a socialist international metropolis with global influence is the overall goal of Shanghai's current urban development. In terms of economy, Shanghai is the largest economic center in China. In 2020, the size of its economic aggregate reached sixth place among global cities, and its financial index has rose to third place. In terms of trade and shipping, it was also at the forefront of the world. In 2020, the airport's air cargo throughput remained third in the world, and its passenger throughput was fourth in the world. The international standard container throughput of Shanghai ports has been ranking first in the world for 11 consecutive years. Shanghai ranks third in the Xinhua Baltic Sea International Shipping Center Development Index. In terms of society, Shanghai adheres to the urban character of "openness, innovation and inclusiveness" and has become one of the most modern cities in China. It is also one of the cities with the largest and most active population mobility in China. The comprehensive school education, medical and health system provides good basic public services for the residents. Besides, Shanghai is rich in cultural resources, and international cultural and sports events continue to develop. In 2020, more than 30,000 online public cultural activities were organized, attracting more than 200 million people.

Education is an important dimension of modern cities. Primary education and higher education in Shanghai are improving. The construction of a learning city has brought new strength to community and senior education, which has laid a solid foundation for the improvement of Shanghai's overall human resources and social inclusion. These enhancements have increased the resilience of the education system and contributed to a more comprehensive, solid, and coordinated construction of Shanghai's socialist internationalization metropolis.

III. The Main Actions and Achievements of Shanghai's Learning City Construction

The "Basic Characteristics of Learning Cities" released by UNESCO in Beijing in

2013 is a crucial framework guide for constructing learning cities in various countries. This article is based on this framework, combined with the increasingly evident internationalization trend in Shanghai's lifelong education and learning city promotion process. It will systematically examine and reflect on the development status of Shanghai's learning city construction.

I) The specific performance of Shanghai in the seven major task areas of learning city construction

1. Balanced and high-quality school education

The first task area of building a learning-oriented city focuses on the existing formal education system in each city. Shanghai is developing inclusive preschool education, continuously promoting the balanced development of compulsory education, strengthening the co-construction and sharing of high-quality educational resources, and expanding the supply of high-quality senior high school education. Now, there are about 1,670 kindergartens, 1,540 ordinary primary and secondary schools, over 80 various higher education and scientific research institutions, 80 primary and secondary vocational schools, and 752 adult and vocational training institutions in Shanghai.

During the 13th Five-Year Plan period, Shanghai's primary education provided a solid foundation for the construction of a learning city.¹ Shanghai adhered to the core concept of "for the lifelong development of every student", actively responded to urban development needs and strengthened top-level planning through strategic breakthrough projects. The comprehensive education reform is steadily advancing, focusing on high-quality and balanced development. It pays attention to the key links of curriculum, teaching, evaluation, and teaching staff, and continuously improves the quality of primary education. At present, a united moral education implementation system has been formed, which includes the moral education content of universities, primary schools, and secondary schools, combining the force of school, family, and society. All popularization indicators of compulsory education have met or exceeded national standards, and the enrollment rate of eligible school-age children in the city

¹ Shanghai Municipal Education Commission. The 14th Five-Year Plan for Basic Education in Shanghai [EB/OL]. [2022-08-16]. http://edu.sh.gov.cn/xxgk2_zhzw_gjhj_01/20220209/c8523b537db144398cf62ec11ff706a3.html.

has remained above 99.9%. The “Five Standards” for constructing compulsory education schools have been fully implemented, and the conditions for school operation have been improved. Shanghai issued the “Implementation Plan for Shanghai Ordinary High School Curriculum” to fully promote the implementation and research of new high school curricula and textbooks. Shanghai implemented a comprehensive evaluation of “green indicators” in education to promote the reform of teaching quality evaluation in compulsory education. To improve the resilience of the urban learning system, Shanghai is accelerating the construction of high-quality resources for “Air Classroom” and adopting large-scale online teaching. This effectively ensures the smooth progress of home study and promotes the integrated development of offline and online learning.

Shanghai’s higher education also provides many opportunities for the construction of a learning city and plays a leading role in theoretical research. Higher education institutions of different types and levels in the city provide citizens with diploma education or non-diploma education, ranging from general education to vocational education, from junior college education to graduate studies. In 2020, Shanghai had 4,264 college students and 897 graduate students per 100,000 people; 46.4% of the working-age population received higher education, with an average of 12.6 years of schooling.¹ Yuan Wen, president of Shanghai Normal University and former deputy director of the SMEC in charge of lifelong education as well as former president of Shanghai Open University, said, “The learning needs of a large number of college graduates every year call for urban learning power in higher education”. As the research platform, universities have also provided a large number of theoretical contributions for the construction of learning cities, bringing new concepts that meet the unique needs of cities. Many universities and research institutions combine their professional and resource advantages to serve the construction of a learning city by providing decision-making consultation reports, directly providing continuing education courses, project cooperation, social practice, and professional support.

2. Extensive and active community education

Shanghai has a history of modern community education of more than 30 years;

¹ Shanghai Municipal People Government. The 14th Five-Year Plan for Education Development in Shanghai [EB/OL]. [2022 - 08 - 16]. http://edu.sh.gov.cn/xwzx_bsxw/20210827/1425ded2febf473fa966a7a7537d93b4.html.

therefore, the development of community education in Shanghai is relatively strong and active. In recent years, being advanced by a series of policies like the “13th Five Year Plan for the Development of Lifelong Education in Shanghai” and “Opinions of the SMEC and Other Seven Departments on Further Promoting the Construction of Learning Society”, etc. The community education network in Shanghai covers the entire city and provides continuous learning opportunities for people. Shanghai independently explores the mechanism of high-quality community education which connects the citizens’ learning and the city’s development. In 2020, 6.273 million residents participated in community education and learning activities, 5.13 million registered accounts for lifelong learning, and the number of learning teams has exceeded 57,000.

The concept of gender equality is valued in the Shanghai community education. To serve 48.2% of the female population in the city and ensure and enhance women’s lifelong education rights, Shanghai’s lifelong education system focuses on promoting women’s professional and technical learning while strengthening the popularization of marriage and family knowledge and educational guidance services. The SMEC, the Municipal Women’s Federation and other departments organize the “Family Education Awareness Week” every year (which has been held for 23 consecutive sessions) where they provide a list of family education courses. In 2019, 211 family education guidance services were carried out, bringing related knowledge to government agencies, schools, enterprises, communities, and rural areas. Over 200 parent-child reading guidance and practical activities have been carried out, and parent-child reading TV competitions were held to expand the demonstration effect of the activities. Shanghai Open University has carefully built a three-level network of “Shanghai Parental School” and carried out online and offline family education guidance activities.

Shanghai is a city with an advanced stage of aging. How to serve the increasingly large elderly population has been a major task for lifelong education and the construction of a learning city in Shanghai for many years. At present, Shanghai’s elderly education institutions spread all over the city. There are 4 municipal-level universities, 44 system schools, 18 district-level elderly universities, 221 sub-district/town-level elderly schools and 5,589 village committee learning sites for the elderly. Since 2011, Shanghai has issued the “Shanghai Elderly Education Development Plan” every five years to promote lifelong education for the elderly comprehensively. In the context of digitalization, Shanghai’s elderly education is actively responding to the national call to strengthen digital transformation. New projects such as online learning platforms, micro classes

and smart scene creation are marking positive progress.

People's health is an important aspect of Shanghai as a learning city. By formulating the “ ‘ Healthy Shanghai 2030 ’ Plan Outline ” and the “ Healthy Shanghai Action (2019—2030) ”, Shanghai has established the basic principle of health priority. It builds a city-wide health science popularization platform, carries out science popularization education for citizens, conducts education on life skills and public health safety for targeted groups, supports residents' self-education of health, advocates for a healthy and safe lifestyle, and improves the health level and quality of life of citizens. In 2021, the average life expectancy of the registered resident population in the city was 83.67 years old, ranking first in China.

3. Diverse and flexible employee continuing education

Shanghai has established a lifelong vocational training system with enterprises as the main body, vocational colleges as the foundation, public training centers as support, and vocational training institutions as supplements. In 2019, Shanghai restarted the construction of learning organizations, focusing on constructing indicators for learning institutions, learning enterprises and institutions, learning communities and learning families. Shanghai has built a multi-terminal display platform for online organizations under a digital background, promoting the construction of learning organizations to enter a new stage of development. The demonstration and leading role of civil servants' lifelong learning has accumulated an annual average of 64,300 online learners, totaling 450,000 in the city.

Shanghai pays attention to developing highly skilled talents. It regularly holds the “Shanghai Artisan Training Class” for many years, leveraging craftsmen's role in the construction of industrial workers team in the new era. In the past five years, the cumulative number of employees participating in education and training has exceeded 6 million, and the scale of on-the-job personnel education has significantly increased. The basic measures include implementing vocational training subsidy policies, optimizing vocational training projects, organizing skill competitions, conducting online vocational training, implementing a new apprenticeship system for enterprises, commending learning employees, and implementing training models such as “Dual Certifications” and “Dual System” in the field of vocational education and continuing education, which comprehensively enhances the academic and skill level of the staff on the job.

4. Convenient and developed information technologies

Shanghai has made every effort to promote the digital transformation of lifelong education. It uses updated information technology, such as artificial intelligence, big data, cloud computing, and the Internet of Things, to accelerate the transformation of online and offline education. It vigorously promotes the construction of various intelligent learning scenarios and provides smart learning services for citizens relying on big data.

The “Shanghai Learning Network” has constructed eight core functional modules, including courses, reading, maps, activities, etc. The network has provided more than 30,000 online course resources, more than 70,000 e-books, and more than 6,000 audiobooks to citizens through multiple terminals such as PCs, mobile devices, and digital TVs, and organized more than 8,300 e-learning teams. At the same time, it has opened a citizen lifelong learning cloud, “Air Classroom”, for the citizens, selected more than 8,000 micro curriculum resources and gathered a variety of channel resources, such as science popularization, sports, medical care, Humanistic Walk, and delivered learning service for disease prevention.

The information platform of Shanghai Lifelong Education Credit Bank has connected 21 branches and 68 university outlets, ensuring the timely upload, processing, and warehousing of various learning data. More than 2.4 million citizens have lifelong learning accounts. In 2021, the “Shanghai Citizen Personal Learning Account (Shen Xue Code)” Alipay applet was launched at Shanghai Open University, and the Shanghai Credit Bank officially accessed the “One Network Office” platform. By “uploading related information”, “scanning the code” and “presenting the certificate”, citizens can attend classes and lectures and learn anytime and anywhere. The Credit Bank has taken the lead in establishing various credit recognition, accumulation and conversion mechanisms. It has established over 4.6 million personal learning records for about 15% of the permanent population in the city, accumulated over 90 million learning achievements, and over 100,000 people have completed credit conversion of various types of education.

Shanghai is also actively building a senior education MOOC alliance of 20 members. It has completed 265 demonstration MOOCs for elderly education and set up 16 application and practice areas in MOOCs for elderly education. The “Smart Life Experience Classroom”, created by the Qinzhou Academy Campus of Shanghai University for the Elderly, aims to help the elderly overcome the digital divide through immersive experiential learning. On March 1, 2021, the all-media lifelong education platform

“Golden College”, targeting the “50+” population, was officially launched on the television channel. It provides three major programs: Smart Life, Cultural Entertainment, and Health Science Popularization, with an average daily viewing of over 1 million people. There are 54 online learning platforms for employees.

Shanghai lifelong education has been incorporated into the big data management service platform of the municipal government. It integrates the functions of registration, curriculum resources, teaching staff and statistical management. All kinds of learning information are timely and accurately transmitted to citizens through a variety of ways, such as special lifelong learning websites, learning maps, leaflets, radio, television, WeChat official accounts, WeChat groups, QQ groups, microblogs, outdoor advertising bulletin boards, telephone calls, SMS messages, and interpersonal communication. For example, the SMEC releases the “Shanghai Learning Map”, “Three Types of Learning Sites Map for Shanghai Elderly Education”, “Shanghai Citizen Humanistic Walk Map”, and other maps every year, clearly indicating the distribution of various educational resources and making it convenient for citizens to enjoy educational services nearby.

5. Excellent and stable learning quality

Quality is also the key to building a learning city. To improve the quality of learning city construction, related departments take measures such as performing standard construction and guidance, forming features and high-quality projects, and optimizing practice through scientific research to promote the quality of lifelong learning for various groups and institutions.

To enhance the capacity of community education institutions, Shanghai has established a series of standards, including “Guidelines for the Construction of Shanghai Elderly Schools” (2015), “Index System for the Connotation Construction of Shanghai District Level Elderly Universities” (2016), “Qualified Evaluation Indicators for the Connotation Construction of Shanghai Sub-district/Town/Community Schools” (2016), “Guidelines for the Construction of Demonstration Learning Sites of Shanghai Elderly Education Neighborhood Committees” (2017), “The Accreditation Standards for the Participation of Multistakeholders in Elderly Education in Shanghai” (2016 Edition), “Evaluation Indicators of Municipal-level Lifelong Learning Experience Base for Shanghai Citizens” (2017), “Guidelines for the District-level Construction of Lifelong Learning Experience Base for Shanghai Citizens” (2017),

and “Guidelines for the Professional Competence Standards of Community Education Educators in Shanghai” (2020), and provided support to guarantee the ability growth of various lifelong education institutions.

Shanghai continuously promotes the connotation improvement of community education and elderly education institutions by constructing high-quality schools. In the field of lifelong education curriculum and teaching, the standardization and quality improvement of lifelong education work have been continuously promoted through three rounds of community education curriculum online adjustment, characteristic curriculum evaluation, teaching skills competition and collection of high-quality curriculum outlines. In 2007, various community education institutions started to carry out on-site experimental projects. They have encouraged and supported grassroots community education to carry out work research, and improved the research ability of institutions and their staff. This guarantees the quality of lifelong learning services for citizens.

To better understand the progress of itself as a learning city, Shanghai is actively implementing the project of “Monitoring and Research on Shanghai Learning City Creation”. It’s developing an indicator system consisting of 6 first-level indicators, 15 second-level indicators and 26 third-level indicators. In 2020, the monitoring work for four pilot urban areas was completed. In 2021, it was extended to 16 districts in the city. At the same time, the monitoring system and indicator system for learning street towns were continuously optimized.

According to statistics, 224 units in Shanghai have been awarded the title “Lifelong Learning Brand Project” in the past five years. The average score of the civilization-level evaluation of family members exceeded 90, reaching an “excellent” level, which is better than before. In 2021, the evaluation of the “Talents as Teachers” characteristic project organized by the Ministry of Education awarded 18 characteristic or demonstration projects in Shanghai. These projects covered themes such as science popularization, humanities, art, rural revitalization, intangible cultural heritage inheritance and smart education.

6. Rich and colorful lifelong learning culture

An important dimension of the construction of a learning city is to promote the transformation of values and create a social atmosphere where people respect learning, loves learning, and guide development through learning. To constantly promote the

building of a lifelong learning culture, Shanghai regularly holds city-wide conferences on promoting a learning society, work conferences on elderly education, forums and theme discussion activities on lifelong education and learning city construction, etc. They form a situation where lifelong learning is promoted as a whole at the city level, and multi-stakeholders participate in the construction of learning cities. Relevant departments hold a series of themed learning activities, such as the Shanghai Book Fair, the Citizens' Lecture Hall, the Citizens' Poetry Festival, and the Citizens' Reading Festival, and organize a variety of large-scale activities, such as the Citizens' Culture Festival, the Arts Festival, the Tourism Festival, the Film Festival, the Expo, the Opera Festival and various sports events to stimulate citizens' interest in learning and awareness of participation. This creates an atmosphere of lifelong learning in the city. Shanghai encourages various schools and other social education institutions with conditions to carry out activities and learning services that combine online and offline lectures, training, observation, discussions, etc. Among them, a large number of young volunteers have played an enormous role. According to the "Survey on the Reading Status of Shanghai Citizens (2021)", the paper reading and digital reading rates of Shanghai citizens were 92.63% and 91.90%, respectively. The coverage rate of audio reading is 76.72%.

7. Pragmatic and efficient international cooperation and exchange

The construction of a learning city should also pay attention to global problems. Under the requirements of national education openness and the internationalization of lifelong education in Shanghai, the construction of a learning city in Shanghai has strengthened communication and cooperation at both domestic and international levels.

In terms of domestic cooperation, the integration of education in the Yangtze River Delta has been the main background for lifelong education and the construction of a learning society in Shanghai in recent years. Following the requirements of the "Three Year Action Plan for the Coordinated Development of Community Education and Education for the Elderly in the Yangtze River Delta (2019—2021)", Shanghai promoted the coordinated development of community education and education for the elderly in the Yangtze River Delta. Communities in the delta organized joint training for community education and elderly educators, jointly held the art festival of education for the elderly and jointly promoted the construction of lifelong learning experience

base for citizens in the Yangtze River Delta, community education curriculum development credit banks for lifelong education, sharing of learning resources and selection of characteristic brands. Active cooperation between different regions in the Yangtze River Delta is under way. For example, 14 institutions in Jiangsu, Zhejiang and Shanghai jointly established the development community for the “Yangtze River Delta G14 Community Education Serving Rural Revitalization” in 2021. They signed the “Cooperation Agreement of Yangtze River Delta Community Education Services for Rural Revitalization and Development Community”, built a cooperation platform in lifelong learning and community education, shared resources, achieved win-win cooperation and served rural revitalization. Some neighboring towns in certain regions also actively interact and learn from each other’s community education highlights and successful experiences, jointly improving the quality and efficiency of community education.

Shanghai has also made significant progress in international exchange and cooperation. Especially after becoming the UNESCO coordinating city for ESD in the second half of 2019, the SMEC actively supported the SMILE to conduct international dialogue in lifelong education. For example, the SMILE has successively undertaken the Chinese translation work and dissemination of the “Global Report on Adult Learning and Education” reports. In October 2020, the leaders of SMEC were invited to give a speech at the Asia Pacific Learning City Network Conference hosted by Yeonsu, South Korea. In the years 2020 and 2022, the Second and Third International Academic Conferences on Oriental Doctrine of Education for the Aged were held. Colleges and universities were organized to participate in global research on the “Contribution of Universities and Other Higher Education Institutions to Lifelong Learning”.

After the outbreak of COVID-19, Shanghai’s emergency plans and promotion experiences in primary education, higher education, community education, elderly education, and other fields were reported and communicated through international conferences, official interviews with international organizations, and provision of written cases. In July 2021, the case of Shanghai serving the elderly for learning was successfully selected into the global typical case set of learning cities responding to the epidemic released by the UIL, becoming one of the 13 typical cases worldwide. Since the beginning of 2020, Shanghai has been implementing the “Shanghai Education for Sustainable Development Community Action Plan (2020—2021)”, which has been

shared globally on the official website of UNESCO. In October 2021, as a typical case of learning city promotion, the action plan was included in the case report of the UIL's "ESD Implementation in Learning Cities".

II) The basic guarantees

The construction of learning city that serves all citizens of the city requires the coordination among various stakeholders and the coordinated utilization of a large amount of social resources. Therefore, the "Basic Characteristics of Learning Cities" proposes that the city should pay attention to guaranteeing political, social, and resource conditions. Shanghai also has systematic considerations in these aspects.

1. Firm political commitment

The construction of a learning city requires sufficient support from local governments. Ni Minjing, deputy director of SMEC, said in an interview with the media, "Shanghai has issued 'Regulations of Shanghai on Promoting Lifelong Education,' which provides a good legal basis for us to implement lifelong learning. The SMEC included special funds for lifelong education in the municipal education budget, ensuring that the education funds increased steadily."

After Shanghai proposed the goal of "improving the lifelong education system and striving to build Shanghai into a learning city that adapts to the new era" in 1999, it has been coordinating the promotion of the city's learning city through continuous top-level design. In 2006, the Shanghai Municipal Government issued the "Guiding Opinions on Promoting Construction of Learning Society in Shanghai", which clearly stated the overall goal of "building a learning society framework where 'everyone is accessible to learning any time and anywhere' by 2010". In 2011, "Regulations for the Promotion of Lifelong Education in Shanghai" was enforced to further ensure the strategic advancement of learning city construction through local legislation. In the same year, Shanghai Learning Society Construction and Lifelong Education Promotion Committee (SLSC & LEPC) issued the "Three-Year Action Plan for Constructing a Learning-oriented Society and Promoting Lifelong Education in Shanghai", which incorporated all work into the annual plans. In 2016, the "Opinions on Further Promoting the Construction of a Learning Society in Shanghai by Seven Departments including the Shanghai Municipal Education Commission" was issued, which proposed

to promote the full development of a lifelong education system and establish a lifelong learning service system for citizens. In 2021, the SMEC issued the “Opinions on Promoting the Digital Development of Elderly Education in Shanghai”, responding to the accelerated development needs of specific lifelong education fields under the new situation. In April 2021, Shanghai held another conference to promote the construction of a learning society. It proposed to closely combine the in-depth study and education of the CPC’s history with the construction of learning organizations and a learning society.

2. Extensive social engagement

The construction of a learning city requires the active participation of the entire society. To coordinate the joint efforts of various stakeholders in society, Shanghai promptly established the SLSC & LEPC in the early stages of construction. It consists of 21 committees and bureaus as member units. The Promotion Committee is chaired by the Deputy Secretary of the Municipal CPC Committee, with members of the Municipal CPC Committee Standing Committee, Head of Publicity Department and Deputy Mayor of the Municipal Government serving as deputy directors. As a responsible department, the SMEC is in charge of policy formulation, organizational implementation, supervision and evaluation of the construction of a learning city. Other committees and bureaus, in accordance with the work requirements of the Municipal Commission for the Promotion of Education, work together from top to bottom to fulfill their respective responsibilities. Correspondingly, each district-level government coordinates the construction of a learning city in its district, while each sub-district promotes relevant work according to local conditions. Industry enterprises, public institutions, trade union organizations, etc., carry out continuing education for employees in the workplace. Universities utilize their advantages to cultivate talents, scientific research consulting and social service work.

With the strong support of the above organizational structure, Shanghai has shown a trend of multiple entities participating in building a learning city together. For example, community education throughout the city has a four-level system under the leadership of the SMEC to provide lifelong learning support services for residents, while cultural tourism, organizational publicity, health care, economy, and information technology departments have also carried out many mass learning service activities through the network and platform of the community education system. In addition

to the activities led by government departments and social education institutions have also undertaken a large number of public liberal education and youth quality education activities outside of school. The number of social training institutions for elderly education is gradually increasing, and the trend of socialized education and participation is accelerating. Some major large enterprises, through the construction of learning organizations, corporate universities and other institutions, drive employees to continue learning within their systems, and industries. School education and higher education provide learning resources for nearby residents through campus opening. Higher education institutions and vocational education institutions fully leverage their professional advantages to provide high-quality learning resources for lifelong education.

3. Rich social resource

The construction of a learning city requires sufficient funding support. In addition to municipal public finance, the government encouraged enterprise employees to learn by implementing the policy of pre-tax deduction of education funds for enterprise employees and the policy of additional deduction of personal income tax for citizens' continuing education.

The government also extensively absorbed various social resources through the purchase of services. For example, in terms of human resources, the municipal office of the Shanghai Learning Society Construction and Lifelong Education Promotion Committee has formed an organizational structure of "volunteer service team + 6 branches + 41 workstations + 228 service points". This encourages teachers, college students, medical workers, scientists, retired cadres and other groups to use their professional advantages to serve lifelong learning of citizens. In terms of public education and cultural resource management, nearly 7,000 public cultural institutions of all types, schools at all levels, community centers, etc. were open to the public free of charge or in the form of public welfare, with a proportion of 90%. At the same time, Shanghai has created 40 themed routes for citizens' Humanistic Walk, covering over 290 learning sites. Through cooperation between education and news media, the first national lifelong learning exclusive channel for the elderly targeting the "50+" age groups, "Golden College", was created to support citizens' home learning. Regarding social institutional resources, Shanghai integrated the advantages of social resources, built 12 lifelong learning experience bases for citizens, set up 145 experience sites, and developed 1,271 experience projects.

IV. The Main Attributes of Shanghai's Learning City Construction

Has the construction of a learning city in Shanghai resulted in visible local characteristics? Drawing on the general analytical framework of the lifelong learning policy promotion model, at least the following basic points can be summarized.

I) Highlighting the value of promoting social inclusion and personal development

The construction of a learning city has multiple values to be realized, including personal and social development, economic and cultural prosperity, and sustainable development. The learning city construction in Shanghai highlights its fundamental position in promoting social inclusion and personal development by attaching importance to the following aspects.

One is to develop education for the elderly vigorously. The lifelong learning opportunities for the elderly are guaranteed by improving the work structure of elderly education, improving the quality of elderly education, stimulating the participation of social forces, and carrying out the construction of “three types of learning sites” (demonstration learning points of residential village committees, social learning sites, and learning sites combining education and nursing), digital transformation and the “Doubling Plan” of elderly universities. The second is to assist with vocational skills training for migrant workers and education for their accompanying children. In 2020, 10 online training platforms for “Internet + vocational skills training” were launched during the epidemic. Nearly 10,000 hours of free skills training courses were delivered. The aim was to provide vocational skills training and life literacy learning for migrant workers and also provide certain training subsidies. The third is to attach importance to the education of people with disabilities. Shanghai arranges for disabled people to study with ordinary classmates in regular classes or provides special courses for them. Sometimes, the schools even arrange for teachers to teach disabled people in their homes. At the stage of compulsory education, the enrollment rate of eligible disabled children reached 99.8%, and the allocation rate of resource classrooms prepared for

disabled people in regular schools reached 77.2%. On this basis, Shanghai develops vocational education for people with disabilities and assists them in receiving higher education. At present, 18 schools are carrying out vocational special education and developing several majors suitable for people with disabilities. There are currently over 500,000 disabled people in Shanghai, and their learning and development have also received special attention. The Shanghai Disabled Persons' Federation cooperated with Shanghai Open University to set up a faculty of education for disabled people. They also set up learning centers for them in all districts of the city, providing undergraduate, junior college, and secondary vocational education courses to disabled people to empower themselves through learning. The fourth is to implement education for special groups, such as social correction personnel, encourage them to participate in community education, and help them return to ordinary life. The fifth is to carry out the construction of learning countryside. As a massive city with an urbanization rate of nearly 90%, Shanghai focuses on balanced urban-rural development and carries out learning-oriented rural construction in 9 suburbs, with a focus on assisting farmers, rural customs, industries and rural governance.

II) Adhering to the cooperation of stakeholders under the leadership of the government

According to classical educational management theory, the government, market and society are three typical types of subjects. The local government of Shanghai plays a key leading role in the learning city construction. Since 1999, the promotion and design of policies at the municipal level, the standardization and guarantee of local legislation, the construction and guidance of standards throughout the city, the multi-level lifelong education management system with clarified responsibilities, sufficient municipal public financial support, and the promotion of key theme activities throughout the city have all demonstrated the central leadership of Shanghai municipal governments in the construction of learning cities. On this basis, the government has encouraged and absorbed a large number of market and social stakeholders to participate by setting up social learning sites, citizens' lifelong learning experience bases, joint activity organizations, and other ways such as social training institutions and commercial organizations' joining elderly education school, transforming resources from enterprises and private ownership to learning resources for citizens. In the field of

training, enterprises and individuals are encouraged to invest in lifelong learning for citizens through education surcharges jointly.

III) Attaching importance to balancing urban and rural development

Shanghai is a municipality directly under the central government of China, with a significant degree of land intensification and a high urbanization rate. Therefore, coordinating urban-rural balanced development and achieving full regional coverage are its basic characteristics. Specifically, from organizational management to actual activities, the city has clear overall coordination. The difference lies in the level of promotion strategies and implementation in every district. Due to the gathering of various resources and little difference in geographical environment background, the central urban districts have formed relatively similar construction requirements and evaluation standards in building a learning city. Suburbs located in the city's surrounding areas exhibit more significant diversity than central ones, mainly due to basic characteristics such as industrial layout and population structure. Modern agriculture, ecological construction, and proximity to other cities in the Yangtze River Delta have influenced the development characteristics of the suburbs to some extent. In the process, district-level governments have formed distinctive construction requirements and evaluation standards in different urban and rural areas.

IV) Assisting the city's renewal by providing more learning opportunities and abilities

The construction of a learning city has an impact on social development. The social changes led by this are usually complementary in most countries and regions. The construction of a learning city in Shanghai also showcases this characteristic. The main purpose of various learning activities currently available in Shanghai is to help people enhance their abilities and better adapt to the rapidly changing social and business environment. For example, as a basic right, community education and elderly education have become a part of basic public services, which can help community residents, especially the elderly, achieve personal development and improve their quality of life to better adapt to social changes. It is still difficult for credit banks, lifelong education qualification framework, etc. to get rid of the influence of formal

education standards in the recognition of learning outcomes, which makes the recognition of informal learning outcomes fall short of expectations, affecting the generation of lifelong learning innovation culture and practice.

V) Strengthening the construction under the guidance of standards

The construction of a learning city in Shanghai focuses on standard guidance and normative guidance, guiding the learning city construction work through a series of policy documents. For example, supporting the standardized construction of various community education institutions and elderly education institutions, providing unified standardization and training for professional abilities of lifelong education teachers, and even seeking diverse setting and management standards for highly open and flexible community education curricula to achieve regulatory purposes. Lifelong learning activities at the grass-roots level are usually similar to those at the municipal level.

V. Conclusion

In April 2021, the Shanghai Learning Society Construction Promotion Conference was successfully held. This was another grand event for Shanghai to promote the construction of learning society after 2016. The new requirements of the conference for the construction of learning city are to always adhere to the basic spirit of learning city in Shanghai, focus on strengthening the foundation, organize plenty of activities lively and form an atmosphere of lifelong learning for all. Through the openness of the mind, active thinking, and opening up ideas, Shanghai can better promote the implementation of national strategic tasks, work harder to promote the deep integration of lifelong learning and social development, and realize the further construction of learning society. According to the basic situation, development opportunities and major problems identified in the “14th Five-Year Plan for the Development of Lifelong Education in Shanghai”, the construction of learning city in Shanghai will guarantee the right of all people to lifelong learning as the base. It focuses on quality and effectiveness, identifies a more explicit value orientation of balanced development between society and individuals, and invites more social stakeholders to participate in

learning city construction. The aim is to further stimulate social vitality and accelerate the digital transformation of lifelong education in the context of “Internet +”. All these efforts can lay a solid foundation for Shanghai to further participate in global lifelong education communication and share local experiences. Then, through the expansion of vision and reflection and mutual learning of experiences, Shanghai can further confirm its basic goals of lifelong education and the construction of a learning city, improve various promotion strategies and enhance its ability to serve the sustainable development of Shanghai.

(Written and translated by Zhu Min)

Chapter Two

Making Lifelong Learning an Important Foundation to Elevate the Soft Power of the City

Shanghai Municipal Education Commission

Abstract: Lifelong education in Shanghai must benchmark the highest international standards and levels, and take the lead in building an education system that serves lifelong learning for all. To promote the high-quality development of lifelong education, during the 14th Five-Year Plan period, Shanghai will focus on the transformation and development of continuing education for adults, the upgrading of community education services, the high-quality development of education for the elderly, and the construction of a continuing education system for employees. Shanghai will vigorously promote the digital transformation of lifelong education, meet the demand for high-quality learning for the elderly, explore the new system of “Dual System” of continuing education for employees with Shanghai characteristics, and build a high-quality faculty team.

Keywords: soft power of the city; lifelong learning; lifelong education; enhancement; Shanghai

By 2025, Shanghai will take the lead in building both an education system that serves lifelong learning for all and a higher-level and higher-quality learning society driven by the learning power of the city, forming an inclusive and diversified, universal and optional lifelong learning environment, which can effectively serve the lifelong development of its citizens, and significantly enhance the capacity and level of lifelong education to serve economic and social development.

In June 2021, the 11th Plenary Session of the 11th Central Committee of the Shanghai Committee of the Communist Party of China reviewed and adopted the “Opinions on Deeply Planting the City’s Spirits, Promoting Qualities and Enhancing Soft Power of the City”. The plenary session elaborated it as follows: Let the core values of the city concentrate on casting the soul, let the cultural charm bloom, let modern governance lead the future, let the rule of law shine brighter, let the urban style fully manifest, and let the world’s talent gather from near and far, creating a new miracle in a new era and showing a new modernization to provide an inexhaustible source of power. In the city of Shanghai, a vivid landscape has been formed where “rules and order are maintained while displaying vibrant vitality; both international style and Chinese charm are possessed; both individual beauties and collective harmony are appreciated; one can touch its rich history and yet embrace the future; it advocates for everyone to strive for excellence while emphasizing mutual assistance everywhere”. Such an environment fosters proactive entrepreneurship and is a paradise for happy living. This will better demonstrate the spirit of China, and China’s road.

Shanghai’s education should stand on the strategic height of “education as a major plan of the country and the party” to build a first-class education that matches the first-class city; Shanghai should vigorously promote the digital transformation of education, which is a revolution to establish a new high-quality system; Shanghai’s lifelong education must be benchmarked against the highest international standards and levels, and take the lead in building an education system that serves lifelong learning for all.

I. Lifelong Education in Shanghai Must Be Benchmarked Against the Highest International Standards

The “Proposal of the CPC Shanghai Municipal Committee on the 14th Five-Year

Plan for National Economic and Social Development of Shanghai and Visionary Goals for 2035” proposes that by 2035, Shanghai should become a world-class city with global influence in the Yangtze River Delta.

Carrying out the 14th Five-Year Plan and the vision for 2035 is of great significance, entails arduous tasks, and has a bright prospect. Shanghai education should view itself from the strategic perspective that “education is the grand strategy of the nation and the Party”. It should adhere to prioritizing educational development, constructing top-tier education that matches a world-class city and strengthens the supporting role of education in building Shanghai’s “Five Centers” (referring to Shanghai’s development goals to become a center for innovation, finance, trade, shipping, and cultural industries). This will better serve national strategies such as the integrated development of the Yangtze River Delta and the Yangtze River Economic Belt. This supports the sustainable development of people and the city and provides talent support, intellectual backing, and innovative guidance for Shanghai to become a modern international metropolis with global influence.

The “14th Five-Year Plan for Development of Education in Shanghai Municipality” clearly stipulates that, “By 2025, the modernization of education will be advanced in a comprehensive and in-depth manner, realizing a more inclusive, dynamic, open, and high-quality development of education in Shanghai. A high-quality educational system will be fully established, and the main indicators of educational development and human resource development will approach the advanced levels of global cities.” To achieve this goal, Shanghai’s lifelong education must be benchmarked against the highest international standards and levels, taking the lead in constructing an educational system that serves the lifelong learning of all people, effectively serving the lifelong development of residents. Adhering to the principles of inclusiveness, fairness, high-quality, convenience, and diversity, it aims to help every learner have outstanding opportunities, enjoy a quality life, and achieve a happy life. There will be a significant enhancement in the capability of lifelong education serving economic and social development, playing a positive role in realizing the goals of the 14th Five-Year Plan for Shanghai’s national economic and social development and the long-term vision for 2035.

During the 14th Five-Year Plan period, the development goal of lifelong education in Shanghai is to further improve the lifelong learning system to serve all people by 2025, and to take the lead in building a higher level and higher quality learning society driven by the city’s learning power, as well as to form a learning

society. By 2025, Shanghai will form a universal, diversified, ubiquitous, and optional lifelong learning environment.

The following section is an excerpt from the keynote report entitled “Lifelong Education Work Should Contribute to the Enhancement of Shanghai’s Soft Power” as delivered by Ni Minjing, deputy director of the SMEC at the 2021 Shanghai’s Community Education Management Training Course for Cadres.

The first keyword: learning power of the city

I have always emphasized that the learning power of a city means its core competitiveness. In this regard, I would like to put forward four viewpoints as follows.

Firstly, let’s talk about the connotation of learning power. Learning ability at the level of cognitive psychology includes some components and qualities related to the learning process, such as learning awareness, strategies, methods, etc. The OECD Learning Compass 2030, released in 2019, enriches the concept of learning ability based on the prediction of the future society. It points out that students should be able to set their course in unfamiliar environments and develop strong adaptive and transformative capacities, focusing on the three competencies of creating new values, reconciling conflicts and dilemmas, and assuming responsibilities. Our lifelong education concept needs to be changed, as we emphasize learning knowledge and skills while neglecting the enhancement of literacy and spirituality. Shanghai Senior Cadre University has put forward the quality education of senior school, and I think we should also promote the quality education of lifelong education.

Secondly, learning power is not just about the ability to learn; it’s also about the power to change. Education is not only about imparting knowledge but also about the power to change. Jean Piaget said, “The goal of education is not to increase the amount of knowledge but to create the possibilities for a child to invent and discover, to create men who are capable of doing new things.” The reason why it is so challenging to work on the “Double Reduction”

policy stems from a kind of educational inertia. There is a problem with parents' educational mindset. Our objectives for lifelong education shouldn't merely revolve around accumulating knowledge and skills or engaging in song and dance activities. While it's crucial to let people experience joy from learning, it's even more vital to realize personal transformation through education. The responsibility of lifelong education is to further amplify everyone's cohesive force and capacity to contribute creatively to society.

Thirdly, learning power can be monitored and evaluated. In August 2018, the first report on "Shanghai Citizens' Lifelong Learning Needs and Ability Monitoring Research" was released at the Shanghai Open University. The report, which took two years to complete, was led by the SMEC. The research team consisted of the Shanghai Academy of Educational Sciences, East China Normal University, Shanghai Normal University, and Shanghai Open University, which pioneered a stratified random sampling survey of 5,000 samples from registered and non-registered populations aged 16 to 65 across Shanghai's 16 districts, aiming at mapping out the situation of lifelong learning of the public. The report highlighted that the higher the lifelong learning ability level is, the better one's career development and the greater the sense of happiness will be. The research team found that citizens who believed their career development was "very well" had the highest measured lifelong learning ability level, with an average score of 52.97, and a higher self-reported proportion of life happiness. Conversely, those who believed their career development was "very poor" had the lowest ability level, with an average score of 49.80, and many self-reported being "very unhappy" with their lives. There is little research in this area.

Fourthly, learning is the most critical soft power of a city. We used to pay more attention to the needs of learners but neglected the needs of city development. The most significant regression in our work has been the weakening of the role of lifelong education in shaping the spirit of the city and constructing civilized units. Our original work on learning organizations, learning institutions, and learning families has not progressed but regressed instead. The biggest dilemma is the mismatch between the lifelong education

curriculum and the needs of city development. Fortunately, we have made some new explorations, such as the Humanistic Walk program, which integrates the curriculum with the history and development of the city. The most significant oversight has been neglecting the learning ability enhancement of in-service workers. For over a decade, the average educational duration of our main workforce hasn't seen noticeable improvements. Therefore, it is essential to accelerate the establishment of a Shanghai-specific "dual system" continuing education model for workers. This will ensure a significant increase in the city's worker continuing education coverage rate, the average duration of education, and the proportion of receiving higher education.

The second keyword: environments for lifelong learning

Environments for lifelong learning are specifically reflected in the following four aspects:

First of all, it is about the cultural environment for lifelong learning. It is necessary to expand the social publicity of lifelong education, make use of all kinds of new media and platforms, promote the effective popularization of the concept of lifelong learning, innovate lifelong education products, and create a robust lifelong learning atmosphere to make the lifelong education and lifelong learning become an important business card of Shanghai's city culture, and learning can become an indispensable and important part of people's lives in the new era. However, our efforts have been insufficient in this regard. The success of the "Golden School" (Jin Se Xue Tang, 金色学堂), which we launched in cooperation with SMG (Shanghai Media Group), tells us that there is a lot of development potential in this area. The "Golden School" is a media platform focusing on the elderly, and we need to study and work hard to break through and "break the circle" in other aspects of our work. Our colleagues working in this area are very dedicated and hardworking, but it's evident that just having us working on lifelong education is not enough, and to "break the circle" means generating influence and momentum outside of our immediate circle.

Secondly, it's about the stimulating environment for lifelong learning. We need to perfect the system that recognizes and links learning outcomes across all levels and types of education. We should fully leverage the vital role of higher-education institutions in serving lifelong learning for all citizens, achieving high-quality development in continuing education. This will help expand the scale of talent cultivation, enhance the quality of talent training, support the upgrading of industrial structures, and promote the sustainable development of the city. Our goal should be to ensure that everyone has a “credit bank” account; credit banks can not only do something on credit conversion, but also consolidate every individual's learning records to create an incentive mechanism that encourages and rewards everyone for learning.

Thirdly, it is about the digital environment for lifelong learning. The concept of “metaverse” has become a hot topic. Before the rise of digitization, we as humans only had the physical and spiritual worlds. Now, we have a brand-new digital realm, a vast and novel universe. Our lives and work have undergone significant transformations within this new domain. Thus, lifelong education isn't just about leveraging digitization to change teaching and organizational methods. It's also a revolution in learning content and philosophy. We must diversify learning resources, innovate the carriers of lifelong education, and create integrated online and offline learning modes. It's crucial to expand the scale of lifelong education services, promote the quality enhancement and upgrading of various lifelong education institutions, and construct a new lifelong education ecosystem centered on learners and driven by digital technology. This will ultimately enhance citizens' abilities for digital existence and development.

Fourthly, it is about the ecosystem of lifelong education. I believe that lifelong education is just like the united front work, and we need to become much stronger. The power of lifelong education is far from being consolidated and brought into play. Therefore, it is necessary to further stimulate the vitality and enthusiasm of social forces to participate in lifelong education, form a lifelong education development pattern led by the government with the participation of diversified social bodies, and realize the joint construction,

sharing, and governance of lifelong education. The reason why lifelong education is like united front work is to turn others' strengths into our strengths. The Humanistic Walk connects all streets and venues, and all walks of life are where we can unite and play a role. In the context of the "Double Reduction Policy", training organizations need to be transformed, and they have a vast space to expand in the realm of lifelong education.

The goal of Shanghai's lifelong education development can be specifically reflected in the following four aspects:

First, a culture of lifelong learning that is characterized by the characteristics of the times. It is expanding the social publicity of lifelong education, utilizing various new media and platforms, promoting the effective popularization of the concept of lifelong learning, innovating lifelong education products, creating a strong lifelong learning atmosphere, making lifelong education and lifelong learning an important business card of Shanghai's urban culture, and making learning an indispensable and important part of citizens' lives in the new era.

Second, a lifelong learning system that serves the city's capacity. We will improve the system of mutual recognition and articulation of learning achievements among all levels and types of education, give full play to the important role of colleges and universities in serving the lifelong learning of all people, realize the high-quality development of continuing education, expand the scale of talent cultivation, improve the quality of talent cultivation, help upgrade the industrial structure and promote the sustainable development of the city.

Third, an ecology of lifelong learning that is ubiquitous and optional. We will enrich all kinds of learning resources, innovate lifelong education carriers, create a learning mode that integrates online and offline learning activities, expand the scale of lifelong education services, promote the quality and upgrading of all kinds of lifelong education institutions, build a new ecology of lifelong education centered on the learner and powered by digital technology, and enhance the learning ability of the public.

Fourth, a lifelong education system of co-construction and sharing, which aims to further stimulate the vitality and enthusiasm of social forces to participate in lifelong education, form a government-led lifelong education development pattern with the

participation of multiple social actors, and realize the common construction, sharing, and governance of lifelong education. In order to explore the development path of mega-cities with Chinese characteristics, embodying the characteristics of the times and manifesting the advantages of China's socialist system, we are striving to create a model city with a modernized governance system and governance capacity.

II. Promoting Quality Development of Lifelong Education

In order to promote the high-quality development of lifelong education, during the 14th Five-Year Plan period, Shanghai will focus on the following four areas.

The first is the transformation and development of adult continuing education. We will optimize the professional structure, provide various and applicable academic education for on-the-job personnel, and promote the development of professional knowledge and professional education for on-the-job personnel. We will also optimize the professional structure, provide diverse and applicable academic education for on-the-job personnel, and promote the simultaneous improvement of professional knowledge and practical ability of on-the-job personnel. We will enhance the quality of continuing education, create brand programs, and provide various types of continuing education for all kinds of people. We will generate brand-name programs of continuing education and provide order-oriented and personalized training services for various enterprises and social groups.

The second is community education services that will be upgraded. We will stimulate social vitality and establish a sound mechanism for the participation of social forces. We will continuously innovate community education carriers, build 100 new community learning workshops for citizens, deepen the citizens' lifelong learning experience bases, and deepen the citizens' lifelong learning Humanistic Walk program. This program for citizens' lifelong learning will be deepened. We should improve the construction of teacher pools and promote the sharing of high-quality teacher resources.

The third is high-quality development of education for the elderly. To build a government-led supply mechanism for education for the elderly with the participation of diversified social forces, we should implement a system of doubling the number of

senior universities. We will implement the plan to multiply the number of universities for the elderly and add 200 social learning points for education for the elderly, implement the program of building quality schools for education for the elderly institutions, and promote the development of quality education for the elderly. We will make full use of artificial intelligence, 5G and other modern information technologies to promote geriatric education, and take advantage of artificial intelligence, 5G and other modern information technologies to promote the digitalization of geriatric education.

The fourth is the construction of a system of continuing education for workers. We will establish a sound system and mechanism for employee education and operational services, and promote the standardized operation and professional development of employee education. We will accelerate the formation of the “Dual System” model of continuing education for workers with Shanghai characteristics, and realize a significant increase in the popularization of continuing education, the average number of years of education, and the proportion of workers receiving higher education in the city.

III. Vigorously Promoting Digital Transformation of Lifelong Education

At present, Shanghai is accelerating the digital transformation of the city, and digital transformation has become an important strategy to serve the new development pattern actively. Shanghai is also promoting the digital transformation of education as a whole, empowering the comprehensive education reform with digitalization and promoting the revolutionary reshaping of the education teaching mode. The digital transformation of education is actually a revolution that breaks the old system and establishes a new high-quality system, which requires every participant to participate in and promote with a spirit of reform and an open mind.

In the process of actively promoting digital transformation, lifelong education should explore the development of the public learning service function of the “Sui Shen Code”, and gradually empower the Sui Shen Code to provide the public with a unified entrance to the lifelong learning platform, to enhance the public’s experience of learning service, through strengthening the docking of the city’s “one network”, realizing the common construction and sharing of big data resources, making full use

of information technology and big data technology, gathering and recording citizens' lifelong learning trajectories, and providing personal data services. Relying on learning platforms such as the Shanghai Learning Network, we are constantly exploring and expanding online learning methods such as the “Visual-cloud Classroom of Lifelong Learning” and live classroom, to realize cross-regional sharing of offline courses, synchronous lectures and real-time interactions, and to promote the integration and development of online education and offline education. It is also promoting the construction of lifelong education resource libraries and establishing a new resource-sharing mechanism supported by big data.

In terms of education for the elderly, by using 5G, big data, artificial intelligence and other new technologies and integrating mobile learning, social learning, game-based learning, fragmented learning and other learning forms, we will construct interactive and experiential learning scenarios integrating the virtual and the real, and create various kinds of digital life simulation application scenarios for the elderly in terms of traveling, medical care, and consumption, to promote the change of curriculum, content, mode, and learning time and space. Relying on high-quality learning resources such as citizens' lifelong learning experience bases, Humanistic Walk routes, and social learning points, we will create an online experience, venue cloud tours, AR/VR Humanistic Walk and other characteristic learning scenarios. The first all-media platform for lifelong learning for the “50+” group of people in China — “Golden School” — is being built, and the “classroom” is being extended from the mobile phone to the computer. We will extend the “classroom” from cell phones and computers to TVs; create a “citizens' air classroom” — a short-term learning camp — for intelligent technology, popularizing the operation of smartphones and other devices and basic knowledge of the Internet; and offer courses on the application of intelligent technology or organize learning scenarios for the elderly in various institutions for education for the elderly. We have also set up courses on the application of intelligent technology in various educational institutions for the elderly or organized training for the elderly in their vicinity, to help them cope with various intelligent life scenarios and actively integrate into digital life. We will encourage senior education institutions to be data-driven to ensure the quality of education and improve service quality, build digital portraits of senior learners, analyze learning needs in-depth, and provide personalized learning services for the elderly.

In addition, Shanghai will also promote the construction of intelligent learning

scenarios for education for the elderly, release the “Guidelines on Learning Scenarios for Education for the Elderly Institutions in Shanghai”, promote the construction of networks for education for the elderly institutions, support schools with digital terminals, and build a digital infrastructure that can comprehensively support the sharing of various types of efficient access to educational resources and large-scale online education experience, to support the digital transformation of education for the elderly in all aspects.

IV. Meeting the High-quality Learning Needs of Seniors

In 2020, among the city’s resident population, there were 5,815,500 people aged 60 and above, accounting for 23.4% of the total; among the city’s household population, there were 5,334,900 people aged 60 and above, accounting for 36.1% of the total. It is expected that by the end of the 14th Five-Year Plan period, the city’s resident elderly population aged 60 and above and household elderly population will exceed 6.8 million and 5.7 million, respectively. The aging of the city’s population tends to be the new normal, the spiritual and cultural needs of the elderly are growing rapidly, and the continuous changes in the total number and structure of the elderly population have posed a major challenge to the city’s ability to supply resources for education for the elderly.

During the 14th Five-Year Plan period, we will build a ubiquitous and optional learning environment for the elderly, oriented by the high-quality learning needs of the elderly, demanded by health science and technology, and supported by a digital base; innovate the institutional mechanism of education for the elderly to create a favorable atmosphere for the participation of diversified social subjects in the education of the elderly; and further give full play to the professional support power of the support service system of the education of the elderly to enhance the capacity of supplying resources for elderly education in the city. We will further give full play to the support service system of elderly education, upgrade the service level of elderly education, and expand the coverage and audience of elderly education; we will adhere to the principle of inheritance and innovation and actively explore a new mode of development of

elderly education with Shanghai's characteristics. Specifically, seven major programs will be promoted: the "Action Plan for Expanding Supply of Elderly Education", the "Elderly Education Wisdom Learning Innovation Program", the "Elderly Education Quality and Balanced Development Program", the "Elderly Education Learning Brand Cultivation Program", the "Elderly Education Theory and Research Enhancement Program", the "Elderly Education Teacher Cultivation Program", and the "Elderly Education International and Domestic Exchanges Program". The implementation of the "Doubling Plan" for senior universities promotes information technology-enabled education for the elderly and realizes the interoperability of teachers, the construction of curricula, and the sharing of resources. By increasing the cultivation of learning brands for education for the elderly and strengthening theoretical research on senior education, we strive to promote senior education to a new level.

Shanghai is exploring a new model for developing digitally-driven geriatric education, which has already been mentioned. In addition, for the elderly, using intelligent technology encountered difficulties. The Shanghai Municipal Commission of Education issued the "Opinions on Promoting the Digital Development of Elderly Education in Shanghai", and actively implemented the "Double Hundred Double Thousand" plan. That is to say, by 2025, Shanghai will build 100 elderly intelligent learning scenes, create 100 elderly intelligent learning brands, train 1,000 intelligent learning backbone teachers, promote 1,000 learning-assistance teams, to further form and build a global influence, and the international digital capital to match the new pattern of the development of elderly education digitization.

V. Exploring a New "Dual System" of Continuing Education with Shanghai Characteristics for Workers

In August, 2021, the SMEC and six other departments issued the "Opinions on Promoting the Innovative Development of Continuing Education for Workers in the New Era". The document focuses on the new requirements of high-quality urban development in the new era for improving human resource levels and the comprehensive quality of citizens. It pays attention to the lifelong learning and lifelong development of

every worker. Adhering to the core of continuing education quality, guided by both ability and academic qualifications improvement, taking the path of school-enterprise linkage and work-study mutual promotion, supported by modern information technology, and using various learning outcomes recognition and conversion as channels, it constructs a “Dual System” continuing education model with Shanghai characteristics. The system improves the continuing education system for Shanghai workers, including the floating population, focusing on resolving the contradiction between the diverse needs of workers’ quality improvement and the insufficient supply of continuing education. It aids in the construction of Shanghai’s industrial worker team, promotes the enhancement of the spiritual and cultural life quality of workers, and cultivates more high-quality technical talents, skilled craftsmen, and great national artisans for Shanghai.

By 2025, Shanghai will basically form a “dual enhancement” oriented to the ability and qualifications of workers, a “dual space” as a carrier for the organic combination of school education and workplace learning, and a “dual pathway” for the in-depth integration of modern information technology and education online and offline. The “dual pathway” is the support, the “dual faculty” composed of university teachers and industry and enterprise instructors is the feature, and the “dual certificate” of skill evaluation and academic diploma is the learning outcome. The popularization rate of continuing education, the average years of education, and the proportion of workers receiving higher education in the city will be significantly increased.

VI. Building a High-quality Faculty

Lifelong education teaching faculty is a key factor in realizing the high-quality development of lifelong education in Shanghai. Shanghai has always attached great importance to the construction of lifelong education teachers as a core element of the development of lifelong education, and in 2020, the “Shanghai Lifelong Education Teacher Training Base” was specially set up with the support of the East China Normal University. During the 14th Five-Year Plan period, according to the “Implementation Opinions of Shanghai Municipal People’s Government on Comprehensively Deepening the Reform of Teachers’ Team Construction in the New Era”, and following the

“Guidelines for Professional Competence of Community Education Teachers of Shanghai Municipality”, we will focus on the cultivation of seven major competencies, including teaching, management, planning, counseling, research, teaching and learning, and the development of the teaching profession. These include teaching ability, management ability, planning ability, counseling ability, research ability, promotion ability, and information ability. We will improve the allocation of teachers in lifelong education institutions to ensure the scale of lifelong education teachers; build a teacher training system at the city, district, and school levels, establish a training system for the professional development and capacity enhancement of lifelong education teachers, and strengthen the training of lifelong education teachers at different levels and classifications; and implement lifelong education master teacher building programs to cultivate master teacher studios and excellent teachers to form a lifelong education teacher incubation system. Through these measures, a high-quality teaching team will be established, providing a solid guarantee for taking the lead in constructing an education system that serves lifelong learning for all.

In short, lifelong education has great potential for improving the city’s soft power. Only when we realize our problems and challenges can we use systematic thinking to plan, break through with creative measures, and advance implementation with solid work.

(Written by Ni Minjing)

Chapter Three

Digital Transformation of Lifelong Education: Shanghai's Approach and Experience

Shanghai Lifelong Education Digital Learning Coordinative Group
and Shanghai Changning Community College

Abstract: In recent years, Shanghai has greatly emphasized the digital transformation of lifelong education. Through developing online education, building a lifelong universal learning space with diverse study options, and creating a lifelong learning network that integrates online and offline platforms, Shanghai has sustainably improved lifelong education options and provided a wide range of personalized learning services for its residents. Shanghai has not only made significant achievements in the digital transformation of lifelong education but also guided other regions by sharing its development model and experience. Shanghai needs to create new ways of lifelong education for future development.

Keywords: lifelong education; digital transformation; development strategy; Shanghai experience

Shanghai is metropolis with a large aged population and the residents have a strong desire to learn. From young migrant workers to senior citizens, many people in Shanghai have the need to continue learning and upskilling. Digital lifelong education has become a key to providing residents with targeted and real-time access to diverse and personalized learning opportunities.

I. Implementation Background

Information technology, represented by 5G, artificial intelligence (AI) and big data, is thriving across the world and has profoundly changed the way people think, learn, produce and live. As a result, there is an urgent need for education concept and approach innovation, and the digital transformation of the education sector provides an engine to propel traditional education into the modern new era. In order to adapt to the changing population structure and relieve pressure on the supply side for senior education, a nationwide digital transformation pilot in the education arena is underway, which will meet the needs of the employed and migrant populations for higher-level education and lifelong vocational skills training.

As a part of the nationwide digital transformation pilot in education, in recent years, Shanghai has made great achievements in transforming lifelong education. It has been committed to building a connected, digital, and personalized lifelong learning service system to ensure rational planning and efficient distribution of various lifelong education resources, strengthen on-the-job training, and improve education services for senior citizens, offering people with different backgrounds equal opportunities to receive high-quality education and pursue their personal development goals. A few examples of recent achievements include: having improved the technologies required for lifelong learning and boosted online education; having optimized the learning environment, created new learning models, accelerated the establishment of a public digitalized lifelong education resource base, and implemented large-scale learning platforms which provide options for all types of learners; and having established certification standards for non-academic education, and developed mechanisms for study credit recognition and transfer. These efforts, representing the “Shanghai Experience”, have also given other regions a valuable and practical example of lifelong education digital transformation.

The 14th Five-Year Plan period is the first five years of China's new journey toward building a modern socialist country in all respects and reaching the Second Centenary Goal. "The 14th Five-Year Plan for Education Development in Shanghai" points out that Shanghai will "empower education with new technologies, enhance digital transformation, and promote the widespread use of digital education". A key task in the digital transformation of lifelong education is to establish a "new environment, new system, new platform, new model, and new evaluation structure" and create a universal learning environment with diverse study options by adopting digital technologies, improving teachers' and students' information literacy, and optimizing education governance. On December 16, 2022, Ni Minjing, then Deputy Director of the Shanghai Municipal Education Commission (SMEC), delivered a presentation on "Digital Education for the High-quality Development of Lifelong Education" at the 10th Lifelong Education Shanghai Forum. Director Ni gave an inspiring and comprehensive introduction on the transformation of lifelong education in Shanghai by answering four questions: What does the future of digital education look like? Why does digitalization matter in lifelong education? What are the bottlenecks of this transformation? How shall we further improve the quality of lifelong education through digitalization? Four main points are proposed in Director Ni's presentation: 1) being open-minded to develop, encourage, absorb, integrate, and promote all innovations and creations which facilitate lifelong learning; 2) further replacing traditional learning tools with new ones; 3) fostering the integration of school and society; 4) upgrading modernized learning to "super learning".¹

II. Implementation Approach

I) Platform upgrade empowered by technology and new mechanisms for online learning

In recent years, Shanghai has promoted the digital transformation and application

¹ The 10th Lifelong Education Shanghai Forum Offered Strategies on Developing Lifelong Education [EB/OL]. [2022-12-25]. <https://sghexport.shobserver.com/html/baijiahao/2022/12/18/924663.html>.

of lifelong education by developing borderless learning spaces, facilitating reforming education principles and teaching models with new technology, and building learning platforms that provide digital resources and research-based courses. Shanghai has incubated and upgraded a number of high-quality learning platforms such as Shanghai Lifelong Learning, Shanghai Senior Learning Network, Senior MOOC, Golden College, Visual-cloud Classroom of Lifelong Learning, Shanghai Lifelong Education Resource Distribution Platform, Shanghai Lifelong Learning Experience Center, and Senior Learning Team Live Classroom, creating an ecosystem of multidimensional digital learning spaces that provide precise and convenient learning opportunities. For example, Shanghai Lifelong Learning Cloud “Air Classroom” is a learning platform which integrates resources from Senior MOOC, Smart Learning Center, Shanghai Community Education Microclass, Visual-cloud Classroom of Lifelong Learning, Online Learning Experience Program, and Lifelong Learning “Humanistic Walk” program, etc. In particular, the Visual-cloud Classroom can record and upload course videos to platforms such as Learning in Digital Changning.

To enhance the integration of new technologies and big data, Shanghai has created online learning channels such as official WeChat accounts, websites, apps, livestream platform accounts, and online learning communities to promote new teaching methods and provide an extensive range of courses which match residents’ learning preferences. For example, the Golden College offers online course video streaming and offline learning activities so that high-quality offline classes can be recorded and uploaded to an online database, creating a solid supply of available resources on the platform.

Exemplary Case 3 – 1 **Air Classroom**

Air Classroom is available on streaming platforms such as Smart Education of Shanghai, cable TV and IPTV. The primary education section provides courses of 12 different grades, which are separated into five themes, namely Basic Courses, Open Classes, Test Preparation, Life and Society, and High School MOOC. During the COVID-19 pandemic, the Air Classroom served as a learning platform for all residents by integrating resources from Senior

MOOC , Smart Learning Center , Shanghai Community Education Microclass , Shanghai Lifelong Learning Visual-cloud Classroom , Online Learning Experience Program , and Lifelong Learning “Humanistic Walk” , etc.

Exemplary Case 3 – 2

Shanghai Lifelong Learning Visual-cloud Classroom

Shanghai Lifelong Learning Visual-cloud Classroom is a digital learning platform founded by Changning District under guidance from the Lifelong Education Department of the SMEC. It is a one-to-many , decentralized and movable platform empowered by cloud storage and big data , which facilitates remote real-time interaction between teachers and students. By combining online and offline classes , it effectively improved the supply of quality lifelong education resources and significantly increased interactive online learning opportunities. Over the past few years , Shanghai Lifelong Education Digital Learning Coordinative Group has promoted the Lifelong Learning Visual-cloud Classroom to all 16 districts in Shanghai. Since 2019 , the platform has provided more than 140 online courses to over 200,000 learners each year , becoming an important digital learning channel for Shanghai residents. In 2020 , Visual-cloud Classroom provided residents with many home learning resources and became a critical section of Shanghai Lifelong Education Air Classroom.

In 2021 , to simplify digital learning procedures and improve information release and data management , Changning District partnered with the Shanghai Lifelong Education Digital Learning Coordinative Group to develop a precise management platform for the Lifelong Learning Visual-cloud Classroom. The new platform allows students to join classes with just one click and enables intelligent class scheduling , online course tracing and precise data visualization , which further improves the accessibility and efficiency of online resources. Today , the Visual-cloud Classroom is not only available in Shanghai but also

in the Yangtze River Delta region and parts of Xinjiang, Yunnan, Sichuan, Inner Mongolia, and other central and western regions in China, contributing to improving education in remote areas and the accessibility of digital learning across the nation.

II) Digital infrastructure and application scenarios for smart lifelong education

Shanghai has developed digital lifelong education infrastructure, such as shared data platforms, integrated technologies and interactive applications, by improving education data centers and standards and optimizing large-scale smart learning systems. At present, the city has largely set up “one network, three centers and two platforms” and issued the “Standards in Constructing Digital Education Infrastructure”.

Changning District has coordinated education resources both offline and online and developed an optimized and integrated teaching model. It has built its digital infrastructure featuring connected users, data, applications, institutions and information, along with unified platform services to cultivate a strong digital environment.

Jing'an District has improved its digital infrastructure by fortifying school networks and server clusters, further developing data centers with unified certification requirements, digitalizing the teaching and learning environment, as well as establishing a trusted network, in a bid to empower digital lifelong education transformation.

Pudong New Area has built a “1134” digitalized education system. Specifically, the first “1” means a fundamental education network; the second “1” refers to a digital education infrastructure; “3” means 3 regional application scenarios for smart education: intelligent teaching/learning/research/training, intelligent education assessment, and intelligent education governance; “4” refers to the students, teachers, schools and parents whom the network and information security system serves. A fast-transformation, smarter, high-quality education model in Pudong has been constructed which features leading cloud-network integrated infrastructure, intelligence-symbiotic teaching and intelligent education governance, setting an example for digital education transformation in the new era.

Baoshan District has established an application system for education where a range of standard applications are offered to all schools, and a range of optional applications and other school-oriented service platforms can be added to meet their personalized demands. It has also developed the Smart Peer Classroom, which is an intelligent teaching terminal supported by 5G, edge computing, IoT, AI and AR/VR, as well as an online collaboration between teachers and a cloud team to offer an interactive digital education scenario.

Meanwhile, Shanghai has made great efforts to upgrade the foundations of the education network by developing new infrastructure, digital facilities for large-scale online learning, and intelligent terminals suitable for multi-scenario u-learning and accelerating the digitalization of classrooms. All districts in Shanghai have developed characteristic curricula and various learning forms such as mobile learning, social media-based learning, games-assisted learning and fragmented learning to create interactive, immersive and virtual-real learning scenarios. Shanghai has provided the elderly with not only digital life application scenarios in terms of mobility, medical treatment and consumption but also distinctive learning scenarios such as online venue tours and AR/VR city wandering based on lifelong education bases, public learning places and other valuable resources. It has also developed a batch of high-quality education application scenarios, market mechanisms and education ecosystems, all of which can be utilized and implemented by educational institutions nationwide. In 2021, the city organized competitions to understand elderly education demands and started to construct 100 diverse, dynamic, open intelligent learning scenarios to complete the “Double Hundred and Double Thousand” program.

Exemplary Case 3 – 3 **The “Double Hundred and Double Thousand” Program**

The “Double Hundred and Double Thousand” program was first outlined in the “main target” section of the “Opinions on Promoting the Digital Development of Elderly Education in Shanghai”. This program aims to accomplish: by 2025 100 new digital and intelligent learning scenarios for the elderly, created by all elderly educational institutions in Shanghai based on

their distinctive curricula; 100 new smart learning brands for the elderly to help solve routine matters in their daily life, with innovative study methods, contents and experience supported by intelligent technology; 1,000 outstanding teachers trained regularly and professionally by experts in smart elderly learning practices to strengthen momentum for the digital development of elderly education; and 1,000 diverse and flexible learning-assistance teams composed of community volunteers, elderly groups and family members and friends to further pioneer smart elderly education.

Exemplary Case 3 – 4

Collection and Assessment of Smart Learning Scenario Plans for Elderly Education

To meet requirements of the “Opinions on Promoting the Digital Development of Elderly Education in Shanghai”, the SMEC issued the “Circular on Collecting Smart Learning Scenario Plans for Elderly Education” in August, 2021. Based on the overall development of elderly education, elderly educational institutions of all kinds in Shanghai designed and submitted 105 learning scenario plans, from which a panel of experts selected 54 as finalists. Among them, 18 plans, including the “smart life experience classroom” from Shanghai University for the Elderly, were certified as innovative; 18 plans from Shanghai Senior Cadre University, were certified as distinctive; and 18 plans such as the “smart multi-generational learning scenario” from the Elderly College affiliated with East China Normal University were certified as practical.

During this assessment process, all educational institutions made active efforts to study and create smart elderly education scenarios, vigorously promoting digital transformation, intelligent upgrading, integrated innovation, and further development of elderly education.

III) Shared digital learning resources pool and optimized education service supply

Shanghai is consistently re-organizing existing e-learning resources and leveraging information technology to establish an index for a collaborative and shared public service system of digital lifelong education resources. The curriculum development departments also conduct regular surveys and ongoing analyses of citizens' evolving e-learning needs to provide specialized, high-quality, and comprehensive learning support.

For instance, programs such as Golden Open Classes, Masterpiece Appreciation, and Expert Q&A on Common Diseases designed by Golden College, all promote an elegant lifestyle for middle-aged and elderly people in the new era. These programs are thoughtfully tailored to older adults' psychological characteristics and life habits and successfully stimulating their desire to learn, and have amassed a daily viewership of over one million.

The Yangjing Community School for the Elderly in Pudong New Area is actively developing into a curriculum innovation center due to the implementation of its Intelligent Classroom program, which facilitates the classification, tiered teaching, and phased implementation of intelligent technology courses for older adults. The school is committed to providing beginner-friendly education to improve older adults' digital literacy. It continuously explores how to effectively implement teaching plans from perspectives of course design, teaching progression, content and methods. It encourages teachers to share their experiences and stay updated with the latest advancements.

Fengxian District has created a round-the-clock online public platform that provides authoritative information and comprehensive educational content to promote a science-based approach and comprehensive knowledge system for family education. The platform meets parents' needs for a one-stop education service destination by successively integrating a range of top-quality family education courses.

Additionally, to improve the lifelong education curriculum framework, a tiered course system and layered course model have been developed based on different learning stages. To meet the need of having access to diverse learning methods, educational resources have been provided in various formats, including microclasses, MOOC, Visual-cloud Classroom, and online live courses. For example, based on careful analysis

of the characteristics of mobile apps and televisions, Golden College aims to strengthen, refine, and specialize its courses by adopting the most suitable content delivery format, such as audio programs, short videos, and vertical screen programs. Similarly, the Fengxian District Digital Parent School primarily uses engaging and concise short videos — a user-friendly course format — to enable parents to study anytime and anywhere.

IV) Innovative digital learning model to bridge the “digital divide” for the elderly

Aligned with the “Implementation Plan for Effectively Solving Difficulties of the Elderly in Using Intelligent Technology” issued by the General Office of the State Council, the SMEC rolled out the “Opinions on Promoting the Digital Transformation of Elderly Education in Shanghai” to help address the digital divide faced by older adults and enhance their experience in using intelligent technologies.

To create an elderly-friendly e-learning environment, Shanghai has created standardized guidance procedures for local digital transformation to simplify public service websites and mobile apps. As a result, 66 government websites, 47 government service apps, and 23 key enterprise apps were refreshed in 2021 and became more accessible for all ages. In the same year, the city launched the Shanghai Elderly Smart Learning Camp, an education project leveraging instructional videos to help older adults proficiently use intelligent technologies in various real-life scenarios. Shanghai Education TV developed a television program called Silver Age Classroom which integrated elderly education content, with 5,616 offline learning sites established in 96% of Shanghai’s community committees, serving about 630,000 registered learners over the years. Through television and the Internet, Shanghai has built a large-scale platform for elderly learners, which has an online click-through rate reaching new highs every year.

Shanghai University for the Elderly has built immersive classrooms for older adults to engage with intelligent technologies. Changning Community College has launched several online cloud-based courses such as Smartphone Applications, Mobile Applications, and Computer Basics on its self-developed educational platform, Visual-cloud Classroom of Lifelong Learning. To bridge the digital divide of older adults, Yangjing Sub-district in Pudong New Area has launched the Smart Learning Classroom

project. Tailored to seniors with different levels of digital literacy, the project offers six series of courses, including Smartphone Basics, Mobile Multimedia Technology Applications, Mobile App Installation, Mobile Security Management, and Mobile Applications for Smart Life. It combines offline training, online tutoring, and community services to engage older adults in experiential learning. It improves their understanding of intelligent technologies, helping them overcome hesitation and resistance to using smart devices.

All these endeavors have demonstrated Shanghai's consistent efforts to establish a city-wide digital service network for elderly education, enhance older adult digital literacy, and bridge the digital divide. By exploring more smart learning scenarios, the city will facilitate an inclusive and elderly-friendly digital transformation which brings more extensive benefits.

Exemplary Case 3 – 5 **Shanghai Elderly Smart Learning Camp**

Under guidance from the Lifelong Education Department of the SMEC, the Shanghai Lifelong Learning platform has launched the Shanghai Elderly Smart Learning Camp project to provide targeted and convenient digital learning services to older adults and address the challenges they face in using intelligent technologies. Through in-depth research on older adults' learning styles and interests, the project has organized, integrated, designed, and developed a wide range of digital learning resources for elderly education using a short-term training format. It provides older adults with online and offline learning services and helps them better adapt to digital life. As of July 2021, the Shanghai Elderly Smart Learning Camp portal received over 600,000 visits.

Based on research on the learning status and needs of older adults in Shanghai and their ability to use intelligent technologies, Shanghai Lifelong Learning, supported by Shanghai Educational Software Development Co., Ltd., established the Shanghai Elderly Smart Learning Camp portal. This portal effectively integrates learning and entertainment, offering a range of

features such as camp opening, registration, check-in, online learning, human-computer interaction, learning data recording, and achievement sharing.



Fig. 3-1 Shanghai Elderly Smart Learning Camp

Exemplary Case 3-6 Smartphone Applications Course

The Visual-cloud Classroom of Lifelong Learning, initiated by Shanghai's Changning Community College, is a new-type teaching platform that enables participants of the Shanghai Elderly Smart Learning Camp to study both online and offline. Yan Qiangsheng, an educator of the Smartphone Applications course in Changning District, has established a visual-cloud class for this course as part of a series to enhance the elderly's ability to use intelligent technologies. The course, focusing on high-frequency tasks in real-life scenarios, aims to

help older adults learn how to install mobile apps and enjoy smartphone-based services across transportation, healthcare, catering, and other life sectors.

As the course is taught online and offline, learners can review instructional videos and participate in practical exercises anytime and anywhere on the Visual-cloud Classroom platform, fully leveraging the advantages of on-site and remote learning. As of September 2022, each course session attracted nearly 300 learners, and the cumulative number of participants engaged in online learning exceeded 7,300.



Fig. 3 – 2 Visual-cloud Class on Smartphone Applications

V) Online-Merge-Offline (OMO) smart learning environment

Shanghai has creatively utilized advanced technologies such as AI, IoT, and 5G holographic live broadcasts to integrate online and offline learning experiences and facilitate digital transformation in education. For example, Shanghai Open University has launched the Smart Learning Environment project, which integrates teaching methods, learning environments, and technologies. Supported by cutting-edge technologies like AI, the project has achieved simultaneous online and offline teaching and learning and truly demonstrates Shanghai's efforts to create a smart learning environment which

provides academic and non-academic training for lifelong education. Moreover, the project incorporates an extensive range of smart functions in its learning environment, management, and services to maintain each user's credit bank accounts intelligently, thus improving the mechanism of achievement transformation and facilitating the seamless use of credits represented by various professional certificates at different levels and academic education programs.

Online resources enable learners to break through time and space constraints and can effectively enhance the overall effectiveness and quality of learning. For instance, during the pandemic prevention and control period, the Xuhui District Education Bureau collaborated with multiple parties to establish Guangqi E-class, a lifelong education platform which provides high-quality online and offline courses. The platform aims to create smart lifelong learning scenarios by utilizing future information science and technology to help educators improve teaching and management methods and offer learners a convenient and real-time learning experience.

Exemplary Case 3 – 7 **Smart Learning Environment Project Launched by** **Shanghai Open University**

The OMO Smart Learning Center of Shanghai Open University has integrated multiple teaching methods, learning environments, and technologies. With a focus on learning outcomes, the project has leveraged various advanced technologies such as IoT, AI, 5G holographic live broadcasts, and virtual reality (VR) to create a fully integrated online and offline smart learning environment that provides comprehensive educational services before, during, and after class. It also ensures a high standard of quality control throughout the learning process and enables learners to break the past limitations of time and space and effectively learn new skills. The project has also established a collaborative teaching model which includes human teachers and AI assistants as a response to the AI era, offering learners a more personalized OMO smart learning environment.

The center serves as an excellent example of Shanghai's efforts to create

an OMO smart learning environment which accommodates academic and non-academic training and lifelong education. It adopts integrated devices and technologies to deliver online and offline teaching and learning simultaneously. The center also incorporates diverse smart functions in the learning environment to provide intelligent perception and other services throughout the educational cycle, encompassing teaching, experimentation, assessment, and management, enabling educators to diversify teaching approaches and offering learners a proactive and personalized learning experience.

In the 2020 autumn semester, all teaching departments of Shanghai Open University started to conduct OMO smart teaching, teaching discussions, and teacher training in smart classrooms. As part of these initiatives, 954 OMO livestream classes were organized, totaling more than 1,430 hours, attracting over 20,000 students. 51% of participants attended the classes through online live streaming, and 83.25% of teachers engaged with students online and offline using interactive tools. A satisfaction survey of 9,513 students showed a satisfaction rate of 97.52%.

Exemplary Case 3 – 8 **Guangqi E-class Initiated by Xuhui District**

During the pandemic prevention and control period, the Xuhui District Education Bureau accelerated the digital transformation of lifelong learning in the hope of minimizing the impact on continuous education. In April 2020, the bureau collaborated with lifelong education institutions such as universities for the elderly, community elderly schools, community/village committee teaching sites, and privately-run educational institutions in multiple districts to launch a unified lifelong learning platform, the Guangqi E-class, for learners in Xuhui District. This platform marks a significant step in Xuhui District's efforts to promote lifelong education and is in line with the initiative of urban digital transformation proposed by Shanghai. It also represents an innovative

exploration of integrated online and offline lifelong education, contributing to establishing a smart lifelong learning environment and a new development pattern for Xuhui's lifelong education.

In 2021, based on the Guangqi E-class platform, Xuhui launched the cloud school project for lifelong education, Hui E-learning, which has been selected as a practical project by the Xuhui District government to promote the integration of online and offline lifelong education on all fronts in the district. By the end of 2021, the project had rolled out 44 high-quality district-level courses and 98 lectures, which covered a wide range of categories, including literature, history, vocal music, culinary arts, dance, and healthcare, attracting over 260,000 learners and becoming an increasingly important platform for learners in Xuhui District. In June, 2022, the project was selected to join the second batch of “Scientific Literacy and Internet Learning” themed projects under the “Anyone Can Be a Teacher” practice innovation program for community education announced by the Ministry of Education's Department of Vocational and Adult Education.

VI) Information literacy of teachers and learners and significance of digital transformation

“The 14th Five-Year Plan for Education Development in Shanghai” reiterates the significance of improving the information literacy of teachers and students, enhancing their skills in information technology applications, and reinforcing their awareness of network and information security.

The core competency of high-quality teachers in the new era lies in their ability to apply information technology. Teachers need to proactively develop future-oriented teaching approaches, such as utilizing intelligent tools and systems to address teaching and management challenges in lifelong education, integrating AI and other advanced technologies into daily teaching, and promoting human-AI collaboration in classrooms. For instance, the Changning Community College organized training programs to improve senior teachers' abilities to use intelligent technologies. During the pandemic, Shanghai

Education Software Development Co., Ltd. provided remote technical support, services, and training to teachers who created online courses for the Air Classroom. Additionally, since 2003, Jing'an Community College has conducted school-based information technology training open to all teachers to enhance their digital competency, contributing to the digital transformation of education.

Shanghai has also actively explored different ways to enhance learners' information literacy. Education for adolescents focuses on improving digital security and identifying harmful information, while education for older adults aims to improve digital literacy and bridge the digital divide. For in-service professionals, the emphasis is on Internet social networking and promoting digital civility. Guided by people-oriented principles, Yangjing Sub-district in Pudong New Area is committed to improving the well-being of its elderly residents. It has initiated the Smart Learning Classroom project and established a lifelong learning platform and training system for digital technology to promote an elderly-friendly intelligent learning approach.

Efforts have also been made to promote cyber and information security training, encourage community schools to establish public information literacy platforms and training systems, and enhance the response capacity to cyber security incidents through a strengthened mechanism. In 2022, a specialized training program on the Internet and information security management of Shanghai's education system was launched to improve the information literacy of teachers and learners and their awareness of network and information security.



Fig. 3 - 3 Opening Ceremony of the Lecture on Digital Education in Shanghai and the Training Program to Enhance Cyber and Information Security Management of Shanghai Education System

VII) Lifelong education digital governance to enhance educational management and decision-making

The educational management platforms represented by the Shanghai Senior Citizen Education Information Management Platform adhere to the principle of “One Piece of Data from One Source” and strive to efficiently and properly collect, share, and utilize personal identity data, educational platform user data, and data from other applications. Through these platforms, Shanghai aims to build a layered, structured, and practical digital governance system for lifelong education and implement a one-stop service and management mechanism across the city. This will raise the level of education big data application, shorten the response time for decision-making, improve the capacity of educational services, ensure a high quality of services, and increase citizens’ sense of achievement and satisfaction.

The “Sui Shen Xue” mobile app integrates functions such as learning, student aid, document retrieval, and credit accumulation by streamlining learning, management, and service processes. It also provides users with a categorized resource index for intelligent resource search and recommendation. During the pandemic, it provided convenient social security-related services by integrating with the E-Shimin (Sui Shen Affairs) platform. Supported by the Shenxue QR Code (linked to the lifelong education account), learning records on the E-Shimin platform which meet the criteria for lifelong education can be accredited to the personal academic credit transfer and accumulation bank. This provides a lifelong learning platform for every individual and forms the foundations of a public service system for lifelong education.

Exemplary Case 3 – 9 Shenxue QR Code

Shanghai Academic Credit Transfer and Accumulation Bank Account, also known as Shenxue QR Code, is based on an individual’s comprehensive learning achievements and experiences and includes their achievements, career experiences, and social activities. It is a personal account in the form of a

credit bank which stores various learning achievements at all stages and levels of learning and development. Three new functions have been added, namely Uploading, Code Scanning, and Certificate Display. Through the uploading function, learners can continuously upload their achievements and improve the personalization of their database. The Code Scanning function allows learners to check in at classes, lectures and venues, and timely record their learning activities. Learners can also authorize the app to showcase their learning achievements to relevant individuals or institutions by using the Certificate Display function.

Shanghai Academic Credit Transfer and Accumulation Bank functions as a platform for Shanghai citizens to manage their learning achievement certifications and achieve credit transfer. As the first provincial-level credit bank in China, it has created over 4.3 million learning profiles for 15% of the city's permanent population since its establishment in 2012. It has accumulated over 85 million pieces of learning achievement records and facilitated credit transfers for over 100,000 individuals across many educational sectors. A lifelong education system and a learning-oriented society have started to initially take shape.

The creation of the Shenxue QR Code has made possible the establishment of comprehensive standards for certifying lifelong learning achievements at all levels and fields, the expansion of storage channels, and the lifelong achievements recording. Credit recognition methods for various non-formal learning achievements have also been created to allow for the recognition and transfer of different types of achievements. Moreover, pilot projects in many fields aimed at developing more application scenarios for the credit bank have also been launched to encourage residents to utilize the platform. The establishment of a lifelong education credit system and incentive mechanism and the promotion of application of lifelong learning achievements at all levels and fields have helped to create a lifelong learning-oriented ecosystem for all.

III. Implementation Effectiveness and the Shanghai Experience

I) Implementation effectiveness

1. High-level participation and significant learning outcomes

As the digital transformation of lifelong education in Shanghai continues to deepen, a multitude of community schools have utilized the functions and learning resources of platforms such as Smart Education of Shanghai, Air Classroom, and Visual-cloud Classroom of Lifelong Learning. They have organized various digital learning activities to encourage community residents to participate in online learning. Access to diverse digital learning methods has helped to increase the participation and click-through rate of online learning. Through long-term promotion, popularization, and actual use, residents' enthusiasm for digital learning has significantly increased, leading to remarkable learning outcomes and improvements in overall digital competence.

As of today, daily visits to the Golden College exceed one million. In the spring and autumn semesters of 2021, the Visual-cloud Classroom of Lifelong Learning launched 289 courses consisting of 3,237 sessions and attracted 17,738 learners and 122,532 views. In Xuhui District, the Guangqi E-class launched 12 courses in the autumn semesters of 2020, which attracted 14,235 learners and 71,033 views; on average, each course received 6,000 views; and 55 lectures were made available online, attracting 17,717 learners and 57,942 views.

2. Broad coverage to improve efficiency

Relying on the Smart Education of Shanghai, Visual-cloud Classroom of Lifelong Learning, and Shanghai Air Classroom, many educational institutions, including primary and secondary schools, open universities, community colleges and community schools in the city, play a crucial role in the battle to improve lifelong education. They undertake the tasks of resource clustering, management and promotion, and operation and supervision of digital learning and gather support from various sectors in society by encouraging the participation of enterprises, institutions, social organizations, and non-profit organizations at all levels in the collective effort to develop digital lifelong

education. These efforts aim to improve the mechanisms for the co-development and sharing of digital learning resources, intelligent learning applications, and information-based learning environments.

Moreover, digital learning resources serve a wide range of populations, including teenagers, the elderly, parents, in-service professionals, migrant workers, unemployed individuals, and foreigners. Regarding the diverse and personalized learning needs of different people, information-based services are available to the public in areas such as working skill enhancement, cultural and leisure education, education for the elderly, and family-related education. For example, in Jing'an District, academic lifelong education utilizes online classes, demonstration lessons and specialized courses. Non-academic education focuses on providing training for small and micro enterprise finance personnel and working professionals, which includes a series of mini-courses suitable for white-collar online learning. Education for the community and elderly includes a wide range of learning materials which cover work, daily life, recreation and popular science, and courses which feature red culture and Jing'an characteristics. A section for elderly education which includes a series of learning activities has been established. In Fengxian District, to help parents learn about the latest parenting concepts and principles and effectively improve their ability to raise a child, the Digital Parent School platform is utilized to offer a series of courses, and a points-based learning model is employed to assist parents in developing systematic and scientific family education concepts.

3. Highly practical and effective approaches in improving overall competence

Relying on various digital learning platforms and following professional guidance manuals such as the *Shanghai Air Classroom User Guide* and the *Management Platform User Manual of Visual-cloud Classroom of Lifelong Learning* provided by each platform, diverse online and offline blended teaching activities have been organized by institutions at all levels. These activities cover a wide range of topics, including ideology and politics, moralities and ethics, science and culture, democracy and rule of law, ecological environment, and entrepreneurship skills. Residents are encouraged to observe, learn, and participate in voting and selection online and to engage in activities and mutual exchanges offline. These initiatives have effectively promoted residents' participation and enthusiasm, facilitating the simultaneous development of theory and practice. Thanks to a series of exciting activities which provide knowledge

and enjoyment, a remarkable improvement in overall competence has been achieved.

4. In-depth exploration and strong influence

Shanghai boasts 6 national pilot areas for digital teaching (Hongkou District, Pudong New Area, Huangpu District, Putuo District, Xuhui District, and Yangpu District), one national demonstration zone for smart education under development (Minhang District), and three pilot areas for the digital transformation of Shanghai's education system (Changning District, Baoshan District and Xuhui District). Shanghai is striving to: promote digitalization-driven education, innovate demonstration application of educational scenarios, and further teaching reforms; build new educational infrastructure and a new development environment for digital education; and lay a digital foundation for education by promoting the development of a variety of education applications, which provides a batch of replicable best practices. The city will continue to stimulate collaborative development, innovate resource allocation models, and accelerate the formation of digital alliances in the Yangtze River Delta region.

II) The Shanghai experience

1. Creating a digital environment for lifelong learning and increasing the vitality of the lifelong education system

Shanghai has integrated digital lifelong education as a people-oriented project in its 13th and 14th Five-Year Plans for educational development and the public government service system. The city has coordinately promoted the establishment of Shanghai Lifelong Education Digital Learning Collaborative Group. It has assigned duties and tasks to government departments and social organizations and created combined working mechanisms which involve multiple entities, resource sharing and overall coordination, so as to ensure the effective and comprehensive digital transformation of lifelong education. In 2021, the SMEC successively issued the "Implementation Plan for Digital Transformation of Education in Shanghai (2021 – 2023)" and the "Opinions on Promoting the Digital Development of Elderly Education" to ensure that lifelong education has rules to follow in the process of digital transformation.

2. Helping upgrade digital platforms to build a new highland for self-learning

In order to develop digital platforms for lifelong education, training courses from

various industries at different levels have been integrated on the platform — Smart Education of Shanghai. Shanghai has helped combine online learning services with teaching management functions to promote transforming and upgrading lifelong education platforms. With the improvement of digital technologies and advanced end devices such as computers and cellphones, various functions on lifelong learning platforms in Shanghai have been continuously updated and expanded. At present, the city's lifelong education platforms which integrate study, exams, communication, management and services have provided various digital self-learning options for residents.

3. Efficiently utilizing digital resources to construct new models of education service supply

Focusing on citizens' needs and sustainable development, Shanghai has pooled and classified its diverse education resources to transform lifelong education digitally. It has established market-oriented, open, equal, and interactive digital models of education service supply which combine and share education data and resources, effectively developing a comprehensive and high-quality digital ecosystem for lifelong education.

Shanghai encourages lifelong education platforms to open up and share their digital resources so that a collaborative and orderly environment for development and innovation can be established. For example, Lifelong Learning Cloud “Air Classroom” has introduced over 10,000 online learning resources, including Shanghai Community Education Microclass, Visual-cloud Classroom, Online Learning Experience Program, and Lifelong Learning “Humanistic Walk”. The Golden College has a library of more than 1.5 million hours of learning programs, which is available on the Oriental Cable Network, IPTV, OTT and BesTV app; it has access to many offline cultural and travel landmarks and has a strong network of resources, which has helped to develop a comprehensive and diverse lifelong education ecosystem. The Visual-cloud Classroom of Lifelong Learning has more than 8,000 high-quality digital learning courses, covering a wide range of subjects such as humanities and social sciences, natural science, technology, vocational skills training, leisure and entertainment, and health education. During the epidemic, all 745 of Shanghai Open University's courses were available online, including 37 new courses. The content covers six themes: humanities, art and design, preschool education, vocational skills, public safety, and health and wellness.

4. Reinforcing education with services and demonstrating the charm of a learning city

In developing digital resources for lifelong education, Shanghai has not only collected a number of high-quality and replicable education digital transformation case studies and demonstration scenes but also launched a series of online and offline lifelong education and vocational education activities on platforms such as Air Classroom and Visual-cloud Classroom, effectively facilitating the learning and use of digital platforms, gaining a good reputation among residents, creating many lifelong education brands with local characteristics.

Shanghai attaches great importance to the development of local resources. To build a lifelong education digital learning resource library with local characteristics, it is necessary to tap the regional cultural characteristics of local resources fully. For example, there are 10 Shanghai Lifelong Learning Experience Centres each with a different theme: revolution culture, science education, culture and art, Shanghai-style culture, smart life, ping pong culture, costume culture, creative handicraft, chocolate culture, and the history of China's revolution. The online platform connects these experience centers and provides services such as online reservations and visits, establishing an interactive and experience-based lifelong learning platform.

The curriculum development also integrates the local cultural quality resources with Shanghai's regional characteristics, i.e., collections of micro-videos and micro-lessons on topics appropriate for the public. These classes with local traits have been well received by residents and have become lifelong education brands. For example, the online course "The Culture of Shanghai Places: The Memories of a City" introduces Shanghainese culture and the surrounding regions. The "Golden Open Class" from the Golden College invites intangible cultural heritage skill experts in Shanghai-style paper tearing, egg carving, and Huajixi, a form of comedy in Shanghai, to introduce these traditional art forms. As part of the "By Your Door" service system, Changning District has rolled out an "online plus offline" lifelong learning program for white-collar workers, providing courses on intangible cultural heritage skills such as Kunqu (a form of Chinese opera), dough sculpture, egg carving, Suzhou embroidery and paper tearing.

IV. Reflection and Outlook

I) Reflection

In the process of digital transformation of lifelong education in Shanghai, there are still some places that can be improved. How to realize digital lifelong education equity, how to balance digital and real life, how to improve the learning needs guidance and evaluation system through the integration of big data, and how to deepen and innovate the empirical research of digitization of lifelong education, these are new challenges, requiring continued innovative development in response.

II) Outlook

1. Digital transformation going hand in hand with basic literacy

We should adhere to the people-oriented and future-oriented. As demand for higher quality of life increases in the new era, there are more urgent expectations for high-quality education with personalized resources, caring environments, thoughtful services, and the removal of learning constraints. The information literacy of socially disadvantaged groups such as migrant workers and people with disabilities needs to be strengthened. It is necessary to insist on people-oriented education and learner-centered education and create a new ecology of lifelong education with the help of digital technology.

2. Developing a digital evaluation system for lifelong education

We should establish learner profiles. Based on the accompanying data collection, long-term, cross-domain, and multi-dimensional learner profiles will be established, and their learning needs will be analyzed by using the portraits of learners to provide personalized learning services for the public.

At the same time, based on the lifelong education decision-making service system of big data, we should establish a lifelong learning monitoring and evaluation system for citizens by strengthening the governance of education evaluation, build digital archives covering learners' lifetime, and provide accurate guidance for learners.

Shifting the focus of evaluations from learning outcomes to the learning process, formulating clearer standards, and tracking growth data across the entire learning process will help facilitate the intelligent evaluation of learners' performance.

3. Facilitating its sustainable development

We should strengthen empirical research on digital transformation. Efforts should be made to accelerate the empirical research on policies, theories, key technologies, and standards for the digital transformation of lifelong education. It is also crucial to further explore forward-looking, holistic, and applicable research on related policies and mechanisms. An improved expert consultation system will ensure targeted guidance and scientific decision-making.

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Chapter Four

Construction of Support Service System for Senior Education: A Decade of Experience

Shanghai Educational Evaluation Association

Abstract: To meet the rising learning demands of the elderly population and facilitate the flow and sharing of resources such as senior education courses, teaching staff, and teaching materials, and to enhance professional guidance and services for various levels and types of senior education institutions in Shanghai, the city has established 12 municipal-level Senior Education Support Service Guidance Centers. Over a decade, these 12 guidance centers have played a significant role in coordinating and planning the development of senior education, organizing and facilitating services, and establishing a senior education support service system. This approach reflects the founding principles of government leadership, educational sponsorship, and societal participation.

Keywords: senior education; support service; Shanghai; system construction

To further strengthen the guidance of various tasks related to senior education and to plan for the implementation of these tasks, Shanghai has leveraged the resources of existing municipal-level senior universities (and their branch campuses). Under the organizational leadership of the Shanghai Municipal Education Commission's Lifelong Education Office, the Shanghai Senior Education Working Group Office (the "City Group Office") was established. The City Group Office coordinates and serves various levels of senior education institutions. It initiated its operations in 2012 and gradually established 11 municipal-level Senior Education Support Service Guidance Centers in 2013. These centers are responsible for providing guidance on operational matters and implementing task planning for senior education across the city. In recent years, the Senior Education Support Service System has played a significant role in promoting the development of senior education in Shanghai. It has become an integral part of the city's Senior Education sector. The establishment of the Shanghai Elderly Education Curriculum Research and Evaluation Guidance Center in 2020 further expanded the scope of senior education support services. Establishing the system of 12 municipal-level Senior Education Support Service Guidance Centers in Shanghai is supposed to be a national initiative.

I. Development Context

The increasing levels of aging in Shanghai have led to a significant increase in the demand for senior education. In order to satisfy the diversified learning needs of the elderly, there is an urgent need for the flow and sharing of resources such as curricula, teachers, and teaching materials, as well as the guidance and assistance of professional guidance organizations. The construction of a support service system for senior education aims at building a powerful platform for gathering high-quality social resources, promoting the effective flow of high-quality educational resources, and enabling the development of senior education in Shanghai to reach a "qualitative leap" while making a "quantitative breakthrough".

I) Phase for pioneering

Shanghai began planning and laying out the construction of the senior education support service system as early as the 12th Five-Year Plan period. In 2011, the “12th Five-Year Plan for the Development of Senior Education in Shanghai” mentioned the implementation of the “One · Ten · Hundred · Thousand · Ten Thousand” project under the “main projects for the development of senior education”. The “ten” in the plan refers to establishing 10 centers with functions such as theoretical research, policy research, curriculum development, teacher training, information management, and international exchanges. These centers together constitute the citywide elderly education support service system. The comprehensive top-level design of Shanghai’s elderly education support service system provides all-around support, guidance, and services for developing elderly education in Shanghai, setting a unique example in the development of elderly education nationwide.

According to the requirement of “building a support service system for senior education in Shanghai” in the “12th Five-Year Plan for the Development of Senior Education in Shanghai”, under the organizational leadership of the Lifelong Education Department of the Municipal Education Commission, the Municipal Office of the Working Group for Senior Education started the construction of a professional guidance center for senior education in 2012, relying on universities, municipal universities for the elderly, district and county education bureaus and social organizations. The establishment of 11 centers, including the Team Guidance Center, the Industry Guidance Center for Senior Education, the Senior Education Information Center, and the Teaching and Research Guidance Center for Senior Education, has been completed after more than two years of operation and improvement. After more than two years of operation and improvement, during the 12th Five-Year Plan period, the 11 senior education support service guidance centers started the construction of the municipal senior education teacher pool. They constructed a three-tier network of “municipal key teachers, district-level professional teachers, school-level full-time and part-time teachers and volunteers”, with a total of 639 teachers and volunteers. A total of 639 teachers’ information has been recorded in the database, and more than 7,000 people have participated in the training; 100 popular teaching materials for senior education in Shanghai have been developed, forming a four-in-one teaching material model of paper books, e-books, online classrooms and mobile classrooms with wireless terminals. We

have published the first set of large-scale and official electronic reading materials for senior education in China and launched the first learning App for displaying senior education resources in China. The senior education system, centered on capacity enhancement and internal development, has been further improved.

The Shanghai Senior Education Support Service System has provided professional services for the whole city in theoretical research, teacher training, professional guidance, achievement demonstration, curriculum construction, teaching materials development, team cultivation, and informatization construction, etc. It has become an effective policy measure to boost the development of Shanghai's senior education. It is also a significant innovation in the national mechanism for developing senior education.

II) Phase for pushing forward

The 13th Five-Year Plan period is the one of in-depth promotion and continuous development of the support service system for senior education in Shanghai. "The 13th Five-Year Plan for the Development of Senior Education in Shanghai" (the "Plan") put forward the requirements to improve the support service system of senior education and enhance the professional level and service capacity of each guidance center for senior education. It specifically emphasized the need to "build a support service system for senior education and promote the internal development of senior education". At this stage, the 11 guidance centers for senior education support services have continuously strengthened their construction, improved their organizational structure and service functions, innovated their service projects, and focused on giving play to their guidance and service capabilities while strengthening their own construction, contributing to the development of grassroots senior education institutions in Shanghai.

The Municipal Group Office fully utilized its leadership and coordination function, emphasizing the nurturing of the 11 support service guidance centers for senior education. At the beginning of each year, the work points issued would specify the construction of the 11 centers as a special task. Emphasis is placed on improving the construction of the support service system for senior education, strengthening the functions of the centers, upgrading the level of specialization and service capacity, and guiding and promoting the work of the city's senior education in the professional field. The centers should focus on the major projects put forward in the Plan and the

requirements put forward in the Work Points, perform their functions, do their part, coordinate, play the role of municipal professional guidance, and complete the tasks set by the Municipal Education Commission. Through the annual meeting system, supervision and research, exchange seminars, plans, and summaries, the Office of the Municipal Group strengthens the guidance to the 11 support service centers for senior education. It promotes the exchanges and cooperation of the 11 support service centers for senior education in an in-depth manner. The Shanghai Elderly Education Curriculum Research and Evaluation Guidance Center, established in 2020, has carried out a series of effective work in building Shanghai's senior education curriculum system, researching major issues in the field of Shanghai's senior education curricula, building and evaluating Shanghai's senior education curricula, developing a team of professionals in Shanghai's senior education curriculum building, and promoting international exchanges and cooperation, filling the vacancies of Shanghai's senior education support service system in the fields of curriculum evaluation and international exchange. During the 13th Five-Year Plan period, the support service system of Shanghai's senior education played a further role, forming a working pattern for the collaborative promotion of senior education.

III) Phase for comprehensive development

Entering a new phase of development, the “14th Five-Year Plan for the Development of Senior Education in Shanghai” puts forward the basic work idea to “further improve the support service system of senior education, enhance the service level of senior education, and expand the coverage of senior education”. From the viewpoint of the main tasks and promotion plans of the 14th Five-Year Plan, the functioning of the support service system of senior education has already covered all the work of the development of senior education in Shanghai. The achievement of the goals and tasks of the 14th Five-Year Plan cannot be separated from the organization, coordination, guidance, and service functions of the 12 support service centers for senior education.

From its development path, we can see that the system has gone through a journey “from nonexistence to existence and from existence to refinement”. In the 13th Five-Year Plan period, the goal is to improve the professionalism and service capacity of the guidance centers for senior education. In the 14th Five-Year Plan period, the rapid

development of senior education in Shanghai has given the 12 senior education support service centers the goal of upgrading the level of senior education services, which puts forward higher requirements and expectations for the deepening of the comprehensive development of senior education support service centers.

II. System Building

At present, among the 12 centers in the city, the Shanghai Elderly Education Curriculum Research and Evaluation Guidance Center was established in 2020, and there is no relevant data during the 13th Five-Year Plan period. The funding and personnel situation of the 11 centers are as follows: There are special funding inputs, and the main source of funding is the special funding from the Lifelong Education Department of the Municipal Education Commission, with an annual funding input of about 6 million yuan, and a total funding input of 34.703 million yuan during the 13th Five-Year Plan period (see Table 4 – 1); there is a relatively complete work team, most of them are part-time by the personnel of the contracting units, and the 11 centers have 48 staff members on duty at the moment (see Table 4 – 2); the positioning of the functions and responsibilities is relatively clear, and the 12 centers are able to carry out their work in accordance with the positioning of their functions and duties (see Table 4 – 3).

Table 4 – 1 Summary of Funding Inputs for the 11 Centers (2016—2020)

Name of the Center	Annual Input Funding (in ten thousand yuan)					Total(in ten thousand yuan)
	2016	2017	2018	2019	2020	
Industry Senior Education Guidance Center	20	20	20	20	20	100
Guidance Center for Quality Education at Elderly Schools	20	25	25	30	30	130
Senior Education Teacher Training Center	60	100	100	50	50	360
Senior Education Theory Research Center	10	13	20	20	18	81

Continued

Name of the Center	Annual Input Funding (in ten thousand yuan)					Total (in ten thousand yuan)
	2016	2017	2018	2019	2020	
Senior Education Guidance Center for Teaching and Research	0	30	30	20	20	100
Senior Education Teaching Material R&D Center	300	200	200	145.5	120	965.5
Senior Education Information Center	60	80	100	90	90	420
Senior Education Learning Achievement Exhibition Center	10	10	10	10	3.8	43.8
Senior Education Guidance Center for Art Education	75	95	75	80	30	355
Senior Education Learning Team Guidance Center	100	100	80	80	55	415
Distance Senior Education Learning Guidance Center	100	100	100	100	100	500
Total Funding	755	773	760	645.5	536.8	3,470.3

Table 4-2 Summary of Staffing of the 11 Centers (2020)

Name of the Center	Staffing Situation			Total
	Director	Deputy director	Other staff	
Industry Senior Education Guidance Center	1	1	1	3
Guidance Center for Quality Education at Elderly Schools	1	1	2	4
Senior Education Teacher Training Center	1	1	3	5
Senior Education Theory Research Center	1	1	4	6
Senior Education Guidance Center for Teaching and Research	1	1	2	4
Senior Education Teaching Material R&D Center	1	1	5	7
Senior Education Information Center	1	1	5	7

Continued

Name of the Center	Staffing Situation			Total
	Director	Deputy director	Other staff	
Senior Education Learning Achievement Exhibition Center	1	1	0	2
Senior Education Guidance Center for Art Education	1	1	2	4
Senior Education Learning Team Guidance Center	1	1	1	3
Distance Senior Education Learning Guidance Center	1	1	1	3
Total Staffing	11	11	26	48

Table 4-3 Positioning of Functions and Responsibilities of the 12 Centers

Name of the Center	Positioning of Functions and Responsibilities
Industry Senior Education Guidance Center	In accordance with the requirements of the city's senior education work, relying on the advantages of Shanghai Retired Workers' University, and according to the actual work and needs of senior education in the industry units, to provide support in terms of curriculum, teachers, display and exchange, etc., to realize the sharing of resources; relying on the network resources of the Municipal Federation of Trade Unions and the Municipal Retirement Management Committee, to build a network of the industry's senior education team to provide guidance and services to promote the work of the industry's senior education continuously.
Guidance Center for Quality Education at Elderly Schools	To understand the quality education work of the city's various types of schools for the elderly and guiding the city's various types of schools for the elderly at all levels to infiltrate the concept of "quality education" into senior education.
Senior Education Teacher Training Center	To undertake the city's senior education management cadre training, teacher training, training materials construction, teacher pool construction, and other work responsibilities.
Senior Education Theory Research Center	In-depth practice of senior education, revealing the objective laws and essential features of senior education and promoting the great prosperity and development of senior education. In addition to strengthening its theoretical research, it will also be responsible for planning, coordinating, and guiding scientific research on senior education in Shanghai, giving full play to its functions of research, service, coordination, radiation and innovation.

Continued

Name of the Center	Positioning of Functions and Responsibilities
Senior Education Guidance Center for Teaching and Research	To conduct research on education and teaching research, construct and improving the team of teaching and researchers in senior education, carry out research on the evaluation of teaching in senior education, and carry out research on the mode and effectiveness of teaching in senior education.
Senior Education Teaching Material R&D Center	“Taking the national will as a leader, regional characteristics as a grip, and the needs of the public as a starting point”, educational materials for the elderly with Chinese characteristics and unique features of Shanghai are developed to lead and cater to the varied learning needs of the elderly. In response to the growth needs of elderly education, research is conducted on the current state of educational materials for the elderly in the city, refining the development standards, guidelines, and processes. The citywide development of educational materials for the elderly is guided, managed, serviced, and coordinated.
Senior Education Information Center	To establish a system of data collection, management, and application of IT data for senior education in Shanghai, build an IT platform to enhance the management capacity of senior education institutions and provide professional services for senior education institutions throughout the city.
Senior Education Learning Achievement Exhibition Center	To conduct city-wide research on the showcase events and venue conditions of universities for the elderly at all levels (including branch schools) and district/county elderly universities throughout the city. To hold seminars on the results of the exhibition, summarize and promote advanced experience, and take the initiative to provide guidance services for the display of activities in the districts and counties; collection and release of the city’s results of the city’s senior education activities to promote the results of the city’s senior education to display the network construction; to organize collection and selection activities of learning achievements and excellent art works of Shanghai senior education, and compile and print a selection of excellent works; to do a good job of “Shanghai Senior Education Learning Achievements Exhibition Hall”, and organize a number of exhibitions of excellent learning achievements of the city’s senior education every year, combined with on-site demonstrations, expert lectures and evaluation and other means to make the “Exhibition Hall” a place for the majority of elderly people to show their achievements. The “Exhibition Hall” has become a platform for most older people to display, learn, and communicate; it plays a leading role in organizing and managing exhibition activities.
Senior Education Guidance Center for Art Education	To further make elderly art education in Shanghai active and prosperous and play a role in promoting the construction of a learning city in the city.

Continued

Name of the Center	Positioning of Functions and Responsibilities
Senior Education Learning Team Guidance Center	To explore measures and methods to optimize the cultivation of learning teams; to do a good job of cultivating, coaching, and identify learning teams for the elderly in Shanghai; to train the managers, team leaders, and business instructors of the city's learning teams for the elderly; to set up a platform for demonstrations and exchanges, and organize demonstrations and exchanges at different levels.
Distance Senior Education Learning Guidance Center	To deepen the establishment of a digital support service system for the education and teaching of the elderly, accelerate the informatization process of distance senior education, expand the coverage of distance education, upgrade its connotation, strengthen its services and guidance, and provide diversified, personalized and high-quality distance education services for the elderly.
Senior Education Curriculum Research and Guidance Evaluation Center	To build a curriculum system for senior education in Shanghai, study major issues in the field of senior education curriculum in Shanghai, evaluate the construction of senior education curriculum in Shanghai, cultivate a professional team for the construction of senior education curriculum in Shanghai, and carry out international exchanges and cooperation.

The development of the support service system for senior education in Shanghai cannot be separated from the top-level design and support provided by the Lifelong Education Department of the Shanghai Municipal Education Commission (SMEC) to the 12 support service centers for senior education, as well as the specific guidance and operational support provided by the Office of the Shanghai Municipal Working Group on Senior Education to the 12 centers. The Lifelong Education Department of the SMEC and the Office of the Shanghai Municipal Working Group attach great importance to the work of the centers and often have experts come to the centers in person to provide guidance, solve problems, and give directions so that the work of the centers can be carried out more smoothly. In order to standardize the work of the centers and clarify their responsibilities, the Municipal Team Office issued the “Compilation of the Work Responsibilities of the Centers of the Municipal Senior Education Support and Service System” (draft for comments) in June 2013, in which the responsibilities of the 11 centers of the Shanghai Municipal Senior Education Support and Service System were specifically stipulated. In addition, the office of the group holds a regular meeting at the beginning of each year and issues the main points of the work of senior education to further define the work tasks of the centers in the current year. The all-around support

for the work of the senior education support service system at the municipal level has played an important role in comprehensively upgrading the service level of senior education in the city and promoting the work of senior education. After 10 years of development, the main experiences of the senior education support service system in terms of top-level design and organizational structure are as follows.

I) Rigorous system-building procedure

The 12 support service centers for senior education constitute a relatively complete system of support services for senior education. The formation of each professional guidance center is carried out in strict accordance with the procedure as follows: “investigation and research → public solicitation → grassroots declaration → expert validation → government approval → publication and naming of the center → awarding a license → establishment, and operation of the center”, ensuring that there is a basis for approval, a guarantee of work, and a prospect for development.

II) Robust policy support

In order to ensure the effective operation of the support service system for senior education, the Shanghai Municipal Education Commission (SMEC) attaches great importance to it and has been vigorously promoting it. Holding regular and irregular seminars, citywide promotion meetings, and special working meetings, it has greatly mobilized the enthusiasm of the grassroots units and strengthened their confidence and determination in building the system. The SMEC has allocated funds for project initiation, annual work funds, and special funds to ensure the normal development of the 12 centers.

III) Strict process management requirements

According to the work deployment of the Lifelong Education Department of the SMEC, the Office of the Municipal Senior Education Group is responsible for coordinating and guiding the construction of the support service system and requires that each professional guide “face the whole city and provide services”, clearly define the work responsibilities, and formulate the construction plan, so as to have a plan at the

beginning of the year and a summary at the end of the year.

III. Actions and Outcomes

I) Demonstration of leading role

Shanghai launched the construction of a “support service system for senior education” in 2012 and set up 11 support service centers for senior education during the 12th Five-Year Plan period, covering various levels such as team learning, literacy enhancement, theoretical research, teaching material development, curriculum development, remote guidance, achievement display, industry guidance, information construction, teacher training and art guidance, forming a government-led situation with the participation of all parties. These centers cover team learning, literacy improvement, theoretical research, teaching materials development, curriculum development, remote guidance, results display, industry guidance, information construction, teacher training, art guidance and other aspects required for the development of senior education, forming a government-led, all-parties-involved senior education support service system. During the 13th Five-Year Plan period, the support service system has been further improved, relying on the strong educational resources of East China Normal University and its college for the elderly, expanding the team of the support service system for senior education, and giving full play to the functions of curriculum research and evaluation guidance.

The exploration of the construction of the support service system for senior education in Shanghai has opened up a new situation in the development of senior education, played a leading role in the field of senior education in the whole country, provided replicable and referable experience for the development path and institutional mechanism innovation of senior education in the whole country, and is at the leading level in the world. The centers take the planning as a guide and make the construction and development plan of the centers in the actual work, which is well in line with the superior requirements of the development of senior education, and at the same time pay attention to the investigation and research, which realizes the function of the government’s decision-making and consulting, and embodies the policy orientation.

II) Demonstration of guiding service role

The senior education support service system mainly refers to the support services provided by the government, schools for the elderly and communities to meet the learning needs of the elderly and promote the development of senior education, thus forming an interconnected and mutually supportive system. Twelve support service centers for senior education were initially constructed to make use of the professional strength, give full play to the centers' function of overall planning and organization, carry out relevant senior education work, and provide good guidance and service to the grassroots senior education institutions, so as to improve the overall level of senior education in Shanghai. The initial purpose of building the 12 centers is to utilize professional strength, give full play to the centers' functions of coordinating and organizing, carry out relevant senior education work, and provide good guidance and services to grassroots senior education institutions to improve the overall level of senior education in Shanghai.

In the course of actual operation, the 12 support service centers have well integrated the resources of the contractors, clearly guided and served the development of the city's senior education, and played an important role in promoting the development of Shanghai's senior education in the areas of team building, resource development, and publicity and display. The centers play the function of "communicating upwards and downwards"; upwards, they are able to fulfill the requirements of the Lifelong Education Department of the SMEC and the Municipal Senior Education Group Office to carry out the relevant work in their respective fields; downwards, they are able to do a good job of explaining the policies of the higher-level authorities, leading the way in the methodology and path of senior education, and cultivating the talents of the senior education team and other relevant tasks. Based on the special work, the centers provide guidance and services to the whole city, expanding the learning forms of senior education, enriching the learning contents, and demonstrating the effectiveness of learning at the municipal level.

III) Fulfillment of the role of integrating theory and practice

In terms of functioning, the 12 support service centers for senior education focus on the key development direction of senior education in Shanghai, and each of them

performs its own functions, implements the development plan and work points of senior education in Shanghai, and formulates the work plan, guideline, and program in its own professional field. Twelve support service centers for senior education perform their functions not only by providing guidance and service for the enhancement of the capacity of the grassroots senior education institutions, but also by undertaking the function of researching senior education, transforming practical experiences into summaries of the theoretical achievements of senior education and corresponding working mechanisms. While the centers are based on their own functions, they emphasize the importance of theoretical research, constantly strengthen the research of related theories and team building, carry out experimental projects and research, and train their teams. There is collaboration and division of work, which not only provides the government with a basis for decision-making, but also further promotes the reflection, exploration, and improvement of the work of the centers in this field and optimizes and enhancing the services of the centers by taking theories as a guide, which strongly promotes the high-level and forward-looking development of the senior education in the city.

IV. Experiences and Innovations

I) Expanding the connotation of senior education with guidance services

The traditional curriculum-based approach to senior education no longer meets the diverse learning needs of the elderly in the context of an aging society. In recent years, all centers have grounded their work in specific tasks, guiding and serving the elderly with education-related work at the municipal level. They have expanded the forms of senior education, enriched the content, and showcased learning outcomes. Through various forms such as team learning, performance exhibitions, distance learning, achievement exhibitions, and course deliveries, they have organized learning activities for the elderly. This has, in effect, alleviated the high demand for such educational opportunities, exemplified by the phrase “hard to find a seat”. For instance, the industry guidance center for senior education has set up three branches of Yangpu District Retired Teachers’ Association, Postal Service, and Marine Petroleum, which

has been effective in promoting the construction of senior education institutions; the team guidance center has cultivated 29,643 star-rated elderly learning teams during the period of the 13th Five-Year Plan, and the number of such teams has increased to over 1,000. During the 13th Five-Year Plan period, the Team Guidance Center has cultivated 29,643 star-level senior learning teams, covering 16 districts in Shanghai, including four municipal senior universities. The Art Education Guidance Center and the Learning Achievement Exhibition Center have provided more elderly people with opportunities to participate in rich and colorful senior education courses and activities through art shows and exhibitions; The Learning Achievement Exhibition Center held 65 exhibitions of various kinds during the 13th Five-Year Plan period, displaying 6,050 pieces of artwork, involving 4,050 authors and 36,000 spectators, and providing a platform for the elderly to learn and learn. The Art Education Guidance Center organizes art festivals at all levels, with 671 municipal performance teams and more than 12,000 performers participating, and more than 550,000 participants from other senior schools at all levels and all types of art festivals. The twelve centers play a role in accordance with their functions, expanding the coverage of senior education in all dimensions.

II) Promoting the integration of resources and functions through the use of contractors

From the very beginning of their establishment, the 12 centers have relied on the resources of their hosting institutions, such as staff, venues, funds, equipment, and professional advantages, to integrate resources and functions for elderly education. The high attention paid by the hosting institutions has effectively promoted the development level of the centers. For example, the Teacher Training Center, leveraging the high-quality resources of Shanghai Normal University, has played a role in overall planning, organization coordination, professional guidance, and service enhancement. It has carried out tiered training for elderly education teaching staff across the city and organized senior professors from Shanghai Normal University to compile training materials, reflecting the university's brand and teaching advantages. Overall, the hosting institutions have given high priority and substantial support to the construction of the centers, which is the foundation for their smooth and stable operation.

Table 4 – 4 List of 12 Centers and Their Entity Units

Name of the Centers	Entity Units
Industry Senior Education Guidance Center	Shanghai Retired Staff University
Guidance Center for Quality Education at Elderly Schools	Shanghai Retired Cadre University
Senior Education Teacher Training Center	University for the Elderly, Shanghai Normal University
Senior Education Theory Research Center	Shanghai University for the Elderly
Senior Education Guidance Center for Teaching and Research	Baoshan Spare-time University
Senior Education Teaching Material R&D Center	Pudong New District Community College
Senior Education Information Center	Xuhui Spare-time University
Senior Education Learning Achievement Exhibition Center	Shanghai University for the Elderly
Senior Education Guidance Center for Art Education	Shanghai University for the Elderly
Senior Education Learning Team Guidance Center	Putuo District Senior Education Group Office
Distance Senior Education Learning Guidance Center	Shanghai Learning Society Construction Service Guidance Center
Senior Education Curriculum Research and Guidance Evaluation Center	University for the Elderly, East China Normal University

III) Improving the support and service system for senior education by building sub-bases and sub-centers

In the face of the city's strong demand for professional guidance and services for senior education in the face of limited resources, a number of centers are actively tapping into quality resources in their own fields, especially those senior education institutions that have the ability, intention and enthusiasm to establish sub-bases and sub-centers, and are actively playing up the advantages of the sub-centers in order to

expand the radius of their own services and their service levels. For example, the Industry Senior Education Guidance Center has set up 6 sub-centers and 13 industry branches, establishing a relatively close organizational structure; the Theory and Research Center has set up 11 bases to promote grassroots research on education for the elderly comprehensively; and the Learning Team Guidance Center has set up 4 incubation bases for Shanghai's geriatric learning teams, constructing an Internet network covering the construction of learning teams in the city. The Teacher Training Center has set up 16 training sub-centers and five training bases, giving full play to the strengths and enthusiasm of senior universities in various districts and universities while carrying out training in different levels, classifications and regions, with a more scientific and reasonable layout; the Quality Education Guidance Center has set up 26 practice bases for quality education as well as two experimental zones, giving full play to the role of the practice bases in promoting quality education for the elderly as a model for the elderly. The Quality Education Guidance Center has set up 26 quality education practice bases and two experimental areas, giving full play to the role of the practice bases in promoting quality education for the elderly in the city.

IV) Promoting high-level and forward-looking development of education for the elderly by taking theory as a guide

When basing itself on the function of its responsibilities, each center is supposed to pay attention to the combination of theory and practice, actively carrying out research on the subject. Each center actively explores the combination of the theoretical research results of education for the elderly and the actual work of the center, guides the practice with theory, verifies the theory with practice, and has achieved remarkable results. For example, the Theoretical Research Center publishes the guidebook of research topics, declares and establishes projects and evaluates them by experts every year, and completes 110 projects during the 13th Five-Year Plan period and recognizes 65 outstanding projects; the Teaching Research and Guidance Center promotes the construction of curricula and teaching materials, pays attention to the development and application of featured curricula, and fosters the innovative modes of teaching and learning; the Teacher Training Center implements the part-time teaching of education for the elderly in Shanghai and provides training for teachers. The Training Center

implements the registration system for part-time teachers in Shanghai's education for the elderly by combining theory and practice to form the "Shanghai Education for the elderly Part-Time Teacher Registration System", has primarily built the talent database of the education for older adults, and practices the registration system for part-time teachers. There are now 5,032 part-time teachers, greatly expanding the resources of Shanghai's education for the elderly faculty and providing an early and pilot demonstration of the registration system for part-time teachers of education for the elderly in the country.

V) Branding as the focus of work to improve the radiation strength of education for the elderly

Relying on the resources and professional advantages of the organizers, the centers have supported the relevant education activities for the elderly and attached importance to the publicity of education for the elderly activities. Many centers have explored the branding of education for the elderly in practice, and the activities they have carried out have become branded projects of Shanghai education for the elderly, enhancing the influence of education for the elderly, for example, the "Hundred Principals Reading Class" brand of the Teacher Training Center, the "Green Boat Forum" and "Green Book" brands of the Theory Research Center, the "Green Pine Forum" of the Quality Education Guidance Center, and the "Green Pine Lecture Hall" of the Shanghai Education for the elderly Center. The "Green Pine Forum" brand of the Quality Education Guidance Center, the "Reading and Cultivation Famous Artists' Forum" brand of the Learning Team Guidance Center, and the "BOC Evergreen Cup Song and Dance Exhibition" brand of the Art Education Guidance Center have fully demonstrated and reflected the development of Shanghai's education for the elderly. These programs have fully demonstrated and reflected the level of development of education for the elderly in Shanghai. The Art Festival organized by the Art Education Guidance Center attracts more than 10 important media reports in Shanghai every year. The Learning Achievement Exhibition Center has repeatedly made use of the opportunity of the "9 September Festival" to insert calligraphy, painting and photography exhibitions and has held a roving exhibition in the Shanghai Science and Technology Museum. The "Online Exhibition Hall" video produced by the center has opened the "Exhibition Hall" section in the Shanghai Education for the Elderly Network, expanding the

influence of education for the elderly.

VI) Fulfilling the function of integrated planning, guidance and coordination, and achieving significant work efficiency

Based on the functions of their work, the 12 centers clarify the direction of their work and initiatives and focus on their work objectives, launching wide-ranging campaigns, organizing carefully, and promoting key projects in an orderly manner, expanding the coverage of education for the elderly in all dimensions. The centers have organized and promoted key projects in an orderly manner, expanding the coverage of education for the elderly in all dimensions. The guidance and service of the centers has played an important role in improving the quality of education for the elderly. For example, the Learning Achievement Exhibition Center organizes about 15 exhibitions every year in its exhibition hall. The Learning Achievement Exhibition Center holds about 15 exhibitions every year, displaying 1,600 pieces of work, with more than 800 exhibitors and more than 8,000 visitors every year. The number of visitors reaches more than 8,000 each year. The Teacher Training Center will hold 187 training sessions in 2018—2020, with 18,739 participants. With the registration system for part-time teachers of education for the elderly, through real-name registration, online and offline training, qualification examination and registration, a total of 5,032 qualified persons have obtained the certificate of part-time teachers of education for the elderly in Shanghai. The Education for the Elderly Teaching Material R&D Center emphasizes the theoretical research of teaching material development and actively explores the rules and research process of teaching material development for the education of the elderly in combination with practice. This has guided grassroots elderly education textbook research and development.

IV. Future and Prospects

At present, the 12 support service centers for education for the elderly have covered all aspects of the development of education for the elderly. In order to cope with the rapid development of education for the elderly, the city's education for the elderly

support service system should focus on the long term, strengthen the top-level design, further implement the functions of overall planning, organization and coordination, and guidance services, so as to promote the education for the elderly support service system to make new progress in the 14th Five-Year Plan period.

I) Further specifying the functions and positioning of the centers

Each center should further specify its functional positioning, rationalize the relationship between the center and the contractor, clarify the difference between the center and other centers, and specify the main functions and fundamental responsibilities of the center; they should enhance the sense of service, shift the center of gravity of the work, and provide targeted and precise services for the schools at all levels; and the center's team members should improve their knowledge structure, enhance their professionalism, and improve their guiding ability.

II) Further strengthening the construction of the centers

All centers should continue to fully understand the important position of Shanghai's education for the elderly work both at the local level and nationwide level, effectively play the role of demonstration and leadership, standardize the work requirements of the Municipal Education Commission and the Municipal Office of the Panel, strengthen the responsibility, strengthen the work initiatives, and intensify the work; further strengthen the leadership, give full play to the business advantages of the contracting units and the resource advantages, strengthen the strength, and promote the sustained development of Shanghai's education for the elderly.

III) Further developing service guidance mechanisms

All centers should further bring the function of guidance services into play, extend their work to the grassroots level, focus on sinking the center of gravity of their work, and strengthen the construction of mechanisms for the centers, including the construction of the necessary systems, team building, and so on. In particular, a three-tiered service and guidance network should be formed to ensure that top-down and bottom-up channels for guidance and feedback are open and to build a bridge

between government decision-making levels and grassroots institutions of education for the elderly.

IV) Further promoting the integration of functions and sharing of resources among the centers

Each center should do a good job of docking and synergy in team training, theoretical research, data statistics and other special operations, and strengthen the interaction and linkage between related centers to maximize the effectiveness of all resources. They should improve work efficiency, form a linkage mechanism between centers and a strategic idea of “one game plan” for the support services of Shanghai’s education for the elderly, and promote the integration of related functions and the integration and sharing of related resources.

V) Further exploring innovative development mechanisms for the work of the centers

The centers will continue to explore and strive to form a better development mechanism. While relying on the work of the contractors, they will raise their position, place the work of the centers in the city’s education for the elderly level, and in undertaking the specialized field of education for the elderly, they will play the role of a model for the city in terms of guidance, support, and service. At the same time, it will strengthen theoretical research and carry out experimental projects and case studies on the guidance and service of education for the elderly.

VI) Further expanding the publicity and outreach of the centers’ work

Publicity is the driving force of development. The excellent experience and typical cases of Shanghai’s education for the elderly support service system need to be comprehensively summarized and vigorously publicized to give full play to its exemplary leading role. At present, the work of the centers has been promoted for many years, recipients’ degree of knowledge and satisfaction remains to be considered, the future still needs to strengthen the centers’ work of publicity, to expand its influence and radiation further, so that more social forces should pay attention to and support the

education for the elderly in Shanghai.

(Note: Acknowledgement to the data provided by the twelve centers of education for the elderly support services in this article.)

(Written by Pei Lei and Wan Rong)

Chapter Five

The Open University Serves Lifelong Learning for All as a Platform

Shanghai Open University

Abstract: In the globalization and information age, knowledge and skills are constantly changing, learners' demand for lifelong education is increasing, and higher education institutions (HEIs) are facing many new challenges and opportunities when implementing lifelong education. In the past few years, Shanghai Open University (SOU), in collaboration with the UNESCO Institute for Lifelong Learning (UIL), has conducted a data-based research and evaluation on "how HEIs transform into lifelong learning institutions", which has achieved fruitful results. At the same time, based on China's national conditions and the characteristics of Shanghai's development, SOU has explored ways to serve learners' lifelong learning better and gradually build SOU as a platform university.

Keywords: platform university; lifelong learning institution; transformation strategy; challenges; opportunities

I. Shanghai Open University: A New Type of Higher Education Institution (HEI)

With rapid economic and social development in China, higher education has continued to make progress. In 2021, the gross enrolment rate in higher education reached 57.8%. People's learning needs are gradually shifting from academic education to their sustainable development. Lifelong learning has become an important approach to achieving the goal.

The national education system mainly provides formal education for all school age groups, including pre-school education, primary education, secondary education, and higher education. In China's lifelong education system, there are also various types of post-vocational education, focusing on the comprehensive learning needs and quality improvement of multiple subjects and then serving the lifelong learning and development of every member of society. Adult colleges and universities are also higher education institutions in our country, which can provide systematic knowledge and abundant resources and play an irreplaceable role in serving lifelong learning.

Shanghai Open University (SOU), as an HEI for adult learning, has transformed itself into a new type of university serving lifelong learning. The predecessor of SOU was Shanghai TV University, established in 1960. It was one of the earliest HEIs in China that delivered distance education for adults through radio and television. It mainly provided compensation education for adult learners, which addressed the skill demands of industries and the labor market. With the requirement of building a learning society in Shanghai, Shanghai TV University officially changed its name to Shanghai Open University in 2012, committed to building into a new type of university that offers academic education, non-academic education, and community education for adult learners, and serves lifelong learning for all. SOU is not a traditional HEI but a university that contributes to the city's development and enables lifelong learning for anyone at any time and anywhere.

President Xi emphasized at a national education conference that "We need to establish more open and flexible education for everyone. We should strive to make learners' educational choices more diverse, their growth paths more broad, and the channels for academic advancement, career advancement, and social advancement

more smooth”. This is the essential role of SOU as a lifelong learning institution.

II. Strategic Reflections on the Transformation of SOU

Since 2012, SOU has been going through a ten-year journey of exploration and transformation. During this decade, the university has gradually realized that the use of radio, television and the Internet can provide opportunities for people who have not obtained higher education for various reasons to realize their dreams to achieve their dreams, and provide support for the academic promotion of talents from all walks of life. Today’s open universities should not only provide diploma continuing education, but also serve lifelong learning and lifelong development for all, which involves the transformation of educational mission, functions, content, approaches and management.

The first is the mission transformation, that is, from the original degree compensation education to serve people’s lifelong learning development. Open universities should not only address the issue of adult continuing education, but also help learners to improve their competitiveness in the labor market, their lifelong learning abilities, and their holistic development, enabling them to achieve a more brilliant life and a better self with their efforts.

The second is target transformation, that is, from training application-oriented professionals to improving the quality of various groups of people. Open universities should not only train professionals from all walks of life to meet the market needs but also expand the scope of services and provide every citizen with high-quality educational resources and personal development services.

The third is functional transformation, that is, from a single higher academic education to continuing education, non-academic education, and community education. The open university is not only a simple platform for adults to pursue higher academic qualifications, but also a center that fosters the professional development of learners and enriches the cultural life of all citizens.

The fourth is the transformation of education mode, that is, from focusing on professional teaching and knowledge acquisition to meeting citizens’ diverse lifelong learning needs. The open university is faced with the diverse learning needs of different

groups, and the teaching method needs to be customized to each learner so that every learner can have a sense of personal achievement.

The fifth is the transformation of governance model, that is, building a lifelong learning service platform. The open university is more than a university providing open education for adults; it seeks to become a comprehensive platform reaching the whole city and promoting lifelong learning for all citizens.

Based on these strategic reflections, SOU has formulated a new development strategy: to establish a platform university focused on promoting the learning capacity of the city. This capacity represents the collective ability of residents to learn new ideas, new knowledge, and new skills and to enhance the city's development. In accordance with this, SOU needs to integrate into local development actively and contribute to a quality education, a quality life, and quality management.

III. The Role of SOU: A Platform University

SOU aims to build a platform university with broad coverage, various resources, accessible education, ubiquitous learning, and convertible learning outcomes. This vision has gradually come into focus while implementing the national and Shanghai development strategy for open universities. It is formed through the university's integration with urban development. It also presents a new role of open universities in the new era to support the lifelong learning education system for all.

From a long-term perspective, a platform university should have four major functions:

First, the strategic function, that is, to meet the national strategic requirements of establishing a lifelong learning education system, to support Shanghai's development role, and to reflect the mission of an open university to serve the economic and social development.

Second, the inclusive curriculum function, that is, to serve the diverse learning needs of various groups, break traditional boundaries among courses, programs, disciplines, and activities, and facilitate further integration of academic education, non-academic education, and community education.

Third, the innovative mechanism, which is to take advantage of the educational resource provision, the lifelong learning research and analysis, the RVA system (recognition, validation and accreditation system), and the branch school system of

SOU, to promote improvements of different platforms and systems.

Fourth, the function of technology support. It benefits from open and distance learning by using ICT and convergence media. It integrates education technology and education innovation and provides learners with a more personalized, more convenient, and more effective learning support.

To effectively perform these four major functions, SOU reinforces the construction of “five platforms”.

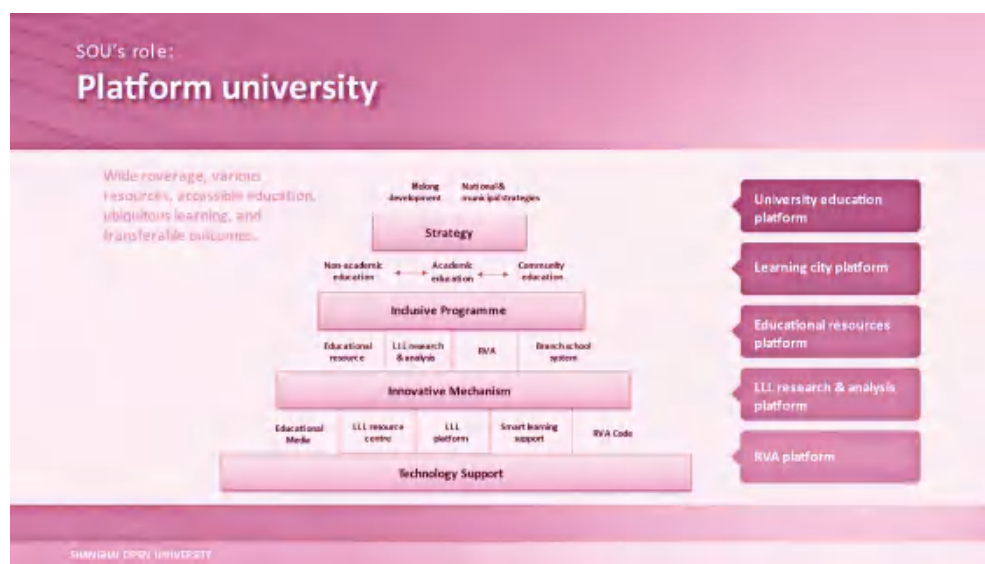


Fig. 5 – 1 The Role of SOU as a Platform University

I) The SOU EDU Platform: academic and non-academic educational opportunities for all

The education platform aims to ensure academic and non-academic educational opportunities for all and help every learner with better personal development. In terms of educational targets, SOU mainly focuses on non-traditional learners; most are working people, and also groups with special learning needs, such as people with disabilities, the elderly, new professional farmers and prisoners. In terms of the education system, the university primarily relies on a model of “One main campus + 44 branch campuses (learning centers)” to provide all citizens with convenient learning support. In terms of cooperation, the university actively collaborates with the government,

industries, enterprises, and other universities. In terms of teaching content, the university emphasizes people's livelihood and serves the development of society. In terms of teaching methods, it adopts a blended learning method that combines online, face-to-face, and smart learning approaches.

Currently, SOU offers 51 courses and has more than 80,000 registered students, making it the largest educational institution in Shanghai by student enrolment. With the support of ICT, the university's expertise in online education was clearly highlighted during the pandemic. For example, in the spring semester of 2022, the university provided 829 online courses and more than 1,400 live-streaming lectures, with over 1.16 million views (see Fig. 5-2).

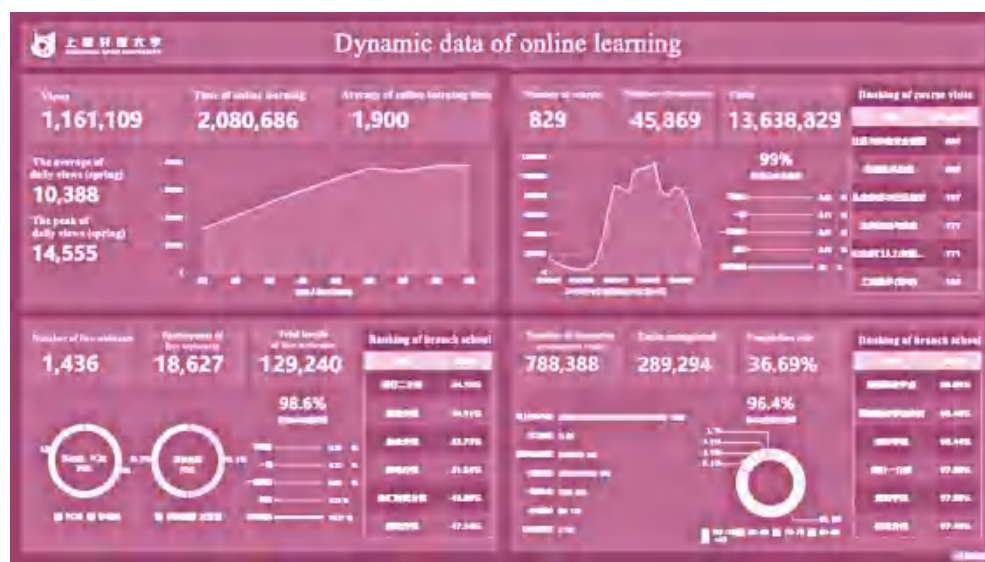


Fig. 5-2 Dynamic Data of Online Learning, Spring Semester 2022

II) Learning city platform: leisure culture education for all residents

The learning city platform established by SOU originated from the university's role as the Office of Service and Guidance Center for Learning Society Construction in Shanghai in 2007. The platform now aims to provide professional guidance to the citywide community education and ensure leisure study opportunities for all residents.

To achieve this, the university has taken action in five key aspects:

1) Learning centers: SOU has created a "15-minute learning circle", an

environment where residents can access learning resources within a 15-minute walk, including lifelong learning communities, lifelong learning villages, lifelong learning hubs, and lifelong learning cultural activities.

2) Courses: With the help of leisure study to strengthen citizens' learning in ICT, health, art, finance, science, and global citizenship.

3) Resources: SOU delivers educational resources to more than 400 lifelong learning institutions in the city.

4) Teachers: At present, there are more than 1,400 full-time teachers, over 50,000 part-time teachers, and over 100,000 volunteers involved in leisure culture education and service in the city.

5) Online learning platform: The university has developed an online learning platform for community education, which combines with smart learning interaction, learning outcomes accumulation and transfer, as well as research and analysis on learning needs and learning abilities.

Furthermore, SOU has launched a series of community education activities. For example, the “City Learning Academy — Lecture for Citizens” in 2021 attracted 1.55 million participants; more than 600,000 elderly people participated in “E-Class for the elderly” to learn how to use smart technology applications. The “Traditional Chinese Culture Activity” involved 133,000 people; and the “Community Learning Show” had 1,000 teams join the event (see Fig. 5-3).



Fig. 5-3 Community Education Activities

III) Educational resource platform; extensive lifelong learning resources for citizens

The supply of high-quality resources for lifelong learning is an important part of SOU. The platform is not only for registered learners but also for all walks of life.

Establishing the Shanghai Educational Resources Center and the Shanghai Lifelong Learning Network, SOU enhances the convergence and provision of quality resources. At present, Shanghai Educational Resources Center has 112,000 learning resources, 40.66 million visits, 17 partner institutions, and more than 200,000 resources shared with other institutions. Shanghai Lifelong Learning Network has over 5.4 million registered learners, over 340 million visits, 8,225 online learning teams, and 7.72 million topics.

Based on the Shanghai Educational TV Station (SETV) and the Radio Class on Ajmide, the university promotes the integration of television, radio, and other digital media. This supports citizens to learn independently in a flexible, accessible, and effective way, any time and anywhere (see Fig. 5-4).

IV) RVA platform; wide access and flexible pathway for lifelong learning

The RVA platform, built on the Shanghai Academic Credit Transfer and Accumulation Bank for Lifelong Education (the Credit Bank), enables learners an “overpass” to pursue their lifelong learning. Founded in 2012, the Credit Bank mainly provides services such as recording learning outcomes and learning certificates, accumulating and transferring learning credits, as well as the “Shenxue Code” (RVA Code) function (see Fig. 5-5). SOU is in charge of the Management Center of Credit Bank.

Currently, the Credit Bank has completed its first phase function, which is the accumulation of all learning outcomes. As of April 2022, the Credit Bank had 1.17 million users and 4.6 million learning records. In the near future, it will expand its coverage to all types of education and record more lifelong learning outcomes. In the second phase, it will develop the learning credit transfer function. To date, over 100,000 people have achieved credit transfer in the Credit Bank. Meanwhile, the Credit Bank is also exploring more functions of the “Shenxue Code”, to support the validation of learning outcomes and facilitate employment services for university students. It also aims to provide credit transfer and accumulation services for older people to increase their learning ability.



Fig. 5-4 Learning Resources



Fig. 5-5 Website of the Shanghai Academic Credit Transfer and Accumulation Bank for Lifelong Education (Screenshot captured on December 13, 2022)

V) Lifelong learning monitoring and research platform: for personalized lifelong learning service

The lifelong learning monitoring and research platform mainly concentrates on citizens' learning needs and learning abilities to improve resource quality and education delivery and to provide suggestions for decision-making.

The research approach of this platform involves a sampling survey of all citizens and analysis of the learning requirements of specific groups, such as the elderly, elderly care service professionals, artisans, childcare professionals, parents, and high-skilled professionals. SOU also conducts surveys on citizens' reading behavior and science education of senior people every year.

IV. SOU: Challenges and Reflections in the Transformation

In the transformation into a platform university, SOU faces many challenges.

First, the development of economy and industry calls for better education content. This requires open universities to offer more innovative, updated, and practical educational resources for learners.

Second, the innovation of information technology calls for further education reform. This requires open universities to adopt more extensive, flexible, and smart teaching methods.

Third, the diverse needs of non-traditional learners call for greater learning support. This requires open universities to provide more personal, professional, and effective learning support for learners.

Fourth, the complexity of lifelong learning services calls for better education governance. This requires an inclusive system, open cooperation, and quality service of an open university.

To address these challenges, SOU is constantly exploring new ways of development, with the requirements of a platform university and the aim of supporting learner's development. The university established a "flywheel model" (see Fig. 5 – 6) to facilitate the interlinked and cyclical development of all elements and processes. We hope

this model will help us to identify key issues in the development of the university and provide more effective lifelong learning services to meet the diverse learning needs.



Fig. 5 – 6 The Flywheel Model of SOU Development ¹

As shown in the figure, SOU places learners at the center, takes social needs as guidance, curriculum training as the carrier, professional development as the support, tailored teaching as the feature, and student experience as the evaluation standard, and promotes the integration, scale and quality of the school's education. Only by strengthening the multi-linkage of government, industry, market and society can we provide more effective lifelong learning and meet the needs of learners and society.

(The article is based on the presentation at the 3rd UNESCO World Higher Education Conference on May 18, 2022.)

(Written by Jia Wei)

¹ Jia Wei. Building a Platform University: Enhancing Learning Capacity of the City[A]. High-quality Development of the Open Universities: Reflections and Expectations. Open Education Research. 2022 (02): 4 – 10.

