

Analysis on the Path of Radiational Effect from High Quality School

Based on the Framework of Chengdu Regional Education Alliance

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Abstract—In order to realize the balanced development between urban and rural education, Chengdu has been taking the "regional education alliance" as an important point to promote the fair education, uniting urban high quality schools and rural poor schools and new schools and making use of the radiation function of urban quality schools with high quality education resources to promote the development of poor schools. This article aims to explore the practical path of radiation effect from high quality schools, deeply analyzing its advantages and disadvantages so as to better achieve the balanced development between urban and rural education.

Keywords—high quality school; path for radiation effect; regional education alliance

I. INTRODUCTION

National Outline for Medium and Long-term Education Reform and Development (2010-2020) points out that the balanced development of education shall be realized in the country in 2020, accordingly Chengdu, as a "Overall Urban and Rural Education Reform Comprehensive Pilot Area" shall be based on the circle layers of its own to drive the urban rural education integration in the perspective of whole Chengdu. However, seen from actual conditions of three circle layers in the city, the distribution of high quality educational resources are obviously unbalanced in three circle layers. Therefore, how to exert the radiation effect of high quality schools will have a profound practical significance.

II. MAIN RESEARCHES

With the urban and rural overall development and integration brought into state policies, a large number of scholars have conducted in-depth studies on the integration of urban and rural education and balanced development of quality resources.

Authorized management is a practical way for quality schools to drive poor schools. Yin Houqing¹ says that the system innovation and practical value of the authorized

¹ Yin Houqing, Authorized Management: Promoting the Connotation Development of Schools in Suburbs through Mechanism Innovation [J]. *Primary and Middle Schools Management*, 2014,05:6-7.

management is mainly reflected in four aspects: first, it breaks through barriers for the cross-regional flow of quality education resources; second, it well improves the management level and teaching effect of the poor schools; Three is to create a sustainable development of the school culture; four is to deepen the government departments to change the function, cultivate the professional education institutions; third, it creates school culture for sustainable development; fourth, it deepens the functional transformation of government sectors, fostering special institution for education. Based on the institutional construction, Deng Liang² raises that the construction of authorized management system of poor schools faces three major dilemmas, that is, dilemma of access and exit system, dilemma of evaluation system and dilemma of supervision system. Chen Xiaomin³ summarizes the practice of authorized management in the stage of compulsory education, starting from the system, he proposes to make an overall planning, adjust and improve the authorized management mechanism; deepen the research and promote the reform of government public service modes; seize the opportunity to promote the establishment of professional education evaluation service system; set up platforms to gather and cultivate high quality resources of education.

In the opinions of Li Jiangyuan and Xu Bing⁴, no doubt, the "famous-college group", which insists on people foremost and aims to meet the needs of high quality education of the people, is an efficient educational system design or arrangement which promote the fair education rapidly, realize the balanced development of urban and rural education and have teachers and quality teachers to teach.

² Deng Liang, Lin Tianlun, Construction of Authorized Management Systems in Poor Schools: Dilemma and Way Out [J]. *Education Science*, 2015,05:6-12.

³ Chen Xiaomin, Explore to Break Through the System Barriers, Copy and Enlarge the High Quality Education—Practice and Thought of School Authorized Management in the Stage of Compulsory Education [J]. *Research in Education Development*, 2011,06:12-17.

⁴ Li Jiangyuan, Xu Bing, Famous-School Group: A Well-going System Design to Promote the Fair Education [J] *Journal of Hebei Normal University [Educational Science Edition]*, 2013,11:11-23.

Sun Defang⁵ summarizes the school-running experiences of famous college group in Hangzhou, raising that it has running mechanism such as sharing system, articles of association system, supervision system and so on, and the most typical running modes include “famous colleges + new colleges” mode, “famous college + non-governmental colleges” mode, “urban-rural pair mutual community” mode and so on.

As the core factors of educational resources, the exchange and interaction between teachers are necessary part for research. Ke Ling and Zhao Yan⁶ rise that it is necessary to promote the exchange and interaction between urban and rural cadres and teachers and promote the exchange and interaction in teaching management research. Deng Pilai⁷ summarizes the practical and exploration experience of high quality teachers driving poor ones to improve the classroom leadership on the basis of teaching assistance at the High School Affiliated to Renmin University of China.

The hand-in-hand assistance between students is also an important way to balance the education. Ke Ling and Zhao Yan² also point out that during the practice of the urban and rural education interactive development alliance, the students shall be encouraged for multi-aspect development. And carriers can be adopted such as experience activities, art exchanges and technical observation and learning activities so as to organize students for exchanges. Besides, based on the hand-in hand activities, the student from pair colleges can set up friendly classrooms, arrange exchange students for learning and social practices and so on for exchange activities.

For sharing of educational resources under informatization, during the practice and exploration in Chengdu, Ke Ling and Zhao Yan² summarize to establish remote-distance video live, online teaching and research platform, online teaching and research, video conference, air e classroom and so on so as to well carry out the teaching and educational discussion activities. Relying on the automatic recording and broadcasting classroom, multimedia technique is used to achieve the four in one of “watch, dynamic, comment and share”. Deng Pilai³ raises that based on the construction and development of basic education network, online platforms, mobile clients, “double-teacher teaching” and so on, high quality education resources will be transmitted to the underdeveloped regions free of charge, through which, the teachers in poor schools will get more online resources to improve the leadership in classrooms.

⁵ Sun Defang, Analysis of Famous-School Group Promoting the Balanced Development of Compulsory Education—Based on Hangzhou Famous-School Group [J]. Journal of The Chinese Society of Education, 2011, 09: 8-11.

⁶ Ke Ling, Zhao Yan, Studies on Urban-Rural Interaction Development Alliance Mode—Based on Chengdu [J]. Education Research, 2013, 07: 155-159.

⁷ Deng Pilai, Exploring the Practice of Improving the Leadership in Classrooms through Driving the Poor by the Strong—Based on teaching assistance at the High School Affiliated to Renmin University of China [J]. Journal of The Chinese Society of Education, 2015, 08:96-100.

In conclusion, for the existing exploration practices, many scholars think that both the authorized management and pair assistance are paths for high quality schools to promote poor ones, and the mutual learning between students, teachers as well as resource sharing are also necessary. However, we do not think that all the ways and practical experiences apply to enhance the radiation effect of high quality schools in Chengdu. This article is focused on how to explore the practice path of radiation effect of high quality schools under the regional education alliance in Chengdu.

III. CONNOTATION AND STATUS QUO OF RADIATION EFFECT OF HIGH QUALITY SCHOOLS IN CHENGDU

A. Connotation and Characteristics of Radiation Effect of High Quality Schools

The radiation of high-quality schools refers to a transmission of faculty, educational philosophy, management thinking and strategies, cultural traditions and systems and mechanisms between schools with high level in educational development and modernization so as to balance the allotment of educational resources and improve the utilization rate of high quality educational resources. Characteristics of radiation of high quality schools mainly include (1) open education and free flow of educational resources; (2) two-way radiation effect; (3) the radiation level is related to the radiation velocity; (4) the radiation effect can be positive or negative; (5) the radiation of high-quality schools is based on space and time and achieved through the flow of educational resources.

B. Connotation and Status Quo of Regional Educational Alliance in Chengdu

The core purpose of the establishment and development of the regional education alliance is to promote the “high-level balance” of education in Chengdu. With the premise of limited funds and policy support, its core connotation is “interaction”, that is, the interactions between the allied areas, allied schools, resources in allied schools, management, teachers, as well as researches and teaching activities.

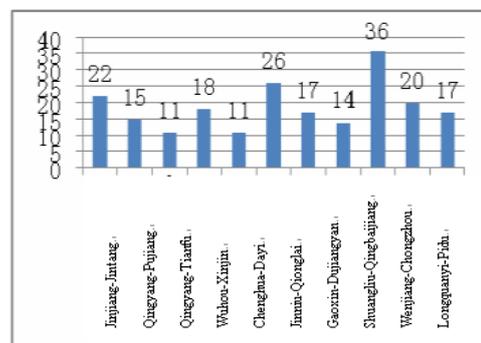


Fig. 1. Distribution of school paired in districts (cities) and county.

In 2016, the education alliance had spread to 19 districts (cities), counties, Tianfu New District and new & hi-tech zones. 207 pairs of schools have paired through the education alliance, which cover the educational stages such

as pre-school, primary school, junior high school, senior high school (including vocational and special schools), of which 23 pairs are set up for the pre-school education, 160 pairs for compulsory education, 14 pairs for high school education, 7 pairs for vocational education and 2 pairs for special education. There are a total of 27 schools entrusted or authorized management in Chengdu as shown in "Fig. 1" and "Fig. 2".

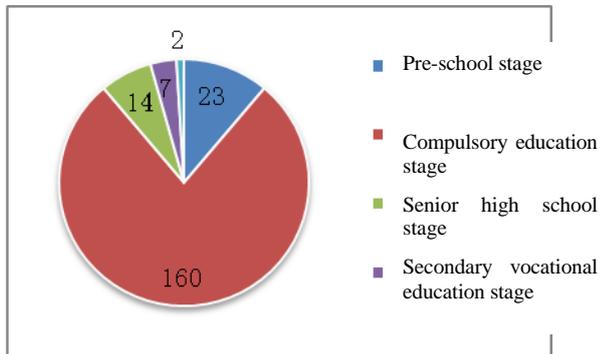


Fig. 2. Staged distribution of paired school education in Chengdu.

IV. ANALYSIS OF PATHS FOR RADIATION

Since 2003 when Chengdu promotes the urban and rural integration and balanced education, basically there are six paths to exert the radiation effect of high quality schools, that is, inter-school pairing, entrusted and authorized management, famous-school group, information radiation, cadre and teachers shift, students hand in hand in "Fig. 3".

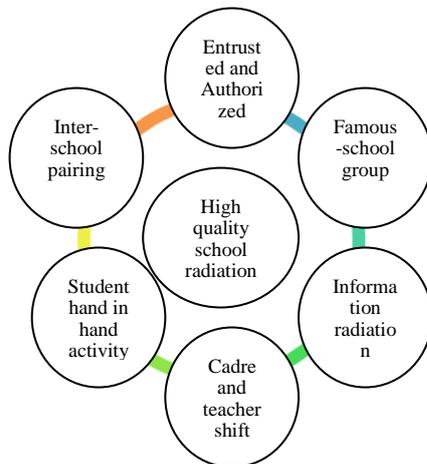


Fig. 3. Paths for radiation of high quality schools.

A. Inter-School Pairing

Currently inter-school pairing is the most in-depth path with the strongest interaction, which includes philosophy integration of schools, teaching research of teachers, school running exchanges and students' activities exchanges. Generally the school pairing adopts two-way selection, and a school will pair with the other one which can bring assistance according to the bottleneck or disadvantages of its own, that is, the schools concerned own advantages and disadvantages of their own, which are just the points for both

sides to make up for. Therefore, for the inter-school pairing, in addition to the in-deep exchanges, quick mutual remedy of the defects has been a major characteristic. Based on two characteristics namely high interaction and frequently complementation, the largest characteristics of the inter-school exchanges are to achieve the co-development and progress under the background of mutual radiation.

Though having the advantages, the inter-school pairing also has three disadvantages due to the inherent running characteristics of its own. First of all, in order to reach the radiation effect of high quality resources, the inter-school pairing requires higher enthusiasm and sincerity of two sides concerned. Second, in addition to making up for defects, the inter-school pairing will slow down the development speed of two sides due to the limited resources and exchanges between them. At last, the high quality radiation that the two sides obtain through the inter-school pairing is limited, which may cause conservatives and complacent, losing the latest high quality educational resources and failing to keep up with the pace of the most advanced educational resources.

B. Entrusted and Authorized Management

The entrusted and authorized management have passive significances as follows. Through signing agreements and transfer of liability subjects, we can clarify the goal, ways, period and performance evaluation methods relative to the entrusted and authorized management, which to some degree breaks through barriers against the flow of high quality educational resources among regions; Based on the given policy framework of entrusted and authorized management, the high quality schools bring poor schools advanced teaching philosophy, management modes, excellent management teams as well as teaching teams, which well improves the management and teaching levels of the poor schools; the high quality schools become the liability subjects of the poor schools where reforms are launched in school management, course teaching, campus culture fostering and so on so as to foster a culture for sustainable development on the basis of local schools; During the course of the entrusted and authorized management, due to the policy preference, the quality schools may control the administration and teaching and research modes of the poor schools to a large extent, and any problems can be solved through the most accurate method, so it may reflect an effect rapidly; However, during the course of the entrusted and authorized management, it is a pure "blood transfusion", the most important is the schools which are in the entrusted and authorized management must learn how to achieve self-development so as to permanently last the radiation effect of the high quality schools.

In the meantime, there are some problems existing. First, the entrusted and authorized management is a one-way radiation of high quality schools to a large extent, and there almost no two-way interaction. Second, the entrusted and authorized management has the highest cost among all paths in a short time. Because the entrusted and authorized management requires a savior effect in a short time, and no progressive chances are given to the high quality schools, and no longer time is given to change gradually, therefore,

the high quality schools have to provide a large number of management and teaching personnel and schooling resources, which may affect the routine management and teaching arrangement of the high quality schools. If the poor schools fail to follow the layouts and strategies that the high quality schools have established, maybe the radiation effect of high quality schools may end in a very short time, or even the previous radiation results will be consumed completely, as a result, the efforts of quality schools fail to work.

C. Famous-School Group

The school running by famous-school group has expanded the radiation scope and the high quality education has its coverage expanded continuously; besides, it has gradually completed the spanning from extension development to intension development, which has greatly improved the schooling quality of the poor schools, the famous-school group will cultivate a batch of excellent teachers and management personnel, besides, the teachers get improved rapidly.

However, there are still some problems encountered in practice. First, the education is in a serious "homogenization", the poor schools have no fresh characteristics in school running; Second, for the famous-school group is a transitional approach to balance the education, which has no internal driving force for sustainable development; Third, the famous-school group has no a community culture, owning a lower cohesion; Fourth, the famous schools have low enthusiasm because of worrying about the quality resources of their own which may be taken away or diluted, negative to lead to other poor schools or to export teachers; Five, the famous schools are eager for quick success, ignoring the original strengths of the poor schools and even the interests requirements, which result into poor results.

D. Information Radiation

This path has advantages as follows: wide range, high efficiency, multi-level and self-improvement. (1) The wide scope of information radiation path is mainly reflected in two aspects: horizontal and vertical, the horizontal aspect mainly refers to the space, that is, relying on the Internet information platform and cloud storage capacity, the information exchange is not limited to the size of the region; the vertical aspect refers to the time, that is, relying on the network storage, the schools may access data at any time when necessary. (2) The high efficiency of information radiation is mainly reflected in the information collection, transmission and access. As for the radiation information, high quality schools may record the excellent educational resources of their own at any time through information technology equipment and means at anytime, anywhere, and timely upload to share and get feedback. Besides, for the poor schools, they can get the best and the most accurate information within the shortest time, and any question can get feedback easily. (3) The multi-level mainly is reflected in the resources, what the high-quality schools can pass are not only stiff text information or sounds but also pictures, videos and so on. (4) Relying on the information platform, high-quality schools can upgrade the quality resources of their

own unceasingly, receiving feedback from a number of subjects in all directions, they could find the shortcomings that they have and then improve, as a result the will improve themselves while bringing radiation effect to the poor schools, and promote the continuous improvement of the platform as well.

Truly the information platform also has some inherent disadvantages, three of which are the most typical. First, it has high requirements on the initiative of subjects to transmit and accept, that is, for the providers of high-quality resources, it needs active and efficient upload of quality resources and bear the daily maintenance; for the recipients of the resources, even facing better resources, if they have no full enthusiasm, the final effect will be greatly reduced. Second, it will need a long term to form the effect, unable to achieve it immediately. For the poor schools, the information radiation means more self-learning and growth, where the direct instruction that can be got is limited, and they have to change only through learning in the development, besides, they have to be subject to the specific situations of their own, unable to directly copy the experiences of high-quality schools, making the cycle to reflect the radiation effect be prolonged. Finally, though the subjects on the platform may have certain interactions, yet it is done at a low level. Though they may get the information feedback through the platform, yet it is generally not done in time, besides, the depth of communication is far to reach the face-to-face one, therefore, the interaction between schools through the information platform is very poor.

E. Shift between Cadre and Teacher

The shift communication between cadre and teacher can help to establish a reasonable mechanism of talent flow, which will do good to bring excellent management methods and experience to the poor schools; inspire the vitality to run schools and avoid the inertia and set in management of principals and corruption; It may facilitate principals to start the work and to get rid of the complex relations between principals and various levels of schools; promote the growth of the principals, whether the principals from poor schools who study at high quality schools or the principals from high quality schools who study in poor schools both can face the problem and start innovation in a new environment. The multi-level exchanges among teachers will promote the professional development of teachers, making them face up to the problems of their own, expand the outlook and learn excellent teaching methods and experience, which directly impact and improve the teaching quality. Teachers of the two schools will conduct scientific research together and gather the wisdom of the teachers from two schools, which may help improve the scientific research capacity of teachers from poor schools.

There are still problems existing in the practice. First, on enthusiasm, due to factors such as family burden, traffic, economic subsidies, and promotion and so on, cadres and teachers have a low enthusiasm for shift communication, which is difficult form a scale, as a result high quality resources are hard to reach to poor schools. Second, the lack of supervision and management causes the failure of shift

communication, many principals and teachers still remain in the original units after registering at other schools, or the other schools arrange no substantive work to the them. Third, there is a general lack of vacancy in quality schools, after the principal and teachers shift, the teachers are in vacancy. Finally, many parents choose schools for teachers in the high quality schools, once the excellent teachers are shifted for communication, parents and students will refuse, which may affect the teaching and management of the high quality schools.

F. Students Hand in Hand

Students, as the subjects of the teaching, are one of the main resources of high quality schools. And the students hand in hand activities can make the students from poor schools learn the learning methods and living habits of the students in high quality schools. And the interaction of two students in classrooms can not only have their thinking integrated but also enhance the emotional communication, increase the knowledge and broaden visions.

For the students hand in hand activities, there are some barriers and troubles in practice. First, the remote communication has higher requirements on the information facilities, for which poor schools and students families cannot afford. Second, due to factors such as traffic and safety, the students from two schools are difficult to gather together for a real-time exchange and learning. Finally, the low efficiency interaction between students make it hard to achieve the radiation effect, accordingly no schools put an eye on it.

V. CONCLUSION

Currently our country has made great efforts to promote urban and rural integration, besides, authorities have clearly pointed out that we will achieve a balanced education in 2020; therefore, the balanced development of schools in a region has become much more important than ever. Due to the limited investment by the education sector and the specific circumstances in different regions, the radiation effect of high quality schools becomes particularly prominent in promoting the balanced education. Based on the researches of other scholars and the unique regional educational alliance mode in Chengdu, this article analyzes the main radiation paths that the high quality schools may adopt, hoping to inspire the resources of high quality schools in all regions can infiltrate the poor schools so as to balance the education in the country.

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